

Article title

Should I stay or should I go? Quantitative analysis of school leaders' intentions to transfer or exit through the lens of the job demands-resources model

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Ethical approval and informed consent statements

Our study complies with the ethical standards of the Swiss Academy of Social Sciences and Humanities.

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Data availability

The data underlying this study are currently not publicly available due to restrictions linked to privacy and confidentiality agreements, but access to the data is possible by contacting the corresponding author. Access to the data is subject to approval and a data sharing agreement.

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Revision 3

Abstract

This study investigated the differential effects of school leaders' intention to leave the school (transfer) or the profession (exit) using the job demands-resources (JD-R) model as a theoretical lens. Working overtime and the socioeconomic status of the school were considered job demands, while psychological safety was regarded as a job resource, and self-efficacy was categorized as a personal resource. Structural equation modeling was performed on a sample of 956 school leaders with transfer intentions and 2179 school leaders with exit intentions from across Switzerland. The analysis revealed that job demands were not significant predictors of transfer or exit intentions, or job satisfaction. However, psychological safety had a significant, direct and negative effect on transfer and exit intentions, as well as a significant indirect effect via job satisfaction. Self-efficacy not only had a significant indirect effect via job satisfaction on both intentions, but also a significant, direct and positive effect on transfer intentions. Overall, the findings highlight the importance of focusing on strengthening job resources rather than reducing job demands in the context of turnover of school leaders. Moreover, self-efficacy can be considered a double-edged sword as it is linked to school leaders staying in the profession but also to greater job mobility between schools.

Keywords: Principalship, job demands-resources model, transfer intentions, exit intentions, quantitative study

Introduction

School leaders (principals and vice principals) play a critical role in schools. School leadership has repeatedly been identified as an important factor for various key inner-school variables such as the motivation of staff (Leithwood et al., 2020) and has been

shown to indirectly impact student achievement (Coelli and Green, 2012; Tan et al., 2024). However, the position of a school leader has also repeatedly been identified as stressful and burdensome, with some school leaders being at risk of burning out (Rogers et al., 2025) and others contemplating leaving their school or even the entire profession (Beckett, 2021; Yan, 2020).

A school leader leaving a school can be disruptive and can negatively affect inner-school factors and student outcomes (Snodgrass Rangel, 2018). Better understanding factors that are linked to school leaders leaving a school or the profession could be used to more accurately anticipate the turnover of school leaders. It could be helpful for designing targeted interventions to compensate for factors identified as being linked to turnover, as well as to help in the context of principal training, supporting school leaders in being more aware of critical factors as early as possible. Additionally, only a few studies have analyzed turnover from the perspective of job demands and resources so far (e.g., Skaalvik, 2020). The goal of this study is therefore to investigate links between job-related demands and resources and school leaders' turnover intentions, framed within the job demands–resources model as occupational health-related outcome.

Turnover and profession-leaving of school leaders

Defining turnover

A common understanding of turnover “broadly includes instances when a principal exits” a school (DeMatthews et al., 2023: 906). However, a major distinction can be made between exits where school leaders remain in the profession and exits where they leave the profession. These kinds of distinctions often remain unobserved, with Davis and Anderson (2020) criticizing the homogenous treatment of different incidences of turnover as a major limitation of the current turnover knowledge base (Davis and Anderson, 2020: 177). Therefore, following Bartanen and colleagues (2019), we differentiate between two types of turnover: We use the term “transfers” for school leaders intending to leave their school but to remain in the profession and the term “exits” for school leaders intending to leave the profession altogether. An analysis of statistical data for the 2015–2016 school year indicates that approximately 6% of all US

K12 school principals transferred to different schools, while approximately 10% left the profession altogether (Goldring and Taie, 2018).

The effects of school leader turnover

Principal turnover has been linked to several detrimental effects that impact school staff as well as student achievement. Regarding school staff, principal turnover has been associated with teacher turnover, especially in high-poverty and urban schools (DeMatthews et al., 2022). Conversely, principal retention affects teacher retention (Buckman, 2021). Linked to this, there are indications that principal turnover can impact teacher morale and readiness to embrace or resist change (Meyer et al., 2009, 2011).

It stands to reason that effects on teacher turnover and teacher morale also impact teaching quality and student achievement. In the only study from a Germanic country we were able to identify, Pietsch and colleagues (2019) found that teaching quality was mostly buffered from the direct effects of principal turnover but could be negatively impacted in some cases in schools with students from predominantly low socioeconomic households. Regarding student achievement, no studies from Europe linking principal turnover and student achievement could be identified. In studies from the US, principal turnover has repeatedly been found to be detrimental to student achievement (Bartanen et al., 2019; Béteille et al., 2012; Miller, 2013). Thus, a better understanding of principal or school leader turnover can be considered relevant for teacher turnover and student achievement.

Turnover intention of school principals through the lens of the job demands-resources model

In order to better school leader turnover, relevant research on turnover (intentions) will be briefly presented. Additionally, the job demands-resources model will be briefly presented, and existing research will be linked to it.

Except for one Australian (Heffernan et al., 2023) and one Swedish study (Richard and Ahlström, 2025), we are not aware of research into the motives of (former) school leaders who have actually either left their school or the profession. This lack of research

may be due to the challenges of identifying such people, contacting them, and convincing them to participate in a study. There are, however, some indications regarding motives for turnover which can be gleaned from large-scale statistical analyses of turnover patterns as well as from studies that explore the intentions of school leaders to remain at their school or in the profession or to leave it. These factors will be explained in more detail in the next section.

One major factor seems to be the socioeconomic status of a school and its immediate surroundings. Schools “serving many low-income, non-White, and low-achieving students” (Loeb et al., 2010: 205) have a more pronounced turnover rate (Loeb et al., 2010; Pendola and Fuller, 2022). Similarly, a study analyzing longitudinal data from the Colorado Department of Education from 2010 to 2015 found that, of several analyzed variables, the percentage of students of color was the only variable predictive of principal turnover (Beckett, 2021). Schools with higher proportions of students from minoritised backgrounds and lower-income communities frequently face greater challenges — including higher accountability pressures, limited resources, lower student performance, and elevated teacher turnover (Owens and Candipan, 2019), all of which can be seen as constituting a more challenging context and possibly contributing to the decision to leave. Rural districts in the US are especially prone to principal turnover (Davis and Anderson, 2020; DeMatthews et al., 2023), although this appears not to be the case in every region (Grissom and Bartanen, 2019).

Besides factors tied to an individual school, structures and support provided by the local, regional, or state authorities also appear to play an important role in principal turnover. In a literature review, Snodgrass Rangel (2018) concluded that “the determinants that are most strongly related to turnover are school performance, accountability policy, and professional development” (Snodgrass Rangel, 2018: 116). In addition, salary structures have also been shown to influence principal turnover (Pendola, 2022; Yan, 2020). These factors, as well as the degree of decision-making authority, were also identified by Levin and Bradley (2019) in a review of research studies (see also Yan, 2020). Apart from school performance, these factors can be linked to policy decisions made by local, regional, or state authorities.

Finally, motivational aspects, self-efficacy and health related outcomes may also play an important role. One study found that principals with high levels of affective commitment had lower turnover intentions and higher job satisfaction than those with normative and continuance commitment (Houle et al., 2020). Similarly, researchers from Norway found a link between job satisfaction, burnout, self-efficacy, and the motivation to leave (Federici and Skaalvik, 2012). Using the concept of job embeddedness, a US study identified personal and community factors as relevant for turnover rates (DeMatthews et al., 2023). Furthermore, stress appears to be another major factor influencing turnover intentions (Goldring and Taie, 2018; Jong et al., 2017). Finally, in a study of push factors affecting former principals in Australia, an overwhelming workload was identified as one of the major factors influencing the decision of principals to leave the profession (Heffernan et al., 2023).

Overall, current empirical research points to different types of turnover and a complex set of factors that encompass facets linked to an individual school leader, the immediate surroundings, as well as the policy context in which school leaders work (Boyce and Bowers, 2016). However, all these different factors can be categorized into job demands, job resources and personal resources following the reasoning of the job demands-resources (JD-R) model that differentiates between job-demands negatively affecting health outcomes and job as well as personal resources promoting motivation and job satisfaction at work (Bakker and Demerouti, 2007). The socio-economic status of the school and workload can be interpreted as a job-demand, whereas school-performance, accountability policy, professional development, salary and job embeddedness can be categorized as job-resources. Affective commitment can be regarded as a personal resource that prevents principal turnover. Moreover, the JD-R model focuses on two major processes that aim to explain individual and organizational outcomes: The health impairment process and the motivational process (Bakker and Demerouti, 2007). Similarly, studies on principal turnover focus on job satisfaction as the motivational process and burnout as the health-impairing process (Federici and Skaalvik, 2012).

Thus, the JD-R model might be a suitable theoretical lens to investigate principals' turnover intention and study more precisely the interplay between different predictors of turnover. Fittingly, the founders of the JD-R model not only attempted to integrate

leadership as a central predictor of job-demands and resources into their model (Tummers and Bakker, 2021), but also examined job-demands and resources perceived by leaders themselves since the model can be very well applied to the work situation of leaders (Bakker and Xanthopoulou, 2013). They studied female school principals and found that personal resources lead to higher work engagement which in turn results in higher levels of creativity and charismatic leadership perceived by their teachers (Bakker and Xanthopoulou, 2013). Thus, in recent years, the model has gained importance for studying job demands and resources of school leaders, focusing on the health impairment process as well as the motivational process.

Regarding the health impairment process, it is assumed that job demands have a significant and negative impact on work overload and stress, which in turn significantly and negatively influence individual and organizational outcomes. Furthermore, job resources play an important role in the health impairment process as a buffer for the negative effects of job demands on stress and work overload (Bakker and Demerouti, 2007). The model was later expanded by including personal resources, showing their negative effect on exhaustion (Demerouti and Bakker, 2011). In the context of school principalship, the assumptions of the JD-R model could be supported. Studies found that *work family conflict* significantly and positively impacts job burnout and negatively influences wellbeing and job satisfaction, whereas the job resources *satisfaction with promotions and the job salary and sense of community* have the opposite effect on the outcome variables (Fang et al., 2025). By contrast, the study by Combs et al. (2007) only partly confirms the hypothesis of the JDR-model since job demands such as stressful tasks (e.g., paperwork, parental relations, etc.) were not significant predictors of elementary school principals' burnout, while only job resources, such as *trust* and *relationship quality*, significantly affected burnout.

Another study that only supports the assumptions of the JDR-model to a limited extent indicates that personal resources such as *self-efficacy* have only a limited preventive effect in the health impairment process. Although self-efficacy has a significant and negative impact on principals' perceived work overload and is a positive predictor of school-related commitment, it does not compensate for the negative effects of the job demand *extensification of working time* on work overload (Schmitz and Tulowitzki, 2025).

In terms of the motivational process, the JD-R posits that job resources have a significant and positive effect on motivation and job satisfaction, which in turn significantly and positively influence individual and organizational outcomes. Moreover, job demands significantly and negatively moderate the relationship between job resources and motivation or job satisfaction (Bakker and Demerouti, 2007). Numerous studies support the key hypotheses of the JD-R model (Gonzalez-Mulé et al., 2021; e.g., Lesener et al., 2019; Mazzetti et al., 2023) including studies with samples of school leaders (e.g., Collie et al., 2020; Marsh et al., 2023; Skaalvik, 2023). Overall, studies in the context of school principalship could show that job resources such as *personal development*, *quantity of work*, *collegial climate* and *competent teachers* as significant and positive predictors of principals' *job satisfaction*, whereas job demands such as *staff shortages* and *time pressure* had a significant and negative impact on *job satisfaction* (Collie et al., 2020; Skaalvik, 2023). Extending the model to account for personal resources revealed that resilience was a significant and positive predictor of *job satisfaction* (Marsh et al., 2023). In line with these theoretical assumptions, Authors and colleagues (Tulowitzki et al., 2024a) found that the low socioeconomic status of a school (job demand) had a significant and negative impact on work engagement, whereas social support (job resource) was a significant and positive predictor of work engagement.

Several studies have investigated the health impairment and motivational processes of the JD-R in parallel. For example, a study by Maxwell and Riley (2017) showed that emotional job demands had a significant and negative effect on job satisfaction and wellbeing but a significant and positive impact on burnout. Contrary to this, a study by Toyama and colleagues (2024) showed that structural job resources and challenging job demands only had a significant and positive impact on work engagement but did not significantly influence burnout. However, the follow-up study after the pandemic revealed that structural job resources not only predicted work engagement but also burnout (Toyama et al., 2024).

Considering both processes of the JD-R and extending the model to include personal resources, self-efficacy was repeatedly identified as a relevant personal resource since (Guglielmi et al., 2012) it has a significant and positive impact on work engagement, general health and work satisfaction and is a negative predictor of burnout and irritation

(Dadaczynski et al., 2020; Guglielmi et al., 2012). Self-efficacy mirrors individual beliefs about capabilities to achieve a desired outcome and how well a person can cope in a specific situation (Bandura, 1982).

Only a few studies have investigated principal turnover intentions through the lens of the job demands-resources model (Groß Ophoff et al., 2025; Groß Ophoff and Pfurtscheller, 2024; Skaalvik, 2020). In terms of the health impairment process, findings from a study in Norway indicate that self-efficacy for instructional leadership has a significant and negative impact on *time pressure* and *demanding parents* (Skaalvik, 2020). In turn, these job demands significantly and positively influence emotional exhaustion, which increases the intention to leave the principal position. Regarding the motivational process, self-efficacy for instructional leadership significantly and positively influences *autonomy*, *personal development*, and *competent teachers*. These job resources have a significant and positive effect on job satisfaction, which in turn negatively influences the *intention to quit the principal position* (Skaalvik, 2020).

Findings from Germany and Austria indicate that, for the health impairment process, the job demand *limited influence on important professional decisions* has a significant and positive impact on *work-related tension*, whereas the job resource *psychological safety* and the personal resource *self-efficacy* have a significant and negative impact on *work-related tension* (Groß Ophoff et al., 2025; Groß Ophoff and Pfurtscheller, 2024).

However, work-related tension has no significant impact on the intention to leave a school. For the motivational process, job demands and personal resources have a significant and positive effect on work engagement, but job resources were not a significant predictor. In turn, work engagement significantly and negatively impacts the motivation to leave a school (Groß Ophoff et al., 2025; Groß Ophoff and Pfurtscheller, 2024). All in all, the limited evidence on school leaders' turnover intentions using the JD-R model as a theoretical underpinning emphasizes the relevance of motivational processes over the health impairment process and the importance of self-efficacy as a personal resource.

To the best of our knowledge, no study has investigated the differential effects on transfer and exit intentions with the same data set. Hence, it might be worthwhile to study, in terms of the motivational process, the differential effects of job demands and

resources on the intention to leave the profession and the intention to leave a school. This would allow us to identify various practical and theoretical implications for transfers and exits. Given the fact that in German-speaking countries, school leadership is rather a young field (Tulowitzki and Grigoleit, 2023), it might be worthwhile to further investigate these differential effects of job demands and resources in the motivational process, distinguishing between transfers and exits in the German-speaking context. Due to limitations in length of the questionnaire and to enhance instrument acceptability for participants, we had to focus only on some job demands and resources of the JD-R model. The few studies investigating principal turnover intentions through the lens of the JD-R model showed that work-related tensions as an important construct of the health impairing process had no significant effect on turnover intentions, whereas job satisfaction as an indicator of the motivational process was a significant and negative predictor of turnover intentions (Groß Ophoff et al., 2025; Groß Ophoff and Pfurtscheller, 2024). Thus, we decided to focus on the motivational process of JD-R with job satisfaction as a predictor of turnover intention.

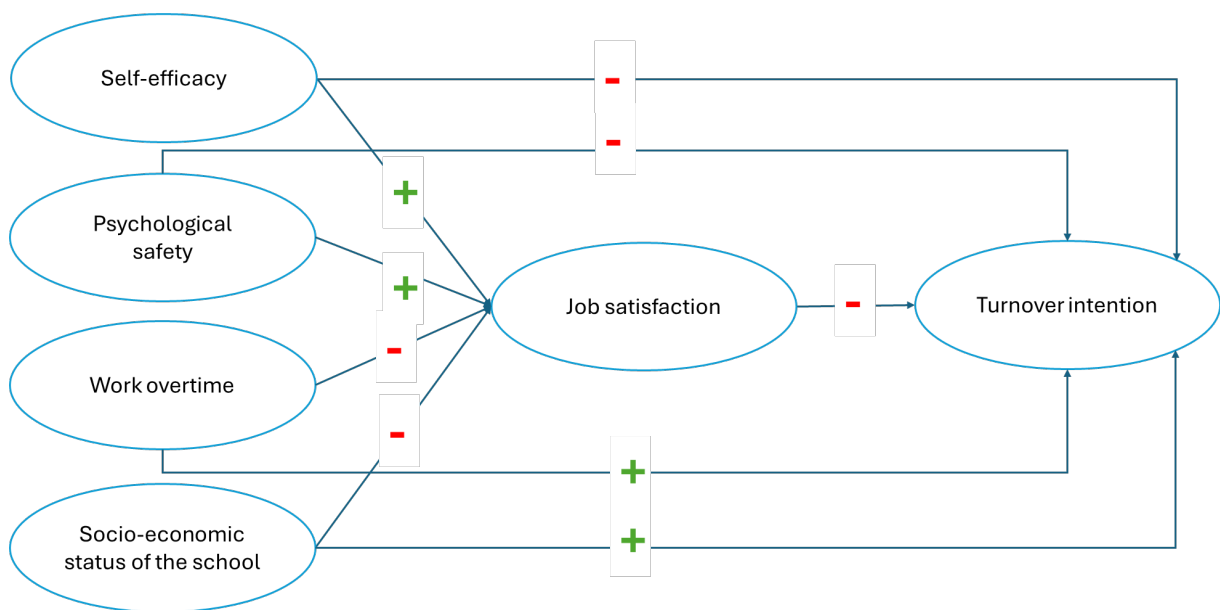
Hypotheses

Based on the assumptions of the JD-R model and the previously reported findings, we formulated the following hypotheses (also see Figure 1):

1. Psychological safety as a job resource is significantly and positively associated with job satisfaction.
2. Self-efficacy as a personal resource is significantly and positively associated with job satisfaction.
3. Overtime as a job demand is significantly and negatively associated with job satisfaction.
4. The low socioeconomic status of a school as a job demand is significantly and negatively associated with job satisfaction.
5. Job satisfaction is significantly and negatively associated with turnover intentions such as the intention to leave a school or even leave the profession.

6. Job satisfaction significantly mediates the relationship between resources (psychological safety and self-efficacy) and turnover intention (intention to leave a school and the profession).
7. Job satisfaction significantly mediates the relationship between job demands (overtime and low socioeconomic status of the school) and turnover intention (intention to leave a school and the profession).

Figure 1. Hypotheses following the JD-R model. Source: Authors' own.



Methods

Context of the study

Switzerland operates as a direct democracy with four national languages and a federal structure consisting of 26 cantons. Responsibility for education lies primarily with the cantonal governments, which in turn delegate certain tasks to local municipalities.

While each canton maintains its own educational system, national legislation encourages ongoing harmonization of core features across these systems. A key actor in this process is the Swiss Conference of Cantonal Ministers of Education (EDK), which

facilitates inter-cantonal coordination and seeks to develop policy frameworks that can be adopted nationwide.

Until the late 1990s, most schools across Switzerland did not have formal principal positions. In the following years, as part of broader governance reforms, the role of the school principal was introduced and progressively expanded. This shift led to a significant broadening of responsibilities for school leaders, alongside the creation of a standardized in-service training program. Ratified by the EDK in 2009, this program is delivered by higher education institutions and requires participants to complete at least 450 hours of coursework (EDK, 2009). Public school principals in Switzerland are typically recruited from the teaching profession and complete this qualification as part of their transition into leadership.

International assessments such as the Program for International Student Assessment (PISA) indicate that Swiss principals exercise a breadth of governance responsibilities roughly aligned with the OECD average (OECD, 2016: 115). Their duties generally include teacher recruitment and supervision, partial authority over budgetary allocations, and implementation of local educational policies. Swiss schools themselves enjoy a comparable high level of autonomy to the OECD average (OECD, 2016: 119) and commonly operate in a low stakes' accountability environment (Hangartner, 2019).

Participants and procedure

The data of this study were collected using a standardized online questionnaire targeting school principals (including vice-principals) of mandatory schools in Switzerland (children in Switzerland have to complete 11 years of mandatory schooling, choosing from various types of schools, starting at the age of four). In October 2024, the researchers contacted a total of 4427 principals, of whom 2539 participated in the survey. This number represents approximately 42% of all principals in Switzerland's mandatory schools (Swiss Federal Statistics Office, 2024). As answering individual questions was optional, the number of responses per question may vary.

Overall, 53.1% of all respondents identified as male, 44.2% as female, and 0.1% as "other." Regarding the language regions, 89% of the participating principals are in the German-speaking part of Switzerland, 10% in the francophone part, and 1% in the Italian-speaking part. On average, the principals were 49 years old ($SD = 8.6$), had 10

years of work experience as a principal ($SD = 7$), and had worked at their current school for seven years ($SD = 6$).

Measures

A list of the measurement scales can be found in the appendix.

Turnover intentions

Turnover intentions were examined in terms of two concepts: The intention to leave a school and the intention to leave the profession. Both concepts were measured using three items, following an already validated scale developed by Mobley and colleagues (1978) (e.g., “As soon as possible, I will leave this school/profession.”). Participants could indicate their agreement on a five-point Likert scale, ranging from 1 (*totally disagree*) to 5 (*totally agree*). The scale on the intention to leave a school has a Cronbach’s alpha of .90, whereas the scale measuring the intention to leave the profession has a Cronbach’s alpha of .89.

Job satisfaction

Job satisfaction was measured with one item: “I really enjoy my work.” This item was developed following already validated items by Agho and colleagues (1992) and Spieß and Stroppa (2010). Single items can show a high content validity with established scales measuring the same construct and can therefore be considered an efficient and shorter alternative to scales (Matthews et al., 2022), especially in monitoring type surveys where there is only very limited capacity for full scales. The answer options ranged from 1 (*totally disagree*) to 4 (*totally agree*).

Job and personal resources

Regarding job resources, two constructs were examined: Psychological safety as a work-related resource and self-efficacy as a personal resource. Psychological safety was operationalized using a four-item scale developed and validated by Fischer and Hüttermann (2020) (e.g., “At my school, I can also openly discuss problems and difficult topics.”). The answer options ranged from 1 (*totally disagree*) to 4 (*totally agree*). The Cronbach’s alpha of the scale is .78.

Self-efficacy was measured with six items. This scale contained six items on individual self-efficacy using the scales developed and validated by Schwarzer and Jerusalem (1999), as well as Jerusalem and Schwarzer (1999) (e.g., “I face difficulties calmly because I can always trust my abilities.”). The global self-efficacy scale has a Cronbach’s alpha of .74.

Job demands

In terms of job demands, two constructs were investigated: Overtime in hours and the socioeconomic status of the school. For overtime, principals indicated how many hours they worked per week as well as for what percentage of full-time employment (10–100%) they were employed. The overtime was determined by calculating the difference between the legally mandated working hours and the actual hours stated.

The estimation of the socioeconomic status of the school was measured with a single item. Principals gave a summary rating based on their estimation of the households nearby (where the students live) regarding income, employment status, level of educational attainment, migration background, skills in the predominant national language, and known psychological and physical troubles. This item was developed based on two syntheses of core elements of socioeconomic status in Germanic countries (Bremm et al., 2016; Fölker et al., 2015; largely corresponding to conceptualizations of SES from the US, see for example NCES, 2012). Respondents had five answer options: 1 (*Severely socially disadvantaged*), 2 (*somewhat socially disadvantaged*), 3 (*neither socially disadvantaged nor privileged*), 4 (*somewhat privileged*), 5 (*very privileged*).

Statistical analyses

First, descriptive statistics including means and standard deviations were calculated for turnover intentions, job satisfaction, job demands, and job resources. Next, correlation analyses were conducted to investigate the relationship between the variables. Finally, two structural equation models (SEM) were performed using the software R with the lavaan package (Rosseel, 2012), after checking for skewness <2 and kurtosis <4 for the items to avoid distorted results (see Curran et al., 1996). One SEM had the intention to leave a school as the outcome variable and the other the intention to leave the

profession. (Enders and Bandalos, 2001) The model fit of the SEMs were evaluated using the cut-off criteria by Hu and Bentler (1999), which indicated a CFI and TLI >.95 and RMSEA and SRMR <.05.

Results

Descriptive statistics

The descriptive statistics indicate that, overall, principals' turnover intentions are rather low. Furthermore, they report a high level of job satisfaction, psychological safety, and self-efficacy (see Table 1). However, the school leaders show substantial variation in turnover intentions and job satisfaction, which will be discussed in the subsequent analyses.

Table 1. Descriptive statistics

Construct	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
Transfer intention	1.67	0.93	1.00	5.00	1.79	2.83
Exit intention	1.80	0.95	1.00	5.00	1.33	1.26
Job satisfaction	3.17	0.64	1.00	4.00	-0.38	0.20
Psychological safety	3.27	0.51	1.00	4.00	-0.61	0.63
Self-efficacy	3.12	0.36	1.67	4.00	0.16	0.05
Overtime	7.15	5.05	-8.9	24.3	0.76	0.54
School SES	2.97	1.01	1.00	5.00	-0.15	-0.37

Note. SD = standard deviation. Turnover intentions and school SES were measured on a five-point Likert scale. Job satisfaction, psychological safety, and self-efficacy were rated on a four-point Likert scale.

Correlation analyses

The correlation analyses reveal that, after Bonferonni correction, the job demands, in contrast to the job resources, indicate no significant relationship with respondents' intention to leave a school or the profession (see Table 2). Whereas psychological safety is significantly and negatively associated with both turnover intentions, self-efficacy is only significantly and negatively correlated with the intention to leave the profession. For

the correlation between the intention to leave the profession and both job resources, the effect size can be considered small (Cohen, 1988). Regarding the relationship between the intention to leave a school and psychological safety, the effect size can be considered moderate (Cohen, 1988). Furthermore, job demands show no significant correlation with job satisfaction. By contrast, psychological safety and self-efficacy significantly and positively correlate with job satisfaction. The effect size of these correlations can be considered moderate, following Cohen (1988). Moreover, job satisfaction correlates significantly, positively, and strongly (see Cohen, 1988) with the intention to leave the profession and significantly, positively, and moderately with the intention to leave a school.

Table 2. Correlation analyses

	1	2	3	4	5	6	7
1) Turnover intention school		.57***	-.45***	-.36***	-.08	.09	-.01
2) Turnover intention profession			-.51***	-.20***	-.16***	.02	.00
3) Job satisfaction				.30***	.31***	.00	.01
4) Psychological safety					.38***	-.08***	.02
5) Self-efficacy						.04	.01
6) Overtime							-.03
7) School SES							

Note. *** $p < .001$, ** $p < .01$, * $p < .05$.

Structural equation modeling

All items had a skewness of <2 and a kurtosis of <7 , indicating that their use was not problematic for SEM with maximum likelihood estimation (see Curran et al., 1996). The only exception were two items on the intention to leave a school that had a slightly higher skewness (2.05 and 2.19). Moreover, missing values were investigated. As depicted in Table 3, 11 patterns of missing values were identified with the largest group having missing values regarding the items on the intention to leave the school and the second largest group with no missing data at all. Furthermore, the parametric Hawkins test ($p < .001$) indicated that the data was not completely missing at random, whereas the non-parametric test of homoscedasticity was not significant ($p = .269$) which implies

data missing completely at random. To reduce the time to complete the survey, the scale on the intention to leave a school was only shown to 50% of the Swiss German participants (randomly selected) and was not included in the French and Italian survey. Therefore, it might be questionable whether the data is missing at random, and no full maximum likelihood estimation (FIML) should be used (see Enders and Bandalos, 2001). Finally, chi-square tests show that principals with missing data differ significantly from principals without missing data in terms of gender ($\chi^2(2) = 3996.037$; $p < .001$). There were slightly more female and non-binary principals with missing data as expected based on the non-missing data.

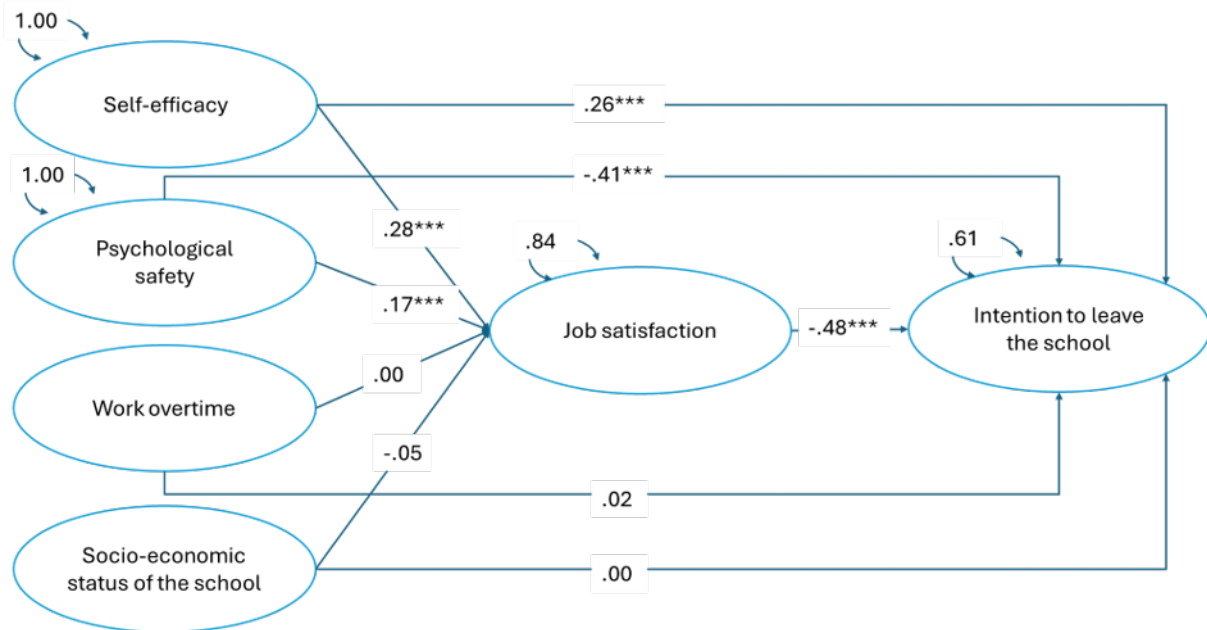
Table 3. Missing Analysis.

Group	Psychological safety items	Self-efficacy items	Intention to leave the school items	School SES	V
1					
2			X X X		
3			X X X		X
4			X X X	X	
5					X
6		X			
7			X X X		
8			X X X		X
9		X	X X X		
10				X	
11	X		X X X		

Note. X = Missing value.

Based on the criteria of Hu and Bentler (1999), the model with the intention to leave a school as a dependent variable showed a good fit after four modifications ($\chi^2(92) = 342.913$; $p < .001$; TLI = 0.967; CFI = 0.974; RMSEA = 0.037; SRMR = 0.030). All items loaded well on their intended factor, and no factor loading was $< .515$. Regarding the intention to leave a school, the R-squared was .391, indicating that almost 40% of the variance in this outcome variable can be explained by the other variables of the model. In terms of work satisfaction, the variance explanation was 16.2%. As depicted in Figure 2, the SEM revealed that job resources but not job demands were significant predictors of job satisfaction and the intention to leave a school. Psychological safety and self-efficacy had a significant and positive impact on job satisfaction. While psychological safety also had a significant and negative impact on the intention to leave a school, self-efficacy was a significant and positive predictor. Furthermore, job satisfaction significantly mediates the relationships between job resources and the intention to leave a school, as presented in Table 4.

Figure 2. Structural equation modeling for the intention to leave a school



Note. N = 956. *** $p < .001$, ** $p < .01$, * $p < .05$. All standardized path coefficients and variances explained by the endogenous variables are displayed. The measurement models are not displayed.

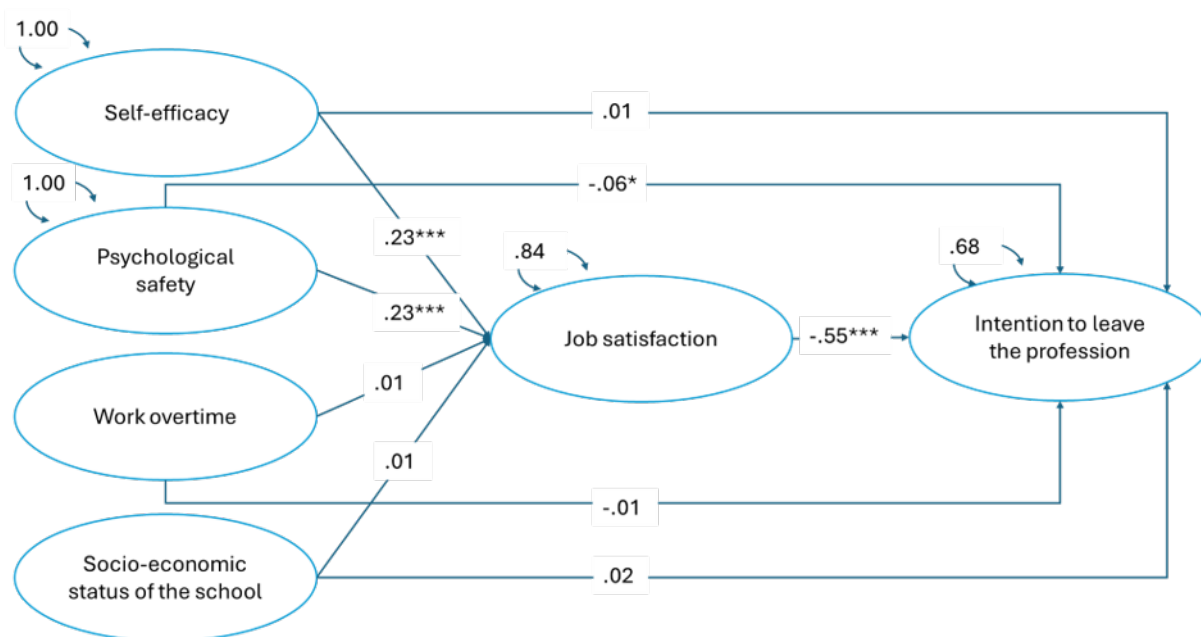
Table 4. Standardized indirect and total effects for the model with the outcome variable *intention to leave the school*

	Estimate	SE	p-value	CI-lower	CI-upper
Safety --> satisfaction --> turnover intention school	-.08	.02	0.000	-.12	-.05
Self-efficacy --> satisfaction --> turnover intention school	-.13	.02	0.000	-.18	-.09
School SES --> satisfaction --> turnover intention school	.00	.02	0.977	-.03	.03
Overtime --> satisfaction --> turnover intention school	.02	.02	0.120	-.01	.05
Total	-.31	.06	0.000	-.43	-.20

Note. N = 956. SE = standard errors; CI = confidence interval.

Similar to the other model, the SEM model for the intention to leave the profession as an outcome variable showed a good fit, following Hu and Bentler (1995), after four modifications ($\chi^2(92) = 358.670$; $p < .001$; TLI = 0.967; CFI = 0.975; RMSEA = 0.036; SRMR = 0.028). All items loaded well onto their intended latent factor with no factor loading $< .44$. For the intention to leave the profession, the analysis revealed an R-squared of .318, meaning that 31.8% of the variance in this variable can be explained by the other variables of the model. In terms of job satisfaction, an R-squared of .161 was found. Figure 3 and Table 5 show similar results as for the other SEM. Again, only job resources are significant predictors of job satisfaction and the intention to leave the profession. Job satisfaction also significantly mediates the relationship between job resources and the intention to leave the profession. However, in contrast to the other SEM model, only psychological safety has a direct, significant, and negative effect on the intention to leave the profession, whereas self-efficacy is not a significant predictor.

Figure 3. Structural equation modeling for the intention to leave the profession



Note. N = 2179. *** $p < .001$, ** $p < .01$, * $p < .05$. All standardized path coefficients and variances explained by the endogenous variables are displayed. The measurement models are not displayed.

Table 5. Standardized indirect and total effects for the model with the outcome variable *intention to leave the profession*

	Estimate	SE	p-value	CI-lower	CI-upper
Safety --> satisfaction --> turnover intention profession	-.13	.02	0.000	-.16	-.09
Self-efficacy --> satisfaction --> turnover intention profession	-.13	.02	0.000	-.16	-.09
School SES --> satisfaction --> turnover intention profession	.00	.01	0.721	-.03	.02
Overtime --> satisfaction --> turnover intention profession	-.01	.01	0.664	-.03	.02
Total	-.30	.04	0.000	-.38	-.22

Note. N = 2179. SE = standard errors; CI = confidence interval.

Discussion

The current study shows that the JD-R model with a focus on the motivational process can be considered a suitable theoretical lens to explain turnover intentions of school leaders, given the substantial degree of variance explained in job satisfaction as well as intentions related to transfers and exits. Previous studies have emphasized the relevance of the motivational process over the health impairment process to explain turnover intentions (Groß Ophoff and Pfurtscheller, 2024). In line with previous findings (Skaalvik, 2020), self-efficacy plays an important role in turnover intentions, , as it is significantly and positively linked to job satisfaction, which in turn is significantly and negatively linked to transfer and exit intentions.

The present study illustrates the relevance of investigating school leaders' intentions related to transfers and exits separately since different effects were found for the personal resource *self-efficacy*. Self-efficacy (Schmitz and Tulowitzki, 2025) can be considered a double-edged sword in terms of turnover: While it is negatively associated with school leaders leaving the profession, it is positively associated with transfers. School leaders who consider themselves self-efficient might therefore remain in the profession but change schools (comparatively) frequently (see also Otto et al., 2010 for similar findings from other employment sectors). One possible underlying mechanism could be a perceived transferability of skills: school leaders with strong beliefs in their personal and collective efficacy may feel confident that the strategies, practices, and innovations they employ at their current school can be successfully applied elsewhere.

This confidence could make them more open to seeking new environments that present fresh challenges or greater alignment with their leadership vision.

Another mechanism may be career progression orientation. In contexts where career development pathways are limited within a single school, high self-efficacy could encourage leaders to seek positions that offer expanded responsibilities, different organizational cultures, or strategic opportunities to leave a lasting impact.

A third mechanism might be contextual frustration tolerance: self-efficient leaders might be able to cope with challenges, but if they perceive persistent structural barriers or limited support in their current setting, they may be more willing to move to a school where conditions allow for more effective leadership enactment.

By contrast, based on the findings, the job resource *psychological safety* cannot be considered a double-edged sword, as it is significantly and positively associated with job satisfaction and significantly, negatively, and directly influences the intention to leave a school or the profession.

Contrary to previous studies indicating that job demands have a significant and negative impact on job satisfaction (Collie et al., 2020; Maxwell and Riley, 2017; Skaalvik, 2023), results from the present study indicate that job demands are not a significant predictor of job satisfaction. Similarly, several previous studies found that job demands have a significant, negative, and indirect impact on turnover intentions (Groß Ophoff et al., 2025; Skaalvik, 2020), but in the present study, no significant relationships between job demands and turnover intentions could be identified. One possible explanation might be provided by a study by Nielsen and colleagues (2023), analyzing data on 1149 Norwegian employees from different professions: One finding from that study is that hindrance demands, such as role ambiguity and conflict, and threat demands, such as workplace bullying, are significant and positive predictors of turnover intention. By contrast, challenge demands reflecting the quantity of work are not a significant predictor. Thus, overtime that overlaps with the concept quantity of work might be a challenge demand but might not have a significant impact on turnover intentions. Similarly, the socioeconomic status of a school might not constitute a hindrance demand but rather a challenge demand in the (comparatively) privileged Swiss context,

as the difference between schools in disadvantaged areas and those in privileged areas might be smaller than in other countries (Bachmann et al., 2020).

Limitations

This study has several important limitations. One is related to the sample: Since official statistics on school principals in Switzerland contain only very few details, it was not possible to determine how closely our collected data match that of the general population of principals. Thus, no weighting strategies could be employed to compensate for any possible distortion and misrepresentation in the data.

Other limitations concern the measurements of the study: First, the data are purely self-reported and therefore prone to measurement biases (Donaldson and Grant-Vallone, 2002). Second, we only measured individual but not collective self-efficacy. Consequently, it seems warranted that future research examines any possible differential effects of individual and collective self-efficacy using distinct measurements. Third, only intentions to leave a school or the profession were assessed but not actual transfers and exits. Fourth, the assessment of the socioeconomic status of the school was done through a single summary rating. While this item has been used in previous studies (Tulowitzki et al., 2024b, 2026) and responses there corresponded to available statistical information on the socioeconomic status of schools in various areas with participating schools, the content validity might still be limited. Fifth, due to limitations in the length of the questionnaire, we had to focus on a limited number of constructs.

Additional limitations are related to aspects of the data analysis and the design of the study: Due to the limited sample size, we were not able to perform even more complex SEM considering not only mediation but also moderation effects to further study the interplay between job demands and resources on job satisfaction. Moreover, a larger sample size would also make it possible to include a larger number of demands and resources.

Finally, the data stem from a study with a cross-sectional design. According to Maxwell and Cole (2007), cross-sectional mediations should be interpreted with caution, as some effects might only unfold over time; causal statements regarding the results can

only be theorized. Additionally, we were not able to assess the retest reliability for the single item scales due to the cross-sectional design of the study.

Theoretical and practical implications

Based on our findings, we believe that further studies in the context of principal turnover are needed using the JD-R as a theoretical lens. For example, a similar study with a longitudinal design could be carried out to see whether the mediation effects of job satisfaction in the context of turnover intentions can be replicated. Moreover, it would be worthwhile to use separate measures for individual and collective self-efficacy to examine their different effects in the context of principals' turnover intentions and job satisfaction. Future studies should also further study the interplay between job demands and resources performing even more complex SEM with mediation and moderation effects that require even larger sample sizes. Furthermore, other personal resources could be studied in the motivational process regarding principals' turnover intentions, such as resilience (Marsh et al., 2023). Similarly, other job resources could be studied in this context, such as autonomy, personal development, competent teachers, and a collegial climate (Collie et al., 2020; Skaalvik, 2020). Investigating potential hindrance demands, such as role conflict and ambiguity, and threat demands, such as bullying (see Nielsen et al., 2023), could be useful for examining whether different categories of job demands have a significant and positive influence on principals' turnover intentions and play a more relevant role in the motivational process of the JD-R compared to challenge demands. Although intention appears to be a reliable predictor of actual actions (Ajzen, 1991), it is warranted to replicate the findings of this study going beyond intentions and studying actual transfers and exits of principals. Finally, not only should the motivational process of the JD-R be considered in future studies on principal turnover but also the health impairment process. Besides quantitative studies, future research should include qualitative analysis data for conclusion verification.

In terms of practical implications, the current study stresses the importance of strengthening job resources over minimizing job demands to prevent principal turnover and ensure job satisfaction. Thus, it is important to foster a positive climate in terms of psychological safety. One way to achieve this might be regular one-on-one meetings

between the principal and the teachers at a school, focusing on the psychological needs of both parties (Castro et al., 2022).

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