

# Staff turnover costs in the Czech Republic

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## Abstract

The aim of the paper is to calculate the costs of staff turnover in the Czech Republic and to quantify the loss of production and costs of public budgets and organizations due to employee turnover. The outputs show that the analysed costs of staff turnover in the Czech Republic form a relatively large part of the costs of organizations and public budgets. The costs of employee turnover exert a significant impact on the economy of organizations and the state from the socio-economic point of view. The resulting amount is comparable to the average of European states and the USA. The average total employee turnover cost in the mentioned states is CZK 194,555 per employee. The paper also contains a recommendation to support the retention of critical key workers and ensure their continuity, leading to an increase in production and support of the knowledge-based economy as well as to a reduction of the negative effects of employee turnover.

## Keywords

Cost, Czech Republic, knowledge continuity management, organizations, unemployment, staff turnover.

**JEL Classification:** D83, J53, J63

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## 1. Introduction

While at present human capital is becoming an increasingly important factor of success (Argote et al., 2003; Han et al., 2014) and economic growth, the costs related to staff management and administration are also increasing, thus reducing the total output. A human capital-oriented culture is frequently promoted within organizations; in reality, however, a large number of organizations face high staff turnover or alienation (Branham, 2009; Katcher and Snyder, 2009; Schlett and Zeigler, 2014). Staff turnover is to be understood as the rate of movement/mobility of employees (Armstrong, 2007; Iqbal, 2010; Reiß, 2008; Shah Nawaz and Jafri, 2009). Staff turnover entails wasted resources and increasing costs; as a result, the organization loses productivity and is inefficient, giving rise to losses for the national economy as a whole. The subsequent activities related to hiring new staff, training them and acquainting them with the corporate culture cost the organization time and money. In the economy this translates into losses caused by various types of unemployment; in the case of staff turnover, one can refer particularly to frictional unemployment (frictional unemployment is caused exactly by migration/mobility of labour, changes between jobs and changes in the life cycle (Bernat and Korpysa, 2013; Holman, 2011; Mazouch and Fischer, 2011)). This means that, in substance, it corresponds to staff turnover. To a certain extent, one can also refer to cyclical unemployment (cyclical unemployment results from an economic crisis and a slowdown of the economy, which are both typical of the present period; cyclical unemployment arises when there is a lack of jobs on the market and is a consequence of an insufficient level of aggregate demand for goods (Holman, 2011)). When adding up the staff turnover costs, one must include not only the direct costs related to the staff turnover, such as administrative costs (the direct costs can reach considerable levels when agency or assessment centre services are used in the subsequent hiring (Vajner, 2007; Veber, 2008)) but also the indirect costs. These include costs incurred for the training provided and the educational programmes attended by the employee leaving the organization (those attended during the last year – this investment is irrecoverable) as well as costs related to the planning, seeking and hiring of the new employee, including orientation for the job position, in-service training costs, lower performance until full engagement in the job position (Almıçık et al., 2012;

Hofmans et al., 2013; Keller and Semmer, 2013; Kociánová, 2010; Schlett and Ziegler, 2014; Vodák and Kucharčíková, 2011), costs to cover the tasks in the period when the vacancy has not been filled and, indirectly, the time lost by the employees involved in the process of induction and integration of the newcomer into the team and the corporate culture (such as human resource managers, direct superiors, team members, mentors, etc.) (Dvořáková et al., 2007; Vajner, 2007). In addition, one may not forget the working time costs of the management and administrative staff (opportunity/overhead costs) and the labour costs of managers and personnel managers (Calvo and Garcia, 2014).

The aim of the article is to quantify the costs brought about by staff turnover in the Czech Republic based on an analysis and assessment of the costs arising from it. It focuses on the total staff turnover costs in the Czech Republic per year and per employee. The article also deals with the quantification of a partial production loss, the public finance costs for unemployment benefits paid to employees changing jobs and the tax losses. A partial objective is to recommend options to support the retention of high-quality employees in organizations, thus increasing their output and subsequently enhancing the knowledge economy in the Czech Republic.

The article builds on an applied survey of staff turnover costs. It focuses on the specific and practical impacts of staff turnover from the point of view of both the employee and the employer. This concept has not yet been analysed and elaborated as a whole. The article addresses the perspective of an individual (employee survey) as well as the perspective of the organization (manager survey). The exploration of staff turnover costs is essential not only for organizations but also for the state, as it is the state that has to bear the costs of unemployment. Unemployment has significant socioeconomic effects on the entire economy of each respective state. Last but not least, the findings are placed in the context of their impact on the knowledge continuity, which generally affects the growth and development of today's knowledge economy.

The article is structured as follows: first a brief description of the theoretical starting points is provided; the second chapter introduces the definitions of the different terms and the analysis methodology used; the third part deals with the findings and their application; the fourth part provides a comparison with

similar studies worldwide; and the conclusion summarizes the most important findings from the analyses.

The methodology used in studies that deal with staff turnover costs often varies in both the scope and the extent of the costs included. Consequently, this article deals with a total staff turnover cost estimate. The differences in the methodology of the conducted studies are pointed out in the text and, at the same time, taken into account in the calculations in the results/findings part.

## 2. Theoretical background

The level of staff turnover costs affects organizations' total revenue. Staff turnover results in a production loss. From the point of view of economic theory, this issue can be analysed against the economic and technical efficiency theory; it can also be dealt with using the DEA (data envelopment analysis) and SFA (stochastic frontier analysis) methods (Coelli et al., 2005; Kumbhakar and Lovell, 2000). If an employee leaves the organization, the costs are higher than if the employee remains in the organization. Despite producing the same output, the organization will incur higher costs; as a result, the efficiency condition is not achieved. From the graphical point of view, the organization does not lie in the isoquant that represents the minimum costs of production input combinations while maintaining the same output (the so-called *input requirement set fiction*).

In the event that the departure of an employee results in a loss of output, the organization is again inefficient, because there is a shift from its optimum output function. Lower efficiency of organizations consequently has an impact on the national economy as a whole, resulting in a lower market supply or, as the case may be, in higher prices due to the increasing costs incurred by the organization. The situation affects not only the consumers but also the state, because lower sales also entail lower corporate tax paid by the organizations.

Since the costs related to selecting, hiring, training and adapting a new employee represent a considerable cost item for the organization, the employees in charge should show commitment to retaining competent staff in the organization (Alniaçık et al., 2012; Amundsen and Martinsen, 2014; Branham, 2009; Finnegan, 2009; Iqbal, 2010; Miller, 2009).

The problem of staff turnover is frequently caused by the interchanged responsibilities of the human resources department and the managers (Bowen and Ostroff, 2004; Dvořáková, 2007; Kociánová, 2010; Ladegard and Gjerde, 2014; Tse and Chiu, 2014; Zhang and Zhou, 2014). It is the manager rather than the

human resources department who should be responsible for the selection of a new employee for the team. The human resources department lacks the exact information about the employee who needs to be hired as well as about the skills and competences that he or she must have. Similarly, it is the manager who should primarily be responsible for the employee's training, retention and loyalty to the organization, because the manager is educating a high-quality staff member who will be able to carry out the tasks given by the manager in the manner expected by the superior (Day et al., 2014; Druteikiene et al., 2013; Hučka et al., 2011; Jing et al., 2014; Mauno et al., 2014; Mikuláščík, 2010). However, managers often lack experience in staff leadership and, despite the increasing problems, are not interested in staff development and thus in reducing staff turnover.

At the start of the twenty-first century, when knowledge is considered a production factor, as well as in view of the current rising trend of staff turnover and the demographic developments, specifically the general aging of the population, the issue of ensuring knowledge continuity in organizations as a tool to achieve competitiveness is becoming increasingly important (Beazley et al., 2002; Levy, 2011; Wang and Wang, 2012; Wang et al., 2011). The role of ensuring knowledge continuity is to retain critical knowledge (a minimum knowledge base; a knowledge discontinuity occurs if the knowledge falls below that minimum level) (Beazley et al., 2002) of the departing staff members in the organization, thus preventing the loss of such knowledge (Cabrera and Cabrera, 2002; Eucker, 2007; Renzl, 2008). This is achieved by the continuous sharing and passing on of knowledge to those who will need it in the future. The concept is focused primarily on the employees holding critical knowledge who are susceptible to leaving the organization to join a competitor and on the employees who are to retire in the short term (Linhartová and Urbancová, 2011).

## 3. Materials and methods

When assessing staff turnover costs, it is necessary to take into account the problems related to inaccurate measurements and pure estimates, which can be found both in the databases of organizations and in the quantifications of public budget costs of unemployment caused by staff turnover. Consequently, the calculations are rather complex, and it is necessary to harmonize the average values and work with adjusted data, which are often indicated as the aggregate costs for total staff or for total unemployment, as the case may be, without a specification of the calculations. Alternatively, it is possible to find only partial costs for some activities, which, however, do not include the

indirect and/or administrative and overhead costs of staff turnover. As a result, the authors focused on adjusting the data or on derived computation of the data to obtain as accurate a staff turnover cost estimate as possible.

For these reasons it is essential to define the types of staff turnover costs that must be included in the calculation as well as to define an average employee who leaves a job together with his/her replacement. The data from the Czech Statistical Office, such as the average salary rate per hour and average salary in the Czech Republic, were used for the calculations.

For this paper an average employee is defined as a staff member with the average hourly wage corresponding to the data of the Czech Statistical Office (CZSO), amounting to CZK 165/hour. It goes without saying that the wage varies depending on the industry and the employee's gender, education, experience, status and position as well as on the territory and other factors; the average wage is also distorted by extreme values (overestimation or underestimation occur under uneven distribution; the median value would provide a better picture of the situation); nevertheless, the authors decided to use this information for their calculations as evidencing and suitable data fit to describe the situation of the staff turnover costs. This decision was also facilitated by the fact that the CZSO uses the weighted arithmetic average rather than the simple arithmetic average.

Only a minimal number of detailed analyses have been conducted in the Czech Republic to estimate the total staff turnover costs for organizations as well as for the national budget. No single analysis has dealt specifically with the two fields. Consequently, the authors focused on the defined scope. Based on their comparison of foreign studies, they estimated the average costs of an employee's departure and his/her replacement. The data making these calculations possible were collected from secondary sources and based on the results of their own primary survey aimed at employees' and employers' perspectives of staff turnover.

The reason behind the assessment of staff turnover costs consists of the underlying materials to quantify the loss of profit or output, as the case may be, and the additional costs of the frictional (and cyclical) unemployment and the unemployment benefits from the public budget. Within organizations it is used to convince line managers and financial directors about the need to invest more to increase the number of staff who stay with the organization.

### 3.1 Staff turnover costs for public finance

Similar studies conducted in other countries by institutions dealing with staff turnover costs were used

for the purpose of the calculations referred to in the paper. The studies addressed particularly the costs for the organizations. A survey conducted in 2005 by the British Chartered Institute of Personnel and Development (CIPD), focusing on the hiring, stabilization and departure of staff, established that the average costs per departing employee amounted to GBP 4,625 (ca CZK 138,000).

In a 1998 Manchester Consulting study (taken from Reiß, 2008), organizations were invited to estimate the costs incurred by them as a result of staff turnover (per employee). The organizations assessed their costs for a departing employee as most commonly amounting to CZK 175–350 thousand (34% of the organizations), CZK 35–175 thousand (31%), CZK 350–525 thousand (12%), above CZK 525 thousand (8%) and below CZK 35 thousand (5% of the organizations). The study by Somaya and Williamson (2008) estimated the costs at around 100 to 150% of a top employee's salary. Similarly, some authors (Katcher and Snyder, 2009) have provided an estimated loss arising from the departure of a trained employee at 150% of his/her annual salary.

The costs for the state are estimated on the basis of the calculations concerning the costs of an average unemployed individual, as stated in the article by Čadil et al. (2011). According to its authors, the average loss for the national budget amounts to CZK 8,411 per unemployed individual per month.

Both the organizations and the economy also suffer losses as a result of staff turnover, because employees are carriers of human capital, including the knowledge and know-how related specifically to the relevant organization, which they *take with them* when they leave to contribute, in turn, to the human capital of their new employer (Levin and Cross, 2004).

The calculations of staff turnover costs in the public budgets take into account the number of employees who switch from one job to another directly without any period of unemployment and the number of employees in between jobs who make use of the temporary unemployment benefits. In addition, the amount of the loss of production (during the period of the employee's lower work effort when considering departure and the subsequent induction, training, becoming acquainted with the job demands, the team, etc.) was calculated. The underlying materials came from the results of the inquiries (see Chapter 2.4).

The level of 15% was used as the average staff turnover rate in the Czech Republic (Čábelová, 2007). A survey establishing this value was conducted in cooperation with the Saratoga Institute. It represents the long-term median value. Although the different industries show various staff turnover rates (ranging commonly between 5% and 25%), the above-

mentioned mean value is used for the purposes of the study. Temporary unemployment benefits are drawn by 51% of the employees changing jobs (Linhartová, 2012), more frequently by employees of large organizations (71%). The average job-seeking period of unemployed persons is 5 months (Čadil et al., 2011). In the Czech Republic, 46% of the population are employed (CZSO, 2011).

### 3.2 Employee turnover costs in organizations

Within the text the attention is focused on the different types of staff turnover costs. The types were drawn up based on the secondary sources studied and on the results of the authors' own research aimed at employees' and employers' perspectives of staff turnover. The organizational turnover costs can be divided into direct, indirect, support process and overhead costs.

The direct costs were defined as comprising the wage costs for the leaving employee, entry courses, newcomer training, material – provided booklets and so on – and losses caused by early departure (a higher overtime rate for employees who have to take over responsibilities temporarily, discontinuity of knowledge and loss of production, sales and customers).

The indirect costs were defined as including training, incentive schemes, teambuilding exercises and so on in the last year, reduced performance of the newcomers before they become familiar with the new job (loss of production), knowledge drain, (potential) transfer of knowledge/confidential information to competitors and reduced work performance during the disaffection period (when considering leaving the company).

The support process costs were defined as comprising staff planning, mobility monitoring, placing advertisements, attracting candidates, interview preparation, the interviews themselves, testing, selection, consulting, training, introduction of the employee, orientation in the team, acquisition of work habits and employee evaluation, motivation and consulting.

The overhead costs were defined as personnel files' evidence, records of employment and wage administration adaptations.

### 3.3 Primary survey

The article was drafted based on an analysis of the primary and secondary sources. The primary sources were obtained using quantitative research based on the questionnaire surveys on staff turnover and knowledge continuity.

### 3.4 Staff turnover costs from the employees' perspective

Inquiries were conducted to establish the steps taken by an employee leaving the organization, the root causes of the departure, the duration of the departure, whether the employees show reduced work effort in the period between the decision to leave the organization and the actual departure and how they see the departure retrospectively after a certain period of time. The results were used to devise formulas to calculate the staff turnover costs (and their types and subtypes). The responses and their quantitative occurrence helped to quantify the cost intensity of the particular operations.

A questionnaire-based inquiry was conducted through two consecutive quantitative surveys. Both questionnaires were answered by 100 employees (the adjusted sample comprised 98 and 106 employees for the first survey and for the second, control survey, respectively: specifically, a total of 204 respondents who met the survey requirements – they were in an employment relationship, left their job position on their own initiative during the past year and found a new job and who returned a fully and correctly completed questionnaire), who have already left their job position; there was no duplication in the respondents. The method to obtain data was, for the first survey, an electronic questionnaire, which automatically recorded and partially sorted the respondents' answers. The second, control questionnaire used the CATI data-finding method (computer assisted telephone interviewing). The selection of a representative sample, representing the population of employees across industries, was carried out using the random sampling application for telephone numbers, which entails the advantages of multiple random sampling. The sample was selected solely for the purposes of the survey, among employees in the age group 20 to 50 years, who left their job during the past year.

Closed questions were used for measurements in the first survey, with several possible answers compiled based on the studied literature, documents and other related surveys carried out by the authors (Branham, 2009; Katcher and Snyder, 2009). The second survey built on the semantic differential, which made it possible to detect nuances in the respondents' positions through a questionnaire. The respondents indicated their inclination towards one of the predetermined extreme statements using a scale from 1 to 7. The scale made it possible to determine not only the respondent's position as such but also its strength (Anderson, 2007).

Microsoft Excel 2007 and SPSS were used to analyse the data. The conclusiveness of the obtained outputs and relations were supported by descriptive statistics tools; the analysis of variance, parametric tests and correlation, regression and determination were

applied to test the results. Multidimensional statistical methods were used for more in-depth analyses, in particular a factor analysis (varimax rotation was used; the Kaiser–Guttman rule was applied to select a number of significant factors, the determinants having an absolute value greater than 0.3 based on the recommendations of Anderson (2007) and Budíková et al. (2010)), and the principal component analysis was used to select the significant determinants for the factor formation.

The sample under examination was not divided by gender or by the sector or branch of employment, because the  $\chi^2$  test proved that there are no statistically significant differences between these groups.

### 3.5 Staff turnover costs from the employers' perspective

Inquiries were conducted to determine how the organizations' managers deal with staff turnover. The sample of managers comprised 814 managers (from the 580 organizations addressed; an adjusted sample of managers = 167 managers from 159 organizations, who returned a completed questionnaire), who were selected based on the following selection criteria:

- Middle- and higher-level managers in an organization, in charge of the process flow and smooth functioning of the selected organizations,
- A maximum of 2 managers in a single organization (to prevent distortion in the data obtained),
- Managers in an organization who have theoretical as well as practical knowledge of human resource management and of their specific orientation,
- Managers who are potentially responsible for the decision on whether knowledge continuity is to be ensured systematically in their organization (have competence in or an influence on strategic management),
- Managers who are important in the decision-making hierarchy (in major positions).

The questionnaire survey was carried out in selected organizations across the Czech Republic. These organizations were selected according to the defined percentage quotas that are based on the number of organizations in the economic sector and the number of organizations in the Czech Republic by size (headcount) as indicated on the official website of the Czech Statistical Office. The organizations were selected as follows: 15% from the primary sector, 15% from the secondary sector and 70% from the tertiary sector. At the same time, the authors addressed 65% small organizations, 20% medium-sized organizations and 15% large organizations.

The survey focused on middle- and higher-level management, because such managers:

- Are line managers who are responsible for the overall performance of their subordinates,
- Are part of the management units (are responsible for the smooth functioning of the organization or the group performance), which should nowadays increasingly be involved in sharing, passing on and retaining the knowledge of employees who leave the organization because of staff changes (i.e. are responsible for the passing on of knowledge within the organization),
- Work with the knowledge database and strive to improve it,
- Are themselves knowledge-based staff members with critical knowledge or manage employees with such critical knowledge,
- Are a key to winning and retaining talented employees,
- Are at such a management level, which is the most important factor in creating organizational factors conducive to the organization's efficiency, and, last but not least, the development of the proposed concept must be approved by this top management.

Only a respondent who has at least one direct subordinate, that is, who manages people, is considered to be a manager and is included in the results (the criterion of one direct subordinate is also used in the Manager of the Year contest). The results of the questionnaire survey were also confirmed by the subsequent qualitative survey, using the personal interview method with 19 managers from organizations operating in the Czech Republic.

### 3.6 Calculation of the staff turnover costs in an organization

Table 1 shows a breakdown of the staff turnover costs per employee during one year. Table 1 was compiled on the basis of the results of the staff turnover interviews with the managers and a comparison with the secondary data sources (O'Connell and Mei-Chuan, 2007). The costs in Table 1 are indicated only for the purpose of calculating staff turnover costs in an organization, taking into account the developments over time; other costs (direct, indirect and overhead) are considered to be of a one-off nature. A legend for the abbreviations (names of the variables) is provided in Table 2. Table 1 constitutes a basis for the subsequent cost calculations of the staff turnover and its types as specified in its results section.

**Table 2** Explanation of abbreviations

Abbreviation	Description
PI	Personnel planning
An	Mobility analysis
Mar	Personnel marketing
In	Preparing for interviews
I/T	Interviews, testing
Se	Selection, consultations
AT	Adaptation, training
Or	Orientation in collective
WA	Work tasks and skills adaptation
EA	Employee evaluation and appraisal
Mo	Motivation
SC	Support and consultancy

#### 4. Results and discussion

An estimate of the staff turnover costs is carried out based on an analysis of the entry data assessed above. The costs are classified by type as specified in the methodology and followed by the sums of the total costs for both the organizations and the state. Given the defined conditions and estimates made, it is possible to calculate the total loss arising from the staff turnover.

##### 4.1 Staff turnover costs incurred by the public budgets

The staff turnover costs borne by the state (public budgets) are provided below based on the methodology referred to above. First of all, a calculation is provided for the decrease/loss of output per person changing jobs who does not draw unemployment benefits (starts in the

new job immediately). This can be quantified with the help of the answers provided by the respondents participating in the staff turnover survey.

To calculate the decrease in output, it is essential first to take into account the consequence of considering the departure when the employee did not deliver full performance. The survey results imply that only 22% of employees did not reduce their work performance. Others indicated various degrees of impact of the reduced engagement at work; a strong (80%) decrease in the working morale was reported by 21% of the respondents. On average, the productivity dropped by 32%; the conversion coefficient is thus 0.32.

In addition, it is necessary to bear in mind the average leaving period (the period during which the employee is deciding whether to stay in the job or leave the organization). It may also include the period of notice. That period is calculated based on the survey results, in which 3% of the respondents indicated that they left their job on the same day when such an event occurred (provided that they had the possibility – being on probation, etc.). Nearly 40% of the respondents gave notice immediately after the breaking event (an event that forced the employee to consider leaving the current job) and left on the expiry of the period of notice. Another 21% of the employees left the organization within 1 year, and 13% and 4% of employees left the organization in the second and third year, respectively. As the calculation is related to just one year, the leaving period must be recalculated from the following years and averaged. Consequently, the resulting average leaving period is 6.2 months (a weighted average based on the survey results).

**Table 1** Budget per year – costs per employee

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	Σ	CZK
<i>Costs of personnel and managers</i>															
PI	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	26	4,290
An	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	13	2,145
Mar	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	165
In	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	495
I/T	12.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	2,475
Se	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5	825
AT	0.0	10.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	19	3,135
Or	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	2,475
WA	0.0	15.0	5.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	23	3,795
EA	2.0	0.5	0.5	2.0	0.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5	2.0	12	1,980
Mo	2.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	8	1,320
SC	3.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	9	1,485
Σ h.	29.0	44.5	14.5	6.0	7.5	5.5	5.5	7.5	5.5	4.5	7.5	5.5	6.0		
Σ cost	4,785	7,343	2,393	990	1,238	908	908	1,238	908	743	1,238	908	990		24,585

The final amount of reduced efforts (i.e. reduced productivity) is calculated on the basis of the average hourly wage for 2011 as reported by the CZSO, namely CZK 165/hour, and the percentage of reduced efforts.

Consequently, the decrease in productivity [DP] per month is quantified as:

$$DP_{1\text{ month}} = 0.32 \cdot (\text{CZK } 165 \text{ per hour} \cdot 40 \text{ hours per week} \cdot 4.5 \text{ weeks})$$

$$DP_{1\text{ month}} = \text{CZK } 9,504.$$

The decrease in productivity plus the departure period is as follows:

$$DP = DP_{1\text{ month}} \cdot \text{departure period}$$

$$DP = \text{CZK } 58,925.$$

The reduced output during the employee's induction at the new job can be omitted, since organizations usually take that aspect into account, giving a lower commencing salary/wage without benefits to the employee concerned. Nevertheless, losses still occur, because if the staff turnover was lower, the induction period would be non-existent and the total output of both the relevant organization and the state would be higher.

In addition, a person changing jobs who draws unemployment benefits before finding new employment burdens the public budget with the amount of the benefits drawn and with a tax loss. Čadil et al. (2011) quantified these items as CZK 8,411 per month. According to the authors, it takes 5 months for an average employee to find a job, so the amount is multiplied by 5. The staff turnover costs for public budgets (CPB) (unemployment benefits) are as follows:

$$CPB = 8,411 \cdot 5$$

$$CPB = \text{CZK } 42,055.$$

The total staff turnover costs (TTC) per year represent a pro rata sum of the two amounts referred to above, multiplied by the number of persons changing jobs. According to the CZSO, 4,885.2 thousand people are employed, of whom 15% are subject to staff turnover. Consequently, there are 732,780 persons changing jobs.

$$TTC_{1\text{ year}} = 49\% DP + 51\% CPB$$

$$TTC_{1\text{ year}} = 359\,062 DP + 373\,718 CPB$$

$$TTC_{1\text{ year}} = \text{CZK } 36.874 \text{ billion}$$

The results show that the staff turnover burden is rather high.

#### 4.2 Staff turnover costs in organizations

The tables below (Tables 3 to 6) present a list of staff turnover costs in organizations. The tables always operate with costs per departing employee and his/her replacement. The tables assume that all the activities within an organization are carried out without recourse to outsourcing. The figures in Tables 3 to 6 are indicated based on the data concerning personnel agenda, management and staff turnover, as received

from the monitored organizations. However, the managers were willing to disclose only indicative data on the specific issues. As a result, the aforesaid calculation is based on the average hourly wage estimated at CZK 165/hour given the average wage of CZK 26,067 (CZSO).

Table 3 shows the costs building on the calculations indicated in Table 1. The data were compiled on the basis of interviews with the managers and adjusted for an average employee. In total the support processes for staff turnover per employee cost CZK 24,585 on average.

Table 4 indicates the direct staff turnover costs, which are usually taken into account in most organizations. These are obvious cost items that must be incurred during the departure of the previous employee and the arrival of the new employee. Their total amount is CZK 13,200.

**Table 3** Costs per additional processes

Item	USD	CZK
Personnel planning	208.3	4,290
Mobility analysis	104.1	2,145
Personnel marketing	8.0	165
Preparing for interviews	24.0	495
Interviews, testing	120.1	2,475
Selection, consultations	40.0	825
Adaptation, training	152.2	3,135
Orientation in collective	120.1	2,475
Work tasks adaptation	184.2	3,795
Employee evaluation and appraisal	96.1	1,980
Motivation	64.1	1,320
Support and consultancy	72.1	1,485
TOTAL	1,193.5	24,585

**Table 4** Direct staff turnover costs

Item	USD	CZK
Courses, training, adaptation of employee	373.8	7 700
Material	80.1	1 650
Losses of production or other losses due to the unexpected departure	186.9	3 850
Total	640.8	13 200

Table 5 summarizes the items of indirect staff turnover costs in an organization. These often constitute hidden costs, which are *sunk* – irrecoverable investment in an employee who will not pay back the invested funds by working in the organization (with his/her productivity). They also include knowledge, experience, know-how drain and reduced performance. On average they amount to a total of CZK 145,200 per employee.



**Table 5** Indirect staff turnover costs

Item	USD	CZK
Motivation and training programmes, teambuilding and so on undertaken in the previous year	2,136.0	44,000
Lower productivity of the new employee through the adaptation period	640.8	13,200
Loss of knowledge	1,068.0	22,000
(Possible) shift of knowledge to a competitor	1,602.0	33,000
Decrease of productivity throughout the departure period	1,602.0	33,000
<i>Total</i>	7,048.8	145,200

Table 6 shows the sum of the organization's overhead costs, which must be incurred for the necessary administrative records concerning the personnel agenda. They include, in particular, the salary of the employees carrying out the official tasks for the required period of time, with a total of CZK 1,650.

**Table 6** Overhead costs

Item	USD	CZK
Personnel agenda	24.0	495
Administrative records	24.0	495
Changes in personnel administrative	32.0	660
<i>Total</i>	80.0	1 650

The total loss for an organization per departing employee (the sum of all partial costs) and his/her replacement amounts to CZK 184,635 on average.

### 4.3 Reducing the staff turnover in an organization

If the reduction of staff turnover is set as a strategic objective, the organization must pay attention to the problematic factors, which were confirmed by the survey (remuneration, security for the future, relationships, recognition, communication, culture and expectations). Depending on the specific situation, it is up to each organization to decide whether to pursue an overall change or to focus on one or some of the aforesaid factors that have proven to affect staff turnover the most. Specific information systems can also be used to work with threats in the form of undesired staff turnover (Xin et al., 2011).

The most frequent impulse leading to a response – the employee's departure from the organization – is failure to meet the employee's expectations. Expectations are brought by the employee to the organization and are clear as early as at the hiring stage. Due to insufficient awareness of this factor, organizations often do not pay adequate attention to the recruitment of employees, their coherence with the job as such, the job description as well as the working

environment (colleagues, their average age, focus, predominant personality characteristics, work performance styles and mutual behaviour, the climate in the workplace, etc.). Recruitment is the key to reducing staff turnover and to maintaining or increasing, as the case may be, the output. Therefore, to increase the retention, it is already essential during the recruitment process:

- To ensure the participation of experts prepared and trained for recruitment,
- To evaluate the behaviour, actions and motivation of the employee and his/her coherence with the organization,
- To determine the influence of the non-formal dimension,
- To identify the organization's ability to develop the employee's potential,
- To know the values that are appreciated by the employee,
- To find out the employee's expectations from the job that he/she is seeking (development, degree of autonomy, bonus amount and type, leisure time).

References can be used to obtain some of the characteristics listed above. Analysis of work requirements is also designed to meet the objective of recruiting suitable employees.

### 4.4 Recommendations to retain high-quality staff

To determine the qualities of an employee, the root causes of staff turnover can be divided into process-based and development-based. Based on an analysis of the employees' susceptibility towards staff turnover, results supporting Herzberg's two-factor theory were obtained from a factor analysis. The analysis showed the departure of 41% of employees for motivational reasons (internal endeavour for development, work, self-fulfilment), while the remaining 59% of the monitored employees left the organization for satisfaction reasons (hygiene factors). These reasons for departure include, in particular, the internal environment in the organization, such as unsatisfactory culture, communication, security and relationships. The employees are dissatisfied in the current organization but seek security and, therefore, opt for the same type of job in a different organization. The ethical principles perceived by the employee and followed in the organization play a major role in this process. The reasons for staff turnover arising from the lack of motivational factors are those that result in dissatisfaction with the lack of self-fulfilment and personal development possibilities. The employees are dissatisfied with their growth potential and seek development elsewhere. This case concerns independent, knowledgeable and innovative

employees. The factors include a lack of recognition, expectations and remuneration equity.

The underlying materials to compile the aforesaid classification of staff turnover root causes were provided by the results of statistical testing techniques, analyses and partial completion using a qualitative survey. The relation between the above-mentioned factors/reasons and the staff turnover was proven by statistical testing techniques with correlation analysis, regression, determination, factor analysis and differential analysis. All the tests confirmed the statistically significant impact of the factors on staff turnover. Furthermore, the factors were supported by the aggregation of the determinants comprising the factors. The individual construct components were also tested, with identical results. All the analyses conducted proved the same tendency of the employees to leave an organization for process-based or development-based reasons. All the components of the model, the statements of the tested employees as well as the content analyses can be attributed to these two main root causes.

During the period of considering giving notice, the employee passes through six stages. First of all, the employee is deciding about the costs of the departure (availability of another job, difficulties with seeking a new job, convenience, full skills in the current position, positive relations with colleagues and so on; see also Sousa-Poza and Henneberger, 2004); subsequently, the employee waits to see whether the situation will change; the third stage entails reduced engagement (if no change occurs), followed by demotivation towards the employee's own work; stage five is characterized by attempts to change by the employee; and the final sixth stage consists of seeking another job and leaving the organization (or staying and working with below-average performance, as the case may be).

The process usually takes place over a relatively long period of time – only 3% of the respondents indicated that they left the same day, and the rest of the respondents reported a period between 2 months and 3 years. Consequently, this process can still be stopped while the employee is considering departure and the employee can be convinced to stay. On detecting the major reasons for dissatisfaction (motivation or satisfaction), it is easy to determine the type of the employee (whether he/she is a high-quality and perspective individual).

An undesired rate of staff turnover among high-quality employees in organizations must be dealt with depending on the size of the organization in question. Small (up to 19 employees) and large organizations (above 250 employees – the classification of organizations between small and large, including the number of employees, was taken from the CZSO

classification) differ in three key points: in the reasons for departure (1), in the impulsiveness of the actions (2) and in the openness towards the organization (3).

In small organizations it is likely that (1) the departure is caused by dissatisfaction with the remuneration, security for the future and recognition, (2) the dissatisfaction results in an impulsive action (changes on the part of the employees are quick and radical) and, if a decision is made, it is as good as irreversible and (3) the employee is open to discussion to solve the initial problem with his/her superior or other manager (if nobody listens to the employee or if the situation is not being dealt with, the employee leaves the organization very quickly even at the cost of not having an immediate replacement for the job).

In small organizations it is thus desirable to focus on better-quality work with the employees regarding keeping promises (see also Dysvik and Kuvaas, 2010). Communication is relatively open and relations relatively close in these organizations, but the implementation of the outputs arising from the discussion is often difficult. A restrictive factor in small organizations often consists of their inability to offer growth to high-quality employees. However, this issue can be addressed through job enlargement and enrichment or through specialization. Similarly, autonomous work and project initiation are a limiting point in the development process. Organizations can seize the opportunities for development and growth from small to large by allowing employees to engage in project initiation and autonomous work, by listening to their proposals and by implementing them in practice.

Employees in large organizations commonly report the following course of the staff turnover process: (1) the reason is dissatisfaction with the relationships and communication (employees have the feeling of not being listened to and supported, experience inadequate treatment and have the feeling of insignificance), (2) their departure is not as quick and impulsive; the employees first find another position to move to and, during that period, are open to change that would convince them about the uselessness of their departure and (3) the dissatisfaction is discussed less frequently (the employees do not have positive experience with relationships).

When focusing on retaining high-quality employees, large organizations urgently need to concentrate on improving the knowledge of their employees. It is also essential to spend more time with non-formal communication and the enhancement of relationships. This will lead to higher satisfaction levels among the employees and, for the managers, to easier recognition of and possible discussion about the reasons for dissatisfaction (see also Croucher, 2012; Shah Nawaz and Jafri, 2009).

Given the differences in the perception of the importance of monitoring and working with the staff turnover at different management levels (the higher the management level, the greater usually the importance of staff turnover management), line managers should be trained or checked, as appropriate, regarding whether and how they apply and respect the established staff turnover management practices.

#### **4.5 Indirect staff turnover costs and ensuring knowledge continuity**

The costs to eliminate staff turnover and ensure efficient knowledge management are associated with additional costs, not only for training but also incurred by the organization to provide incentives to the employees to increase their motivation to work for the company and their willingness to share knowledge between the departing employee and his/her successor. Every organization may have doubts about the economic efficiency and sufficient effectiveness of this expenditure. In some cases it is difficult or even impossible to give a clear answer. However, it is essential to bear in mind that the targeting or purpose, as appropriate, of resource consumption is an essential principle for reasonably (economically) behaving entities. The existing needs should always be met and, if certain limited resources are jeopardized (e.g. employees want to leave to join the competition), the organization must make a choice concerning which needs will be met as a priority. Consequently, if organizations want to initiate a project to eliminate staff turnover and ensure efficient knowledge continuity management, it is important to determine the specific effects of the proposed activities. This means documenting the increase in sales or decrease in costs that can be achieved. Returns cannot always be secured, but, given that knowledge is currently considered the greatest competitive advantage of organizations due to being valuable, scarce, difficult to substitute and inimitable, a return of the investment can be expected.

The loss of knowledge arising from employees leaving to join the competition (staff turnover), retiring or generally from personnel changes can be considered a major threat that, however, can be eliminated by devising a correct process to retain critical knowledge. Critical knowledge held by a specific employee that could pose a threat to the organization if lost can be passed on to the successor through timely application of knowledge continuity management. This process is comprised of (1) conducting a knowledge audit and determining the knowledge profiles of the particular employees, (2) defining the objectives of the knowledge continuity management (width and depth of implementation, i.e. which job positions and which employees should be covered by the implementation), (3) determination of responsibilities for the area of

knowledge continuity management, (4) defining the evaluation criteria for ensuring knowledge continuity, (5) developing a methodology to obtain and transfer critical knowledge, (6) transferring the knowledge and, last but not least, (7) monitoring the achievement of objectives of the knowledge continuity management and evaluating the results.

The knowledge audit must identify the key knowledge for the organization and where it can be found and identify the nature of the particular knowledge that is necessary for the employees. Another possible solution to support the knowledge-based economy in the Czech Republic is to establish organizational centres with knowledge staff who will provide, for instance, technological solutions for industrial or financial companies or servicing for both domestic and foreign customers (Duspivová, 2011). Organizations that want to support the knowledge-based economy should also engage in applied research and innovation. At present, there is a framework programme to promote strategic services and technology centres, which offers the possibility of financial support for those organizations that establish such a type of centre in the Czech Republic. Another option is to co-finance similar projects with the EU structural funds.

On the other hand, this is a long-term rather than a short-term investment, as it is based on the most valuable resource – people's knowledge. None of the economic sectors can nowadays do without good-quality knowledge employees.

#### **4.6 Discussion**

The Sasha Corporation carried out an extensive comparison of studies dealing with the costs involved in evaluating the work of personnel managers who devote their time to departing employees. The calculation of an average loss per employee was provided for an average wage/salary of USD 8/hour (ca. CZK 165/hour at the exchange rate of CZK 20.6/USD). A summary of the results is provided in Table 7.

Table 7 indicates, on average, costs of CZK 194,555 per departing employee and his/her replacement, clearly showing that this is a rather costly matter. In addition, the studies mentioned only the direct and indirect costs related to the work of the personnel managers and did not include costs related to other support and overhead activities. Consequently, the costs might be even higher in practice.

Compared with the research carried out in the Czech Republic, one can conclude that the studies are often subject to underestimation or do not include all the items. The results of the conducted research show an amount comparable to the average of the aforesaid studies (CZK 184,635 vs. CZK 194,555). As the

average wage used for the calculation is at the same level (CZK 165/hour), the two amounts can be compared.

## 5. Conclusion

Staff turnover gives rise to costs for both organizations and public budgets. To be able to quantify these costs and ensure their comprehensibility and comparability, the costs per departing employee were calculated in the paper. The quantification of costs was based on one departure of one employee in an organization or, as the case may be, one transfer of one staff member (temporarily unemployed) drawing unemployment benefits during the period of seeking a new job. The underlying data for the calculations were taken from studies focused on an in-depth analysis of unemployment calculations, from the CZSO (the economic structure is well covered in the CZSO data – application of the enterprise method) and from the authors' own research and surveys of costs and reasons for staff turnover. They always took into account the definition of the average value to be suitable for the calculation, and the key indicators, such as the level of unemployment benefits, the average period in which an employee temporarily draws unemployment benefits, the percentage of temporarily unemployed individuals, the staff turnover percentage or the percentage of reduced performance during staff turnover.

The potential costs per employee changing jobs and not drawing unemployment benefits (if the employee immediately starts in a new job) consist only of the loss

of output, which was quantified at CZK 58,925. An employee changing jobs and drawing unemployment benefits before finding new employment burdens the public budget with an additional average amount of CZK 42,055. The annual staff turnover costs for the public budget were quantified to a total of CZK 36.874 billion.

The staff turnover costs (departure of an employee and his/her replacement) for organizations were calculated based on the different types of costs. The total average amount in the Czech Republic is CZK 184,635. This amount is comparable to the studies carried out abroad, where the average amounted to CZK 194,555 (at comparable prices). All the calculations were carried out using 2011 prices.

To reduce staff turnover, it is essential for the new concept to support long-term prosperity. The aim of reducing staff turnover is to increase productivity through improved work performance of individuals combined with reduced costs per individual (in this case, an individual is understood as a labour unit). The growth of output and organizational knowledge can be supported by reduced staff turnover and by retaining employees with critical knowledge in the organization.

To increase the retention of high-quality employees successfully, it is essential to focus on reducing dissatisfaction, particularly for the factors/reasons of dissatisfaction of the motivation type of employees. These employees, characterized by their interest in self-fulfilment and personal development, typically leave an organization because of a lack of recognition and failed

**Table 7** Study comparison

<i>Name of organization</i>	<i>USD</i>	<i>CZK</i>
Society Human Resource Management	3,500	72,100
Coca-Cola Retailing Research Council	3,637	74,922
American Management Association	4,000	82,400
American Hotel and Motels Association	4,100	84,460
American Management Association	4,800	98,880
Advance Online – Merion Publications	5,333	109,860
Cornell University Hotel School	5,688	117,173
Legislative Update, Alaska State Senator Kim Elton	8,000	164,800
Superb Staff Services	8,000	164,800
Hay Group study	8,000	164,800
Workforce Magazine – FAX Facts Survey on Employee Turnover	10,000	206,000
Cornell University Hotel School study	11,609	239,145
Saratoga's Human Resource Financial Report	16,000	329,600
Bliss & Associates Inc., Wayne, NJ consulting firm	24,000	494,400
Louisiana State University Staff Senate	25,000	515,000
Author's survey	8,963	184,635
Average	9,444.45	194,555.70

expectations. Consequently, organizations are recommended to seize any opportunity for job enlargement and enrichment or for specialization. Similarly, autonomous work and project initiation are a limiting point in the development process. By allowing employees to engage in project initiation and implementation, by listening to their proposals and by implementing them in practice, organizations can contribute not only to their employees' development but also to their own benefits. Increased use of non-formal communication and enhancement of relationships are also essential, as they lead to higher satisfaction levels among the employees and to easier recognition of and possible discussion about the reasons for dissatisfaction giving rise to staff turnover. This method of working with employees should be enhanced particularly among line managers, where the largest gap was found between the knowledge of working with the root causes of staff turnover and its application.

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