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249 Report by Ludovica Gambaro, C. Katharina Spieß,
and Franz G. Westermaier

Childcare workers experience many stressors and little recognition

- Health, pay, work, and life satisfaction lower for childcare workers than elementary school teachers
- Up to 80 percent of childcare workers feel stressed at work in various ways
- Increased commitment needed in personnel policy for childcare workers

LEGAL AND EDITORIAL DETAILS



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AT A GLANCE

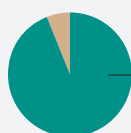
Childcare workers experience many stressors and little recognition

By Ludovica Gambaro, C. Katharina Spieß, and Franz G. Westermaier

- Using Socio-Economic Panel (SOEP) data, study investigates how childcare workers view their job and workload and how (un)satisfied they are
- Childcare workers are less satisfied than elementary school teachers in almost all areas; health satisfaction level has fallen to the same level as for nurses
- Eight out of ten childcare workers feel stressed due to what they perceive as inadequate pay; over half experience time pressure at work
- Multi-professional teams should be established and more personnel hired to make the work environment more attractive
- Federal, state, and local governments and day care employers should coordinate and take action on this problem

Childcare workers are essential to families and society—but work(place) characteristics leave much to be desired

A good
600,000
educators (as of 2019)
in day care centers—all-time high.



Share of
female childcare
workers is 94%.

81%
of childcare workers
experience low pay
as a stressor.



69%
feel stressed at work
due to time pressure.



Seven of ten childcare workers
are stressed due to a
lack of recognition.

32%
of all childcare workers
would like to reduce the weekly hours
worked, including 39% of (near)
full-time workers.

Sources: Socio-Economic Panel, SOEP-K2ID; Autorengruppe Bildungsberichterstattung.

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FROM THE AUTHORS

“A major problem for childcare workers is a lack of monetary and non-monetary recognition. Higher wages and more possibilities for advancement are necessary. We finally need an employee-oriented personnel policy in the area of early childhood education and care to make the work environment more attractive.”

— Ludovica Gambaro —

MEDIA



Audio Interview with L. Gambaro (in German)
www.diw.de/mediathek

Childcare workers experience many stressors and little recognition

By Ludovica Gambaro, C. Katharina Spieß, and Franz G. Westermaier

ABSTRACT

Childcare workers are essential for both families and society at large, and their working conditions and pay are often a topic of discussion. Using new data spanning until the end of 2019 from the Socio-Economic Panel (SOEP) as well as a special SOEP additional survey in day care centers, this report shows how childcare workers view their occupation, day-to-day work, and pay. According to the data, childcare workers are less satisfied than elementary school teachers in almost every single area. In regard to their health, childcare workers have about the same satisfaction level as nurses. Well over half are moderately to heavily stressed as a result of time pressure at work and 81 percent experience stress due to what they perceive as inadequate pay. If presented with the option to change their weekly hours worked, most childcare workers would choose to reduce them. To improve the quality of the working environment and allow childcare workers to spend more contact time with children, an increase in the number of staff in day care centers is necessary. Such an increase would benefit childcare workers, children, families, and society at large. However, to achieve this, all governance actors—the Federal Government, states, municipalities, as well as day care employers—need to commit in a bolder and more coordinated way.

Childcare workers are essential workers, as the coronavirus pandemic has proven. Without this occupational group—without trained educators in day care centers, working as childminders, or working in after school programs and all-day schools—many parents would struggle or find it impossible to balance their work and family lives. In addition, parents cannot fully substitute the educational service provided by childcare workers. As the economy and society have become more aware of this fact, there has been more talk about increasing the value of this occupational group and other social service professions. Currently, more attention is being paid to this topic than ever before.

But how do childcare workers themselves experience their work? Do they feel stressed? How satisfied are they with their job? This report investigates these questions and in doing so, compares childcare workers with equivalent professions: either those offering social services or with similar levels of training and in which women predominate. The analyses are based on the time before the coronavirus pandemic. The reasoning behind this is twofold: on the one hand, there is not yet any representative data for such analyses from 2020. On the other hand, the questions posed would be answered differently during the coronavirus pandemic than during non-pandemic times. Thus, answers given during the pandemic would not be representative of “normal” times and recommendations derived from them would not be necessarily applicable.

Estimates of childcare workers supplement findings based on official statistics

This report builds upon earlier DIW Berlin analyses on the years up to 2014.¹ Since then, much has changed in the field of day care in Germany. Although the expansion of day care places slowed down compared to the years up to 2014, it has nonetheless continued. By 2019 an additional 158,000 children under three attended day care centers, equivalent to

¹ Cf. C. Katharina Spieß and Franz G. Westermaier, “Berufsgruppe Erzieherin: Zufriedenheit mit der Arbeit, aber nicht mit der Entlohnung,” *DIW Wochenbericht* no. 43 (2016): 1023–1033 (in German; available online); and C. Katharina Spieß and Johanna Storck, “Fachkräfte in der frühen Bildung – Erwerbssituation, Einstellungen und Änderungswünsche,” Working Paper Forschungsförderung der Hans-Böckler-Stiftung no. 9 (2016) (in German; available online).

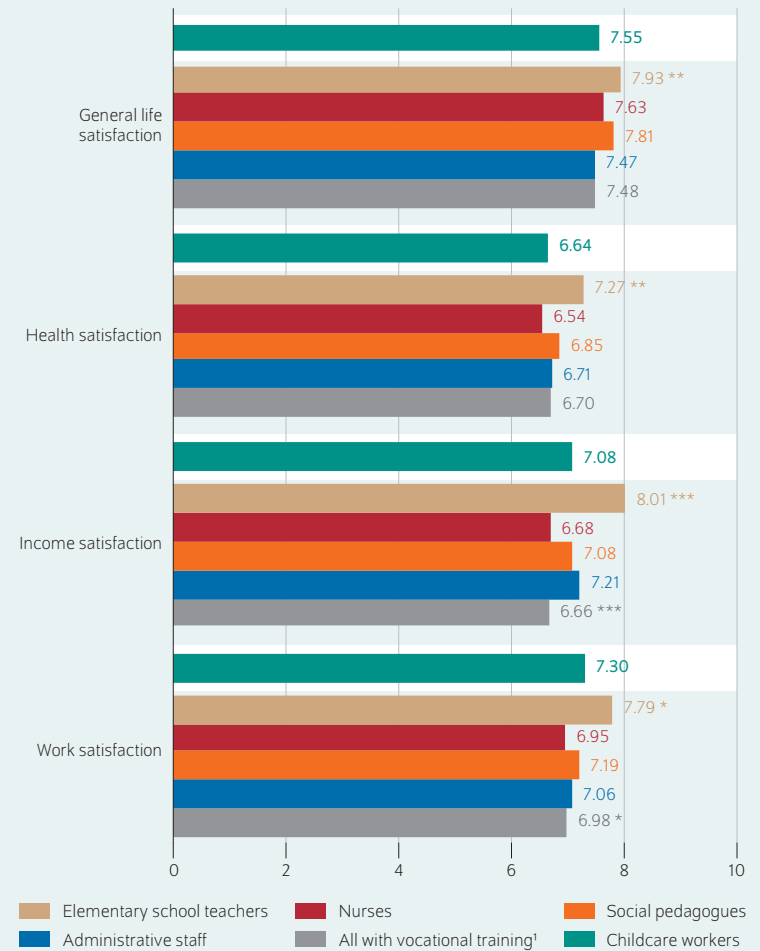
an attendance rate of 34 percent—a two percentage point increase since 2014. Nevertheless, the demand for day care spots remains unmet: In 2019, it was 49 percent according to surveys. The attendance rate among children aged three or older is still high, at 93 percent. Albeit slowly, full time attendance in day-care has increased: fifty-two percent of the three-to-six year old children were at a day care for over 35 hours a week in 2019 while in 2015, it was only 48 percent. Although attendance rates have not noticeably increased, there are significantly more children attending day care in absolute terms. Overall, there were 363,000 more children attending day care in 2019 compared to 2014. The early childhood education and care workforce also peaked at 654,000 day care center employees in 2019.² In terms of changes to the quality of provision, much has also happened in the run-up to the *Gute-KiTa-Gesetz* (Act on good early childhood education and care), which came into force on January 1, 2019. This is reflected in the working conditions of childcare workers, although the effects of the law will be assessed in more detail only in the coming years.³ In addition, the Federation of Municipal Employers' Associations and two unions, GEW and ver.di, were able to agree on a new collective agreement for employees in the social and educational services in early fall 2015. With retroactive effect from July 1, 2015, the improved collective agreement on pay came into force, benefiting childcare workers too.

This report on childcare workers' subjective judgments on their job in comparison to other occupational groups complements findings based on child and youth welfare statistics, which report on objective characteristics of childcare workers and their workplaces.⁴ Moreover, the *Fachkräftebarometer Frühe Bildung* also reports similar objective characteristics and conditions based on other data, such as the microcensus.⁵ The monitoring reports, a part of the *Gute-KiTa-Gesetz*, also describe the situation of educational staff in day care centers and indicate that employees in day care centers are primarily women. At six percent, male employees remain the minority. Therefore, the analyses in this report are mainly limited to female employees.⁶ In terms of age, both the group of younger employees as well as the group of older employees have grown over the last years. Over half of educational

Figure 1

Satisfaction levels of childcare workers and employees in other occupation groups

Average on a Likert scale of 0 (completely unsatisfied) to 10 (completely satisfied)



1 Employed women with professional qualifications (excluding childcare workers).

Note: The asterisks following the values denote the significance level, which indicates the statistical precision of the calculated difference between childcare workers and the other occupational group. The more asterisks, the more accurate: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

Sources: Authors' own calculations based on weighted Socio-Economic Panel (SOEP v.36) data for 2015 to 2019.

Childcare workers are less satisfied than elementary school teachers in all areas.

2 For all data, cf. Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2020. Ein Indikatorengestützter Bericht mit einer Analyse zu Bildung in einer digitalisierten Welt* (2020) (in German; available online).

3 For the first monitoring report on the *Gute-KiTa-Gesetz*, cf. Bundesministerium für Familie, Senioren, Frauen und Jugend, *Gute-KiTa-Bericht 2020* (2020) (in German; available online). For the evaluation sponsored by the BMFSFJ, cf. Bundesministerium für Familie, Senioren, Frauen und Jugend, *Gute-KiTa-Portal: Was das Gute-KiTa-Gesetz erreicht* (in German; available online).

4 Cf. Federal Statistical Office, *Statistiken der Kinder- und Jugendhilfe. Kinder und tätige Personen in Tageseinrichtungen und in öffentlich geförderter Kindertagespflege* (2020) (in German; available online).

5 Cf. Autorengruppe Fachkräftebarometer, *Fachkräftebarometer Frühe Bildung 2019* (Deutsches Jugendinstitut: 2019) (in German; available online).

6 Only in the multivariate analyses based on the SOEP-K2ID data are a few male employees included; therefore, gender is also taken into account in the models.

staff still work part time (around 60 percent). In 2019, the share of fixed-term contracts for educational staff was 15 percent country-wide according to official statistics.⁷

7 Cf. Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2020*; Autorengruppe Fachkräftebarometer, *Fachkräftebarometer Frühe Bildung 2019*; as well as Bundesministerium für Familie, Senioren, Frauen und Jugend, *Gute-KiTa-Bericht 2020*.

Box

Data and methodology

Data

The present analyses primarily use data from 2011 to 2019 from the Socio-Economic Panel (SOEP).¹ SOEP annually surveys approximately 30,000 people in around 19,000 private households, which are representative for the population in Germany. The occupation of the respondents is collected in the SOEP data. The occupational groups, including the childcare workers, can be identified using the classification of the Federal Statistical Office from 1992 (KIdB-92).²

The analyses underlying this report and, analogously, the previous report as well,³ only take into account employed respondents who have completed vocational training as their minimum highest level of education. Based on this sample, different occupational groups were compared with the group central to this report, the childcare occupations. These primarily include center-based childcare workers and a very small share of childminders. In the present report, this group is referred to as "childcare workers." The SOEP does not include any information about the respondents' employer. Thus, it is not known if the childcare workers actually all work in a day care center. However, based on the information on the sector provided by the SOEP respondents, it can be assumed that the vast majority of childcare workers are employed in day care centers. The self-employed, childminders, and all respondents over 63 were excluded.

Subjective satisfaction and work stress can be mapped via multiple questions in the SOEP survey.⁴ The respondents' general life satisfaction and satisfaction in individual areas is surveyed annually in SOEP. The different dimensions of satisfaction are surveyed with the question, "How satisfied are you currently with your work/life/your personal income and (overall) with your life?" Satisfaction with each area is rated on an 11-point Likert scale, which ranges from zero (not at all satisfied) to ten (completely satisfied).

For the years 2011, 2012, and 2016, it is possible to investigate the job satisfaction of employees with specific items (individual questions and evaluations) based on the effort-reward imbalance model depending on the SOEP sample.⁵ Two constructs (effort and reward) can be distinguished, via which the respondents indicate that there are corresponding stressors or to what extent they agree to certain statements. The most recent survey was conducted in 2016. Responses are recorded in all years on a 4-point Likert scale (from "not at all" to "very strongly").⁶ Due to slight changes in 2016, Tables 1 and 2 of this report are not comparable with the results of earlier DIW Berlin analyses.

The construct of the tendency to overcommit can be mapped by the SOEP data as well.⁷ This tendency to overcommit is captured via six items (for example, self-sacrificing for the job, thinking about work problems), agreement to which is recorded using a 4-point Likert scale from "completely disagree" to "completely agree." For

1 Jan Goebel et al., "The German Socio-Economic Panel (SOEP)," *Jahrbücher für Nationalökonomie und Statistik* 239, no. 2 (2019): 345–360.

2 Cf. Spieß and Westermaier, "Berufsgruppe Erzieherin."

3 Cf. Spieß and Westermaier, "Berufsgruppe Erzieherin."

4 Cf. Spieß and Westermaier, "Berufsgruppe Erzieherin."

5 Cf. Johannes Siegrist, "Adverse health effects of high-effort/low-reward conditions," *Journal of occupational health psychology* 1, no. 1 (1996): 27–41.

6 If the respondents answered in 2016 that they "do not agree," this was interpreted as "no stressor," the process by the other answers was the same.

7 Cf. Johannes Siegrist et al., "The measurement of Effort-Reward Imbalance at work: European comparisons," *Social Science & Medicine* 58, no. 8 (2004): 1483–1499.

Childcare workers compared with women in other occupational groups

This report compares childcare workers with other occupational groups, including elementary school teachers, as they are also an occupational group working with young children in the field of education. Next, comparisons are made to nurses, who also have caring responsibilities as well as to social pedagogical professions. Lastly, childcare workers are compared with completely different occupational groups: mid-level administrative workers and all employees with vocational training⁸ (excluding childcare workers). Comparisons are also made within the group of childcare workers based on the number of hours worked per week, as this is expected to be related to stress levels.

The analyses use data from the Socio-Economic Panel (SOEP) at DIW Berlin, which make it possible to map the work satisfaction and workload of the various occupational groups in a differentiated manner.⁹ Furthermore, the analyses use data from a special SOEP additional survey, Children and Day Care Centers in Germany (*Kinder und Kitas in Deutschland, K2ID*). These data are limited to employees working in day care centers (Box).

Childcare workers less satisfied than elementary school teachers in all areas

On a scale of 0 ("completely unsatisfied") to 10 ("completely satisfied"), childcare workers rate their work satisfaction with an average of 7.3, similar to that of social pedagogues

8 Vocational training includes dual vocational training occupations as well as training at vocational schools. People with an academic degree are excluded.

9 The analyses in this part of the report concentrate exclusively on female employees, as the group of male employees in the sample is too small for descriptive analyses.

the individual items of the tendency to overcommit, the shares that tend to agree or fully agree are summarized in each case. In this context, an overall value for the tendency to overcommit is often reported: overcommitment. Similar to a Likert scale, the weighted total score of these six items maps the dimension of overcommitment, which is between zero and 100 percent.⁸

In addition, the SOEP records the respondents' desired number of weekly hours worked. These are based on a comparison of the annual question about desired number of hours worked⁹ and the actual hours worked.

The subsamples include different numbers of cases depending on the contexts studied. Overall, the individual analyses use information provided by 320 to 326 respondents in the childcare occupational group and up to 988 people in the other individual occupational groups. The vocational training group includes up to 4,285 respondents. If there is more than one observation per person, the analyses are limited to the last observation in the panel.

Moreover, data from an additional SOEP sample is used in this report, the K2ID (*Kinder and Kitas in Deutschland*). As a part of this sample, parent respondents in the SOEP with children in day care were asked for the center's address. Using specific questionnaires, these day care centers' managers were interviewed in 2014 and 2015. In a few cases, the questionnaires were completed by another

day care employee.¹⁰ Among other things, they were asked how they experience their work. Using a 7-point Likert scale (from "never" to "always"), the respondents are asked if certain statements apply to them. Respondents were also asked how often they felt rushed or pressed for time in each of the previous four weeks. The answers are collected using a 5-point Likert scale (from "never" to "always"). A large number of other characteristics relating to training and working hours were also recorded. Overall, the analyses based on these data range from 581 to 587 day care employees, depending on the estimation model. Unlike the dataset based on SOEP, all included employees are definitely working in a day care center exclusively.

Methodology

The comparisons between occupational groups (and for the occupational group of childcare workers according to the number of hours worked) are estimated bivariate and in each case the difference from the childcare worker occupational group is tested for statistical significance.

The analyses, based on the K2ID-SOEP data, are based on multivariate OLS estimates that take into account different characteristics of the childcare workers and their work and how they are related.

⁸ Johannes Siegrist et al., "A short generic measure of work stress in the era of globalization: effort-reward imbalance," *International archives of occupational and environmental health* 82, no. 8 (2009): 1005–1013.

⁹ "If you could choose the number of hours you worked, taking into account that your earnings would change according to the number of hours you worked: How many hours per week would you prefer to work?"

¹⁰ Cf. Pia Schober et al., "The Early Childhood Education and Care Quality in the Socio-Economic Panel (SOEP-ECEC Quality) Study – K2ID-SOEP Data," *DIW Data Documentation* no. 91 (available online); and C. Katharina Spieß, Juliane F. Stahl, and Pia S. Schober, "The Early childhood education and care quality in the Socio-Economic Panel (SOEP-ECEC Quality) study – K2ID-SOEP," *Journal of Economics and Statistics* 240, no. 1 (2020): 111–120.

(Figure 1). However, childcare workers' work satisfaction is significantly higher than that of other employees with vocational training. In contrast with previous analyses, childcare workers' work satisfaction is clearly and statistically significantly lower than that of elementary school teachers. It is less surprising that elementary school teachers are markedly more satisfied with their pay than childcare workers and all other groups. Childcare workers are, on average, as satisfied with their pay as social pedagogues and administrative workers are. The group least satisfied with pay is the group containing those with vocational training occupations (excluding childcare workers). In regard to their health and life in general, elementary school teachers are more satisfied than childcare workers. In both areas, however, childcare workers do not significantly differ in their satisfaction from the other occupational groups, which has not always been the case. For example, nurses used to be less satisfied with their health than childcare workers.

Well over half of childcare workers feel moderately to very stressed due to time pressure

The occupational stressors of childcare workers are measured as effort, following the effort-reward imbalance model (Box). Sixty-nine percent of the childcare workers report of "high time pressure because of too much work" (Table 1). In other occupational groups in the field of education and nursing, however, the proportion of those stressed by time pressure at work is even higher—the difference with nurses (90 percent at least moderately stressed) is greatest. Interruptions at work are experienced as stressful by 74 percent of childcare workers, a value comparable with all other occupations. The feeling that their workload is increasing is experienced as moderately to very stressful by 77 percent of the childcare workers. Here, differences are only discernible with elementary school teachers and nurses, for whom the share is significantly higher at 87 percent.

Table 1

Effort of childcare workers compared to other occupational groups
Share of those who feel moderately to very stressed, in percent

	Time pressure due to too much work	Interruptions at work	Increased workload	Respondents (absolute number)
Elementary school teachers	85***	74	87**	256
Nurses	90***	72	87**	341
Social pedagogues	82**	79	73	148
Administrative staff	71	83	77	243
All with vocational training ¹	74	71	78	4 282
Childcare workers	69	74	77	324
of those:				
Working over 32 hrs/week	70	76	77**	
21 to 32 hrs/week	74*	75	87***	
Fewer than 21 hrs/week	51	59	53	

¹ Employed women with professional qualifications (excluding childcare workers).

Note: The asterisks following the values denote the significance level (indicating the statistical precision of the estimate) of the difference between childcare workers and the other occupational group or of the difference between childcare workers working fewer than 21 hours per week and childcare workers working other hours. The more asterisks, the more precise: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

Sources: Authors' own calculations based on weighted Socio-Economic Panel (SOEP v.36) data for 2011, 2012, and 2016.

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A differentiated analysis of the stressors according to the weekly hours worked within the group of childcare workers shows that those working fewer than 21 hours per week are the least likely to experience stress. There are no major differences in occupational effort between childcare workers working close to full time or more and those working an average of 21 to 32 hours per week. It is noteworthy, however, that the share of those who feel stressed because of a greater workload is very high, especially in the group working 21 to 32 hours per week (87 percent), even higher than in the full-time group.

High share of childcare workers stressed due to inadequate pay

The effort-reward imbalance model also helps understand to what extent childcare workers experience stress because of a lack of occupational rewards—too little recognition from superiors, a dangerous workplace, pay perceived as inadequate—compared to other occupational groups. When it comes to perceived poor opportunities for advancement, childcare workers do not feel more stress compared to the other occupational groups analyzed; only social pedagogues have a statistically significant higher value than childcare workers with a share of 85 percent—75 percent of whom feel moderately to very stressed due to poor advancement opportunities (Table 2).

Fifty-two percent of childcare workers are stressed by the expectation or experience of a worsening work situation; at 63 percent, only nurses have a higher share. Almost 75 percent of childcare workers feel at least moderately stressed that they do not have adequate opportunities for career

advancement. This figure is also somewhat higher for nurses, although the difference is not statistically significant.¹⁰ At 84 and 83 percent, respectively, nurses and social pedagogues most frequently experience stress due to perceived inadequate pay. However, the differences in the shares are statistically significant only in relation to administrative workers, 67 percent of whom feel relatively less stressed by inadequate pay. Seventy and 71 percent of childcare workers feel stressed by little recognition from their supervisors or a general lack of appropriate recognition, respectively. The shares are lower for social pedagogues, but are not statistically significantly different from those of childcare workers.

Within the group of childcare workers, those working full-time are stressed less often (18 percent) due to the fear of losing their job than childcare workers working fewer hours per week (35 and 43 percent for those working 21 to 32 hours per week and fewer than 21 hours per week, respectively). Fifty-seven percent of childcare workers who work between 21 and 32 hours a week also feel stressed because they do not perceive their pay as adequate. This share is markedly larger than in the group working more hours and especially than in the group of childcare workers working fewer hours.

Childcare workers' tendency to overcommit increases with number of hours worked

The subjective job stress can also be mapped via the same index, which captures the intrinsic components of overcommitment as well. Occupational overcommitment is an excessive pursuit of recognition in the form of attitudes, behaviors, and emotions. It can be displayed in an overall index and subdivided into individual factors. The overall index shows no major differences between childcare workers (38 percent) and the other occupational groups analyzed (Table 3); only elementary school teachers are more likely to feel overcommitted, with a share of 54 percent. A closer look at the group of childcare workers suggests that the tendency to overcommit increases substantially and statistically significantly with the number of hours worked: Part-time employees working up to 20 hours per week feel the least overcommitted (27 percent), followed by part-time employees working 21 to 32 hours per week (37 percent) and (close to) full-time employees (41 percent).

The analysis of the individual factors of overcommitment shows that elementary school teachers have a greater tendency to overcommit compared to childcare workers: For example, they feel time pressure more often (49 percent), although this is also the case for all other occupational groups compared to childcare workers (39 percent). Fifty-one percent of elementary school teachers think about work problems more often when they wake up and 61 percent have a harder time switching off than childcare workers, compared to 36 and 48 percent of childcare workers, respectively. With the

¹⁰ Unlike advancement opportunities in a company, opportunities for career advancement refer to advancement in one's occupation or the field in general.

CHILDCARE WORKERS

Table 2

Rewards of childcare workers compared to other occupational groups

Share of those who feel moderately to very stressed, in percent

	Poor promotion opportunities at work	Expectation/experience of worsening work situation	Professional advancement opportunities inadequate	Inadequate salary/pay	Dangerous workplace	Little recognition from superiors	Recognition inadequate	Respondents (absolute number)
Elementary school teachers	79	55	76	77	20	70	72	255
Nurses	81	63	78	84	28	71	77	339
Social pedagogues	85*	54	73	83	25	58	63	148
Administrative staff	82	47	72	67**	17*	73	72	242
All with vocational training ¹	76	49	72	78	32	65	67	4 251
Childcare workers	75	52	75	81	25	70	71	326
of those:								
Working over 32 hrs/week	74	50	74	47	18**	71	72	
21 to 32 hrs/week	79	61	78	57*	35	73	71	
Fewer than 21 hrs/week	66	44	74	35	43	54	61	

1 Employed women with professional qualifications (excluding childcare workers).

Note: The asterisks following the values denote the significance level (indicating the statistical precision of the estimate) of the difference between childcare workers and the other occupational group or of the difference between childcare workers working fewer than 21 hours per week and childcare workers working other hours. The more asterisks, the more precise: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

Sources: Authors' own calculations based on weighted Socio-Economic Panel (SOEP v.36) data for 2011, 2012, and 2016.

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Table 3

Overcommitment of childcare workers compared to other occupational groups

Share of those who tend to or fully agree with overcommitting, in percent

	Overall (aggregated)	Time pressure at work	Thinking about work problems when waking up	Hard to shut off at home	Makes sacrifices for job	Thinking about work in the evening	Sleeping problems due to unfinished work	Respondents (absolute number)
Elementary school teachers	54***	49	51**	61**	63***	53**	45***	256
Nurses	39	62***	27	45	44	32	27	341
Social pedagogues	32	53	25	30**	29*	26	29	148
Administrative staff	34	55**	30	36*	39	23**	25	243
All with vocational training ¹	36	49**	32	42	49	31	25	4 285
Childcare workers	38	39	36	48	44	38	24	325
of those:								
Working over 32 hrs/week	41*	43**	46**	50	44	40	24	
21 to 32 hrs/week	37	38	26	45	51**	38	25	
Fewer than 21 hrs/week	27	22	18	43	26	27	26	

1 Employed women with professional qualifications (excluding childcare workers).

Note: The asterisks following the values denote the significance level (indicating the statistical precision of the estimate) of the difference between childcare workers and the other occupational group or of the difference between childcare workers working fewer than 21 hours per week and childcare workers working other hours. The more asterisks, the more precise: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

Sources: Authors' own calculations based on weighted Socio-Economic Panel (SOEP v.36) data for 2011, 2012, and 2016.

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exception of “feeling pressed for time at work,” all differences between elementary school teachers and childcare workers are statistically significant. This does not always apply to the differences to other occupational groups, although social pedagogues and administrative workers find it easier to switch off at home.

When the relationship between weekly hours worked and the individual factors of the tendency to overcommit is examined for childcare workers, it is confirmed, as with the overall index, that the tendency to overcommit is primarily a problem for employees with at minimum a full-time workload. However, there is one exception: Part-time employees working 21 to 32 hours per week are more likely to sacrifice themselves for their job (51 percent) than part-time

Table 4

Weekly hours worked preferences of childcare workers compared to other occupational groups

Shares in percent

	Maintain	Reduce	Increase	Respondents (absolute number)
Elementary school teachers	48	32	20	243
Nurses	42	37	21	319
Social pedagogues	49	30	22	226
Administrative staff	47	35	18	154
All with vocational training ¹	46	30	24**	4,147
Childcare workers	52	32	16	320
of those:				
Working over 32 hrs/week	54	39***	7***	
21 to 32 hrs/week	48	28***	24*	
Fewer than 21 hrs/week	50	2	48	

1 Employed women with professional qualifications (excluding childcare workers).

Note: The asterisks following the values denote the significance level (indicating the statistical precision of the estimate) of the difference between childcare workers and the other occupational group or of the difference between childcare workers working fewer than 21 hours per week and childcare workers working other hours. The more asterisks, the more precise: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

Sources: Authors' own calculations based on weighted Socio-Economic Panel (SOEP v.36) data for 2011, 2012, and 2016.

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employees working less or than (close to) full-time employees.

Almost half of childcare workers would like to maintain their current working hours

Job satisfaction and stress at work are often related working hours, as the analyses have shown. On the one hand, this suggests a need to modify working hours to reduce stress. On the other hand, dissatisfaction with income could be associated with the desire to increase the number of hours worked per week. Against this background, the following section analyzes the extent to which employees in various occupational groups want to change their weekly hours worked.

The share of those who would like to change their current weekly hours worked is similarly high among childcare workers as among other occupational groups (Table 4). Sixteen percent of childcare workers would like to increase their weekly hours worked. Only the group with vocational training (excluding childcare workers) want to significantly increase their hours at 24 percent. Thirty-two percent of childcare workers wish to work fewer hours per week.

Forty-eight percent of childcare workers who work fewer than 21 hours per week would like to increase their hours. This seems to have potential to mitigate the childcare staff shortages, but the group in question is relatively small.¹¹ Moreover, 39 percent of those who work over 32 hours and

¹¹ This is about ten percent of employees, cf. Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2018. Ein indikatorengestützter Bericht mit einer Analyse zu Wirkungen und Erträgen von Bildung* (2018) (in German; available online).

28 percent of those who work 21 to 32 hours per week would like to work fewer hours. Thus, although a total of 52 percent want to maintain their current weekly hours worked, the issue tends to be that many childcare workers want to reduce their hours.

Employees with academic degrees less enthusiastic about work

In further analyses based on K2ID data, it is possible to focus on childcare workers in day care centers (Table 5). How they experience their work is explored in statistical models that take into account different characteristics of employees and their work. On average, they rate their work as useful almost always to very often: on a scale of 1 (“never”) to 7 (“always”), the mean value is 6.5. Thus, the more of their work time they spend with children, the more useful they find their work. Enthusiasm for their work decreases with the number of years respondents have been employed, although it increases once again with very long employment. On average, childcare workers indicate they are very often enthusiastic about their work. However, childcare workers with an academic degree are less enthusiastic about their work than those with vocational qualifications. On average, childcare workers are very often inspired by their work, and more so the older they are. On average, they express they are very often proud of their work. Those with stronger pride for their work tend to be those who work relatively many hours in direct contact with children and those who work overtime. Those with an academic degree or those who have been employed for a longer period are less proud, although it is also true here that a very long period of employment increases pride. On average, childcare workers very often find their job challenging, which is the case in particular for older childcare workers or daycare center managers. It is in particular employees without teacher training or those who are more dissatisfied with their income that tend to feel rushed or pressed for time (either sometimes or often). Those who have been working at their current day care center for a long time experience less time pressure.

Conclusion: continue increasing monetary and non-monetary recognition for childcare workers

Childcare workers are essential workers, as the coronavirus pandemic has clearly illustrated. They are of major importance and play a key function in the lives of children, parents, families, and for the economy and society as a whole.

The analyses in this Weekly Report show that childcare workers, especially compared to elementary school teachers, are less satisfied with their work and in other areas. They also experience stress due to their pay, which is perceived as inadequate; clearly, wage increases of past years have not changed anything. Childcare workers are more likely to overcommit at the workplace, but not as much as elementary school teachers or nurses. The longer one is employed as a childcare worker, the more the enthusiasm for the job fades. An academic degree is also related to less enthusiasm for and

Table 5

Assessments of educational professionals about their work

Deviation from the respective mean value in points on a Likert scale from 1 (never true) to 7 (always true)¹

	(1) "My work is useful and meaningful"	(2) "I am enthusiastic about my work"	(3) "My work inspires me"	(4) "I am proud of my work"	(5) "My work is a challenge for me"	(6) "How often have you felt rushed or pressed for time over the past four weeks?" ¹
Average	6,5	5.8	5.6	5.9	5.7	2.6
No or other vocational training than as childcare worker	-0,116	0.081	0.023	0.183	-0.024	0.399 **
University degree	-0,109	-0.257 **	-0.210	-0.403 **	-0.251	0.019
Experience at current workplace	-0,020	-0.043 ***	-0.032 **	-0.033 **	-0.021	-0.020 *
Experience at current workplace (squared)	0,000	0.001 **	0.001	0.001 **	0.000	0.000
Age	-0,001	0.006	0.014 ***	-0.005	0.023 ***	-0.001
Overtime hours per week	-0,013	0.018	0.027	0.046 **	0.001	-0.019
Share of work time with children	0,481 **	0.369	0.635 *	0.718 **	0.783 *	0.191
Management role in day care center	-0,028	0.276	0.061	0.082	0.738 **	-0.070
Income satisfaction	-0,006	0.019	-0.000	0.007	-0.023	0.049 ***
Respondents (absolute number)	587	583	584	581	582	583

1 Time pressure was recorded differently on a Likert scale from 1 (always true) to 5 (never true).

Note: The asterisks following the values denote the significance level, which indicates the statistical precision of the estimate. The more asterisks, the more accurate: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively. In addition to the listed characteristics of the childcare workers, gender, education (high school diploma), and hours worked were also taken into account.

Legend: The more time childcare workers spend working directly with children, the more useful and meaningful they find their work. The effect is just under 0.5 points on a Likert scale of 1 to 7 (based on a mean of 6.5) and is significant at the five percent level.

Sources: Authors' own calculations based on the supplementary sample K2ID ("Kinder und Kitas in Deutschland") of the Socio-Economic Panel (SOEP), data for 2014 and 2015.

less pride in the job. Childcare workers without the relevant vocational training are more likely to feel stressed or experience (time) pressure. On the one hand, this shows that working conditions must be improved so that childcare workers, especially those with academic backgrounds, are more enthusiastic about their jobs. On the other hand, childcare workers without teacher training should be made aware of opportunities for further training, as staff who have received further training are better able to cope with stress. Multi-professional teams in which employees with a wide range of qualification levels work should be increasingly established in day care centers to offer different educational backgrounds adequate fields of employment.¹² Different specialist careers should be possible and made known to employees.¹³ Moreover, it is advisable to finally expand an employee-oriented personnel policy and to utilize approaches already known and established in the personnel area.¹⁴ These could be important starting points, especially when it comes to attracting new personnel.

This is all the more important because more and more childcare personnel will be needed in this field in the future.

There is already not enough capacity to meet demand for day care spots and their quality also needs to be improved. More personnel are required to address these needs, as well as to be able to provide after school care spots for elementary school children, who will soon be entitled to such provision. Estimates indicate that up to 400,000 additional educational personnel will be needed in the daycare system by 2025 to meet the continuing need to expand services for children under three, all-day centers for three- to six-year-olds and the planned legal entitlement to all-day education and care for elementary school-aged children.¹⁵

To attract those interested in careers in early education, the field must continue to be made more appealing. After all, in a current survey of 1,000 youth and young adults, only 24 indicated that they can imagine or imagine very well working in early education. However, the survey also shows that 76 percent find the wages too low for the work done in early childhood education and 56 percent only see poor advancement opportunities.¹⁶

Against this background, the Federal Ministry of Family Affairs, Senior Citizens, Women, and Youth wants to

12 Multi-professional teams still tend to be the minority, cf. Autorengruppe Fachkräftebarometer, *Fachkräftebarometer Frühe Bildung 2019*.

13 Cf. Katholische Hochschule für Sozialwesen Berlin and prognos, *Kurzstudie: Zukunftsgelder für Erzieherberufe – Fachkarrieren in der frühen Bildung* (2020) (in German).

14 Cf. for example Elke K. Klaudy, "Nachhaltige Personalwirtschaft für Kindertageseinrichtungen – Herausforderungen und Strategien," Study der Hans-Böckler-Stiftung no. 336 (2016) (in German).

15 Cf. the website of the *Frühpädagogische Fachkräfte* (in German; available online. Last accessed on January 8, 2020) and Angelika Guglhör-Rudan and Christian Alt, *Kosten des Ausbaus der Ganztagsgrundschulangebote. Bedarfsgerechte Umsetzung des Rechtsanspruchs ab 2025 unter Berücksichtigung von Wachstumsprognosen* (Deutsches Jugendinstitut: 2019) (in German).

16 Cf. SINUS, *Kindertagesbetreuung und Pflege – attraktive Berufe? Forschungsbericht zu quantitativer und qualitativer Forschung mit Jugendlichen und jungen Erwachsenen im Alter von 14 bis 20 Jahren* (Heidelberg and Berlin: 2020) (in German).

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encourage the Federal States and day care employers to win additional personnel, retain their previous staff, and increase their competencies with the *Fachkräfteoffensive Erzieherin und Erzieher* (Personnel Offensive Childcare Workers).¹⁷ Together with the Federal Government's expenditure as a part of the *Gute-KiTa-Gesetz*, a total of 580 million euros will be used to benefit professionals working in early childhood education

and care.¹⁸ It is both important and right for the Federal Government to become involved in this issue, as ultimately it is about training the human potential for both society and the economy. However, coordinated action of *all* actors in the federal, state, and municipal governments as well as day care employers is required.¹⁹

17 The Federal Government is investing 160 million euros for more practice-integrated remunerated training positions, for good training practice with professional practice guidance and new career prospects with an advancement bonus.

18 Bundesministerium für Familie, Senioren, Frauen und Jugend, *Systemrelevant! Fachkräfte in der Frühen Bildung* (2020) (in German; available online).

19 Cf. for example The German Association for Public and Private Welfare e.V., *Empfehlungen des Deutschen Vereins für die Weiterentwicklung der Aus- und Weiterbildung für (sozialpädagogische) Fachkräfte und Lehrende für den Bereich der Kindertagesbetreuung* (2020) (available online). The recommendations (DV 6/19) were adopted on April 30, 2020 by the presidium of the Association.

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