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The impact of the near superior's management on worker wellbeing, retirement intentions, and establishment productivity

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TIIVISTELMÄ

Tässä tutkimuksessa tarkastellaan, minkälaisia vaikutuksia lähiesimiehen johtamisella on työntekijöiden kokemaan työtyytyväisyyteen, eläköitymisaikeisiin ennen varsinaista eläkeikää sekä toimipaikkojen tuottavuuteen. Lisäksi selvitetään, onko lähiesimiehen johtamisen merkityksessä työntekijöiden kokemaan työtyytyväisyyteen ja eläkeaikeisiin tapahtunut muutoksia yli ajan. Analyysissä käytetään laajoja ja kaikkia palkansaajia edustavia työolotutkimuksen aineistoja vuosilta 1990, 1997, 2003 ja 2008 sekä vuoden 2008 työolotutkimuksen aineistoa yhdistettynä kahteen rekisteripohjaiseen aineistoon, toimipaikka- ja yksilöaineistoon (FLEED) sekä teollisuuden toimipaikkojen pitkittäisaineistoon (LPDM).

Saadut tulokset korostavat lähiesimiehen johtamisen merkitystä työntekijöiden hyvinvoinnille. Esimiehen johtaminen on voimavara, jolla on varsin merkittävä vaikutus työntekijöiden kokemaan työtyytyväisyyteen, kun vakioidaan laajaa joukkoa muita työtyytyväisyyteen vaikuttavia tekijöitä. Lähiesimiehen johtamisella on myös tilastollisesti merkitsevä vaikutus 45+-vuotiaiden eläköitymisaikeisiin. Lähiesimiehen johtamisen yhteys toimipaikkojen tuottavuuteen oli positiivinen, mutta tämä suhde oli tilastollisesti merkitsevä ainoastaan, kun tuottavuuden mittarina käytettiin liikevaihtoa työntekijää kohti kaikkia toimialoja koskevassa analyysissä.

ABSTRACT

This paper studies the impact of the of the near superiors' management on perceived job satisfaction, early retirement intentions, and the establishment productivity. In addition the paper seeks to study how the impact of the near superior's management on job satisfaction and early retirement intentions has evolved across time. Data set from the Quality of the Finnish Work Life Surveys (QWLS) which covers a period of almost twenty years and is representative of the whole wage and salary earners and the 2008 QWLS matched with the longitudinal register-based employer-employee data (FLEED) and the Longitudinal Database on Plants in Finnish Manufacturing (LPDM) are used in the analyses.

The empirical findings from the econometric analysis show that controlling for the large number of characteristics the quality of the near superior's management has a large and statistically significant impact on the perceived job satisfaction. The results suggest that the near superior's management is an important job resource for workers. The quality of the near superior's management also matters

for the early retirement intentions among 45+-year-old workers. The results suggest that there is a positive relationship between the near superior's management and the establishment productivity, but this relationship is only statistically significant when the turnover per employee was used as a measure of productivity and all the sectors were included in the estimations.

Keywords: near superior's management, job satisfaction, early retirement intentions, establishment productivity

JEL Classification: M54, J53, L23

1. INTRODUCTION

Worker wellbeing/Job satisfaction has become an important element in many organizations as well as in the national policy agenda in many western countries. Worker wellbeing matters not because it is in itself a good thing but because it is likely to yield positive impacts on several important outcomes such as increased work motivation and reduced sickness absences (Keller 1983; Keller and Tharenou 1993), reduced staff turnover (e.g. Akerlof et al. 1988; Blank and Diderichsen 1995, Clark et al. 1998; Kristensen and Westergård-Nielsen 2004) and turnover intentions (Böckerman and Ilmakunnas 2009), and higher productivity (Judge et al. 2001; Böckerman and Ilmakunnas 2010) and better financial performance. In addition, work environment factors have been found to influence labour market outcomes in terms of early retirement (e.g. Lund and Villadsen 2005; Siegrist et al. 2006).

Working life and the firms' environment have undergone a lot of changes during the last decades due to globalization, increased international competition, and technological change. In order to survive and make a positive result, companies must have developed both their organization and management simultaneously with their products and technologies (Tuomi et al. 2004, 115). Along with the changes in the surrounding world also the management of people has undergone changes. The management of people at work has been transformed from the reactive, nonstrategic personnel management to the more pro-active, strategic human resource management. The change has also involved a fundamental shift in how the whole production process is conceived and developed. (Green and Whitfield 2009). In addition, high involvement management practices have become increasingly common in developed industrialised economies (Wood and Bryson 2009).

Constant organizational changes, increased job demands, and increased work intensity have made the working life more challenging for workers. One indication of this is that job exhaustion has become quite a common health and wellbeing risk which has also shown in the increased number of disability pensions due to mental health problems (see Finnish Centre for Pensions statistics). In the changing and more challenging surroundings one might expect that the importance of people management would have increased its importance.

There has also been an increasing interest in human resource management literature (HRM) in job satisfaction and more generally worker wellbeing, i.e. how and to what extent by HRM practices the employer side can affect perceived wellbeing/job satisfaction of workers. According to Purcell and Hutchinson (2007) critical in HRM black box is how human resource practices influence employee attitudes and improve worker performance in ways which benefit the employing organization. HRM has been defined to refer to all those activities associated with the management of people in firms (Boxell and Burchell 2008). Near superior's management the impact of which we focus in this paper can be regarded part of these practices.

The role of the near superior's management in worker wellbeing and establishment performance outcomes has so far been surprisingly neglected topic in the earlier HRM literature. Yet, as Purcell and Hutchinson (2007) point out, the HR practices perceived by employees will, to a growing extent, be those delivered by the near superiors (front-line managers) with direct supervisory responsibility. And the role of the immediate superiors in people management enacting HR practices and engaging in leadership behaviour means that they have to be included in any causal chain seeking to explain and measure the relationship between HRM and organisational performance (Purcell and Hutchinson 2007, 6).

The purpose of this paper is threefold, I analyse the impact of the near superior's management on worker wellbeing and establishment performance as measured by three different and important outcomes also from the perspective of organizations: *perceived job satisfaction, early retirement intentions, and the establishment productivity*. In addition the paper seeks to answer *how the impact of the near superior's management on the first two of these three outcomes has evolved across time* in the changing surroundings. Data from the Quality of the Finnish Work Life Surveys (QWLS) and the 2008 QWLS matched with the longitudinal register-based employer-employee data and the Longitudinal Database on Plants in Finnish Manufacturing are used to analyse these research questions.

This paper contributes to the earlier literature in several ways. First, it provides new information on this rather neglected topic in the literature, the impact of the near superior's leadership on these three outcomes. Second, I use a representative data on the whole Finnish wage and salary earners covering both private and public sectors in contrast to many case studies and studies focusing only on one or few industries or sectors. Therefore I can confidently generalize our results to the whole working age population. Third, I am also able to also look whether there exist any differences between the sectors and different worker groups. Fourth, as the panel data covers data from a period of almost twenty years I am also able to investigate whether the impact of the near superior's leadership on perceived worker well-being and early retirement intentions has experienced changes over a longer period. Finally, due to the rich data content and use of panel data, I can control the impact of unobserved heterogeneity on the outcomes.

The main findings of this study suggest that the near superior's management is an important job resource having a large impact on the perceived job satisfaction. The quality of the near superior's management also matters for the early retirement intentions among 45+-year-old workers. The results suggest that there is a positive relationship between the near superior's management and the establishment productivity, but this relationship is only statistically significant when the turnover per employee was used as a measure of productivity and all the sectors were included in the estimations.

The rest of the paper is organized as follows. Section 2 presents data and statistical descriptive analysis. Section 3 presents the analysis of the impact of the near superior's impact on the perceived job satisfaction including earlier literature, methods and the results. In sections 4 and 5 corresponding analysis of the impact of the near superior's leadership on early retirement intentions, and the establishment productivity are presented. Finally, section 6 summarizes the results and discusses policy implications.

2. DATA

In the empirical analyses I use three different data sets: the Quality of Work Life Surveys (QWLS), longitudinal register-based employer-employee data called FLEED, and Longitudinal Database on Plants in Finnish Manufacturing called LPDM.

To investigate the impact of superior's good management on job satisfaction, retirement intentions, and establishment performance in the Finnish labour market extensive face-to-face interview

surveys among the working-age population in Finland are used: The Quality of Work Life Surveys, from the years 1990, 1997, 2003 and 2008. The Quality of Work Life Surveys are based on personal face-to-face interviews of 15-64-year-old wage and salary earners selected by a random draw from the Finnish labour force survey. Therefore, they provide a representative sample of the Finnish wage and salary earners. The sizes of the random sample were as follows: 3,502 wage and salary earners in 1990, 3,800 wage and salary earners in 1997, 5,300 wage and salary earners in 2003 and 6,499 wage and salary earners in 2008. The participation rates in these surveys have been high; i.e. 85 per cent in 1990, 79 per cent in 1997, 78 per cent in 2003, and 68 per cent in 2008.

The Quality of Work Life Surveys suit excellently for investigating the impact of the near supervision/leadership on worker wellbeing due to their rich data content related to worker wellbeing and supervision/management, and to both objective and subjective indicators of job quality. Besides describing the physical, mental and social work environments, the data also depict the contents of work, employees' labour market positions, conditions of employment, values and valuations of work and factors at the work organisation level. The data also have information on human resource practices such as possibilities for employer-funded training, possibilities to learn and grow at work, career opportunities, and job autonomy which have been regarded the core dimensions of job quality in the literature and which also influence wellbeing at work (Gallie 2003; Kalleberg et al. 2009). In addition, an advantage of the data is that the survey questions have remained similar across the years and, therefore, provide a useful database to study changes in the working life, such as changes in the impact of management on worker wellbeing across time (see Lehto and Sutela 2008).

With the help of personal identity codes and establishment codes it is possible to match the workers included in the 2008 QWLS to the longitudinal register-based employer-employee data (FLEED). FLEED data entails establishment level information on employee characteristics which are used as control variables when analysing the impact of the near superior's management on the establishment productivity. Third data set which is matched with the QWLS data and FLEED data is the Longitudinal Database on Plants in Finnish Manufacturing (LPDM). This data have information on value added, working hours, capital, and materials (intermediate inputs) needed in the productivity models.

Variables capturing near superior's management, worker wellbeing and retirement intentions

The variable denoting the near superior's management is a summary variable which based on workers' perceptions about various dimensions of the near superior's management. The Finnish QWLS ask respondents of the survey to reply to twelve different statements about their immediate superior related to his/her management (scale 1-5, 1= totally disagree with the statement, 5=totally agree with the statement). Based on these questions I have formed a summary variable which includes seven dimensions of the near superior's leadership (near superior trusts, supports, rewards, inspires, discusses, speaks openly, gives sufficient feedback) to be used in the empirical analyses. The reliability of this summary variable is good (Cronbach's alpha=0.904).

Figure 1 depicts the average scores of this sum variable during 1990-2008 by employees' gender, educational level, sector, and the type of employment relationship. In general, there has been a slight increase in the average score over the inspection period (from 3.47 in 1990 to 3.67 in 2008). The improvement in the scores evaluating the near superiors' management across time might be partly be explained by the fact that there has been both national and sectoral level programmes for improving working conditions in Finland during the last twenty years (Forma et al. 2010). These programmes have also included education for the near superiors.

It is noteworthy that male workers have on average given higher scores to the near superior's management than women during the whole inspection period of almost twenty years although this difference between sexes is not statistically significant in 1990 and 2008. The average scores by employees' educational level do not show great differences from year 1997 onwards and are not statistically significant. The type of employees' jobs does not either seem to differentiate the evaluations of the near superior's management. Instead the average scores show statistically significant sectoral variation (except for year 2003). The average scores have altered across time especially in the state sector which might be explained by quite large organizational changes that the state sector has undergone and the fact that in the state sector programmes for improving working conditions have been actively adopted especially in the 2000's (such as e.g. Kaiku programme – see Arnkil et al. 2008).

In the statistical models this sum variable has been reclassified into three categories on the basis of average scores, where average scores >3.9 denote the near superior's good leadership, scores between 3 and 3.9 denote 'in between' leadership, and values >=1 and <3 denote bad leadership.

Worker wellbeing is captured by the subjective measure of job satisfaction which in QWLS is asked with question ‘how satisfied you are with your current main job’. Job satisfaction variable is measured on an ordinal 4-point scale¹ where 1 is very dissatisfied and 4 is very satisfied.

Figure 2 depicts the average scores of job satisfaction variable during 1997-2008² by respondents’ gender, educational level, sector, and the type of employment relationship. In general, the average scores of job satisfaction show increase from year 1997 to year 2003 but then decrease again. Women have higher average score on job satisfaction in 1997 and 2003 compared to men, but by 2008 this difference between sexes no longer exists. Public sector workers (in state and municipal sector) seem to be more satisfied with their jobs than private sector workers, but this difference is significant only in 2003.

Figures 1 and 2 imply that while the workers’ perceptions on their near superior’s leadership have improved across time a similar rising trend cannot be detected in the perceived job satisfaction. This does not, however, suggest that near superior’s leadership style would not have influence on perceived job satisfaction. There are also many other factors that have impact on it.

(Figures 1 and 2 around here)

In the Finnish QWLS retirement intentions are asked with the following question ‘Have you ever considered planned retirement before the official retirement age?’ (1=no, 2=sometimes, 3=often, 4= have already made the retirement application). The outcome variable of retirement intentions used in the empirical analysis is an indicator variable which gets value one if person has often considered early retirement or has already left the retirement application. In the empirical analysis I focus on the early retirement intentions of middle aged and older workers (i.e. 45+-workers).

Figure 3 shows the share of those workers having early retirement intentions during the period 1990-2008. It can be noticed that the share having retirement intentions has decreased from year 1990 to year 2008 (34.4 % in 1990 and 25.5 % in 2008). This decrease in the early retirement intentions may partly be explained also by the tightening of the policy towards early retirement.

¹ The five-point scale of this question in year 2008 has been transformed to correspond to the 4-point scale which was used in both 1997 and 2003 QWLS for coherence reasons.

² The question on job satisfaction was not included in the 1990 QWLS and therefore the analyses on job satisfaction include data from years 1997, 2003 and 2008.

The average age of workers having early retirement intentions was 52.7 years and those who had no such intentions was 51.5 years.

(Figure 3 around here)

3. IMPACT OF THE NEAR SUPERIOR'S MANAGEMENT ON PERCEIVED JOB SATISFACTION

This part of the paper focuses on the impact of near superior's management on perceived job satisfaction³. Several psychological theories on work suggest that supervisor support and management practices play a role in the perceived worker wellbeing. For example, according to job demands-resources (JD-R) model (e.g. Demerouti et al. 2001; Bakker et al. 2007; Hakanen 2004, Shauffeli et al. 2006) supervisor support belongs to job resources that can increase worker wellbeing and work engagement. Warr (1990) suggests ten main job characteristics⁴ that affect workers' wellbeing. These characteristics also include supervisor support and feedback from work. In Hackman and Oldham's (1980) job characteristics model satisfaction with supervisor's leadership also influences self-perceived job satisfaction.

There is an increasing multidisciplinary empirical literature on the role of leadership played in the worker wellbeing using different measures of worker wellbeing as outcome variables (see e.g. meta-analyses by Rhoades and Eisenberger 2002 and Kuoppala et al. 2008). Commonly this research has confirmed that there exists a positive relationship between good management practices and job satisfaction (e.g. Souza-Posa 2001; Boselie and Van der Wiele 2001; Guest and Conway 2004; Sell and Cleal 2011). Besides using a sum variable of various aspects of good leadership in some studies also perceived supervisor support has been used. Not only the positive link has been established between supervisory support and job satisfaction, but the supervisor leadership has also been shown to be the strongest or among the most important factors explaining job satisfaction (e.g. Guest and Conway 2004). The impact of the supervisor management practices has also been found to affect on the perceived significance of work (Antila 2006) and work ability (Gould et al. 2006).

³ Worker wellbeing has been defined in the literature broadly as the overall quality of an employee's experience and functioning at work (Warr 1987). There can be distinguished three core dimensions of wellbeing: psychological, physical, and social. The psychological approach defines wellbeing in terms of subjective experience and functioning, the physical approach defines wellbeing in terms of bodily health and functioning, and the social approach defines wellbeing in terms of relational experience and functioning. In this paper our particular focus is on the subjective experience of job satisfaction.

⁴ These features are: job autonomy, job demands, social support, use of skills, task versatility and feedback from work, wages, job security, appreciation, and supervisory support (Warr 1990).

Much of this earlier research has focused on certain industries and concerns only a relatively short period of time or has been cross-sectional studies. By using data covering over ten years we are able to also study changes across time in this relationship. The richness of our data makes it also possible to take endogeneity issues into account which due to data limitations has been neglected in many studies investigating the impact of leadership on perceived job satisfaction.

In the economical literature the perceived job satisfaction has been used as an empirical proxy for utility from work which depends on personal characteristics and job characteristics (Clark and Oswald 1996). I investigate the impact of the near superior's management on perceived job satisfaction using ordered probit regressions as the worker wellbeing indicator is ordinal:

$$JS_i^* = \beta X_i + \delta SM_i + \varepsilon_i, \quad \varepsilon_i \sim N(0,1).$$

JS_i^* is the latent outcome variable of job satisfaction for individual i , which is not observed. It is measured by ordered categorical variable JS_i^* which takes four possible values: 1= very dissatisfied, 2=dissatisfied, 3=satisfied and 4= very satisfied:

$$\begin{aligned} JS_i^* &= 1 \text{ if } JS_i^* \leq \gamma_1 \\ &= 2 \text{ if } \gamma_1 \leq JS_i^* \leq \gamma_2 \\ &= 3 \text{ if } \gamma_2 \leq JS_i^* \leq \gamma_3 \\ &= 4 \text{ if } \gamma_3 \leq JS_i^* \end{aligned}$$

where γ_1 , γ_2 and γ_3 are the unknown cut points that must be estimated. X_i is the vector of covariates which include both individual-specific characteristics (e.g. gender, age, education and socioeconomic status), individual's job-specific characteristics (e.g. size of the firm, industry and sector) and HR practices such as possibilities for employer-funded training, possibilities to learn and grow at work, career opportunities, and job autonomy, and β is the vector of coefficients associated with the X . SM_i is the variable denoting the near superior's management quality. ε_i , is the random error term $\sim N(0,1)$. In addition I also estimate binary probit models where the job satisfaction variable is combined into two categories (satisfied and not satisfied).

In order to take into account the potential endogeneity issues I follow the approach of Origo and Pagani (2008) and exploit the richness of the QWLS data. For this purpose I include in these regressions additional variables containing information on personality and psychological characteristics such as e.g. work, family and leisure attitudes. These variables can be considered as good proxies for usually unobserved individual factors that can jointly influence evaluation of the near superior's management styles, and therefore are likely to capture the impact of unobserved time-invariant factors that are primary source of endogeneity and are usually controlled for with fixed effects estimators when panel data is available (Origo and Pagani 2008, 544). Following Böckerman and Maliranta (2012) as a robustness check I also estimate model specification on the impact of the near superior's management where past labour market outcomes (number of employment and unemployment months and average earnings) have been used as additional regressors for year 2008.

The results of job satisfaction outcomes from pooled probit/ordered probit regressions are reported in Table 1 (columns 1A-1D)⁵. My main interest in these estimations is the impact of the immediate supervisor's role on the perceived job satisfaction. The results suggest a significant positive impact of the quality of the near superior's management on the perceived job satisfaction. For example, those workers who perceive the quality of the near superior's management is good have on average around 11 percentage point higher probability of being satisfied (rather or very) with their job compared to workers who perceive the near superior's management bad. This result is in accordance with the earlier empirical evidence from different countries and also with the JD-R theory which implies that supervisor support is a job resource increasing the wellbeing of worker.

(Table 1 around here)

In order to clarify the interpretation of the results, I also present predicted probabilities for positive outcomes calculated on the basis of the estimation results from the probit/ordered probit models (where psychosocial variables are included). Figure 3 presents the predicted probabilities of being satisfied with the job (including both categories: satisfied and very satisfied) or being very satisfied with the job by the perceived quality of near superior's leadership (poor, in-between, good) and holding other variables at their mean values over the study period.

⁵ Adding past labour market outcomes (number of employment and unemployment months and average earnings) as additional regressors and doing this regression for year 2008 did not qualitatively change the results and are not reported in Table 1.

Those workers who perceived that the quality of the near superior's leadership is good had around 8-9 percentage points higher probability of being satisfied with their job compared to those workers who evaluated the near superior's leadership as bad in years 1997 and 2003. This difference is somewhat larger in 2008 which may indicate that the role of the immediate superior's leadership on perceived job satisfaction has increased across time.

When I look at the predicted probabilities of being very satisfied with the job by the quality of the near superior's leadership I can detect even larger differences. Those who evaluated that the near superior's leadership was good had 21-25 percentage points higher probability of being very satisfied with their job compared to those workers who perceived their near superior's leadership to be bad. Difference in the probability to be very satisfied with the job between those who found near superior's leadership good has remained pretty much the same during the whole study period.

(Figure 4 around here)

In Figure 5 I present corresponding predicted probabilities of being satisfied and very satisfied with the job for each sector (private, municipal, state) separately. In Finland both private sector and the public sector experienced similar kind of organizational changes in the 1990's when New Public Management (NPM) type of reforms took place in both sectors (Koivumäki 2005). Most of these reforms concerned decentralization of decision making (lowering of organization levels and an increase in the number of managers) and management by results. Koivumäki's (2005) study suggests that working life experiences of workers in the public and private sectors converged in many areas in the 1990s. My results imply that impact of near superior's leadership on job satisfaction during 1990-2008 has been quite large during the whole period in all three sectors. The 'quality' of near superior's leadership seems to play a slightly larger role in the private sector compared to the state sector and municipals. In the private sector those workers who evaluated that the near superior's leadership was good had around 24-26 percentage points higher probability of being very satisfied with their job compared to those workers who perceived their near superior's leadership to be bad. The corresponding difference was around 22-25 percentage points in the state sector and around 19-21 percentage point in the municipal sector.

(Figure 5 around here)

Corresponding figures (figures 6-7) are also presented by employees' educational level and by the type of employment relationship in the appendix⁶. The results suggest that the quality of the near superior's management would play a slightly larger role for job satisfaction perceived by workers with primary level education.

4. IMPACT OF THE NEAR SUPERIOR'S MANAGEMENT ON EARLY RETIREMENT INTENSIONS

Lengthening of working careers is one of the most important and urgent challenges of the working life in Finland where workforce is ageing at the most rapid pace of all the EU countries. Longer working career contribute to the higher employment rate and sufficient supply of labour which are important factors of economic growth. Economic growth in turn is pivotal to the fiscal sustainability of the welfare state. In this part of the paper my focus is on how the near superior's management affects early retirement intensions. Early retirement refers to the withdrawal from the labour force before the country's official retirement age at which the individual is entitled to a full old-age pension (Schils 2008).

Major theoretical conceptualizations of retirement include retirement as decision making, as an adjustment process, as a career development stage, and as a part of human resource management (see Wang and Schulz 2010 for a review). Several theories have been used to study retirement as decision making (e.g. rational choice theory (Hatcher 2003), image theory (Feldman 1994) and role theory (Talaga and Beehr 1995)), adjustment process (e.g. the life course perspective (Wang 2007), continuity theory (Kim and Feldman 2000), and role theory (Adams et al. 2002) and others) (see more closely Wang and Schultz 2010). In addition, as theoretical frameworks to explain the link between job-related factors and retirement intensions among others Job Demand-Control (JDS) model by Karasek (1979) have been applied e.g. by Elovainio (2005) and Job Demands-Resources (JD-R) model by Scheurs et al. (2011).

Previous empirical literature has consistently shown that personal factors and environmental forces are associated with employees' retirement intentions and decisions (Bonsdorff et al. 2010). In the literature factors influencing retirement decision have been divided into micro-level personal factors, meso-level work related factors (e.g. work organizations) and macro-level variables (e.g.

⁶ Corresponding estimations (not reported) were also done separately for some larger industries such as manufacturing industry and health care and social industry. These results are available from the author.

government policies and culture norms) (Wang and Schultz 2010). Of these factors most attention has been paid to personal factors. Personal factors such as old age, health problems and financial status have consistently been found to be related to early retirement intentions and decisions in earlier research (e.g. Beehr 1986, Feldman 1994, Kim and Feldman 2000, Karpansalo et al. 2004, Wang et al. 2008).

In this literature work-related factors have received considerably less research attention compared to other factors (Beehr et al. 2000). However, the empirical literature which has studied the impact of work-related factors has shown that high work demands and other organizational and managerial factors also play an important role in retirement intentions and decisions. For example, Sutinen et al. (2005) found with Finnish data that retirement thoughts and preference by hospital physicians were correlated with the fairness of the supervision.

Besides early retirement intentions follow-up studies on age management have shown that superior's good management is the most important factor explaining increased work ability irrespective of the occupation (Ilmarinen 1996). Superior's management has also been found to have an important impact on the aged workers' work motivation (Ilmarinen 1999). According to Forma, Tuominen and Väänänen-Tomppo (2004) superior's management and the physical and mental strenuousness of the job influence the plans to keep working. In addition, it has been detected that problems in co-operation and management, age discrimination, and lack of appreciation at the workplace are related to retirement plans. (Janatuinen 2001; Karisalmi 2001; Elovainio et al. 2003).

In the Finnish QWLS, which we use to study early retirement intentions, respondents are also asked to reply how important (scale 1-4, where 1= good at present, 2= not very important, 3=fairly important and 4=very important) the improvement of management is for them in order to cope at work for as long as possible. For example, in 2008 the share of respondents who found it important (fairly/very important) was over 60 percent, which is also a clear indication of the importance of management practices on lengthening of working careers.

In order to study the impact of the near superior's management on early retirement intentions I use binary probit regressions, where the dependent variable is the indicator variable denoting whether person has had early retirement intentions. The set of explanatory variables are the same as in the case of job satisfaction (including the psychosocial variables) appended with variables containing information on the self-reported work ability and the physical and mental strenuousness of the job.

I report the probit regression results related to the impact of the near superior's leadership on early retirement intentions in Table 2. The results suggest that the quality of near superior's leadership has a statistically significant impact on early retirement intentions among 45+-year-old workers. When the 'quality' is better the probability of having early retirement intentions decreases compared to the case when the quality of near superior's management is bad. As regards the impact of other variables (not reported in Table 2) we find that, for example, the perceived of work ability decreases early retirement intentions, whereas the physical and mental strenuousness of the job increases the probability of early retirement intentions. The inclusion of the psychosocial factors as regressors increases the impact of the near superior's management on the early retirement intentions.

(Table 2 around here)

The change in the impact of the near superior's impact on early retirement intentions across the twenty years time is illustrated in figure 7, which presents the predicted probabilities of having early retirement intentions by the quality of near superior's management. When the respondents perceive the quality of the near superior's management bad the probability of early retirement intentions is around 5.5-6 percentage points higher during the whole inspection period compared to case where workers perceive the quality to be better (i.e. the near superior's management being not bad).

My results that apply to all groups of workers in Finland are in accordance with the earlier results received by e.g. Sutinen et al. 2005 and Bondsdorff et al. 2010 related to the health care sector workers in Finland who also found that the near superior's management practices have impact on early retirement thoughts and intentions. The results emphasise the importance of near superior's management also from the perspective of lengthening working careers.

(Figure 8 around here)

5. IMPACT OF THE NEAR SUPERIOR'S MANAGEMENT ON ESTABLISHMENT PRODUCTIVITY

In the third part of the paper I am interested in the determinants of the establishment's productivity with the special focus on the role of the near superior's management style in this. The focus is on the impact of the near superior's management at the establishment level and not commonly used firm level because the firm level might loose the heterogeneity in the near superior's management

within multiple establishment firms (see Black and Lynch 2001). As a measure of the superior's management style I use the same sum variable as in the first and second parts of the paper.

The link between HRM and the organizational performance has been established in a numerous theories and models (see Vanhala and Kotila 2006 for a review). For example, according to social exchange theory (Blau 2006) where there is perceived support from supervisors and employee trust in managers, employees will reciprocate and respond with positive work attitudes through increased motivation and commitment that can lead to enhanced performance. AMO theory (Abbelbaum et al. 2000) suggests that the adoption of HRM activities increases employees' abilities, provides opportunities to participate, and increases motivation. HRM increase job satisfaction, commitment and trust and it reduces stress level which in turn and combination exert positive influence on organizational performance. (Van De Voorde et al. 2012).

The mainstream perspective on the effects on HRM on organizational performance suggests that HRM practices have positive outcomes for both the organization and the employees (so called mutual gains perspective) (Van De Voorde et al. 2012). There are a large number of studies that have correlated various aspects of the firm's performance on various aspects of human resource management. In this empirical literature a strong and positive correlation between HRM and productivity has generally been found. Whereas HRM used to be studied more by industrial sosiologists and psychologists, human resource management (HRM) (looking inside the black box of firms) is nowadays a major field also in labour economics (Bloom and Van Reenen 2010). Recent reviews on economic empirical literature on this topic are Bloom and Van Reenen (2010) and Syverson (2011). For example, at the firm level Bloom and Van Reenen (2007) study the impact of good management practices with firm performance and they find that measures of better management practices (higher scores) are correlated with superior firm performance in terms of productivity, profitability, Tobin Q, sales growth, and survival. One quite common default in these kinds of studies is that due to data limitations they have not been able to investigate whether there exists a causal relationship between management practices and firm performance. The better availability of panel data has made is also possible to do causality interpretations. Other reviews on this topic are also Combs et al.'s (2006) meta-analysis on high-performance work practices and Van De Voorde et al.'s (2012) review of 36 quantitative studies published between 1995-2010. Although a handful of studies have now examined the role of the HR function itself in terms of leadership and change deliver, the role of the immediate line manager in the actual enactment process is an underdeveloped area (Boselie et al. 2005, 7).

In order to study the role of near superior's management on establishments' performance I follow the empirical strategy by Black and Lynch (2001) which entails first analysing the impact of the near superior's good management on the establishment productivity in OLS regression framework using pooled cross-section data and then applying a two-step estimation approach to get the fixed effects estimator using panel data. As a measure of establishment productivity I use standard measures of productivity as dependent variables (see Böckerman and Ilmakunnas 2010 for discussion), i.e. value added per hours worked in manufacturing sector and turnover per employee which makes it possible to do the analysis for all the sectors including the private service sector.

The baseline OLS regression is of the following form. I estimate an augmented Cobb-Douglas production function where the dependent variable (the measure of establishment productivity) is explained by capital, materials, a number of establishment-specific characteristics, and the near superiors' management style.

$$\ln(Y/L)_i = c + \alpha \ln(K/L)_i + \beta \ln(M/L)_i + \delta X_i + \gamma' SM_i + \varepsilon_i$$

where c is a constant term, Y/L is either value added per hours worked/turnover per worker, K/L is capital per hours worked, M/L is materials per hours worked, X is a vector of other controls that influence productivity such as workforce characteristics (the proportion of female workers, the educational level of workers in the establishment, industry dummies and regional dummies) and SM is the average of the near superior's management scores at the establishment. The regression where the establishment's turnover per employee is used as the productivity measure is otherwise the same except that capital per hours worked and materials per hours worked are not included as covariates.

As a second approach, in order to eliminate time-invariant establishment effects, I use panel data and use the two-step estimation procedure suggested by Black and Lynch (2001) (also used in several other papers such as Buhai et al. (2008), Böckerman and Ilmakunnas (2010) and Jones et al. (2010))⁷. In the first stage I use panel data from years 2005-2008 and estimate a Cobb-Douglas production function with fixed establishment effects (using value added per hours worked as the productivity measure)⁸

$$\ln(Y/L)_{it} = \mu_i + \alpha \ln(K/L)_{it} + \beta \ln(M/L)_{it} + \delta X_{it} + \varepsilon_{it} \text{ (step 1)}$$

⁷ See limitations of this approach (Black and Lynch 2001).

⁸ The regression where the establishment's turnover per employee is used as the productivity measure is otherwise the same in the first step except that capital per hours worked and materials per hours worked are not included as covariates.

Using estimates from the first step I then calculate the average residual for each establishment in our sample. In the second step I explain the impact of the near superior's management using the calculated residual averaged over time (i.e. the time-invariant component of the residual) as dependent variable in a cross-section and using employee characteristics as additional covariates.

$$\text{Avg.residual (2005-2008)} = c + \gamma' \text{SM}_i + v_i \quad (\text{step 2})$$

The estimation results related to the impact of the near superior's management on establishment productivity in the Finnish manufacturing sector are reported in columns 3A-3F in table 3. The column 3A of the table gives the results of the OLS regression and the column 3B the results of the second step of the two-stage strategy where the valued added per hours worked has been used as the productivity measure in the manufacturing sector. The corresponding results using turnover per employee as the productivity measure are given in columns 3C-3D for manufacturing sector and in columns 3E-3F for all the sectors.

The results suggest a positive impact of the near superior's management on the establishment productivity but not statistically significantly in the manufacturing sector⁹. In turn, I find a statistically significant impact (at ten percent level) of the near superior's management from two-stage regression and using turnover per employee as the productivity measure for all sectors, including also the service sector. The estimate 0.132 implies that one point increase in the average score of the near superior's management increases the level of the turnover per employee by 13 percent. Compared to the OLS regression results the estimate on the near superior's management from the 2-stage estimation is almost twice as large which suggest that the OLS results may be biased downwards. Similar results were received for the manufacturing sector.

(Table 3 around here)

Earlier research related to service sector (e.g. Bartel 2004; Jones et al. 2006) has also found a positive relationship between establishment performance and HRM (denoting high performance work practices) in the service sector. Past research suggests that when HR practices are used in conjunction with each other, the impact on performance will be greater than when used in isolation (Guest 1998; Baptiste 2008). The results related to all sectors from the 2-stage estimation imply that

⁹ As regards the estimated coefficient on capital per hours worked (not reported in table but are available from the author upon request) it is pretty much consistent with previous results with Finnish data (e.g. Böckerman and Ilmakunnas 2010&2012).

the impact of the near superior's management has also a significant impact on the establishment productivity in its own right.

6. CONCLUSIONS

Worker wellbeing/Job satisfaction has become an important element in many organizations as well as in the national policy agenda in many western countries because of the many important economic impacts for firms and for the whole societies. There has also been an increasing interest in human resource management literature (HRM) in job satisfaction and more generally worker wellbeing, i.e. how and to what extent by HRM practices the employer side can affect perceived wellbeing/job satisfaction of workers.

The role of the near superior's management in worker wellbeing and establishment performance outcomes has so far been surprisingly neglected topic in the earlier HRM literature. This paper extends the earlier literature by focusing on the impact of the of the near superiors' management on perceived job satisfaction, early retirement intentions, and the establishment productivity. In addition the paper seeks study how the impact of the near superior's management on job satisfaction and early retirement intentions has evolved across time in the changing surroundings. Data set from the Quality of the Finnish Work Life Surveys (QWLS) which covers a period of almost twenty years and is representative of the whole wage and salary earners and the 2008 QWLS matched with the longitudinal register-based employer-employee data (FLEED) and the Longitudinal Database on Plants in Finnish Manufacturing (LPDM) were used in the analyses.

The empirical findings from the econometric analysis show that controlling for the large number of characteristics the quality of the near superior's management has a large and statistically significant impact on the perceived job satisfaction. Those who evaluated that the near superior's leadership was good had 21-25 percentage points higher probability of being very satisfied with their job compared to those workers who perceived their near superior's leadership to be bad. The results are pretty much similar irrespective of the employees' sector, educational level, and the type of job. The results suggest that the near superior's management is an important job resource for workers. The impact of the near superior's management on the perceived job satisfaction has remained large or has even grown (depending on the outcome variable) in the changing surroundings.

As regards the impact of the near superior's management on the early retirement intentions the results suggest that the quality of near superior's leadership has a statistically significant impact on

early retirement intentions among 45+-year-old workers. When the 'quality' is better the probability of having early retirement intentions decreases compared to the case when the quality of near superior's management is bad. The results emphasise the importance of near superior's management also from the perspective of lengthening working careers.

Our findings suggest that there is a positive relationship between the near superior's management and the establishment productivity, but this relationship is only statistically significant when the turnover per employee was used as a measure of productivity and all the sectors were included in the estimations.

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APPENDIX

Figure 1. Employees' average scores on the near superior's leadership (sum variable -scale 1 to 5) by employees' gender, educational level, sector and type of employment (Source: QLWS).

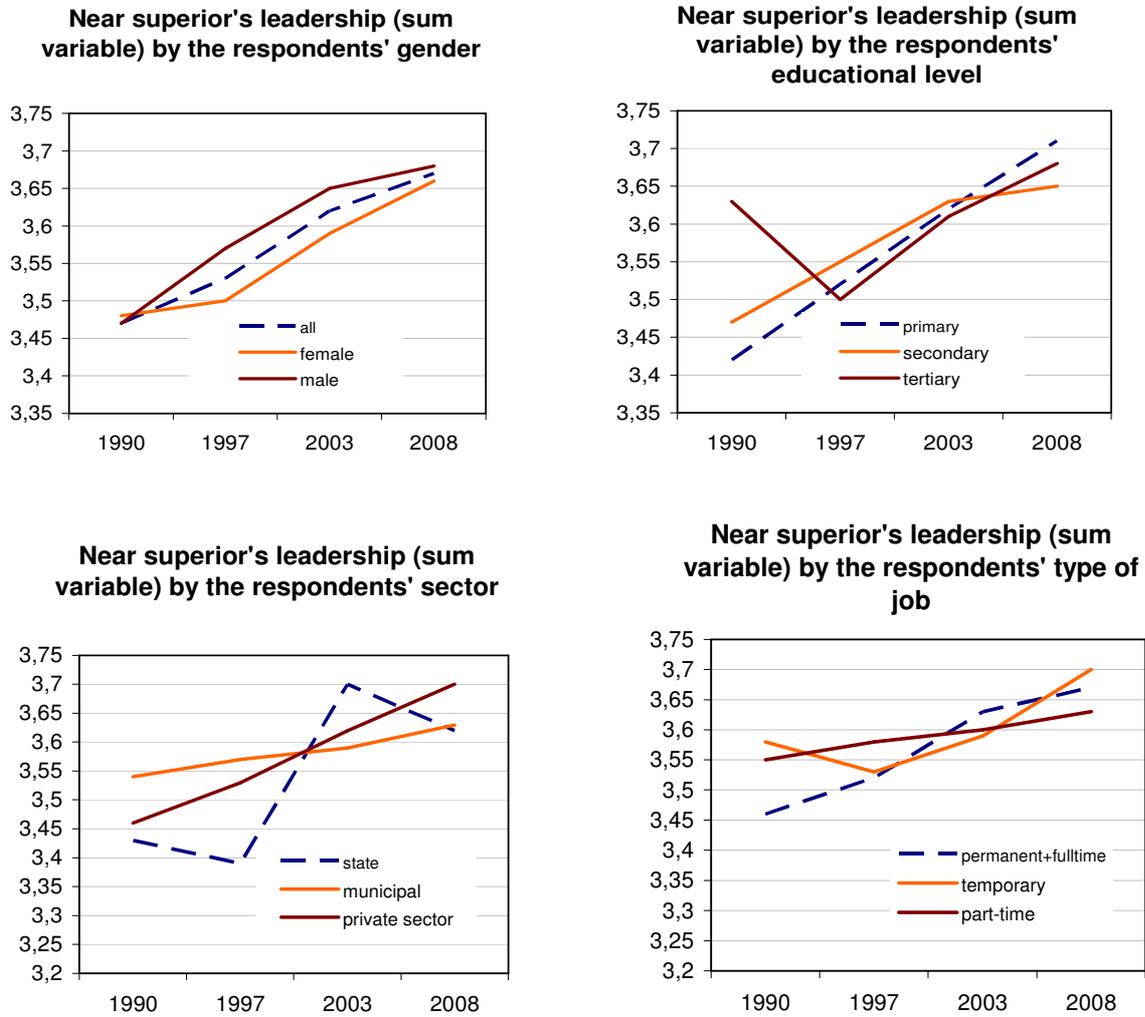
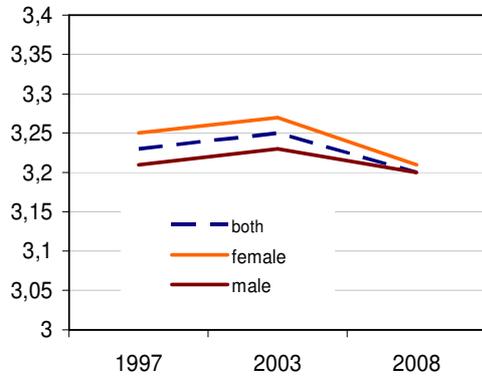
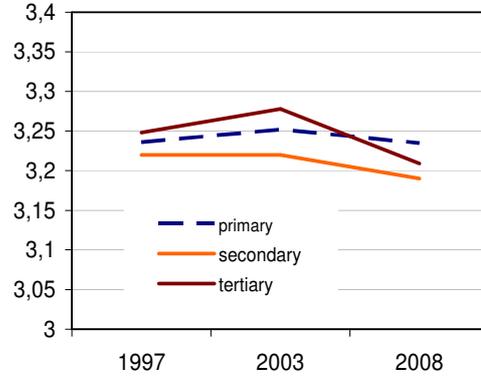


Figure 2. Employees' average scores on job satisfaction (scale 1 to 4) by employees' gender, educational level and sector and type of job (Source: QLWS).

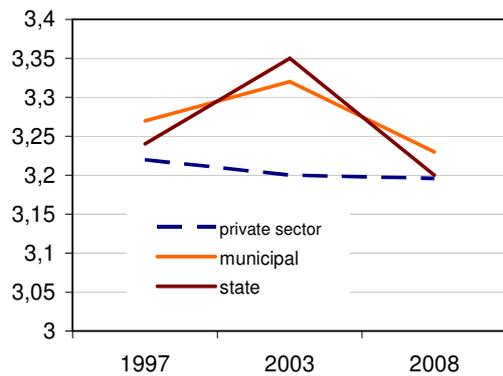
Job satisfaction by the respondents' gender



Job satisfaction by the respondents' educational level



Job satisfaction by the respondents' sector



Job satisfaction by the respondents' type of job

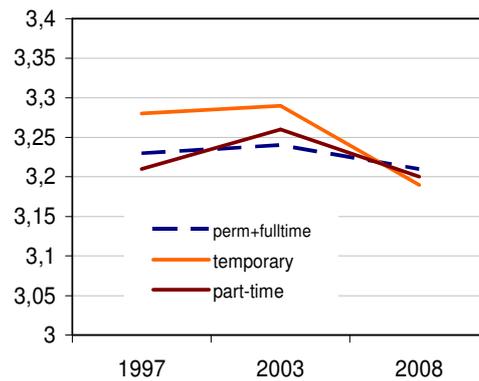


Figure 3. Early retirement intensions among 45+-year-old workers, %.

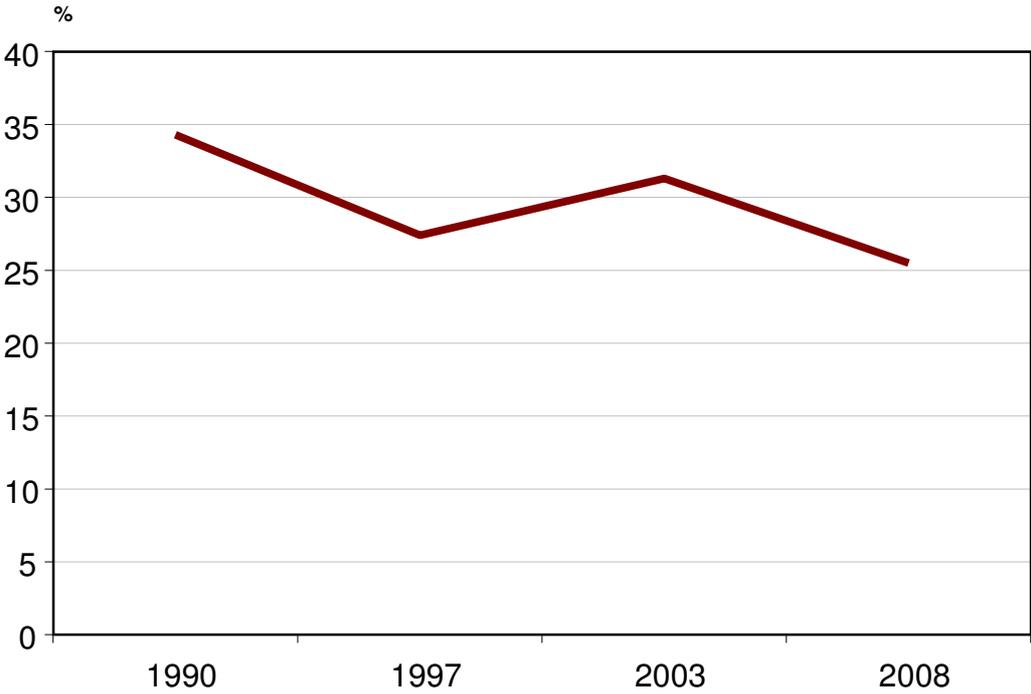


Figure 4. Predicted probability of employees being satisfied/very satisfied with the job by the quality of the immediate superior's leadership when other variables are at their mean.

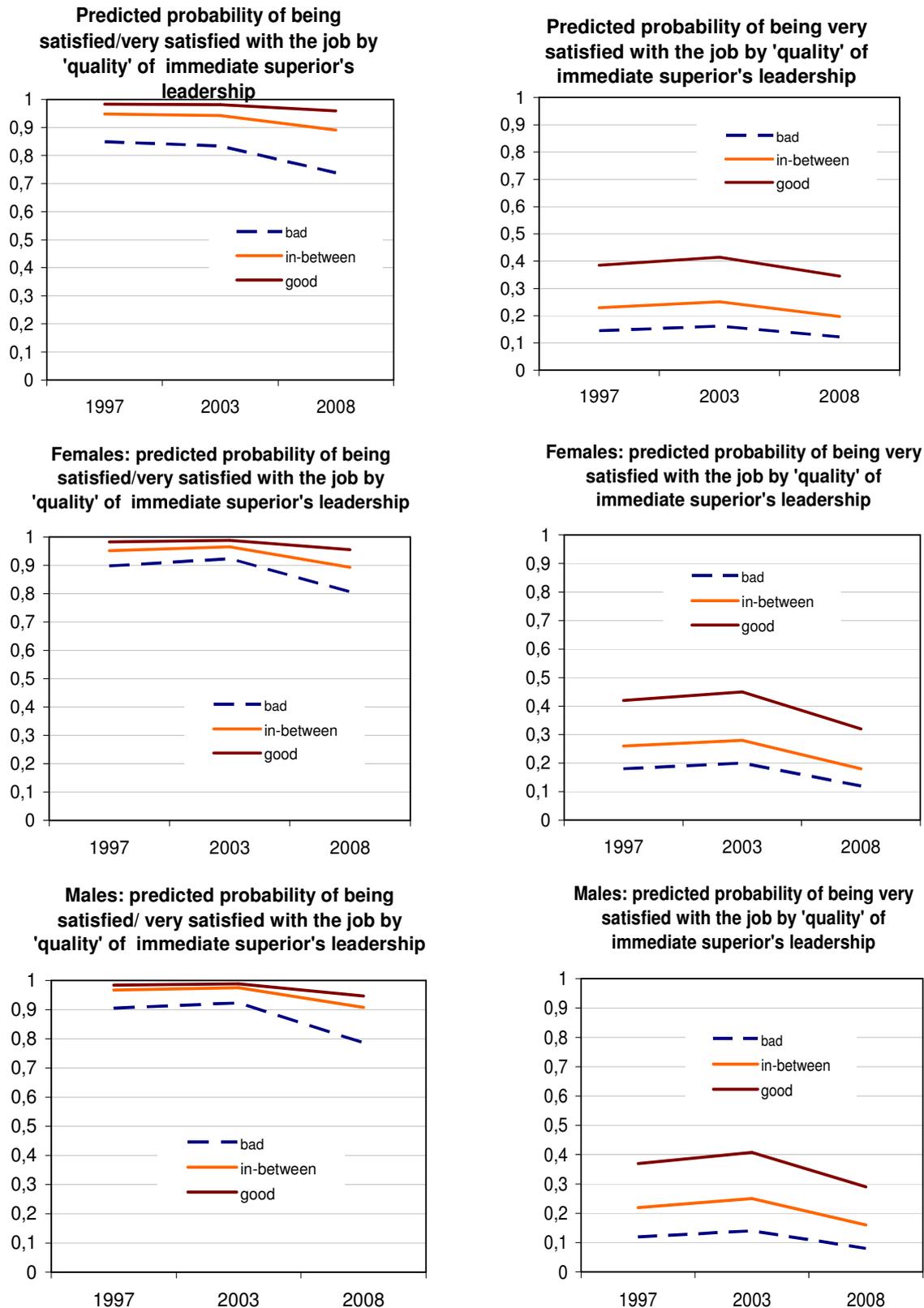
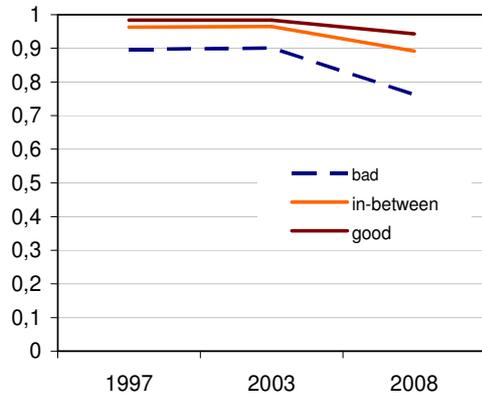
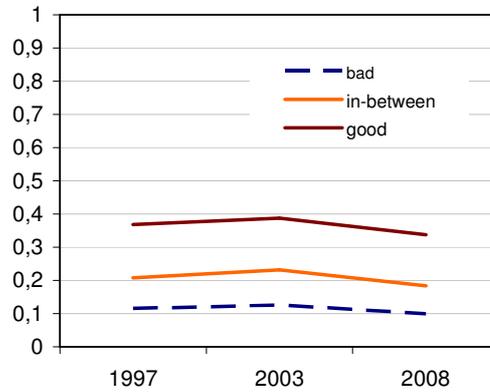


Figure 5. Predicted probability of employees being satisfied/very satisfied with the job by the quality of the immediate superior's leadership when other variables are at their mean in different sectors.

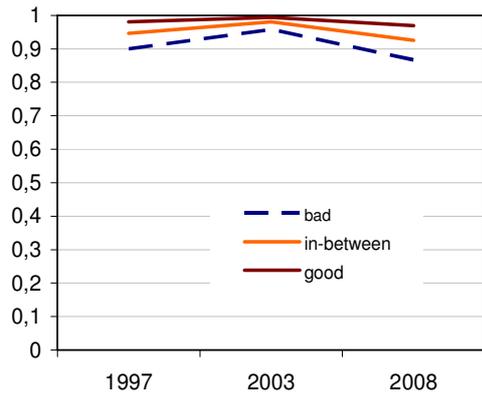
Private sector: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



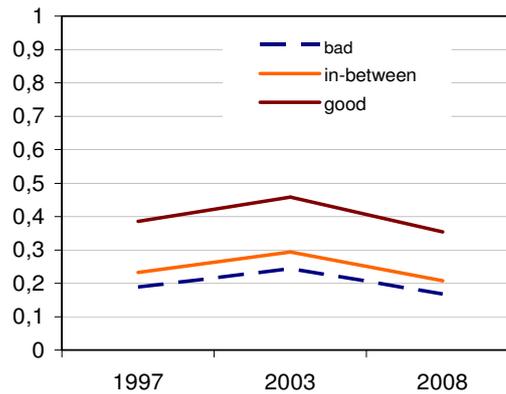
Private sector: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership



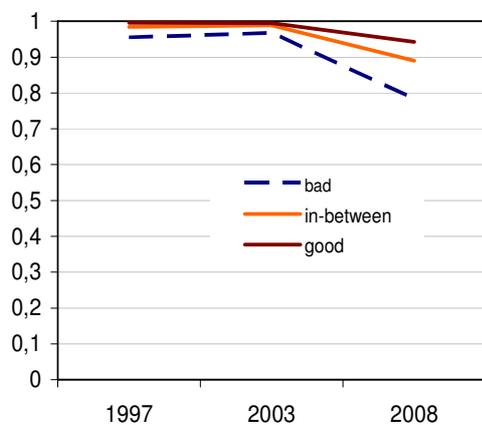
Municipal sector: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



Municipal sector: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership



State sector: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



State sector: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership

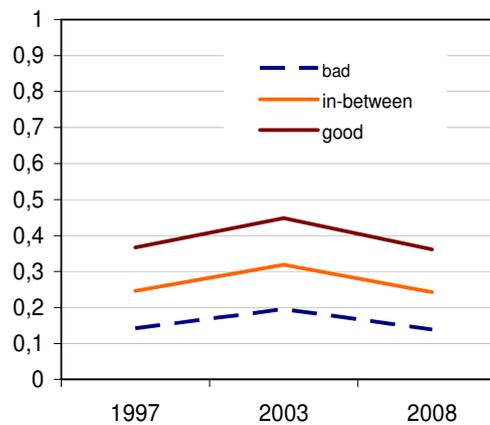


Figure 6. Predicted probability of employees being satisfied/very satisfied with the job by the quality of the immediate superiors' leadership when other variables are at their mean by educational level.

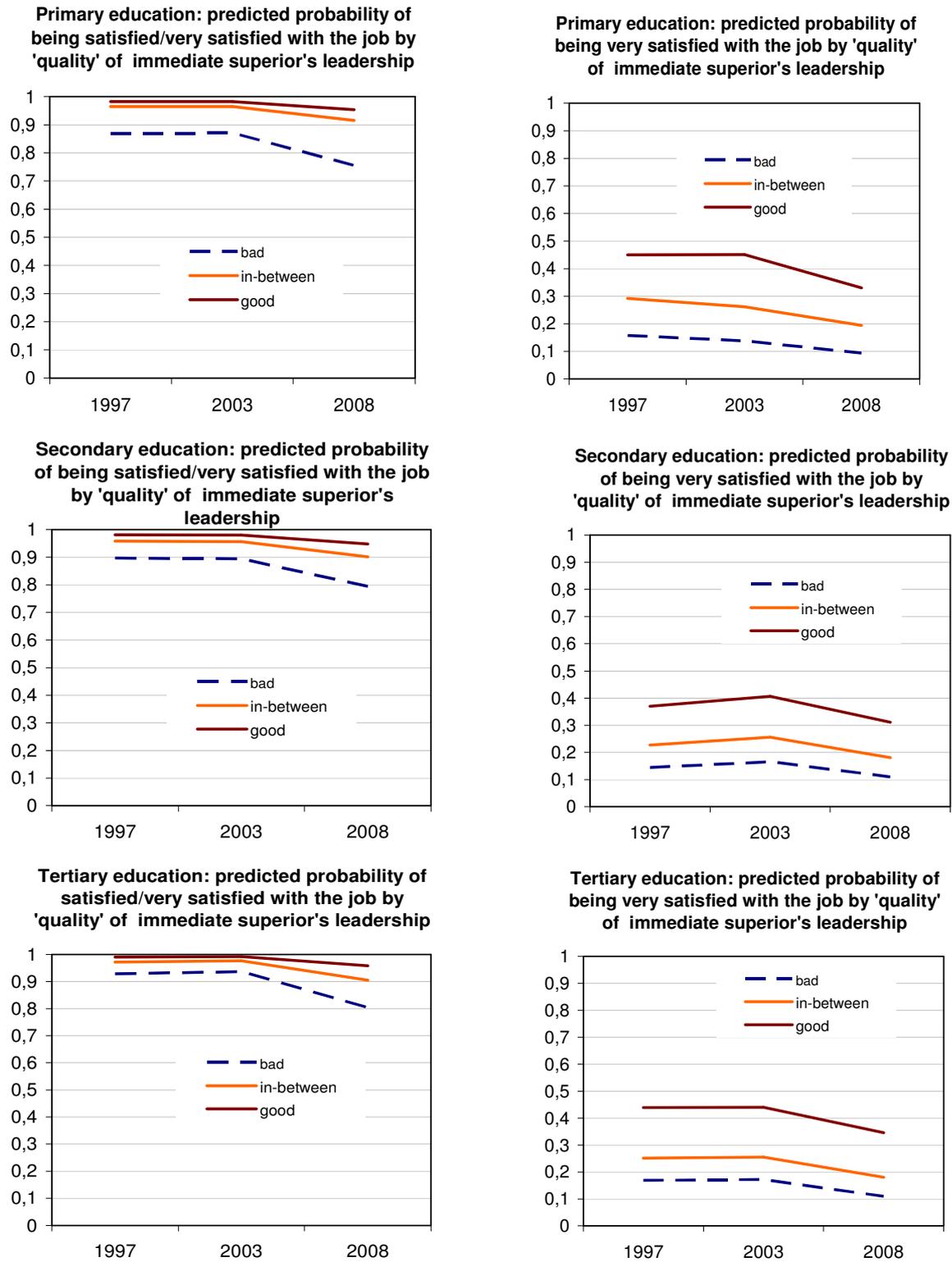
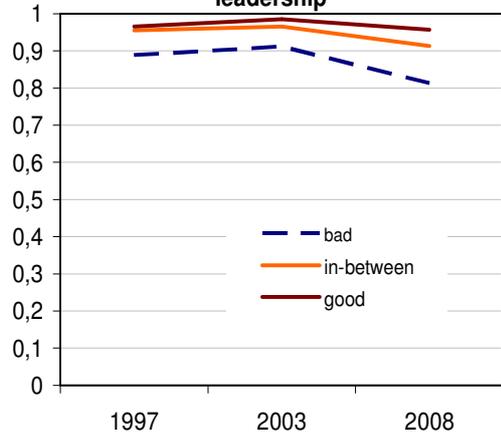
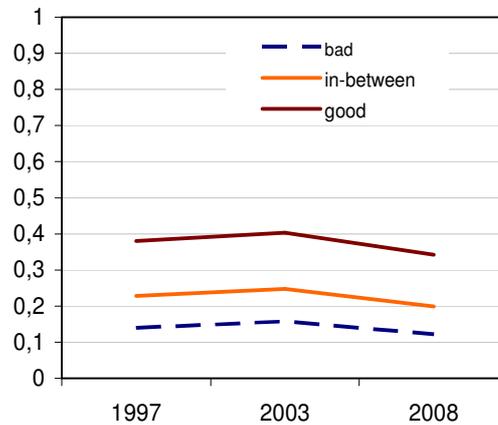


Figure 7. Predicted probability of employees being satisfied/very satisfied with the job by the quality of the immediate superior's leadership when other variables are at their mean by the type of job.

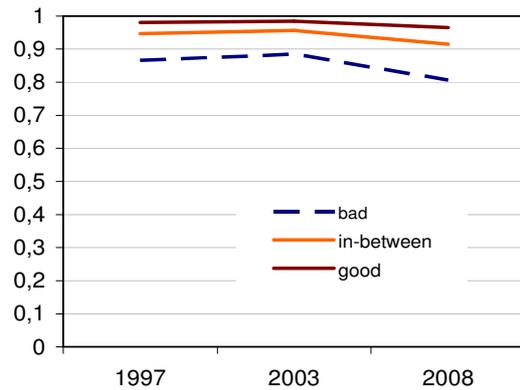
Permanent + full-time: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



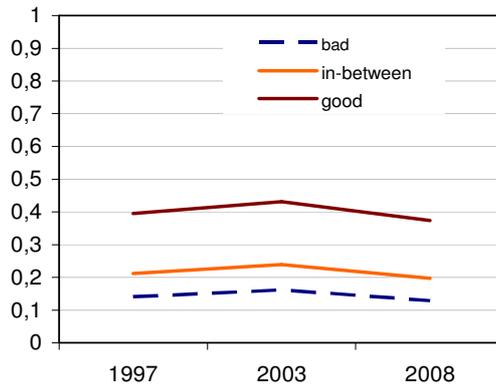
Permanent + full-time: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership



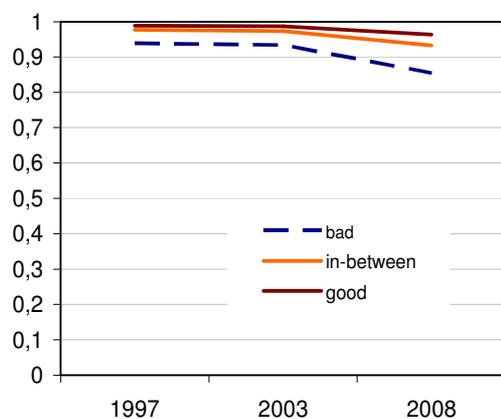
Part-time: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



Part-time: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership



Temporary: predicted probability of being satisfied/very satisfied with the job by 'quality' of immediate superior's leadership



Temporary: predicted probability of being very satisfied with the job by 'quality' of immediate superior's leadership

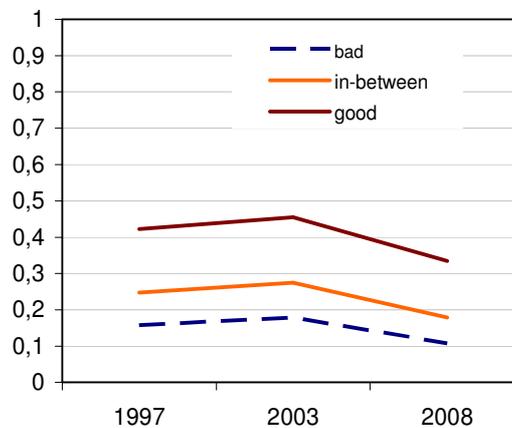


Figure 8. The predicted probability of having early retirement intentions by the quality of the near superior's leadership.

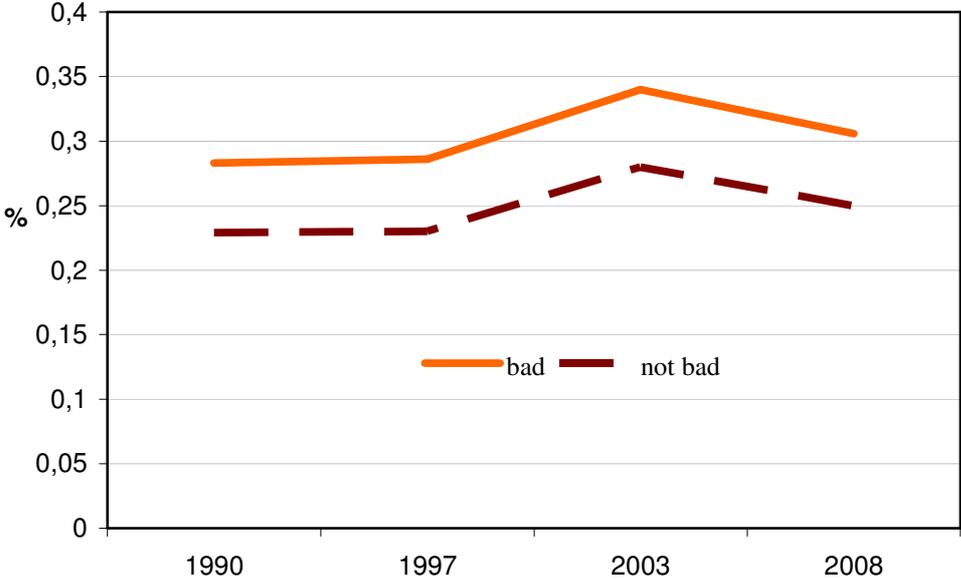


Table 1. The impact of the near superior’s management on employees being satisfied (rather or very) or very satisfied with the job, marginal effects from probit and ordered probit models.

Satisfied:		
	1A	1B
	Marginal effect	Marginal effect
<u>near superior’s management variable</u> (comparison group: scores bad)		
near superior’s management (scores: in-between)	0.085*** (0.0085)	0.076*** (0.0082)
near superior’s management (scores: good)	0.123*** (0.008)	0.112*** (0.0079)
personal characteristics	yes	yes
job-related characteristics	yes	yes
psychosocial characteristics	no	yes
Number of obs	10,380	10,380
Log likelihood	-2,468.3557	-7,456.3258
Very satisfied:		
	1C	1D
	Marginal effect	Marginal effect
<u>near superior’s management variable</u> (comparison group: scores bad)		
near superior’s management (scores: in-between)	0.087*** (0.0085)	0.082*** (0.0086)
near superior’s management (scores: good)	0.252*** (0.009)	0.235*** (0.0098)
personal characteristics	yes	yes
job-related characteristics	yes	yes
psychosocial characteristics	no	yes
Number of obs	10,147	10,147
Log likelihood	-7,618.1218	-7,456.3258

Note: Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level, *: difference significant at 10 % level.

Table 2. The impact of the near superior’s management on earlier retirement intentions among 45+-workers, marginal effects from probit models.

	2A	2B
	Marginal effect	Marginal effect
<u>near superior’s management variable</u>		
(comparison group: scores bad)		
near superior’s management (scores: not bad)	-0.049*** (0.0155)	-0.059*** (0.0156)
personal characteristics	yes	yes
job-related characteristics	yes	yes
self-reported work ability and the physical and mental strenuousness of the job	yes	yes
psychosocial characteristics	no	yes
Number of obs	4,536	4,536
Log likelihood	-2,456.3076	-2,487.6222

Note: Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level, *: difference significant at 10 % level.

Table 3. The impact of the near superior's management on establishment productivity.

	3A	3B	3C	3D
Productivity measure	Value added per hours worked	Value added per hours worked	Turnover per employee	Turnover per employee
Industry	Manufacturing sector	Manufacturing sector	Manufacturing sector	Manufacturing sector
Method	OLS	2-stage approach (results of the second stage)	OLS	2-stage approach (results of the second stage)
Near superior's management	-0.00055 (0.052)	0.0172 (0.052)	-0.071 (0.157)	0.087 (0.152)
Number of obs	653	2479	165	661

	3E	3F
Productivity measure	Turnover per employee	Turnover per employee
Industry	All sectors	All sectors
Method	OLS	2-stage approach (results of the second stage)
Near superior's management	0.072 (0.068)	0.132* (0.079)
Number of obs	583	2328

Note: In addition estimates for valued added per hours worked regressions include capital per hours worked, materials per hours worked, share of females, share of highly educated workers, average age of the workers in the establishment and regional, industry and year dummies. Turnover per employee regressions include the same variables except for capital per hours worked and materials per hours worked. Standard errors are in parenthesis. ***: difference significant at 1 % level, **: difference significant at 5% level, *: difference significant at 10 % level.