The occurrence of demotions regarding job level, salary and job authority

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INTRODUCTION

Demotion, as well as promotion or lateral transition, is an important instrument in the strategic HR-policy of an organization (Hall and Isabella, 1985). Demotion helps, for example, putting the right person on the right place within the organization (Miner and Miner, 1973). Notwithstanding this utility, researchers indicate that the empirical research on demotion has received little attention (Carson and Carson, 2007, Hall and Isabella, 1985, Kohl and Stephens, 1990, More, 1962, Sargent, 2003).

Demotion is a downward transition (Hall and Isabella, 1985) towards a lower job level (Carson and Carson, 2007, Golembiewski, 1982, Lima and Pareira, 2001) whether or not with a decrease in salary (Hall and Isabella, 1985, Mulders, Henkens and Schippers, 2013, Ng et al., 2007, Remmery et al, 2003) and/or a decrease in job authority (Carson and Carson, 2007, Hall and Isabella, 1985, Lyons et al, 2012, Ng et al, 2007, Veiga, 1981). Demotion may relate to various stakeholders: an employee can choose to demote to bring the relationship work-life in balance (Verheyen and Vermeir, 2011) and an employer can decide to demote in order to optimize the organization (Carson and Carson, 2007, Ng et al, 2007).

The above definition of demotion already suggests that a demotion could include a decrease in job level, salary and/or job authority. Hence, demotion is not an unambiguous concept; it includes a variety of dimensions and has different meanings (Verheyen and Guerry, 2014a). Yet, job level, salary and job authority represent three key dimensions within demotion literature. Therefore it is appropriate to study three kinds of demotions, namely job level, salary and job authority demotions. The probability of a decrease in job level, salary and/or job authority is not equal for all employees and depends on age, gender and education level.
The current paper aims to investigate the occurrence of job level, salary and job authority demotions in the workplace. This occurrence is studied for the Belgian labour market by analyzing EU-SILC-data (Statistics on Income and Living Conditions) of 2007-2011. It is relevant to study the Belgian labour market because at present, some societal trends stimulate Belgian organizations to consider demotion as an HR-policy. Firstly, the participation of older workers in employment is in Belgium, as in other European countries, very low. To stimulate Belgian organizations to keep their over-45s and to extend their careers, the program act of the Belgian Government prescribes some measures, as the use of internal transitions. Secondly, according to Maslach and Leiter (2008) fundamental changes in the workplace and in the nature of our jobs cause work related health problems as burnout. As a result of their burnout, employees tend to work with adjusted job content (Baruch-Feldman et al., 2002, Janssen et al., 2003). In practice this often means a demotion. The Belgian Government has a law on burnout since September 2014 which obliges Belgian companies to take measures. In what follows we first examine the importance of job level, salary and job authority within economics theories. Then we study the importance of age, gender and education within career literature, as they relate to job level, salary and job authority demotions. Hypotheses will be formulated which will be tested by examining EU-SILC-data. In addition, the relation between the different kinds of demotion is studied.

**Job level, salary and job authority transitions in economics theories**

First we examine job level, salary and job authority within personnel economics theories, than within human capital economics theories. Edward Lazear (1995) describes how
economists examine different compensation methods within personnel economics theory. The tournament theory for instance identifies the employees’ search for promotions because a promotion includes a higher salary, higher status and possible interesting assignments (Lazear, 1995). Lazear and Shaw (2007) state that standard human capital theories differ from personnel economics theories. The human capital theories express that salaries are determined by abilities. The personnel economics theories state that in practice the salaries of high-level management jobs are determined by job level. For example when a senior manager becomes CEO, this job level transition implies a salary raise. According to the tournament theory promotions are a relative gain, which means that the rise in salary that comes with the promotion is not due to the absolute performance of the employee. It is due to the relative position in the organization (Lazear and Shaw, 2007). Lazear and Shaw thus underline the importance of the job level in relation to salary. In personnel economics theories human resources practices are studied i.a. through compensation (Lazear and Shaw, 2007). The researchers indicate the importance of incentive pay. They noticed that employees’ individual incentives have increased sharply opposite from the base salary. In 1987, 83 % of large firms in the US provided their employees with performance bonuses; in 1999 this figure rose to 93 %. Large firms where more than 20 % of the employees were having individual incentives almost doubled in twelve years and gain sharing in these firms doubled too (Lazear and Shaw, 2007). This underlines the importance of studying two components of salary, namely the base salary and the fringe benefits.

Another dimension of demotion we investigate is job authority. According to Lazear (1995) job authority is giving power to an employee. Authority is an incentive causing motivation to workers. It is, just like salary (specifically the fringe benefits part), a motivator for productivity (Wulf, 2007).
Within the human capital economics theory (Psacharopoulos, 1985, Wright and McMahan, 2011) the human capital theory (Becker, 1964, Becker, 2008) has an important place. The human capital theory introduces education as an important investment factor, one that increases productivity (Woodhall, 1987). There are a lot of differences between people in acquiring new knowledge and skills. These differences are connected to job levels. Diverse job levels lead to different age-earnings profiles (Psacharopoulos, 1985). Even though different education credentials lead to different job levels, there is an important evolution on the supply as well as on the demand side of the labour market. On the one hand the amount of graduates has increased over the last decade and there has been an upsurge in higher education credentials (Walker and Zhu, 2005); on the other hand, because they are so many, these graduates i.a. occupy jobs for non-graduates, in other words these graduates are over-qualified. Consequently high educational credentials not necessarily lead to higher job levels (Chevalier and Lindley, 2009, Tomlinson, 2008). Moreover, the labour market is evolved: not only education credentials are important, the right competences and social skills are even more important nowadays (Brown and Hesketh, 2004, Tomlinson, 2008).

According to the classic human capital model there is a relationship between the increase of educational credentials and higher individual earnings in the long run (Tomlinson, 2008). As indicated above this model is pressurized.

The presented personnel and human capital economics theories indicate job level, base salary, fringe benefits and job authority as important dimensions to examine within personnel studies.
Age, gender and education level in career literature

Simonton (1985, 1988) has studied age in relation to achievements. He argues that during a career at some ages employees are less productive and at some ages they are more productive. The relation between age and productivity level induces a relation between age and job level, salary and job authority.

The career literature indicates that variables as gender (Armstrong-Stassen, 2001, Evertsson and Grunow, 2012, Rosenfeld et al, 1998, Smith, 2002) and education level (Becker, 2008, Langowitz, Elaine Allen and Godwyn, 2013, Leuven and Oosterbeek, 2011) can lead to changes in several dimensions of careers, such as job level, salary or job authority.

Leuven and Oosterbeek (2011) investigate over-education within several labour market theories as the human capital model, career mobility and job competition. They link over-education to job level and salary (Leuven and Oosterbeek, 2011). Nevertheless these variables and their influence on changes in occurrence of dimensions of demotion are not investigated, as such, in previous studies on demotion (Lyons et al., 2012).

The occurrence of demotion: a literature overview

In the next paragraph the diverse studies on the occurrence of demotion are discussed. The outcomes of the research on the occurrence of demotion are not unambiguous. Certain researchers notice that demotions are frequently used in organizations (Hall and Isabella, 1985, More, 1962, Sargent, 2003, Sprague, 1984, Stilwell et al, 1998). It is noticeable that these researchers do not focus on exact figures of demotions in their studies. Other researchers find that demotion is rather a by exception practice (Baker, Gibbs and Holmstrom, 1994, Dohmen, Kriechel and Pfann, 2003, Eby and DeMatteo, 2000, Groot, 1997,

In addition diverse studies interpret demotion differently, which makes it harder to compare demotion rates. Some researchers interpret demotion in a broader context, including other forms of transitions (Stilwell et al, 1998, Sprague, 1984). Carson and Carson (2007) make a distinction between economic and behaviorists studies when indicating the frequency of occurrence of demotion. On the one hand the economists interpret demotions only as tangible, visible downward movements in the organization and demotions which are triggered by well documented performance deficiencies. While, on the other hand, the behaviorists apply a broader definition when calculating the amount of demotions. They include demotions as a reduction in span of control and demotions resulting from other non-performance related stimuli (2007: 456). This results in an occurrence of demotion estimated by the economists as less than 1 % of the year-to-year job movements, while the behaviorists estimate the occurrence of demotion during the career for up to 20 and 30 % of all employees, currently in the labour force (2007: 456).

Furthermore, some studies are restricted to a particular case study, which makes it difficult to generalize (More, 1962, Baker, Gibbs and Holmstrom, 1994, Dohmen, Kriechel and Pfann, 2003).

Additionally, there are studies where demotees perceive their demotion as a temporary step down. Other demotees perceive their demotion as a promotion with for example a higher job level but less job authority (Carson and Carson, 2007, Veiga, 1981, Hall and Isabella, 1985).
Finally some researchers indicate that there is a difference between the employer’s intention of demoting and the action of demoting. In their studies researchers underline that some employers say they would demote, but they never actually do (Kohl and Stephens, 1990, Remery et al, 2003, Stephens and Kohl, 1989).

The present paper aims to contribute to the studies on demotion substantiated with empirical research. Based on the personnel and human capital economics theories three kinds of demotion, being job level, salary and job authority demotions, are selected to study. Career literature indicates that age, gender and education level influence the three selected kinds of demotion. Therefore the present study aims on analyzing the influence of the independent variables age, gender and education level on the occurrence of job level, salary and job authority demotions. Hypotheses regarding gender, age and education level will be tested using EU-SILC-data of 2007-2011. In addition the relation between the different kinds of demotion is analyzed. In this way the present paper fills some gaps in the research on demotion.

Hypotheses

Gender

Previous studies point out gender differences in job authority and transitions in job authority. Different types of job authority are distinguished. Job authority refers to the responsibility with regard to managing resources, with regard to managing people and/or with regard to decision making on the company’s policy (Carson and Carson, 2007, Hall and Isabella, 1985, Ng et al, 2007, Veiga, 1981). A job authority demotion can involve a decrease of one or more of these types. The responsibility with regard to managing people is also defined in terms of the number of people someone has under direct supervision (Mueller et al, 1989) and in
terms of the span of control (Rosenfeld et al, 1998). To this kind of authority is referred to as “supervisory authority”. Supervisory authority is not studied in literature in relation to demotion as such. Researchers note however, that there is a gender difference in supervisory authority. Women have less likely than men jobs with supervisory authority (McGuire and Reskin, 1993, Rosenfeld et al, 1998). The gender gap in job authority (including supervisory authority) is present in most industrialized countries (Rosenfeld et al, 1998, Wright et al, 1995).

Deschacht (2011) studied supervisory authority in a context of promotion. The study of Deschacht (2011) on the determinants of the promotion gap and the vertical segregation of women and men in the Belgian labour market confirms the gender difference in supervisory authority.

A supervisory authority demotion is questioned in the EU-SILC survey; the other types of authority are not queried. Therefore a job authority demotion is in this paper analyzed as a decrease in supervisory authority.

Based on these insights a first hypothesis is formulated.

**Hypothesis 1:** There is a gender inequality in job authority demotion.

**Level of education**

Baker, Gibbs and Holmstrom (1994) describe that employees who are better educated have a bigger chance in being promoted (1994:20). Gibbons and Waldman (2003) come to the same conclusion. On the one hand the education level influences a worker’s starting level and education is correlated with the speed with which the worker accumulates human capital once he is on the job. On the other hand the education level affects salary and

**Hypothesis 2**: The level of education and job level, salary or job authority demotion probabilities are negatively correlated.

**Age**

There are comprehensive studies on age in relation to several dimensions of careers and human resources management (i.a. Lawrence, 1988). There is a broad discussion on which age in which situation is the most suitable. Hereby different kinds of age are studied, as there are chronological age, psychological age, functional age or performance age (i.a. Schalk and Van Veldhoven et al., 2010). In addition, there are the people’s beliefs about age (i.a. Rosen and Jerdee, 1977). This means that people believe that certain life goals have to be achieved before or after a certain age. These beliefs influence employees and employers in the way of exploring careers within an organization (Lawrence, 1988). This also means that there are a broad range of variables, including age, that influence a career. Literature indicates that as employees age, they less pursue a career change (Blau, 2000, Carless and Arnup, 2011, Parrado et al., 2007). These studies on career change do not examine specific transitions such as demotions, promotions and turnover, nor do the researchers make a distinction between voluntary or imposed career changes. According to Judge et al (1995) age predicts objective career success which means that compensation and number of promotions increase with age (Judge et al., 1995). Taking into account these findings, we constitute the following hypothesis:
Hypothesis 3: Age is negatively correlated with job level, salary or job authority demotion probabilities.

METHOD

EU-SILC-data

The EU-SILC-data are the result of a European survey. This annual survey is conducted in 26 European countries, including Belgium. The present research focuses on the Belgian data between 2007 and 2011. The total sample size amounts 33,853 employee years. The survey amounts 4,884 cases for 2007, for 2008 there are 7,734 cases; there are 11,222 cases for 2009 and 10,013 cases for 2010. The EU-SILC-data provide two types of annual data: cross-sectional and longitudinal data. The cross-sectional data cover a specific time period with data on inter alia living conditions. The longitudinal data give information on inter alia income and non-monetary variables, as organizational information, over a period of four years. A characteristic of the EU-SILC is the rotational design. Respondents are held in the panel up to four years; each year one subsample is dropped and replaced by a new subsample. The EU-SILC-data consist of individual data and data from private households; all persons aged 16 and over within the household are qualified for the questionnaire (European Commission, 2010).

EU-SILC-data on the dependent variables: job level, salary and job authority demotion

From the literature we selected three key dimensions of demotion, namely job level, salary and job authority. These three dimensions are not all fully questioned within the EU-SILC. In what follows we present an operational definition for job level, salary and job authority demotion.
Job level demotion

The dimension “job level” regarding demotion is only analyzed for white collar workers. The EU-SILC-data do not contain details on job levels with regard to blue collar workers. The question with regard to blue collar workers is limited to “are you a skilled or unskilled worker?”. Therefore an analysis of demotion as a lowering in job level is not really addressed. The respondents that are white collar workers can specify whether they work as an employee, senior manager or executive manager. A change from one year to another from executive to senior manager, from executive manager to employee or from senior manager to employee is interpreted as a job level demotion.

Salary demotion

The dimension “salary” is composed of the components base salary and fringe benefits. If the base salary, the gross salary, is lowered by 15 % compared to the previous year, we define this observation as a base salary demotion (Deschacht, 2011).

Regarding fringe benefits, the EU-SILC contains data on the company car and the bonus. Other fringe benefits, such as stock options are not fully questioned within the EU-SILC and therefore cannot be analyzed in testing hypothesis two. Only those respondents that have a company car (respectively a bonus) are at risk. If these respondents have no company car (or no bonus) anymore in the following year, a company car demotion (or a bonus demotion) occurs.

Job authority demotion

Job authority is analyzed as supervisory authority in testing hypothesis one. The EU-SILC queries in the consecutive years whether the respondent has supervision or not. There is no
data on the exact number of personnel that is supervised. Only those cases that have supervision (and therefore job authority) are at risk. If these cases have no supervision anymore in the following year, a job authority demotion occurs.

**EU-SILC-data on the independent variables: age, gender and education level**

Three independent variables were selected from literature that could have possible influence on the occurrence of different kinds of demotion. Age, gender and education level are examined as independent variables.

Table one describes the variables referring to the dimensions of demotion and questioned in the EU-SILC. This table presents the different independent and dependent variables, with the corresponding EU-SILC question and possible answer(s). It also describes how these answers were recoded for the statistical analysis and mentions the operational definition for the different variables.

[Put table one here]

**Statistical analyses**

We restricted our sample for the statistical analyses to all employees aged 18-64 years old who state that they work at least 35 hours per week. The number of working hours per week is queried within the EU-SILC. However, a lowering in the number of working hours in combination with for example a lowering in salary is not de facto corresponding with a demotion. Therefore, only those cases working full time in the consecutive years, which means working more than 35 hours per week, are analyzed.

To investigate the determinants of the various kinds of demotions, we estimated multivariate regression models for binary demotion variables. Each of these demotion
variables are defined for all employees who are “at risk” for that kind of demotion, i.e. only those employees who are in a high job level are at risk for a demotion to a lower job level. Cases who were demoted between year $t$ and the subsequent year $t+1$ were assigned the value 1 for the demotion variable while the others were assigned the value 0. The models relate the independent variables in year $t$ with demotions between the years $t$ and $t+1$. We estimate logistic regression models of the form
\[
\ln \left( \frac{p_i}{1 - p_i} \right) = \beta_0 + \beta_1 x_{1i} + \cdots + \beta_k x_{ki}
\]
where $\frac{p_i}{1 - p_i}$ are the odds of being demoted for respondent $i$. In this equation $\beta_j$ is the change in the log-odds when $x_{ji}$ increases by one unit, while the other variables are held constant. For each kind of demotion we discuss the demotion rates in our sample and the results of the regression analysis.

**RESULTS**

In the next paragraph descriptive univariate results are discussed followed by the outcome of the regression models. In all the presented results a demotion corresponds with a downward transition within a time period of one year. In addition, the relation between the different kinds of demotion is examined. Finally characteristics of the demotee are presented.

**Results of the descriptive analysis**

1. **Job level demotion**
The results of the descriptive univariate analysis of the dependent variables are shown in Table two. This table indicates that a total of 832 cases are at risk for a job level demotion. That means these cases have an executive or a senior management job level and are at risk for a lowering in job level. The executive manager can lower to a senior management level or an employee level. The senior manager can decrease in job level towards an employee level. Of the 832 cases at risk 31.6 % actually experience a job level demotion.

[Put table 2 here]

2. Salary demotion

As mentioned, the salary consists of a base salary and fringe benefits, such as a bonus or a company car. The univariate descriptive analysis in table two shows that a total of 2,296 cases are at risk for a base salary demotion. For these cases 6.8 % actually experience a base salary demotion. Of all cases (n = 139) that receive a bonus offer and are at risk for a bonus demotion, 62.6 % actually experience a bonus demotion. Of all cases (n=616) that receive a company car and are at risk for a company car demotion, 11.4 % actually experience a company car demotion. We can conclude that fringe benefits demotions occur more frequently than base salary demotions. These findings are in line with the demotion literature albeit that these previous studies do not clarify what they consider as salary: just the base salary, the gross salary, or the base salary and the fringe benefits. Lima and Pereira (2001) associate demotions with salary decrease and promotions with salary increase. Hall and Isabella (1985) do not endorse this association, as they describe that “the stress of a downward move should not be aggravated by cutting the person’s salary” (1985:21). Isabella and Hall (1984) conclude that most employers do not decrease the salary in case of a demotion. Employers rather freeze the demotee’s salary. The remuneration does not alter –
unless with a statutory increase - until it equals the salary of the employees situated at the same level of the demotee (1984: 63). Carson and Carson agree that cutting the salary can lead to litigation or affect the demotee’s sense of self-worth (2007: 457). Although, older employees are less attached to their careers and therefore they will suffer less of a demotion in a psychological or financial way (2007: 464).

Dohmen, Kriechel and Pfann (2004) describe the relation between job mobility and salary. They conclude that there is a relation between promotion and salary, but not between demotion and salary. This is mainly because of the demotivating effect a salary decrease has on the employee. Borghans et al (2007) endorse this effect.

Some researchers focus their study on the fringe benefits. They suggest that cutting in the fringe benefits, such as lowering the budget of the company car or the abolition of a bonus is common as a demotion (Borghans et al, 2007, Carson and Carson, 2007, Hall and Isabella, 1985).

In Belgium, because of the Belgian law on salary protection, employers cannot lower the base salary of their employees on a unilateral basis. Fringe benefits are outside the scope of the law on salary protection. Hence in everyday life, the Belgian employer is much more inclined, for example, to abolish the bonus and/or the company car than decrease the base salary as such.

Thus, lowering the base salary is according to demotion literature and the Belgian law on salary protection not done. Cutting in the fringe benefits, however, is more frequently used.
3. Job authority demotion

The results of the descriptive univariate analysis of the dependent variables in table two show that a total of 1,397 cases are at risk for a job authority demotion. Of these 1,397 cases 18.6% actually experience a job authority demotion. A case experiences a job authority demotion when the EU-SILC-data indicates that the case has supervisory authority in year $t$ and no longer in year $t+1$.

Results of the logit regressions

1. The impact of gender on demotion probabilities

Table three, the result of logit regressions, expresses that among women – who have job authority, and therefore are at risk – the predicted chance on a job authority demotion is 10.4 percentage points higher than among men ($p<.001$). These results confirm hypothesis one which suggests that there is a gender inequality in job authority demotion.

On the one hand researchers suggest that this gender gap in job authority could be caused by the fact that women attach less value to job authority than men (Reskin and Padavic, 1994). This gender gap could also be caused by the fact that women have fewer opportunities to exercise authority than men (Padavic and Reskin, 2002) or that women attach more value to family responsibilities (Wolf and Fligstein, 1979b). On the other hand this gender gap could be caused by differences in size and age of the organization, differences in sector (Baron et al, 1991), and differences in the behaviors and policies of employers (Padavic and Reskin, 2002, Wolf and Fligstein, 1979a). On a macro level, differences in government policies and institutionalization of the social dialogue (Smith, 2002) are mentioned as possible causes.
2. The impact of education level on demotion probabilities

The education level is expressed in table one as low, middle and high. Low stands for primary school and secondary education, first cycle. Middle stands for secondary education, 2\textsuperscript{nd} and 3\textsuperscript{rd} cycle. High stands for polytechnic or university. Table three suggests that high educated respondents are less confronted with job authority demotions than low educated respondents \((p<.001)\). This means that hypothesis two can only be confirmed for job authority, not for job level or base salary. Previous research positively link higher education level with promotion (Baruch, 2009, Hurley-Hanson, 2005). The present study confirms the negative link between lower education level and demotion.

3. The impact of age on demotion probabilities

Table three, shows marginal effects (evaluated at the variable means) that can be interpreted as the predicted change of demotion probabilities if the independent variable concerned increases with one unit while the other variables are held constant. In what follows only the significant results are discussed.

[put table 3 here]

Table three shows that when age increases with one year, the predicted chance on a company car demotion decreases with 0.3 percentage points for the cases who have a company car, and therefore are at risk for a company car demotion \((p<.05)\). A similar conclusion holds for the chance on a job authority demotion. Younger workers, who have job authority, and therefore are at risk for a job authority demotion, have a slight lower chance on keeping this authority than older workers \((p<.01)\). The regression coefficients estimate the decrease of the demotion chance when the age increases with a year. In other
words, for each year the respondent ages, the chance on being demoted decreases. These results confirm hypothesis three which suggests that age is negatively correlated with base salary/fringe benefits or job authority demotion probabilities. Table three does not confirm the hypothesis on job level demotions. This is in line with the literature on age and career change (Blau, 2000, Carless and Arnup, 2011, Parrado et al., 2007).

The results of the logit regressions are graphically presented in Graph 1 regarding job authority demotions. Graph 1 visualizes the impact of age, gender and education level on the demotion probabilities regarding job authority demotions.

[put Graph 1 here]

This Graph shows clearly that the chance of being demoted decreases with age. Women have a higher chance on job authority demotions than men - the rates are even double for women in comparison with men. The Graph also reveals that employees with a lower education level have a higher chance on job authority demotions.

**Relations between the occurrences of the various kinds of demotion**

Deschacht (2011) indicates that several career dimensions are correlated. He studies salary (divided into hourly earnings and monthly salary) in relation to job level and job authority (Deschacht, 2011: 114). We want to examine for each kind of demotion (namely for job level, base salary and job authority demotion), whether simultaneously other kinds of demotion occur. Table four investigates the relationship between the occurrences of the various kinds of demotion.
1. Job level demotions

Table two reveals that 31.6 %, or in other words 263, of the 832 cases at risk for a job level demotion, actually experience a job level demotion. Table four shows that of these 263 cases 73 cases are at risk for a company car demotion. That means that these cases have a company car. Eight percent of these 73 cases actually experience a company car demotion. This means that 6 cases experience a job level and a company car demotion simultaneously (p<.05).

[put table 4 here]

Of the 263 cases that experience a job level demotion 159 cases are at risk for a base salary demotion. Six percent of these 159 cases actually experience a base salary demotion. This means that 10 cases experience a job level and a base salary demotion simultaneously (p<.05). Of these 263 cases there are also 171 cases at risk for a job authority demotion. Twenty six percent of these 171 cases actually experience a job authority demotion. This means that 44 cases experience a job level and a job authority demotion simultaneously (p<.000).

2. Base salary demotions and company car demotions

Table two reveals that 2,296 cases are at risk for a base salary demotion of which 156 cases (i.e. 6.8 %) actually experience a base salary demotion. Of these 156 cases 21 cases are at risk for a job level demotion. Ten cases (i.e. 48 %) experience a base salary and a job level demotion simultaneously (p<.05).

As stated, salary is composed of a base salary and fringe benefits. Company car demotions, as a component of fringe benefits, are also related to other kinds of demotion. Table two
reveals that 616 cases are at risk for a company car demotion. Of these 616 cases 70 cases (i.e. 11.4 %) actually experience a company car demotion. Of these 70 cases table four identifies 13 cases at risk for a job level demotion. Six cases (i.e. 46 %) actually experience a company car and a job level demotion simultaneously (p<.05). Twenty three cases are at risk for a job authority demotion. Six cases (i.e. 26 %) actually experience a company car demotion and a job authority demotion simultaneously (p<.01).

Bonus demotions, as another component of fringe benefits, are not significantly related to other kinds of demotion.

3. Job authority demotions

Table two reveals that 1,397 cases are at risk for a job authority demotion. Of these cases 260 (i.e. 18.6 %) actually have a job authority demotion. Table four shows that 41 cases are at risk for a company car demotion. Fifteen percent of these 41 cases actually experience a company car demotion. This means that 6 cases actually experience a job authority and a company car demotion simultaneously (p<.01). Of these 260 cases also 78 cases are at risk for a job level demotion. Fifty six percent of these cases actually experience a job level demotion. This means that 44 cases actually experience a job authority and a job level demotion simultaneously (p<.000).

The characteristics of a demotee

Supplementary independent variables are added to the logit regressions of table three, as shown in table five. Table one describes the supplementary variables “children”, “company sector” and “company size” and refers to the EU-SILC questions and answers. Melly (2005) studied the differences in salary between men and women working in the private and the
public sector. She also indicates that promotion chances of women with children are different in the public and private sector (Melly, 2005). Josten and Schalk (2010) indicate that the company size matters in measuring demotion, as they conclude that in small organizations demotion is not regularly applied due to small, fixed personnel structures. These studies indicate that children, company sector and company size are interesting variables to take into account when studying transitions as these variables influence transitions. Table five gives further insights into the characteristics of a demotee through logit regressions with the supplementary independent variables mentioned.

[put table 5 here]

As stated before, younger employees have a higher chance on being confronted with a job level demotion than older employees (p<.05). Besides employees working in the public sector have a higher chance on having a job level demotion than employees working in the private sector (p<.001).

Male employees have a higher chance on being confronted with a base salary demotion than female employees (p<.05).

All cases that have a company car, and thus are at risk, are eligible to a company car demotion. Younger employees have a higher chance of having a company car demotion than older employees (p<.01). Cases working in the public sector have a higher chance on a company car demotion than cases working in the private sector (p<.01). The participants who have fewer children have a higher chance of having a company car demotion than those with more children (p<.05). The employees working in small companies have a higher chance of being subject to company car demotions than the employees working in a large company (p<.05). A possible explanation for this result could be found in the fact that the
budget of one company car has a bigger impact on the costs within a small firm than in a large company.

As mentioned in the previous analyses, younger employees have a higher chance on a job authority demotion than older employees \((p<.01)\). Female workers have a significant higher chance on a job authority demotion than men \((p<.001)\). Poorly educated respondents have a higher chance on being confronted with a job authority demotion than highly educated ones \((p<.001)\). Besides, respondents with fewer children have a higher chance on a job authority demotion than respondents with more children \((p<.01)\).

**DISCUSSION**

Hypothesis one presumes that there is a gender inequality in job authority demotion. Women have a bigger chance on job authority demotions than men. The analysis has indicated that hypothesis one can be confirmed. Hypothesis two presumes that the level of education and job level, salary or job authority demotion probabilities are negatively correlated. The analysis could only confirm this hypothesis for job authority, for job level or salary the hypothesis is rejected. Hypothesis three presumes that age is negatively correlated with job level, salary or job authority demotion probabilities. The logit regressions and supplementary logit regressions have confirmed this hypothesis for each of these demotion probabilities.

In the EU-SILC, expressed as percentages, bonus demotions occur the most, followed by job level, job authority and company car demotions. Base salary demotions are not commonly applied as literature and the Belgian law on salary protection endorses. Fringe benefits demotions, as for instance the abolition of a company car or a bonus are, however, more frequent. A company car benefits employers as well as employees as both enjoy a tax
advantage (Macharis and De Witte, 2012). By abolishing the company car through a company car demotion the employer loses an interesting way of rewarding his employee. The possible implication for the employer is that he loses a tax advantage. For the employee the implications are possibly bigger as a company car not just provides a tax advantage, it also implies the full financing of the car use, as there is the fuel, the insurance, the maintenance, etc. (Shiťan, Albert and Keinan, 2012). The employee who loses his company car is possibly obliged to buy a new car and he will also possibly spend a part of his base salary for the private car costs.

A demotion can be initiated by the employer (imposed demotion) or by the employee (voluntary demotion). HR-professionals indicate that in case of a voluntary demotion employees are willing to consider decreases, as for example a salary decrease (Verheyen and Guerry, 2014b). When there is an economic decline demotion rates rise (Dohmen, Kriechel and Pfann, 2004). In order to stay employed and thus pursue job security one could expect employees to consider accepting a salary decrease in case of a demotion. This is in contrast with Carless and Arnup (2011) who indicate that a low salary (or a prospect of a lower salary) and job insecurity cause career change, as for example turnover.

According to literature the education level is positively related to promotion probabilities (i.a. Baerts, Deschacht and Guerry, 2011). The present study reveals that the education level is negatively related to job authority demotion probabilities. Low educated employees have a bigger chance on job authority demotions. However literature also indicates that other factors may influence the demotion or promotion chances. Judge et al (1995) reveal that educational level, quality of the school and type of education predict financial success. This is linked to objective career success. This latter success is expressed through higher
compensation and an increasing number of promotions. This means that for example one type of education (Law or Engineering) predicts more promotion probabilities over the other. The information on the type of education, the education level or the school are not provided by the EU-SILC data. Moreover, with this Judge et al also want to stress that education is only one factor that determines promotion probabilities; there are other and more factors to take into account, for instance the job experience or “the desire to get ahead” (Judge et al, 1995: 509). Tomlinson (2008) underlines the importance of having the right competences and social skills which is becoming even more important than education nowadays.

Furthermore the economic situation and supply and demand on the labour market may be more influencing promotion and demotion probabilities than education (Day and Newburger, 2002). In times of economic downturn people tend to go back to school (Hurley-Hanson, 2005). This could lead to over-education and, as a result of a changing labour market, to jobs on a lower level (Tomlinson, 2008). This nullifies the human capital theory which predicts promotion probabilities as a result of higher education (Becker, 2008).

Older employees have a smaller chance on job authority and company car demotions than younger employees. The logit regressions in Table 5 show that older employees also have a smaller chance on job level demotions than younger employees. In literature, age is often associated with performance in a sense that productivity decreases with age. According to Schippers (1998) the reward structure is unbalanced because young employees have a higher productivity rate and earn a lower salary than the older employees who have a lower productivity rate and earn a higher salary. Demotion, as an age-based human resource policy can be a solution for this imbalance (Mulders, Henkens and Schippers, 2013). Lowering the function of older employees and making tasks lighter in combination with a lowering in
salary, may result in a better balance between the productivity rate and the salary. Or one could say that salary does not necessarily need to increase with age, as it does with seniority nowadays. In Belgium the Government has proposed to abolish seniority from the rewarding system. This together with other Governmental proposals gives rise to intense public debates. Josten and Schalk (2010) found that the satisfaction with the job content, after a demotion, decreased. According to Baruch (2011) investment in human capital could increase productivity of older workers too. Although some researchers conclude that employee’s performance in general does not decrease with age (Ng and Feldman, 2008), it is more based on a stereotypical manner of looking at older workers (Maurer et al., 2003).

Although the analyses show that older workers have lower chances on demotions than younger workers, demotion could be a capital gain in terms of prolonging the career. If older workers work longer, social security systems stay payable in the future. However this has implications for, for example the Belgian law on salary protection and pension accrual.

**Limitations and further research**

Due to the EU-SILC-database several analyses were restricted. The analysis of the job level demotions for instance was restricted to the occupational status level. Within this question (see table one, Job level) a lowering in occupational status could only be studied for the white collar workers. Nevertheless, at the moment there are no longitudinal Belgian databases known which could better suit to analyze the dimensions of demotion than the EU-SILC-database.

The EU-SILC-database does not allow studying demotions related to for example a lowering in status. These kinds of demotion are not easily studied because they strongly lean towards perceptions. These perceptions were not queried in the EU-SILC-database.
Focus group interviews with demotees could give more insights into the occurrence of specific kinds of demotion. Furthermore, these focus group interviews could give insights into the motives of employees for choosing a specific kind of demotion.

**Theoretical contributions**

This paper contributes to the more current research on demotion and to the empirical studies on the occurrence of demotion in the workplace substantiated with empirical data. More in detail this paper contributes to the knowledge on the occurrence of demotions in different companies divided within the variety of dimensions of demotion. This study also gives insights into the characteristics of the demotee.

**Practical contributions**

This study provides insights into the occurrence of demotion in the workplace. On the one hand this paper shows that demotion is indeed applied in the workplace and sometimes more than we think. On the other hand these insights could persuade employers to apply demotion in a positive way in everyday life within the context of human capital. The insight that there is a gender gap in the application of job authority demotion could confront HR-managers to deal with this kind of demotion in a more conscious way. This study also contributes in lifting the taboo on demotion.
REFERENCES


28


Verheyen, T. and Vermeir, B. (2011) Remotie, een stap terug is een stap vooruit. Mechelen: Kluwer. [Remotion, a step back is a step forward]


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<th>List of tables</th>
<th></th>
</tr>
</thead>
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Table 1: Description of the variables

<table>
<thead>
<tr>
<th>EU-SILC-variables</th>
<th>EU-SILC question</th>
<th>Answer(s)</th>
<th>Codes</th>
<th>Operational definition of demotion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>job level demotion</td>
<td>which occupational status matches best with your professional activities?</td>
<td>executive/senior management/employee only white collar workers</td>
<td>9/8/7</td>
<td>a change from 9 to 8, from 9 to 7</td>
</tr>
<tr>
<td>base salary demotion</td>
<td>what is your monthly gross income?</td>
<td>amount of €, gross wage</td>
<td>amount</td>
<td>a decrease of 15% compared to the previous year; restricted to those working full time (&gt;35 hours/week) in the consecutive years</td>
</tr>
<tr>
<td>bonus demotion</td>
<td>did you receive a bonus last year?</td>
<td>yes/already calculated in my gross wage/no</td>
<td>1/2/3</td>
<td>a change from 1 or 2 to 0</td>
</tr>
<tr>
<td>company car demotion</td>
<td>do you have a company car?</td>
<td>yes/no</td>
<td>1/0</td>
<td>a change from 1 to 0</td>
</tr>
<tr>
<td>job authority demotion</td>
<td>do you supervise someone or do you coordinate the work of others?</td>
<td>yes/no</td>
<td>1/0</td>
<td>a change from 1 to 0</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>how old are you?</td>
<td>year</td>
<td></td>
<td>restricted to employees aged 18-64 years old</td>
</tr>
<tr>
<td>gender</td>
<td>what is your gender?</td>
<td>female/male</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>what is your highest degree?</td>
<td>low/middle/high</td>
<td>1/2/3</td>
<td></td>
</tr>
<tr>
<td>company sector</td>
<td>in which sector do you work?</td>
<td>private/public</td>
<td>1/0</td>
<td></td>
</tr>
<tr>
<td>company size</td>
<td>how many employees work in your company?</td>
<td>&lt;50 employees/&gt;50 employees</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>children</td>
<td>calculated from household membership</td>
<td>integer between 0 and 6</td>
<td>number</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Descriptive univariate analysis of the dependent variables - demotion rates in the sample

<table>
<thead>
<tr>
<th>Demotion rate in %</th>
<th>Numbers of cases at risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job level demotions</td>
<td>31.6</td>
</tr>
<tr>
<td>Base salary demotions</td>
<td>6.8</td>
</tr>
<tr>
<td>Bonus demotions</td>
<td>62.6</td>
</tr>
<tr>
<td>Company car demotions</td>
<td>11.4</td>
</tr>
<tr>
<td>Job authority demotions</td>
<td>18.6</td>
</tr>
</tbody>
</table>
Table 3: Logit regressions

Regression models (logit marginal effects at the means) – Independent variables: age, gender and education

<table>
<thead>
<tr>
<th>Kinds of demotion</th>
<th>(1) Job level marg. effect/(SE)</th>
<th>(2) Base salary marg. effect/(SE)</th>
<th>(3) Bonus marg. effect/(SE)</th>
<th>(4) Company car marg. effect/(SE)</th>
<th>(5) Job authority marg. effect/(SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.003 (0.002)</td>
<td>0.000 (0.001)</td>
<td>0.007 (0.004)</td>
<td>-0.003* (0.001)</td>
<td>-0.003** (0.001)</td>
</tr>
<tr>
<td>Gender: female¹</td>
<td>0.058 (0.038)</td>
<td>-0.021 (0.011)</td>
<td>-0.030 (0.101)</td>
<td>-0.015 (0.032)</td>
<td>0.104*** (0.027)</td>
</tr>
<tr>
<td>Education: middle²</td>
<td>-0.036 (0.099)</td>
<td>0.005 (0.017)</td>
<td>0.031 (0.139)</td>
<td>-0.055 (0.079)</td>
<td>-0.048 (0.043)</td>
</tr>
<tr>
<td>Education: high³</td>
<td>-0.076 (0.092)</td>
<td>-0.029 (0.016)</td>
<td>-0.112 (0.136)</td>
<td>-0.130 (0.074)</td>
<td>-0.149*** (0.039)</td>
</tr>
<tr>
<td>Maximum VIF</td>
<td>1.1</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Chi-square</td>
<td>6.1</td>
<td>16.7</td>
<td>5.5</td>
<td>12.3</td>
<td>45.5</td>
</tr>
<tr>
<td>p</td>
<td>0.193</td>
<td>0.002</td>
<td>0.240</td>
<td>0.015</td>
<td>0.000</td>
</tr>
<tr>
<td>Observations</td>
<td>814</td>
<td>2265</td>
<td>137</td>
<td>610</td>
<td>1375</td>
</tr>
</tbody>
</table>

* p = .05; ** p = .01; *** p = .001.
¹Ref=male, ²Ref=low, ³Ref=low

Graph 1: Predicted job authority demotions

**Predicted job authority demotion rates**

a) Gender

b) Education

---

---
Table 4: Relations between the occurrences of the various kinds of demotion

*Demotion rates with one-sided t-tests for mean comparison, number of cases at risk in parentheses*

<table>
<thead>
<tr>
<th>Kinds of demotion</th>
<th>Job level</th>
<th>Base salary</th>
<th>Bonus</th>
<th>Company car</th>
<th>Job authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>-</td>
<td>6% (159)</td>
<td>75% (12)</td>
<td>8% (73)</td>
<td>26% (171)</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>3% (382)</td>
<td>64% (39)</td>
<td>3% (231)</td>
<td>7% (462)</td>
</tr>
<tr>
<td>p</td>
<td>-</td>
<td>.031</td>
<td>.247</td>
<td>.028</td>
<td>.000</td>
</tr>
<tr>
<td>Base salary</td>
<td>Yes</td>
<td>48% (21)</td>
<td>-</td>
<td>100% (2)</td>
<td>12% (17)</td>
</tr>
<tr>
<td>No</td>
<td>29% (520)</td>
<td>-</td>
<td>63% (92)</td>
<td>6% (405)</td>
<td>16% (812)</td>
</tr>
<tr>
<td>p</td>
<td>.031</td>
<td>-</td>
<td>.143</td>
<td>.149</td>
<td>.284</td>
</tr>
<tr>
<td>Bonus</td>
<td>Yes</td>
<td>26% (34)</td>
<td>3% (60)</td>
<td>-</td>
<td>6% (34)</td>
</tr>
<tr>
<td>No</td>
<td>18% (17)</td>
<td>0% (34)</td>
<td>-</td>
<td>5% (19)</td>
<td>4% (26)</td>
</tr>
<tr>
<td>p</td>
<td>.247</td>
<td>.143</td>
<td>-</td>
<td>.463</td>
<td>.052</td>
</tr>
<tr>
<td>Company car</td>
<td>Yes</td>
<td>46% (13)</td>
<td>8% (25)</td>
<td>67% (3)</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>23% (291)</td>
<td>4% (397)</td>
<td>64% (50)</td>
<td>-</td>
<td>10% (351)</td>
</tr>
<tr>
<td>p</td>
<td>.028</td>
<td>.149</td>
<td>.463</td>
<td>-</td>
<td>.008</td>
</tr>
<tr>
<td>Job authority</td>
<td>Yes</td>
<td>56% (78)</td>
<td>6% (139)</td>
<td>89% (9)</td>
<td>15% (41)</td>
</tr>
<tr>
<td>No</td>
<td>23% (555)</td>
<td>5% (714)</td>
<td>61% (64)</td>
<td>5% (333)</td>
<td>-</td>
</tr>
<tr>
<td>p</td>
<td>.000</td>
<td>.284</td>
<td>.052</td>
<td>.008</td>
<td>-</td>
</tr>
</tbody>
</table>

The figures in bold are discussed in “relations between the occurrences of various kinds of demotion (p17)

Table 5: Logit regressions

Regression models (logit marginal effects at the means) – Independent variables: age, gender, education, children, company sector and company size

<table>
<thead>
<tr>
<th></th>
<th>(1) Job level marg. effect/(SE)</th>
<th>(2) Base salary marg. effect/(SE)</th>
<th>(3) Bonus marg. effect/(SE)</th>
<th>(4) Company car marg. effect/(SE)</th>
<th>(5) Job authority marg. effect/(SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.004* (0.002)</td>
<td>0.000 (0.001)</td>
<td>0.007 (0.005)</td>
<td>-0.003* (0.001)</td>
<td>-0.003* (0.001)</td>
</tr>
<tr>
<td>Gender: female i</td>
<td>0.051 (0.038)</td>
<td>-0.022* (0.011)</td>
<td>-0.009 (0.113)</td>
<td>-0.020 (0.027)</td>
<td>0.094*** (0.027)</td>
</tr>
<tr>
<td>Educ.: middle ii</td>
<td>0.021 (0.098)</td>
<td>0.007 (0.017)</td>
<td>0.036 (0.145)</td>
<td>-0.068 (0.075)</td>
<td>-0.051 (0.043)</td>
</tr>
<tr>
<td>Education: high iii</td>
<td>-0.028 (0.090)</td>
<td>-0.027 (0.016)</td>
<td>-0.103 (0.144)</td>
<td>-0.121 (0.072)</td>
<td>-0.143*** (0.039)</td>
</tr>
<tr>
<td>Children</td>
<td>0.020 (0.019)</td>
<td>-0.002 (0.006)</td>
<td>-0.021 (0.056)</td>
<td>-0.029* (0.013)</td>
<td>-0.034*** (0.013)</td>
</tr>
<tr>
<td>Company sector: private iv</td>
<td>-0.159*** (0.038)</td>
<td>0.010 (0.012)</td>
<td>0.056 (0.158)</td>
<td>-0.346** (0.106)</td>
<td>0.020 (0.023)</td>
</tr>
<tr>
<td>Company size: empl&gt;50 v</td>
<td>-0.003 (0.037)</td>
<td>-0.006 (0.011)</td>
<td>0.085 (0.091)</td>
<td>-0.059* (0.027)</td>
<td>-0.028 (0.023)</td>
</tr>
</tbody>
</table>

Maximum VIF 1.2 1.1 1.1 1.1 1.1

38
<table>
<thead>
<tr>
<th>Chi-square</th>
<th>25.6</th>
<th>18.6</th>
<th>6.6</th>
<th>41.0</th>
<th>52.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>0.001</td>
<td>0.010</td>
<td>0.476</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Observations</td>
<td>801</td>
<td>2231</td>
<td>135</td>
<td>602</td>
<td>1356</td>
</tr>
</tbody>
</table>

* p = .05; ** p = .01; *** p = .001.

iref=male; iiref=low; iiiiiref=low; ivref= public; vref=empl<50