

# A Self-determined Profession? Perceived Work Conditions and the Satisfaction Paradox among Czech Academic Faculty\*

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**Abstract:** While the Czech academic profession faces a range of challenges and problems, quantitative surveys indicate a relatively high level of high job satisfaction among academic faculty. This article addresses this 'satisfaction paradox' by exploring the perceived work conditions of Czech academics based on their own reports. The data for this study included academics' (N = 1202) qualitative responses to open-ended questions regarding the main problems and benefits of their current academic work and workplace. Content analysis was used to categorise the respondents' answers. Academics reported heavy workloads (26.5% of participants), a lack of financial resources (26.3%), poor-quality leadership (23.7%), excessive administration (16.3%), and job insecurity (10.9%) as the most problematic aspects of their workplaces. In contrast, academics reported that good social relationships in the workplace (46.3%), autonomy of academic work (41.8%), personal fulfilment (28.9%), and work/contact with students (25.3%) were the aspects of their workplaces they valued most. These positive features appear to be prevalent, as most (80%) academics reported overall satisfaction with their work. The authors draw on job demands-resources theory to suggest that the relatively high level of satisfaction is due to (still) high levels of key job resources that support the intrinsic motivation of academics despite an environment that can be considered sub-optimal in some aspects. They also point to inequalities in job demands and job resources between subgroups of academics and highlight key systemic issues that should be addressed to improve the work conditions at Czech public higher education institutions.

**Keywords:** quality of work life, academic staff, job satisfaction, higher education, public universities, job demands, job resources

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## **Introduction**

In recent decades, academics in public universities worldwide have had to accommodate changes in their work environment driven by increasing massification, internationalisation, and an emphasis on the profitability of higher education (HE) [Bentley et al. 2013; Teichler et al. 2013]. These changes have been conceptualised as emerging 'academic capitalism' [Slaughter and Leslie 1997], the rise of the 'world-class university' [Shattock 2017], or 'accelerating academic time' [Vostal 2016], all of which point to similar processes within HE governance that impact HE workplaces and individual academics. In the context of these trends, academics and academic institutions have been increasingly expected to act as entrepreneurs competing for monies from external grants and contracts, endowment funds, industry partnerships, tuition fees, and other revenue-generating activities [Slaughter and Leslie 1997]. Relatedly, HE systems increasingly emphasise the international prestige of HE institutions, represented by position in university rankings, which increases competition between institutions for outstanding academic talent able to attract external funding and deliver the desired 'excellent' outcomes [Shattock 2017]. All these changes result in a loss of 'temporal autonomy' for academics as well as HE institutions and lead to the overall acceleration of academic work, regardless of the impacts such acceleration has on the quality of work outcomes or the well-being of academics [Vostal 2016].

These processes have taken place globally, albeit at different paces in various countries. In some countries, such as the UK, the USA, and Australia, this transformation of public universities started decades ago and has been related to numerous changes in how academic employees experience their work environment, including a deterioration of the social climate, work autonomy, and overall job satisfaction and a considerable increase in workload and job stress [Gillespie et al. 2001; Fredman and Doughney 2012; Kinman and Jones 2008; Tytherleigh et al. 2005; Vostal 2015; Shin and Jung 2014]. However, increased workload and the acceleration of academic work may be less detrimental when both academics and HE institutions retain enough autonomy and flexibility to react to these changes. In some countries, academics have maintained a high level of individual autonomy and positive professional identity and generally report a high level of satisfaction with their academic work despite these changes [Bentley et al. 2013; Teichler et al. 2013].

In accordance with these global trends, Czech public universities have also undergone a substantial transformation in the past 30 years, from extreme state control during the communist era to a 'professor-oriented' system characterised by considerable autonomy for universities [Dobbins and Knill 2009; File et al. 2009; Pesik and Gounko 2011; Prudky et al. 2010; Melichar and Pabian 2007] and individual academics [Matějů and Fischer 2009; Zábrodská et al. 2016]. Recently, however, Czech public universities have undergone further transformation aimed at strengthening their position in the global market [Dvořáčková et al. 2014; File et al. 2009; Pesik and Gounko 2011], which appears to mirror to some degree

the changes that took place in developed countries decades ago [Molesworth et al. 2010]. These changes have included, for example, the massification of Czech HE [Prudký et al. 2010], an increasing emphasis on 'excellence' in research [Sima 2013], and the introduction of research assessments based on quantifiable metrics [Linková and Stöckelová 2012; Linková 2014; Good et al. 2015]. There has also been a shift in government funding, from institutional to performance-based external funding [Jonkers and Zacharewitz 2016], accompanied by higher demands for efficiency and public accountability [Linková 2014]. At the same time, despite these changes, a governance system based primarily on academic self-government has been preserved [Pabian, Hündlová and Provázková 2011].

Although these changes have partially originated in the academic community and are aimed at improving the overall performance of the HE system, they have also had some controversial effects. First, it has been argued that these changes have led to a growing workload among Czech academics as a result of the increased emphasis on high-quality research [Sima 2013] and its rigorous evaluation [Linková and Stöckelová 2012; Linková 2014] and increasing competition for relatively scarce financial resources [Dvořáčková et al. 2014; Matějů and Fischer 2009], which has been accompanied by a continual rise in the student/teacher ratio [Prudký et al. 2010]. Czech academics have already long been dissatisfied with their remuneration [Paulík 1995; Tollingerová 1999; Mateju and Vitásková 2005; Matějů and Fischer 2009; Zábrodská et al. 2016] and report being relatively unhappy with academic leadership [Matějů and Fischer 2009; Zábrodská et al. 2016]. However, Czech academics also have considerable prestige in Czech society [Czech Sociological Institute 2013], and they have consistently reported numerous positive characteristics of their academic workplaces, including high levels of academic freedom and autonomy [Tollingerová 1999; Matějů and Vitásková 2005; Melichar and Pabian 2007; Zábrodská et al. 2016] and a positive social climate with a relatively low incidence of hostile behaviour [Zábrodská et al. 2016; Zábrodská and Květon 2012, 2013].

### **Aims of the study**

In our previous article based on a quantitative survey [Zábrodská et al. 2016], we presented a fairly positive picture of Czech academic workplaces that contrasts with the findings of some other studies that focused on a more systemic perspective [e.g. Linková and Stöckelová 2012; Linková 2014; Vohlídalová 2018]. Although the academics participating in this study also reported negative features, including relative dissatisfaction with pay, mixed evaluations of leadership, and pressure to produce, the positive image prevailed, as the participants expressed high levels of job satisfaction and work engagement, relatively low levels of stress, and a number of positive aspects of their academic workplaces, including high individual autonomy and perceived quality of work, role clarity, and a strong social community. These results received some critical comments [Vostal 2017; Chylíková 2017;

Dale 2017], which—apart from methodological issues—raised two overarching questions: 'Why do Czech academics report such a high level of satisfaction with their jobs?' and 'Are there not more problems in Czech academic workplaces?'

In this paper, we try to address both these concerns by providing somewhat different perspectives on Czech academic workplaces than those we offered in the questionnaire study. Rather than using a 'top-down' approach based on the responses to the predetermined questionnaire scales as our data, we implement a 'bottom-up' approach based on the comments the Czech academics provided that described the positive and negative aspects of their work environment. We interpret these comments within the framework of job demands-resources theory (JD-R) [Bakker and Demerouti 2014, see further] to generate an explanation of the 'satisfaction paradox' we observed, that is, why Czech academics predominantly report satisfaction with their work despite the numerous problems they see in their workplaces. We also explore how different groups of academics vary in how they experience job demands and access job resources. The main research question that directs our study is: 'What are the key job resources and job demands in Czech public university workplaces from the perspective of academic employees?'

To conceptualise the results of the study and understand the processes by which the academic work environment may affect the occupational well-being of academic employees, we implemented the framework of the JD-R theory, which is currently one of the key models used to explain the relationships between work environment and occupational well-being [Bakker and Demerouti 2014; Mudrak et al. 2018; Zábrodská et al. 2018]. JD-R theory predicts that the work environment affects employees differently through what are described as 'dual processes'. Specifically, increased job demands (i.e. job aspects that require sustained effort and are associated with physiological and psychological costs) have been found to lead to higher experienced stress through a 'health impairment process' related to exerted effort and energy. By contrast, job resources (i.e. factors functional in achieving work goals, reducing job demands, or stimulating personal growth) lead to higher work engagement and job satisfaction through a 'motivational process' that involves fulfilling the basic psychological needs of autonomy, relatedness, and competence [Bakker and Demerouti 2014; Mudrak et al. 2018]. In the context of the academic workplace, the key job resources have been conceptualised as, for example, organisational and social support, growth and career advancement opportunities, autonomy, role clarity, and performance feedback, while job demands include work overload, work-home interference, and job insecurity [Bakker et al. 2005; Boyd et al. 2011; Mudrak et al. 2018; Rothmann and Jordaan 2006; Zábrodská et al. 2018].

We implemented the JD-R framework in our previous quantitative analyses of the survey data to propose a complex model of academics' well-being [for details, see Mudrak et al. 2018] and to examine predictors of academics' burnout [see Zábrodská et al. 2018]. In the following analysis of qualitative comments, we aim to further explicate the paradox discussed in our previous studies, namely,

why Czech academics appear to be satisfied in an environment that is, arguably, rife with problems [see Vostal 2017]. Building from JD-R theory, we suggest that this phenomenon is due to the (still) high levels of key job resources that support the intrinsic motivation<sup>1</sup> of academics and provide conditions in which job satisfaction can flourish despite an environment that can be considered suboptimal in some aspects. At the same time, we point to inequalities relating to which subgroups of academics experience job demands and access job resources, and we highlight key issues that should be addressed in order to improve the work conditions at Czech public HE institutions.

## Research design

### *Data collection*

The data used in the study were collected in November 2014 using an electronic questionnaire. In the data collection process, we approached almost all (20 000) Czech academics through their contact data, which are publicly available on university websites. A detailed description of the data collection process has been provided elsewhere [Zábrodská et al. 2016].

### *Respondents*

In total, 2229 academics fully completed the questionnaire, and of these 1202 answered at least one of the open-ended questions. Specifically, 1072 participants included comments on positive aspects of their workplaces, and 1146 participants described negative aspects of their workplaces. The demographic characteristics of the sample of academics who answered at least one open-ended question are described in Table 1.

### *Methods and data analysis*

The electronic questionnaire that participants were provided with was made up of two parts. The first, quantitative section of the questionnaire included a wide

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<sup>1</sup> We use the distinction between intrinsic x extrinsic motivators throughout our analysis. We herein refer to the conceptualisation provided by the self-determination theory [Gagné and Deci 2005] that was further implemented by the JD-R theory used in our analysis. As the key distinction, intrinsically motivated behaviour is 'self-determined' in the sense that it originates from within an individual and his or her 'basic needs' of autonomy, relatedness, and competence. In contrast, extrinsically motivated behaviour is controlled by external forces, such as rewards and punishments, or social norms and expectations.

**Table 1. Demographic and employment characteristics of the sample (in %, N = 1202)**

Gender	Men	Women				
	55.6	44.3				
Age	≤ 29 y. 13	30–39 y. 42.7	40–49 y. 16.1	50–59 y. 15.6	60–69 y. 10	≥ 70 y. 2.7
Position	PhD/ Postdoc 24.1	Lecturer 3.2	Researcher 9.2	Assistant professor 46.0	Associate professor 16.5	Professor 8.3
Leadership position	University level .9	Faculty level 4.7	Department level 12.8	Research team level 16.5	None 65.1	
Discipline	Humanities/ social sci. 44.1	Natural sciences 28.7	Technical sciences 22.7	Other 4.5		
Overall job satisfaction	Very satisfied 17.4	Satisfied 62.4	Dissatisfied 18.7	Very dis- satisfied 1.5		

range of well-established scales measuring various aspects of the work environment and occupational well-being. The second, qualitative section included two open-ended questions that asked the participating academics to describe the positive and negative characteristics of their academic workplace (see below). A detailed description of the quantitative part of the questionnaire, including a presentation of the key findings, has been provided elsewhere [Zábrodská et al. 2016, 2018; Mudrak et al. 2018]. In this study, we used the results of the quantitative questionnaire to analyse participants' overall job satisfaction and group differences in job satisfaction. Specifically, we divided the respondents into three groups ('very satisfied', 'satisfied', and 'unsatisfied'<sup>2</sup>) based on their self-evaluation of general job satisfaction ('How pleased are you with your job as a whole, everything taken into consideration?'). We then conducted a Chi-square test to assess the distribution of participants from different demographic categories (gender, discipline, position, leadership) in these three 'satisfaction' groups (see Table 2). Next, we conducted a multinomial logistic regression to assess the relative effect of these demographic variables on general job satisfaction (see Table 2). In the next step of the analysis, we compared the relative prevalence of the themes that arose from the open-ended questions (see below) between the differ-

<sup>2</sup> The 'unsatisfied' group comprised participants who rated their general job satisfaction as 'unsatisfied' or 'very unsatisfied'.

ent 'satisfaction' groups and, on this basis, explored the key issues connected to job satisfaction among our participants.

The qualitative section of the questionnaire represents the principal source of data for the current research. In this part of the questionnaire, we presented the participants with the following questions: (1) What are the three main problems that you currently have in your academic work or workplace? (2) What three main aspects of your academic work or workplace do you value most? Each of these open-ended questions was accompanied by a text box in which the participants were asked to provide their responses. The length of the answers varied from short comments to extensive detailed descriptions of the academic workplace. The text data generated by the participants were processed by means of a content analysis [Stemler 2001; Elo and Kyngas 2008]. Content analysis is 'a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding' [Stemler 2001:176]. In our analysis, we used emergent [Stemler 2001] or inductive coding [Elo and Kyngas 2008], that is to say that we did not approach the coding with predetermined categories; rather, our coding categories were constructed within the process of analysis. We based the coding on the context units, which means that inclusion in a category was based on an underlying idea of the statement, and one statement could be included in several categories. For example, the statement 'Because of the low financial compensation that doesn't even cover my mortgage, I have to have two full-time jobs simultaneously' was coded into the categories: 'High work demands' and 'Insufficient finances'.

The coding process followed several steps. (1) During an initial review of the data, we identified the main categories that were apparent in the data. All the categories that contained more than 5% of the answers (see Table 3 and Table 5) were incorporated into the initial coding scheme. (2) We then applied this coding scheme to the data and categorised each answer on the basis of the coding scheme. Each answer was included in a category when it contained a meaning that was directly related to the main theme or developed the theme in a more specific way. (3) When we encountered a less frequent theme that was not included in the initial coding scheme, we added the theme to the coding scheme as a new category. This approach was employed particularly in the case of problematic aspects of academic workplaces that were perceived with greater diversity by the participating academics. For example, when coding the problematic aspects of academic workplaces, we created 23 additional categories that contained less than 1% of the answers.

As the main outcome of this analysis, we present the relative frequency of the emerging themes and explore in detail the content of these themes. Furthermore, to explore the inequalities present in Czech academic workplaces, we used Chi-square tests to assess the relative distributions of the themes emerging from the content analysis in the basic demographic categories: gender, discipline, and position (see Tables 4 and 6).

### *Limitations*

We believe that there are some unique benefits to using qualitative descriptions from a large number of academics as data, such as in-depth insights and a high level of generalisability. However, this approach has some limitations that should be pointed out. First, our sample is not entirely representative, although the differences from the population statistics were not dramatic [cf. Czech Statistical Office 2015]. Additionally, we aim to provide a descriptive overview of the key job resources/demands in Czech academic workplaces. In this context, we discuss some of the main problems and possible solutions to these problems, but each of these main themes deserves closer attention. Furthermore, the content analysis is to some degree guided by the subjective decisions of the researchers, although it is firmly grounded in the data. Finally, the descriptions of the workplaces represent the subjective perspectives of the participants. We have endeavoured to triangulate our findings with the results of other studies; nevertheless, our results should not be approached as an objective representation of reality but as an insight into how academics perceive their work conditions, which might be somewhat different from the perspective of other actors within the HE system.

### **Results and discussion**

In the following section, we present and discuss the outcome of our analyses. First, we present the quantitative analyses, including the distribution of participants into the 'satisfaction' groups, the overall proportion of academics who contributed to particular themes, and the distribution of the themes based on different demographic groups. Second, we present in more detail the qualitative analyses focusing on the content of the main themes, including the main benefits of academic work as perceived by the participating academics (see Tables 3 and 4), followed by the main problems that the participating academics perceived in the context of their work (see Tables 5 and 6). Overall, the results suggest an interesting paradox that was also noted in a critical review of our previous work [cf. Zábrodská et al. 2016; Vostal 2017]. As we show below, the academics in our study perceived a number of problems in their workplaces, including work overload, a lack of financial resources, low-quality leadership, and excessive administration, among others. However, they also reported a high level of overall satisfaction with their jobs, as 80% of participants reported being satisfied or very satisfied with their academic job.

The level of job satisfaction varied between different demographic groups; we observed significant between-group differences in job satisfaction regarding gender, discipline, and academic and leadership position (see Table 2). The effects of all the demographic variables included remained significant even after controlling for other demographic variables in a multinomial logistic regression model ( $\chi^2 = 74.741$ ,  $df = 12$ ,  $p < 0.001$ ; Nagelkerke  $R^2 = 0.075$ , Cox and Snell  $R^2 =$

**Table 2. Distribution of job satisfaction between groups (in %, N = 1202)**

	Not-satisfied	Satisfied	Very satisfied	Chi-square test			Multinomial logistic regression		
				$\chi^2$	df	p	$\chi^2$	df	p
Whole sample	20.2	62.4	17.4	9.715	2	.008	8.648	2	.013
Men	20.8	59.0	20.2						
Women	19.5	66.6	13.9						
H/S Sci.	20.4	64.7	14.9	16.057	4	.003	11.443	4	.022
Natural Sci.	17.4	59.4	23.2						
Technical Sci.	23.8	63.4	12.8						
Without PhD	28.7	58.1	13.2	43.806	4	.000	21.054	4	.000
PhD	19.9	65.0	15.1						
Habilitation	11.5	62.5	26.0						
Non-leaders	24.3	61.5	14.2	31.839	2	.000	11.587	2	.03
Leaders	12.6	64.0	23.3						

0.063; see Table 2). This analysis suggests that job satisfaction was most strongly related to academic position: for example, 29% of participants without a PhD reported being unsatisfied, as opposed to 11.5% of participants with habilitation. Similar albeit weaker differences were observed in other demographic categories. Even so, a large majority of academics across different demographic groups reported being either satisfied or very satisfied with their jobs. A possible explanation for this 'satisfaction paradox' may be provided by JD-R theory [e.g. Bakker and Demerouti 2014; Bakker et al. 2005, 2007; Boyd et al. 2011; Mudrak et al. 2018], which hypothesises distinctive processes through which the work environment affects occupational well-being, arguing that job resources (i.e. the motivating aspects of a job) have a comparatively greater effect on work engagement and job satisfaction than job demands (i.e. the stressful aspects of a job).

In this context, it appears that Czech academic workplaces provide high levels of key job resources that are crucial for the satisfaction of academic employees, even to a degree that buffers the impact of the negative aspects of the workplaces. The participating academics were relatively consistent in their perspective of the positive aspects of their work, as almost all mentioned one of the four most frequent themes: good relationships in the workplace (46.3%), autonomy of academic work (41.8%), personal fulfilment (28.9%), and opportunities to work with students (25.3%). All these job resources closely align with the definition of the 'motivation process' in JD-R theory, which is hypothesised to be driven by the satisfaction of 'basic human needs', including relatedness, autonomy, and competence [Bakker and Demerouti 2014; Gagné and Deci 2005]. Therefore, based on these findings, we argue that the high level of job satisfaction among our participants can be generally attributed to the fact that they perceive their work as having a high intrinsic value and as personally meaningful, which is facilitated by the key characteristics of the academic work environment that support the actualisation of this intrinsic value. This value is also further corroborated by the observed differences between the satisfaction groups, in which the frequency of the themes related to good relationships, high-quality leadership, and personal fulfilment significantly differed between the satisfied and the unsatisfied groups.

In this way, we may see academic work as predominantly 'self-determined' in the sense that, in our participants' descriptions, the intrinsic aspects of academic work (i.e. doing the work out of interest, enjoyment, identity, or self-development) distinctly override its extrinsic aspects (i.e. working for external reasons, such as money, prestige, or promotion). Intrinsically motivated employees engage in their jobs because they enjoy the content of the work and identify with its core value rather than the material benefits it conveys (which were viewed critically by a large proportion of our participants) [Gagné and Deci 2005]. In this context, we may argue that the ongoing transformation of Czech HE policies should not affect the key job resources within Czech academia (such as the high degree of autonomy among academics, the positive social community, and the

**Table 3. Positive aspects of Czech academics' workplaces (in % of all responding participants, N = 1072)**

Content category	in %			Very satisfied	Satisfied	Unsatisfied	Whole sample	Content category
	in %	Very satisfied	Satisfied					
Good relationships in the workplace	46.3	39.4	46.4	53.4				.021
Autonomy	41.8							
Personal fulfilment	28.9	21.2	28.1	36.3				.004
Opportunities to work with students	25.3							
Achieved results / quality of work	15.2							
Good leadership	10.9	6.4	11.4	14.0				.043
Good work conditions	10.5							
Personal development	8.5							
Travel/international collaboration	6.7							
Prestige of the work / workplace	5.4							
Financial rewards	5.4							
Collaboration with practice	4.5							
Social relevance	4.1	2.0	3.7	7.8				.01

\* Note: For the sake of clarity, this and the following tables include only differences significant at  $p < .05$  level and do not include categories that were mentioned by less than 3 % of the participants.

Table 4. Main problems in Czech academic workplaces (in % of all responding participants, N = 1146)\*

Content category	Whole sample	Unsatisfied	Satisfied	Very satisfied	p
Heavy workload/pressure to produce	26.5				
Lack of financial resources	26.3	36.1	25.1	18.2	.000
Poor-quality leadership	23.7	37.8	23.2	6.8	.000
Excessive administration	16.3	10.9	16.8	21.4	.013
Job insecurity	10.9				
Unsatisfactory collaboration/relationships	10.4	14.7	9.9	6.8	.022
Low research support	10.0				
Unclear/unsuitable criteria for work evaluation	9.3				
Unjust rewards	7.5				
Mediocre students	6.8	4.6	6.6	10.5	.05
Low-quality teaching	6.4	10.5	4.9	6.8	.009
Insufficient material support	5.5				
Low prospects for growth	5.1	8.4	4.9	1.6	.005
Low quality of co-workers/subordinates	5.1				
Work-family conflict	4.7				
Loss of motivation	4.6	8.4	3.6	3.6	.008
Increasing qualification/quality of work	3.1	0.8	2.9	6.8	.002
Developing the workplace/discipline	2.8	.8	2.2	7.3	.000
Nothing	1.7	0.0	1.1	6.2	.000

**Table 5. Positive aspects of Czech academics' workplaces (in % of all responding participants, N = 1072): between-group differences**

Content category	Gender			Discipline			Position				
	Whole sample	Men	Women	p	Humanities/ Social	Natural Techni- cal	p	With- out PhD.	PhD.	Habili- tation	p
Good relationships in the workplace	46.3										
Autonomy	41.8										
Personal fulfilment	28.9	25.5	31.8	.013	26.4	35.1	.22.6	.003			
Opportunities to work with students	25.3				29.5	19.2	.24.7	.005			
Achieved results/ quality of work	15.2				10.5	19.5	.17.9	.001	12.0	12.4	.23.4
Good leadership	10.9	9.2	13.1	.029							.000
Good work conditions	10.5				7.9	11.9	.14.5	.017			
Personal development	8.5	5.4	12.4	.000					10.1	9.5	.5.0
Travel/international collaboration		6.7									.045
Prestige of the work/workplace		5.4									
Financial rewards		5.4									
Collaboration with practice		4.5	5.7	.2.9	.021						
Social relevance		4.1									

**Table 6. Main problems in Czech academic workplaces (in % of all responding participants, N = 1146): between-group differences—first part**

Content category	Gender			Discipline			Position					
	Whole sample	Men	Women	P	Humanities/ Social	Natural	Technical	P	Without PhD	PhD	Habilitation	P
Heavy workload/ pressure to produce	26.5	22.5	32.5	.000					30.0	29.3	18.1	.001
Lack of financial resources	26.3								31.2	25.1	23.0	.047
Low-quality leadership	23.7											
Excessive administration	16.3	19.0	12.9	.006	13.0	21.7	17.8	.004	9.7	12.1	30.6	.000
Job insecurity	10.9	8.4	14.3	.001					17.8	10.5	4.6	.000
Unsatisfactory collaboration/ relationships	10.4											
Low research support	10.0											

**Table 6. Main problems in Czech academic workplaces (in % of all responding participants, N = 1146): between-group differences—second part**

Content category	Gender			Discipline			Position					
	Whole sample	Men	Women	P	Humanities/ Social	Natural	Technical	P	Without PhD	PhD	Habilitation	P
Unclear/unsuitable criteria for work evaluation	9.3				12.0	6.8	6.8	.013	4.1	12.1	9.9	.000
Unjust rewards	7.5								5.3	9.6	6.2	.046
Mediocre students	6.8								2.5	6.3	12.2	.000
Low-quality teaching	6.4											
Insufficient material support	5.5											
Low prospects for growth	5.1											
Low quality of co-workers/ subordinates	5.1											
Work-family conflict	4.7	2.5	7.6	.000					4.1	7.1	1.3	.001
Loss of motivation	4.6											
Increasing qualification/ quality of work	3.1											
Developing the workplace/ discipline	2.8	3.7	1.6	.000								
Nothing	1.7											

possibility of developing personal interests, engaging with students on a personal basis, and producing work of subjective quality), as these job resources appear to be the main reasons that Czech academics at public universities engage in their academic work.

However, we could also argue that the changes in HE policies that have been recently implemented [e.g. Dvořáčková et al. 2014; Good et al. 2015; Government of the Czech Republic 2015; Linková and Stöckelová 2012; Linková 2014; Prudký et al. 2010; Sima 2013] might already be affecting these job resources. For example, these changes have introduced the following into the Czech HE system: greater control over academics through a quantitative system of research evaluation, support for competition among academics for limited external funding and a de-emphasis on the intrinsic value of academic work by increasing the focus on the 'usefulness' and applicability of research. It may be argued that these effects are counterbalanced by increased productivity in the Czech HE system [Good et al. 2015]. It appears, however, that after implementing these changes, there has been only a temporary increase in productivity, and academics have also increasingly adopted some unproductive research strategies, such as pursuing evaluation points, emphasising short-term goals, and publishing in predatory journals and citation cartels [Good et al. 2015; Linková and Stöckelová 2012].

Therefore, overall job satisfaction and the positive evaluation of some aspects of the current Czech HE system should not cloud the fact that the participating academics also perceived numerous problems in their academic workplaces. References to workers' high intrinsic motivation are sometimes used to justify poor work conditions [Kim et al. 2019] but should not prevent these problems from being addressed. A majority of participating academics referenced at least one of the five main problems (see Table 5): high workload (26.5%), lack of financial resources (26.3%), low-quality leadership (23.7%), excessive administration (16.3%), and job insecurity (10.9%). When we assessed the relative distribution of the main reported problems in the satisfaction groups, lack of financial resources and low-quality leadership were especially overrepresented in the unsatisfied group.

To obtain a better insight into the conditions at Czech academic workplaces, we considered it useful to examine the group differences in the relative prevalence of the reported benefits and problems according to gender, position, and discipline. Above all, there were a number of differences related to position, especially in the reported problems. For example, participants without habilitation reported high workload, lack of finances, and job insecurity significantly more frequently, whereas participants with habilitation reported excessive administration as the most frequent concern. Regarding gender, women more frequently experienced excessive workload, higher job insecurity, and work-family conflict. There were relatively few notable differences regarding discipline. These findings support conclusions of other studies conducted in Czech as well as international HE contexts [e.g. Bazeley 2003; Cidlinská 2019; Cidlinská and Vohlídalová

2015, 2017; Linková and Červinková 2013; Mason and Goulden 2002] that point at similar inequalities based on gender and seniority [for detailed reviews see Mudrák et al. 2019a, 2019b].

### *Perceived benefits of academic work: relationships, autonomy, and personal fulfilment*

In the following part, we explore the main themes introduced above in more detail. First, we focus on what the participants perceived as the main benefits of their work (see Tables 3 and 5). Overall, the study participants reported good relationships with their co-workers as the main positive aspect of their workplace; this benefit was reported by 46.3% of the participants. In this context, the participants referred to a positive social community and productive collaboration by using phrases such as 'friendly atmosphere', 'good relationships', 'collaboration', 'collegiality', and 'teamwork'. Typical statements were: 'My colleagues and I understand each other; we share the same values' (assistant professor, man, social sciences) and '[There are] great people motivated to work with others and a friendly atmosphere between colleagues' (assistant professor, man, humanities). Some participants emphasised not only the positive social atmosphere but also the work outcomes of their colleagues with terms such as 'teamwork', 'hardworking', 'collaborative', '[have] expertise', and 'demanding'. This theme was significantly more frequently reported by satisfied and very satisfied participants, whereas some unsatisfied academics mentioned positive relationships with (some) colleagues as the only positive characteristic of their workplace, or they praised their colleagues for their ability to withstand difficult material conditions. Representative comments include: 'That some people still try to endure it and do something' (associate professor, man, medical sciences) and 'The team members are exceptional personalities with awards in their fields. I appreciate that they work in the department because it is basically voluntary work' (assistant professor, woman, social sciences).

The participants reported autonomy<sup>3</sup> as the second key positive aspect of their academic workplace, with 41.8% of participants evenly distributed along all demographic categories referring to this theme. The respondents appreciated the time flexibility of academic work (such as flexible working hours and independence regarding one's physical presence in the workplace) and the influence they have over the content of their work (including teaching and research), which they were able to adjust according to their personal interests, preferences, and needs. Some relevant responses included: 'I can research what I want, and I can teach what I enjoy. We don't have fixed working hours' (assistant professor, woman, technical sciences); 'It is crucial to have the work done, but you do not have to be

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<sup>3</sup> In the HE context, it is important to distinguish between the autonomy of academic institutions and the individual autonomy of academics. Here, we refer only to the latter.

there' (assistant professor, woman, natural sciences); and 'I can steer my career the way I want, and I was able gradually to decide about the content of my work. Now it's an ideal mix' (assistant professor, woman, technical sciences). At the same time, some of the participants, especially in the unsatisfied group, referred to the high degree of autonomy as a potential disadvantage because, without fixed work hours, they spent more time at work: 'I am working from dawn to dusk, so [the flexible working hours] may be not such an advantage after all' (assistant professor, man, technical sciences). In addition, some academics mentioned autonomy as a benefit in a more problematic sense because it allowed them to hold other jobs to earn reasonable living wages: 'More or less, the work allows me to do whatever I want, even have my own business; otherwise, I would not be able to make ends meet' (assistant professor, man, humanities).

A large number of participants (28.3%), significantly more of whom were from the satisfied and very satisfied groups, referred to the positive aspects of work, which we categorised under the umbrella term of personal fulfilment. These participants appreciated the opportunity to engage in academic work that allowed them to follow their personal interests through teaching and research: 'I can fully focus on researching [specific topic], working with large electronic corpuses of published texts, and continuing to work on [name of the publication]' (associate professor, man, humanities). The respondents also described their academic work as interesting, personally fulfilling, and meaningful, as having a real-world impact and applications, and as providing them with an opportunity to be creative and innovative and supporting their personal development: 'It is creative work with practical outcomes and a positive impact on individuals and society' (PhD student, woman, humanities) and 'I had read about the pioneers in my field in grammar school, and I've been lucky enough to work in this field, witness its development, and pass it along to students' (assistant professor, man, natural sciences). However, some of the participants from the unsatisfied group who referred to their intrinsic motivation as a positive aspect of their work also noted changing work conditions that have limited their work engagement: 'I can still pursue the things that I am interested in, but unfortunately, it is possible less and less' (assistant professor, man, natural sciences) and 'I enjoy the content of my work, but the external conditions are depressing' (postdoc, woman, natural sciences).

In relation to the previous category, 25.3% of participating academics (most often from the humanities/social sciences and least often from the natural sciences) specifically mentioned working with students as a positive aspect of their academic work. The participants described various benefits of their engagement in teaching: it gave them a sense of purpose by positively influencing the lives of young people and allowing academics to pass on their expertise: 'Research and teaching go great together; you figure out something, and you can show it off to some real people, not just in articles' (assistant professor, man, humanities). The academics felt that working with students gave their academic work a real-world

impact and contributed to their professional development: 'I am helping future professionals in their development, and because of this collaboration, I develop as well, professionally but also as a human being' (assistant professor, woman, humanities) and 'Our graduates are in high demand, and they bring a lot of benefits to the industry; we have many positive references from businesses' (assistant professor, man, technical sciences). The participants felt working with motivated or promising students to be especially beneficial, as this positively influenced their own motivation: participants noted 'encouragement from the good results of promising students' (assistant professor, man, humanities) or 'excitement of selected students' (associate professor, woman, social sciences).

All these findings are in line with other studies documenting that academics generally have access to these key job resources, including positive relationships at work [Zábrodská et al. 2016; Zábrodská and Květon 2012, 2013], high levels of autonomy [Tollingerová 1999; Matějů and Vitásková 2005; Melichar and Pabian 2007; Zábrodská et al. 2016], and personal fulfilment [Lindholm 2004; Petersen 2011]. In addition, our results suggest that academics not only have access to these job resources but also actually perceive them as the main reasons why they perform academic work. This is, again, corroborated by the results of other studies conducted in HE contexts that illustrate the importance of positive relationships, autonomy, and a sense of meaningfulness for the occupational well-being and productivity of academic workers [Bentley et al. 2013; Becker et al. 2018; Mudrak et al. 2018; Shin and Jung 2014], especially in work conditions that also entail a high level of job demands [Bakker et al. 2005].

#### *Perceived problems of academic work: workload, finances, and leadership*

The participants also, however, cited a number of work and workplace problems (see Tables 4 and 6). While the job resources that were referred to may indeed help to buffer the negative impact of the systemic problems participants reported, these issues should nevertheless be addressed in policy and practice in order to maintain and possibly improve the quality of the work environment at Czech HE institutions.

#### A heavy workload and the pressure to produce

The largest proportion of participating academics (26.5%) referred to the high pressure on them to produce and their inability to keep up with their work as the most pressing job demands, with women and academics in lower positions referring significantly more frequently to this theme. Compared with the past, academics are currently expected to complete more challenging and often conflicting work tasks, such as rapidly publishing innovative research, providing high-quality teaching for large classes, and combining scholarly excellence with

managerial and entrepreneurial skills. We can also observe substantial changes in the Czech academic work environment, including a growing emphasis on quantitative metrics to measure academic performance [Linková and Štöckelová 2012; Linková 2014; Vohlídalová 2018], excellent research [Sima 2013], competition for external financing [Linková 2014; Vohlídalová 2018], and a growing number of students [Prudký et al. 2010].

Most of these concerns were reflected in our participants' responses. In general, the high work demands stemmed from several sources: some respondents, especially in junior academic positions, pointed to low funding and their having to combine several academic jobs, which led to pressure from supervisors and an inability to meet expected outcomes. An example of these respondents' comments included: 'Because of the low financial compensation that doesn't even cover my mortgage, I have to have two full-time jobs simultaneously, which results in a lack of time for my research. Because of this situation, my boss increasingly pressures me to produce more publications, and this makes it difficult to harmonise the demands of work with my personal life' (assistant professor, woman, humanities). As we discuss below, low salaries are a recurring concern among Czech academics [Matějů and Vitásková 2005; Matějů and Fisher 2009; Vohlídalová 2018] that has forced some to work multiple jobs to survive financially and often propels academics (especially in junior positions) towards a decision to leave academic careers [Cidlinská and Vohlídalová 2015, 2017].

Another recurring sub-theme was related to problems combining multiple academic responsibilities. The academics held negative views of the structure of their work, which required them to be, in a sense, 'a jack of all trades', constantly dividing their time and energy among tasks such as teaching, research, supervision, networking, the search for financial resources, administrative duties, and application/practice, often in an unstructured way that did not allow them to disconnect from work and or did not account for overtime work: 'With the state pressuring universities to become research institutions, it is difficult to combine teaching, research, project management, publishing, a large amount of administration, and internships. It all leads to overload on academics, stress, and exhaustion' (associate professor, woman, humanities). Furthermore, the participants felt that they had some responsibilities that 'had to be done' but were not acknowledged, as the primary emphasis was on research output and the corresponding points received in performance assessments rather than, for example, on the quality of teaching.

As one respondent commented: 'I exert too much energy at work that is not visible and cannot be put into performance charts; therefore, the management doesn't take it into account. I care about the quality of teaching and working with students, but the chair demands quantity in research and articles (often regardless of their quality). I am not happy at all with such an approach; such work does not fulfil me. I find it unacceptable, and I'm intensively looking for a change so that I can feel that the energy I exert at work has been appreciated

and beneficial for others' (assistant professor, woman, humanities). In this way, the organisational structure of academic work may be seen as the 'dark side' of the high level of autonomy workers enjoy, as they are not provided with a clear and viable work structure or goals and are left to deal with conflicting work tasks themselves. From this perspective, we may argue that a high level of autonomy and corresponding lack of direction may for some workers represent more of a 'demand' than a 'resource'.

A heavy administrative workload was an especially prominent theme common to a large proportion of the participants (16.3%). Academics with habilitation, in particular, were concerned about combining multiple academic responsibilities with a large volume of paperwork (30.6%). These respondents felt that excessive paperwork consumed their research time or inhibited their creativity; they talked about 'tied hands' and 'adherence to meaningless rules' or complained that 'everything has to fit in a box'. These concerns were most frequently related to the application for and administration of grant projects. Some academics felt overburdened by the constant search for grants, the impossibility of extending successful grant projects, and the need to participate in several projects simultaneously. Other problems were related to inflexible budgets, administrative difficulties making purchases, a lack of personnel for routine administrative tasks, frequent reporting, and 'meaningless' evaluations that consumed research time. Relevant comments included the following: 'Needless paperwork and harassment with formalities in general. Everyone knows that it's just filling out forms' (professor, man, natural sciences); 'Lately, I have had to deal with an excessive number of forms that are meaningless. If you lead two, three projects, you practically become a bureaucrat. And a scientist working as a bureaucrat is something terrible. Instead of science, you do a lot of bureaucratic nonsense' (assistant professor, man, technical sciences). An important reason for this growing administrative burden may be the Czech HE system's increasing focus on accountability and the quantitative evaluation of academics [Linková 2014].

Based on the participants' descriptions, we may argue that excessive workloads could be somewhat reduced by the more effective organisation of academic work. Changes aimed at making more effective use of academics' time and energy include a more balanced evaluation of different aspects of academic work; teaching appears to be particularly undervalued despite the subjective importance of teaching in academia and the growing number of students [Prudký et al. 2010]. More explicit support for greater specialisation among academics towards teaching or research might also be beneficial. The current Czech system of academic promotion emphasises a relatively high level of performance in all areas of academic work [File et al. 2009], and allowing for greater specialisation could improve the quality of both research and teaching and diminish the excessive workload that stems from multiple academic responsibilities. It appears that some department chairs have been implementing this strategy in their departments, although they perceived it more as resistance to the current system [Machovcová,

Zábrodská and Mudrák 2019]. Additionally, the greater involvement of salaried PhD students in teaching and research could reduce the heavy workload of core faculty and simultaneously improve the quality of PhD studies [Česká asociace doktorandů a doktorandek 2017]. Finally, the more effective organisation of grant administration could appreciably contribute to a more manageable workload for academics. This change might include simplification of grant application and administration systems or the provision of more effective administrative support, which could even be cost-effective, as the time of highly specialised academics would then be less consumed by administrative duties, which they are often neither interested in nor qualified for. This situation applies especially to senior academics, who experienced the heavy administrative load as the most pressing concern that might negatively affect other key areas of their work, including academic and research leadership and supervision.

### **Lack of financial resources**

Another major problem of academic workplaces from the perspective of academic employees is financial and economic concerns, which permeate various aspects of academic work. Along with the lack of quality leadership, financial concerns were mentioned significantly more frequently by unsatisfied academics (36.1%), which illustrates the importance of this issue for the occupational well-being of academic workers. Financial problems appear to be especially pressing for early-career academics, who reported it as the most frequent problem (31.2%). The issue of inadequate salaries has emerged as a problem in virtually all studies on Czech academic workplaces that included this variable [Paulík 1995; Tollingerová 1999; Matějů and Vításková 2005; Matějů and Fischer 2009; Vohlídalová, 2018; Zábrodská et al. 2016] and has been considered one of the key systemic problems affecting the career development of Czech academics [Cidlinská and Vohlídalová 2015, 2017] as well as the overall competitiveness of Czech HE [Koucký 2013]. Financial aspects were also present in other frequently mentioned themes, such as insufficient financial resources for conducting research, unjust criteria for the evaluation and the distribution of available financial resources, and job insecurity stemming from short-term contracts or external financing that does not allow academics to engage in long-term planning regarding their activities.

The unsatisfied/early-career participants frequently framed this theme in terms of 'economic survival'. These respondents cited existential problems stemming from their low salaries, such as dependence on uncertain external funding, the need to combine more than one job to earn sufficient income, the need to work on multiple projects simultaneously, overwork, lack of time, and difficulties in their personal lives. The respondents perceived little possibility of increasing their salary in the future, and some even expected further decreases. They reported their salaries as being below national or professional averages and often compared their incomes to those of low-income jobs, such as the salaries of

supermarket cashiers, manual workers, and students: '[The problem has been] finances, above all. I would never think that a well-educated person with a PhD in a technical discipline would have a lower salary than a cashier or an elementary school teacher. I am shocked, and at present, I consider the years of study wasted time' (assistant professor, woman, technical sciences) and 'A very low salary at [name of the university] (associate professors make only 22 800 CZK), and the salaries haven't increased in seven years! It's a mockery. People have no motivation to work for this kind of money. Talented people have been leaving or have other jobs, including me' (associate professor, man, technical sciences).

In this context, we can relate the financial concerns also to job insecurity, which represented a pressing concern for 10.9% of the participating academics, with women and academics without PhDs citing this problem significantly more frequently. Above all, these participants considered the practice of periodic renewal of short-term contracts and grant-based employment as the main cause of their job insecurity. In particular, early career academics reported that it was difficult for them to make long-term plans, as they did not know whether their contracts would be extended or whether they would be able to obtain an academic position: 'An uncertain future outlook—my position has been grant-based, I cannot be a postdoc forever, and it is unlikely that I will get a permanent position at my current workplace' (postdoc, woman, natural sciences). However, job insecurity related not only to the respondents' academic positions as such but also to their salary level. Some of the academics perceived that they could not be certain whether their grant-based salary would remain the same or whether their salary would substantially decrease if their grants were not extended: 'If we don't have external financing, the contract goes down to fifty percent, and we get only the base salary. This will happen to me at the beginning of the next year; my salary will go down by two-thirds because the project proposals submitted weren't accepted.' (assistant professor, woman, social sciences).

Other respondents, often those in senior academic positions, stated that insufficient financial resources affected their workplace or university in general rather than the respondents as individuals. The main concern of these participants was not their personal economic survival but the quality of their work. These respondents mentioned a lack of funding for quality research and teaching as well as institutional and disciplinary development, including insufficient resources for the salaries of academic employees, students, and postdocs, and the uncertainty of grant-based financing: 'Ever decreasing institutional budgets, especially for salaries, and grant-based financing, which has become increasingly difficult to get; it is necessary to have at least a three-year outlook on finances; currently, there is considerable uncertainty and no long-term perspective' (professor, man, natural sciences); and 'The main problem is searching for financial resources so that it will be possible to focus on work. It is like the work is my hobby, and therefore, I have to earn money to be allowed to do it' (assistant professor, man, technical sciences).

The lack of sufficient funding in Czech HE has been a long-term concern of leaders within the academic community, and improvements in the current situation largely depend on political factors [Česká konference rektorů 2017]. However, some aspects related to the distribution of existing resources could be addressed to mitigate the impact of limited budgets on academics. These changes might include establishing explicit rules for distributing remuneration, the use of balanced evaluations for various academic tasks, and the provision of long-term contracts to key academic employees. At the same time, it is important that the implementation of these changes be based on a wider consensus in the academic community, which might improve the quality of the Czech HE system without compromising the system's positive aspects. Despite concerns about funding, the majority of academics appear to be satisfied with their academic job [Zábrodská et al. 2016; Vohlídalová 2018], as it provides them with other job resources that support their job satisfaction. A question remains, however, regarding whether this situation is sustainable in the long-term, especially if the ongoing transformation of Czech universities erodes some of the other key job resources and if the underfinancing of Czech public universities further negatively affects the international competitiveness of Czech HE [Koucký 2013].

### **Low-quality leadership**

From the perspective of the participating academics, the quality of the leadership appears to be another systemic problem in Czech public HE that significantly contributed to the academics' dissatisfaction. Low-quality leadership was mentioned by 23.7% of respondents as the third major problem of Czech academic workplaces. This theme was the source of the largest difference between the very satisfied (6.8%) and the unsatisfied group (37.8%). The main concerns with leadership can be subsumed under two general themes: leadership was considered poor either because it was withdrawn or lacking altogether or because it was overly authoritative and domineering. Withdrawn leaders were described as having poor managerial skills, as lacking vision and motivation and communication skills, as being unsupportive and uninterested, and as failing to provide feedback and rewards for good work: 'The leadership in our department is incompetent and does not belong to the 21st century. The department chair has been unable to provide adequate motivation, fair rewards based on performance, suitable work organization, or long-term planning' (assistant professor, man, natural sciences); '[The leadership shows] genuine inability to lead people and coordinate their work' (associate professor, man, humanities); and 'The chair lacks managerial skills; he is drowning in trivia, and as a result, the workplace has no direction' (lecturer, man, humanities).

By contrast, some respondents complained instead about overly authoritative leadership, which they often felt was motivated by selfish reasons rather than by concerns about the quality of the work or the well-being of academic employees. For example, the respondents described leaders who were overly controlling

or had unreasonable expectations, leaders who were overly protective of the status quo, and leaders who engaged in bullying or distributed rewards on the basis of nepotism and clientelism rather than actual performance. Relevant comments included the following: 'All the problems are related to the unlimited power of the department chair, who abuses this power. The rewards for publication outcomes are not defined, which means that all the money coming from the publications disappears non-transparently into the department funds and does not go to the authors. It is up to the chair to decide. Also, employees in the same position have very different workloads. Some teach a lot, some teach a little. Again, it depends on the department chair. The rewards don't go to the producers of the outcomes but only to the friends of the chair. It's entirely up to him' (postdoc, man, technical sciences); and 'The unequal workload of the employees in the department. [We can be] divided into two categories: breeding horses (20%) and work-horses (80%). Recognition from the chair doesn't depend on performance but on popularity and the amount of flattery directed at the chair. Weaker personalities, i.e., the breeding horses, use this cheap tactic very often, and they prosper tremendously' (assistant professor, man, technical sciences).

In the Czech academia, various studies have reported mixed evaluations of the quality of academic leadership [Matějů and Fischer 2009; Zábrodská and Květon 2013; Zábrodská et al. 2016; Vohlídlová 2018]. Negative perceptions of leaders represent a significant problem for institutions, regardless of the reasons underlying these perceptions, and it is crucial that they be effectively addressed [Evans et al. 2013]. Furthermore, when striving for effective academic leadership, the sectoral specifics of HE need to be considered [Spendlove 2007]. Academic leaders face specific challenges—they must reconcile the contradictory aspects of their position, such as simultaneously serving as experts in their fields, members of the academic community, and managers, and in this way they must come to terms with performing the role of 'translator' between various sub-groups within academia [Deem and Brehony 2005; Machovcová, Zábrodská and Mudrák 2019; Machovcová and Zábrodská 2016]. This role may be especially important in the context of Czech HE, which has been described as increasingly (albeit rather slowly due to the still dominant role of academic self-government) marketised at the policy level [Linková and Stöckelová 2012] but retaining the traditional values of academic collegiality and autonomy at the academic department level [Zábrodská et al. 2016].

Our current analysis further corroborates the mixed evaluation of the quality of academic leadership. A large proportion of the participating academics reported low-quality leadership as one of the major problems in their academic workplaces, whereas other (albeit less numerous) participants referred to good leadership as one of the main positive features. These descriptions provide important cues to understanding how academic leaders should (not) operate. According to Bryman [2007], poor-quality leadership can be especially detrimental, and attention should be directed towards the types of behaviour that academic leaders should

avoid. In our study, a relatively large number of participants described their leaders as uninterested, unsupportive, inclined to provide inadequate feedback or to be overly directive, ungenerous in allowing academic autonomy, or even tending to misuse their power through nepotism and the unfair distribution of rewards. However, when looking for ways to improve the current situation, caution is warranted, as there has been a surprising lack of studies that provide evidence on how to achieve effective academic leadership [Dopson et al. 2016].

Considering the complexity of this issue and the limited space of this paper, we suggest tackling the problem from two perspectives. First, the current literature provides various definitions of academic leadership. For instance, Evans [2013] suggests approaching academic leadership in a broader sense, viewing it not necessarily from the perspective of formal position but rather in the sense of senior academic influence. Therefore, stakeholders should initiate a discussion of what constitutes academic leadership in their institution before implementing changes in policy and practice. Second, a number of studies have revealed the relational nature of academic leadership [Dopson et al. 2016], which is also reflected in our data. For this reason, academic leaders and academics preparing for a leadership role should have access to support and counselling from experienced mentors (for example, through a university office) to help them cope with the challenges of their leadership position. However, the issue must be approached with concern for the current state of knowledge, taking into account the research on how to construct and promote effective models of academic leadership.

## **Conclusion**

This paper sought to explore, from the perspective of academic employees, the key job resources and demands in Czech public university workplaces, their possible effects on academic employees' job satisfaction, and group differences and inequalities in these job demands and resources in relation to the basic demographic categories of gender, discipline, and position. Based on our findings, we may argue that one of the main reasons for high job satisfaction and work engagement among academics is the high intrinsic value they place on their academic work, which is supported by some key job resources present in Czech academic workplaces, such as a positive social community, a high level of autonomy, and positive evaluations of the quality of the academics' work outcomes. These findings are consistent with the conclusions of the JD-R model [Bakker and Demerouti 2014; Mudrak et al. 2018], which shows that job satisfaction is predominantly affected by job resources that facilitate the fulfilment of the needs of autonomy, relatedness, and competence, with job demands such as excessive workload having a smaller effect, especially when a job offers extensive access to these resources [Bakker et al. 2007]. At the same time, these findings should not lead to the conclusion that Czech academic workplaces are without problems, as a large proportion of our participants also felt a lack of job resources and that

they were subject to excessive job demands stemming, in particular, from heavy workloads, problematic leadership, insufficient funding, excessive paperwork, and job insecurity.

Our results suggest that some job resources were especially important for the job satisfaction of our participants. Good leadership, positive relationships in the workplace, a sense of personal fulfilment, and access to financial resources were the main themes that significantly varied (in significance) between satisfied and unsatisfied participants. Furthermore, academic position represented the main demographic category that was significantly associated with different levels of job satisfaction as well as some key job resources and demands. Specifically, early-career academics reported less satisfaction with their jobs and experienced a bigger workload, greater job insecurity, and a lack of financial resources. In contrast, senior academics were particularly troubled by excessive administration. Significant yet less pronounced differences were observed with regard to gender and discipline. Notably, women experienced more performance pressure, job insecurity, and work-family conflict, and academics from the natural sciences showed the highest job satisfaction and appreciated the quality of their work and had a sense of personal fulfilment significantly more than others. These findings suggest that while there are positive as well as negative aspects of academic work and workplaces that are shared by the general population of academics, some subgroups of academics, especially early-career academics and women, have less access to some key job resources and experience higher job demands [cf. Mudrák, Zábrodská and Machovcová 2019a].

In conclusion, we believe that the ongoing transformation of HE should take these findings into account and implement changes in a manner that does not negatively affect the positive aspects of the current HE system but addresses its main problems, such as academic leadership, distribution of financial resources, or the organisation and evaluation of conflicting aspects of academic work. Moreover, the changes should consider the needs of different sub-groups of academic workers, when we can see, for example, that early-career academics are particularly troubled by job insecurity and senior academics by excessive administration. The implemented changes should be further supplemented with ongoing research that would assess their effectiveness and impacts on academic employees and the overall quality of Czech HE.

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