Shaping Careers of Men and Women in Organizational Contexts

Shaping Careers of Men and Women in Organizational Contexts

Loopbanen van mannen en vrouwen binnen organisaties
(met een samenvatting in het Nederlands)

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1 Introduction and Research Questions

1.1 Introduction

Let us consider two employees, Arthur and Becky. Both start work at a full-time job in 1991 after completing their higher vocational and university education, respectively. Arthur starts out as a policy employee at a large highly formalized municipality, while Becky begins as a junior accountant at a small male-dominated accountancy firm. In 1994, Arthur becomes the father of a baby girl, after which he not only remains working full-time, but is promoted to the level of senior policy employee in the same year. One year later, in 1995, Becky becomes an accountant and in the beginning of '96 she gives birth to a baby boy. After four months of maternity leave, she returns to her job and from then on works for four days a week. In 2001, ten years after Arthur and Becky entered the labor market, they both still work for their first employer. By this time Arthur's career has progressed to head of a policy department (in 1999), while Becky has made no further promotions.

Although the career lines of Arthur and Becky are not typical for all careers of men and women, they are certainly not unique. Women's careers trail behind those of men, and men are often more likely to make a promotion and to reach higher positions than women (Kalleberg & Reskin, 1995; Hakim, 1996; Hersch & Viscusi, 1996; Kramer & Lambert, 2001). Such gendered career differences can already arise in people's first jobs, only to increase during the rest of their career, described by Jacobs (1995) as a "cumulative disadvantage model" (see also Blossfeld, 1987; Stroh et al., 1992; Warren et al., 2002).

Sociological labor market research often aims to understand gender differences in career development. Taking the career development of Arthur and Becky as an example, the question arises why he ends up in a higher position than she does. Did Arthur invest more in educational attainment, even though Becky's initial educational level is higher? Is Arthur perhaps more motivated to reach a higher position than Becky is? Do policy employees have better career prospects than accountants do and how does the organization in which Arthur and Becky work affect their prospects? What if Becky were to work part-time in the municipality where Arthur works; would her promotion chances improve? Labor market research often addresses the barriers that women face in pursuing a career. In that respect, career processes are seen more and more as the outcomes of employment decisions made within structural settings (Lazear, 1992; 1995). The term "structural settings" refers to different levels such as jobs, occupations, the labor market as a whole or the organization in which one works. There is a long tradition in illuminating the role that jobs and occupations play for the acquired positions of employees (Doeringer & Piore, 1971; Spilerman, 1977; Rosenbaum, 1985) and particularly the positions of men and women (Kanter, 1977; Kalleberg & Reskin, 1995; Hultin, 2003), the latter often being trapped in so called "dead end jobs" (Kanter, 1977; Baron et al., 1986). Additionally, the

organizational level is receiving more and more attention, since the organization is the exact place in which career dynamics - and subsequent labor inequalities - are shaped (see Baron & Bielby, 1980, arguing to "bring the firm back in"). Organizations not only constitute the settings in which individuals work, but also function as actors in employment decisions themselves (Reskin et al., 1999; Tomaskovic-Devey, 2004). Empirically, organizations are the most immediate contexts in which individuals spend a large share of their careers (Allen et al., 1999). The process of promotions is also especially well defined at this organizational level (Spilerman & Petersen, 1999). Studies at this organizational level have addressed a wide range of organizational topics. Some of them focus on general organizational characteristics, such as size and the formalization of promotion policies on career dynamics (Carroll & Mayer, 1986; Smith, 1990; Rosenbaum, 1990; Kalleberg & Van Buren, 1992; Huffman & Velasco, 1997). Others pay attention to more gender-related issues, like the influence of personnel demography in terms of relative group sizes of males and females (Kanter, 1977; Hultin & Szulkin, 2003; Burke & McKeen, 1996) or the presence of work/family arrangements (Osterman, 1995; Groot & Maassen van den Brink, 1997; Remery, 1998).

As increasing attention is paid to the possible influence of constraints in the work context on career outcomes, more information becomes available about the underlying causes of organizational career processes (e.g., Rowe & Snizek, 1995; Cassirer & Reskin, 2000; Weeden, 2002). Studies such as these often address either the job or organizational level. The combined interplay of jobs and organizations on career dynamics, however, has so far only been applied to a limited extent (Kalleberg et al., 1996). In this book, I will investigate how both perspectives influence the career development of men and women differently. The focus of attention is on the internal career dynamics that occur within organizations. Not only do numerous studies show that internal and external job shifts are distinct pathways in career development (e.g., DiPrete & Krecker, 1991; Le Grand & Tåhlin, 2002), but the influence of structural constraints on career development is also especially tangible for internal career development. The central aim of this study is to gain insight into the careers of men and women in relation to their job and organizational setting. It is guided by the following research question:

> *To what degree can differences in career development between men and women be explained when taking into account the job and organizational context in which they work?*

The structure of this chapter is as follows. In section 1.2 and 1.3, the context of this topic is addressed, namely gender differences on the labor market and the occurrence of career development inside a single organization. In section 1.4, three overarching lines of explanation are presented, as well as a general approach that is used throughout the book. Next, in section 1.5, the job and organizational characteristics incorporated in this study are discussed, followed by the formulation of research questions in section 1.6. In sections 1.7 and 1.8, the scientific and policy related relevance of this study are addressed, after which the general outline of the book is presented in section 1.9.

1.2 The position of men and women on the labor market

Over the last decades, one of the most notable developments in the Netherlands - as in many other Western countries - has been the increasing labor market participation of women. As a result, the employment rate of women in the Netherlands (the share of working women between the ages of 16 to 64) is now 66 percent, which is higher than for the European Union as a whole, as well as for the United States (see table 1.1).[1] Despite an increase in female employment, women's positions on the labor market still lag behind those of men, as can be seen from a number of indicators. The first is the share of part-time work among men and women. Probably the most striking feature of the Dutch labor market is the high share of part-time work, especially for women: 74 percent of all working women have a part-time job, compared to 34 percent in the European Union. Partly due to beneficial working time legislation, working part-time is quite common in the Netherlands, especially when combining work with caring tasks (Plantenga & Hansen, 1999; Visser et al., 2004).[2] Also among full-time employees, men's and women's positions cannot be considered equal. This is illustrated by the average gross yearly earnings of full-time working men and women in manufacturing and services (information for the public sector is not available). Women's earnings in the Netherlands are about 74 percent of those of men; in the European Union as a whole, women earn a little more, namely 76 percent of men's earnings. There are also fewer women at higher job levels than men. An equal distribution of the two sexes at higher job levels is clearly not yet within arm's reach. This is even more so in the Netherlands, where the average is below that of the European Union. Information for the United States is not entirely comparable, since a different classification has been used.[3] The underrepresentation of women at higher job levels is also illustrated by the highest echelons of Dutch organizations. In 2003, only 3 percent of the board of directors of the 500 largest Dutch private corporations was female (SCP, 2004). In comparison, in that

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1 For the sake of comparability, this labor force participation is based on working one hour or more a week. In the Netherlands, it is common to calculate this employment rate when working twelve hours or more a week. In this case, the employment rates of men and women are 77 and 53 percent, respectively (CBS, 2002).

2 Especially during the last decade, a number of laws have been introduced to improve the position of part-time workers: (a) the Equal Treatment Act (Full-time and Part-time Workers) of 1996, stipulating that part-timers should not be treated less favorably than comparable full-time workers; (b) the revised Working Hours Act of 1996, providing more opportunities for employers and employees to reach an agreement on working hours and (c) the Working Hours Adjustment Act of 2000, which gives employees and civil servants the right to change their working hours, unless this causes serious problems for the organization itself.

3 The most recent year for which comparable information is available for the Netherlands and the United States is 1994, which is based on the ISCO-68 classification. In that year the relative share of women at higher levels in the Netherlands was 0.30, compared to 0.81 for the United States.

same year, the share of female members of the US Fortune 500's boards of directors was 14 percent (Catalyst, 2003). Overall, women have gained a much stronger labor market position over the years. However, their position is still considerably different from those of men, both in terms of hierarchical position as in working hours. This applies even more to the Netherlands than to the European Union or the United States.

Table 1.1 *Female vs. male employment in the Netherlands, the European Union and the United States*

	The Netherlands			European Union			United States		
	Men	Women	Ratio w. / m.	Men	Women	Ratio w. / m.	Men	Women	Ratio w. / m.
Employment rate [a]	81%	66%	0.81	73%	56%	0.77	74%	60%	0.81
Share of part-timers [b]	22%	74%	3.38	7%	34%	4.86	8%	19%	2.38
Average gross annual earnings [c]	35,500	26,400	0.74	35,966	27,444	0.76	-	-	-
Share at higher levels [d]	17%	8%	0.47	11%	6%	0.55	(15%)	(15%)	(1)

[a] Source for the Netherlands and the European Union: Eurostat (2004): age group 15-64 in 2003, working 1 hour or more every week; source for United States: ILO (2002): age group 16-64 in 2001.

[b] Part-time employment of men and women as a percentage of total employment, 2003; source: Eurostat (2004), except for United States: source ILO (2002).

[c] Source Eurostat (2004): earnings in 2001 in manufacturing and services of full-time employees in organizations with 10 or more employees.

[d] Source ILO (2002), occupational code based on the International Standard Classification of Occupations ISCO-88 (code 1) for the Netherlands and the European Union, ISCO-68 (code 2) for the United States. In ISCO-88, higher job levels consist of the occupational groups: legislators, senior officials and managers. In ISCO-68, the category 'administrative and managerial workers' is regarded as higher job levels. Note: for the EU, data are not available for France, Belgium and Luxembourg, and the Swedish data are for the year 2000 instead of 2001.

1.3 The decline of long-term employment?

According to many authors, the traditional pattern of hierarchically structured organizations has disappeared, leading to a model of employment in which long-term careers within organizational hierarchies have lost their importance (Neumark, 2000). Since a pattern like this would undermine the value of studying intraorganizational career development, the empirical support for such a claim is first assessed.

The changes that have taken place within organizations are often summarized as a shift from "Fordist" to "post-Fordist" organizations, and are no longer based on hierarchical and bureaucratic forms of organization (Clegg, 1990; Halford et al., 1997; Onstenk, 1997). Production has become more flexible with the increase in use of independent teams (Smith, 1997; Vermeulen & Van Hooft, 1997; Kalleberg, 2003). This changing organizational setting is argued to have important consequences for employment relations and career development; employees will have fewer possibilities for steady and predictable career paths within their organization, while flexible and boundaryless employment patterns should increase in importance (Feldman, 1995; DiPrete et al., 2001; Goffee & Scase, 1992; Arthur & Rousseau, 1996; Gold & Fraser, 2002). More emphasis is placed on horizontal careers, as more work is done in cross-departmental project teams. Additionally, internal job ladders decline in importance, as more and more candidates can achieve higher positions through alternative routes within the organization or when coming from the external labor market (Kanter, 1993; Ostroff & Clark, 2001). Whether these opinions hold empirically will be assessed by means of national a well as international research findings. Information for the Netherlands is taken from a large panel held every two years, representative for the Dutch population from 15 to 64 years of age (OSA, 1993, 2003).

One of the key indicators of long-term employment is the use of permanent contracts, indicating employers' commitment towards their employees. In practice, the greater majority of Dutch employees still has a permanent contract with their employer. In 2002, the share of employees with a permanent contract was 87 percent: in 1992 it was 88 percent. A related topic is the job mobility of employees. Proponents of a new labor model would expect an increase in external mobility and a decrease in internal mobility. And indeed, between the periods 1996-1998 and 2000-2002, the share of working persons who made an external job shift increased from 22 percent to 23 percent, while the share of internal job shifts decreased from 11 to 9 percent. However, these numbers do not give a complete picture, since they include employment in both large and small organizations. The argument of declining career employment focuses on large corporate hierarchies. In organizations with two hundred employees or more, the share of external shifts is 17 percent, and the share of internal shifts is 13 percent. In the period 1996-1998, both figures were 17 percent. In part, this drop in internal shifts was caused by a deteriorating economic situation between 2000 and 2002. For example, in 1998-2000, the percentage of internal and external job shifts in large organizations was similar (19 versus 18 percent). But what about the decline of long-term employment; has employee tenure decreased over the past years? Unfortunately, data on employee tenure in the Netherlands is hardly available. For the United States, this information is better documented. For example, in January 2002, 31 percent of all workers in the United States aged 25 or above had been with their current employer for ten years or more, while in 1983, this was only 1 percent higher (U.S. Bureau of Labor Statistics, 2004). If the analysis is limited to large firms, the evidence of job stability is even stronger. In a sample of U.S. organizations with 1,000

employees or more, the share of employees with a tenure of ten years or more increased from 45 to 48 percent between the early and mid 1990s (Allen et al., 1999). Overall, long-term employment apparently still prevails, especially in larger organizations.

Based on the foregoing, it can be concluded that long-term employment has not lost its importance, nor that the value to study intraorganizational career patterns has diminished. Yet, since the concept of what constitutes an organizational career may have changed due to the organizational developments sketched in this section, a broad perspective on career development will be applied. This perspective and the subsequent research questions will be discussed in the following sections.

1.4 Theoretical background

To explain the underlying causes for gender differences in career development, a large number of theories have been formulated. Traditionally, career outcomes are explained by focusing on the choices, actions and attributes of employees themselves (e.g., Hakim, 2002). The appeal of such *individualistic theories* has often been their assumption that individuals are responsible for their own labor market outcomes and their focus on observable behavior and choices of individual employees. A well-known example is the human capital theory (Becker, 1964; Mincer, 1974), emphasizing the educational investments made by individuals in order to increase their productivity (Schippers, 1994; Tam, 1997). For the labor attainment of individual employees, such theories do not consider an active role for the employer and organization, as opposed to employees' choices and market forces.

Because of this limited scope, and because research findings show that individualistic approaches are not sufficient in explaining career outcomes (Rosenfeld, 1979; Kraaykamp & Kalmijn, 1997), attention has shifted more and more towards *structural theories*. Here, career dynamics are explained by factors not deducible from individuals' characteristics (Glebbeek, 1993; see, e.g., Kanter, 1977).[4] Differences in location give men and women different opportunities for career advancement. These differences refer to the distinction between sectors or organizations (e.g., between primary and secondary firms; see Tomaskovic-Devey, 1993) or to a distinction between locations *inside* the organization, such as job ladders and internal labor markets (Baron et al., 1986; DiPrete, 1989). A large number of studies demonstrate a structural component in explaining careers. Some find that gender differences in promotions can be partly explained by different job-specific opportunities (e.g., DiPrete

[4] Theories from these two angles are not always mutually exclusive, but can be supplementary. For example, arguing that people can only make a promotion after a vacancy occurs (White, 1970) and that someone's chances depend on the number of contestants (Stewman & Konda, 1983) still allows for the possibility that among those contestants the one with most human capital will actually be chosen for the job.

& Soule, 1988; Hachen, 1990; Kalleberg & Reskin, 1995; Groot & Maassen van den Brink, 1996). Clearly, an uneven distribution of men and women within the organization is important, even though structural theories do not always make clear why such an uneven distribution occurs. Ignoring the distribution of men and women can lead to an underestimation of career differences, as it may partly have resulted from discriminatory selection (Winter-Ebmer & Zweimüller, 1997). Additionally, in structural theories, the actual behavior of individuals is often ignored. Lazear (1992) makes a distinction in this respect between what he calls the internal labor market approach ("the job is paramount") and the human capital approach ("the worker is paramount"). To incorporate the benefits from both sides, more and more studies follow a *structural-individualistic approach*, which incorporates the individual side, the structural context and the interactions between them (Oosterhuis, 1993).

The general idea in structural-individualistic theories is that individuals can be seen as decision-making entities, influenced by the structural context in which they are situated or which they anticipate. Within this approach, theoretical angles differ in their emphasis on who is the (most) relevant actor for explaining career outcomes (Glebbeek, 1993). Some emphasize the employee as the most relevant actor. Other - selection - theories consider employers' selection decisions as most important, while matching theories emphasize the decisions of both employees, as well as employers for explaining career mobility (Jovanovic, 1979; Hartog & Visser, 1987; Van den Burg, 1992). The latter approach gives a more elaborate explanation of career development, as it combines the behavior of employees and employers while still providing room for structural factors on the labor market. Regardless of which actor is focused on, the underlying notion of a structural-individualist approach is that - because of this behavior - the observable outcomes of structural conditions differ between social categories, such as race or sex.

Because of its ability to incorporate the distinguishing effect of the working context, the structural-individualistic angle has the potential of unraveling different career dynamics of men and women in relation to their organizational settings. A similar point is made by Kalleberg and Reskin (1995: 241), who argue that the organizational setting is important for explaining a gender gap in promotions in two ways. "First, the segregation of men and women into different organizational locations can affect their access to factors that enhance workers' likelihood of being promoted. Second, the same organizational characteristics may not have the same effect for men and women" (see, e.g., Baron, 1984). Whereas the first type of effect is essentially gender-neutral (Loscosso, 1990), it is the second type that necessitates an individual-based explanation of why the same structural setting works out differently for men and women. More generally, Baron (1991) points to the distinguishing role of the organization in relation to the jobs that employees occupy, by deciding which tasks should be performed in a job, how much a job is worth, and which types of employees should be matched to it. All three decision-making processes can influence men and women's positions differently (see studies about equal worth, e.g.,

England, 1992; De Ruijter, 2002). However, this study focuses especially on the third role of the organization, illuminating how structural practices influence the level of career inequality between men and women (Reskin, 2003).

Approach in this book

Based on the foregoing, career dynamics will be studied from a structural-individualistic approach, by incorporating both employees and employers and the organizational setting in which they are located. Based on this integrated approach, expectations will be formulated on how both the employer and employee contribute to the explanation of job and organizational effects on career differences of men and women.[5] The central starting point is that both employers and employees are seen as rational actors, who are faced with imperfect information and have to make career decisions based on this information. Especially employer-based theories concerning the explanation of gender career differences argue that employers are faced with insecurity about employees' future performance and have to make risk assessments based on this (Baron, 1984; Spilerman, 1986). In the past, this notion of future risk assessments has especially been used to explain employers' selection decisions when hiring external candidates. A frequently used argument is that for internal selection, crude criteria such as race and sex should be less important, since a person's performance should be more easily observable (Sanders, 1991; Petersen et al., 2000). On the other hand, selection decisions within the organization can be especially subjective (and therefore influenced by risk assessments), because internal selection and promotion decisions are less visible than hiring decisions (Baldi & McBrier, 1997; Reskin et al., 1999). Regardless of this (empirical) question, it can be argued that even if employees' current productivity can be assessed, this is no guarantee for their performance in a future job (Jacobs, 1981). Additionally, future assessments not only refer to future performance, but also to the expected returns of future investments. Women are often expected to have a higher exit risk than men, due to career interruptions (Lazear & Rosen, 1981). Even though these interruptions may only be temporary, the returns of their training costs are still lower men's, and thus they are less likely to be selected for a job. Additionally, there is a higher chance of women wanting to work part-time in the future, which reduces the returns of their training costs, making it less interesting for employers to select female candidates. Both job and organizational level conditions can affect the exit and part-time risks of employees, thereby altering the career prospects of women compared to men.

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5 In practice, authors often focus on either the employer- or employee as crucial for explaining the link between organizational settings and career outcomes. For example, Kalleberg and Reskin (1995: 242) state that "organizational characteristics and location that enhance men's chance of promotion do not have the same payoff for women (...). Organizations *may do this* for a variety of reasons: employers belief that female workers are less productive; biased evaluations; or entrenched personnel practices" (italics JH).

The job level

The importance of risk assessments is often related to the jobs that employees hold. This job level interplays with employees' career opportunities, as is stressed in matching theories (Jovanovic, 1979; Hartog & Visser, 1987; Van den Burg, 1992). Not only do the exit and part-time risks of women differ from those of men, the negative consequences of such risks are also likely to differ between jobs (McKenna & Johnson, 1981). For jobs in which the negative consequences of exit or working part-time are higher, the selection of women compared to men is likely to differ. Previous research, focusing on external selection, indicates that employers are indeed guided by risk assessments such as these. Bielby and Baron (1986) find that women are underrepresented in specialized jobs and jobs that require more training time (see also Tomaskovic-Devey & Skaggs, 2002). Employers also have a stronger preference for male versus female external candidates when the available job requires a high commitment in terms of time and effort (Sanders, 1991; Boxman et al., 1994). Employees may also be aware of these job restrictions and may make their career decisions based on this. For example, when working in jobs which hardly offer part-time opportunities, women may assess that further career advancement will be difficult, especially when they want to combine work with caring tasks.

The organizational level

Not only job aspects can affect the exit and part-time risks of employees, but also organizational conditions can. Representatives of organizations (i.e. employers) have imperfect information about the future functioning of employees (Baron, 1984). Much attention is paid to the methods organizations have for reducing this uncertainty (ibid; Spilerman, 1986). Boxman et al. (1994) divide these into two basic approaches. The first is to construct an incentive structure in order to increase the chance that employees will act according to the employers wishes, for example, by paying "efficiency wages" (Akerlof, 1982) or constructing an internal labor market (Doeringer & Piore, 1971). The second option is statistical discrimination, by which certain risk groups are assessed. Selection decisions are made based on group characteristics by either excluding them or requiring higher standards for their selection (Arrow, 1973). A third option is to combine both strategies by creating a group specific incentive structure. In this case, organizational factors can have a different influence on male versus female employees. Suppose an organization introduces work/family arrangements that reduce the risk of future career interruptions; it will then be "safer" to hire women or to promote them. The same organizational condition can also determine employees' future assessments. If an organization facilitates certain groups of employees through its policy, this not only enhances their career development, but also acts as a signal for their positions and career prospects (e.g., Rousseau, 1995). Employees themselves are then more likely to invest in their internal career and less inclined to leave the organization. Consequently, the notion of risk assessments can be regarded as an overarching angle in explaining how contextual practices affect career outcomes, both from an employer and employee's perspective.

1.5 Job and organizational factors incorporated

The question arises which job and organizational practices are especially important for explaining different career outcomes for men and women. In general, this refers to characteristics associated with risk assessments, partly reflected in earlier career studies. To shed some light on the practices incorporated in this study, they are discussed in this section.

At the *job level*, both general, as well as gender-specific job characteristics can change the costs of a bad selection decision due to employees leaving the organization or wanting to cut back on working hours. As a result, they offer different career prospects for men and women (McKenna & Johnson, 1981). In this study, attention is paid to characteristics reflecting their incumbents' location and promotability inside the organizational labor market, their signaling effects on female performance and their opportunities for social support inside the organizational hierarchy.

The most common indicator of higher risk assessments is the *hierarchical job level* of employees, as higher levels indicate higher negative consequences of exit or working part-time. The underlying notion is often the possible existence of glass ceilings, restricting women to reach higher positions (Maume, 1999; Cotter et al., 2001). A large number of studies focus on how the determinants of promotion vary with hierarchical position, either based on the positions that employees come from (Spilerman, 1986; Spilerman & Lunde, 1991; Sels et al., 2000) or the positions they acquire (Pfeffer & Konrad, 1991; DiPrete & Krecker, 1991; Reskin & Ross, 1992; Datta Gupta, 1994; Kramer & Lambert, 2001; Warren et al., 2002). In both cases, it is often found that, compared to men's, women's chances of being selected decrease at higher job levels. Additionally, the distance in hierarchical job level between both jobs can be important, as it indicates the relationship between this job and the future job. If a candidate's current job level is much lower than the vacancy, performance in this future job is more difficult to predict (Jacobs, 1981; see, e.g., Trappe & Rosenfeld, 1998; Barnett et al., 2000; Ishida et al., 2002).

A large share of intraorganizational research addresses the topic of *internal labor markets (ILM's)*, which is partly related to the topic of hierarchical levels. Internal labor markets are often described as hierarchically structured systems of jobs (i.e. job ladders), shielded off from external competitors both in wages, as well as promotion prospects (Althauser & Kalleberg, 1981; Rosenbaum, 1984; Kalleberg & Reskin, 1995). Not only are the jobs of female employees less likely to be on job ladders, but when they are on job ladders, these are shorter and more often dead-ended (Baron et al., 1986; DiPrete, 1989). Additionally, being inside an internal labor market can affect men and women's careers differently, as employers may favor men to advance through internal labor markets in which the potential damage of failure is higher. Employees may not only be aware of this, but the weight they attach to being inside an internal labor market can also differ. Cassirer and Reskin (2000) argue that women may

regard (future) caring tasks as more important than a career than men do; hence, they are less sensitive to signals reflecting chances of promotion than men are. Regarding career aspirations, Cassirer and Reskin (2000) find no support for this expectation, which may indicate that the employer side is more important for explaining how internal labor markets affect careers.

Jobs can also differ strongly in terms of their *gender composition*. It is often argued that employees whose gender differs from the majority of their colleagues draw more attention and receive less social support, since they do not fit the ideal picture of their group (Kanter, 1977). Employers are also able to obtain less information about their possible performance based on others of the same sex in similar positions. This effect is not gender-neutral, and may apply especially to women, since employers tend to prefer male candidates (Cassirer & Reskin, 2000; Ellemers et al., 1996). In addition, female dominated jobs tend to be peripheral for the organization and include lower promotion opportunities (Maume, 1999). This may cause the risk of making a wrong selection to be lower than in male-dominated jobs. Indeed, men are often promoted out of female dominated jobs, while women's chances in male-dominated jobs are lower (ibid). Previous studies about employees' own career perceptions often have mixed results (e.g., Tsui et al., 1992; Riordan & Shore, 1997).

Similar to a job's gender composition, the *share of part-timers in the job* signals that working part-time is not only formally possible, but is also common in practice. Employees with part-time jobs or a higher chance of working part-time in the future (i.e. mostly women) need not fear being regarded as exceptions who receive less social support (Tomaskovic-Devey, 1993; Allen, 2001). At the same time, a high share of part-timers may indicate, in part, the lower promotion prospects attached to that particular job, while the risks of making a wrong selection are higher in typically full-time jobs. Scandura and Lankau (1997) investigate a related working time arrangement, and find that only women are more committed and satisfied if their organizations offer flexible working hours, even if they don't make use of this flexibility themselves.

A final attribute located at this intraorganizational job level is the *gender of one's supervisor*, as a representative of the employer. One can argue that both male and female supervisors minimize risks by selecting candidates with the lowest exit risks; hence, both sexes prefer males. Results concerning external hiring confirm this notion (Steinpreis et al., 1999). On the other hand, when evaluating internal candidates, female supervisors have their own career background as a reference point, decreasing their need to rely on crude assessments. Male employers, who lack this personal experience, may rely more on gender as a selection criterion. Additionally, according to the theory of homo-social reproduction, employers minimize risk by selecting candidates who resemble themselves, for example, based on demographic similarities (Reskin & McBrier, 2000; see also Baron, 1991; Härtel et al., 1999). Employees can benefit from this, since a supervisor of the same sex may select them more often, and can act as a sponsor, mentor or role model (Burke & McKeen, 1996).

At the *organizational level*, the settings in which employees work can affect their career outcomes in several ways. In general, organizations can affect the behavior of their employees by means of structural, policy and cultural conditions. Similar to the jobs that employees hold, the types of organizational conditions that are arguably important for this study should also reduce the likelihood of exit or working part-time, or at least the negative consequences of such events. As a result, employers' discriminatory behavior can decline, and women themselves are more likely to stay. Both general policy measures, as well as gender-specific topics can play this role, as long as they make it "safer" to grant women promotions. Lower chances of discrimination would also encourage women themselves to invest more in their careers.

To deal with more general organizational measures, the manner in which an organization's personnel and promotion policy is organized can affect all employees, but can also indicate greater confidence in women. Especially the *degree of formalization* of these procedures is important in this respect; it can reduce subjective assessment and selection based on employees' gender (Carroll & Mayer, 1986; Huffman, 1995; Kalleberg & Reskin, 1995). Arguably, "written job descriptions and personnel evaluations, at least in theory, function to reduce managers' discriminatory behavior by attaching a paper trail to their actions" (Huffman & Velasco, 1997: 218; see also Dobbin et al., 1993; Kalleberg & Van Buren, 1992; Tomaskovic-Devey et al., 1996; Lim, 2002).

Related to promotion policies is the organization's general policy towards employee investments in terms of *human resource management (HRM)*. Although this topic has hardly been investigated in relation to gender differences, it can be argued that such investments are especially directed at employees who are thought to have the highest expected returns. As Rosenbaum (1989: 336) argues, "*it is expensive to keep the doors of opportunity open,* because, as long as they are open, the firm is "wasting" scarce investments on "unproductive" people" (1989: 336; italics in original). This implies that female employees may suffer from HRM policies, as they are not given the same opportunities as their male colleagues. Conversely, a more ample HRM policy implies investment in both men and women.

An organizational characteristic more directly related to female employment is an organization's *gender composition*. Especially at higher job levels, it can be seen as an indicator of the amount of trust that is placed in women and subsequently, of their future career possibilities (see Kanter, 1977). As women reach higher job levels, they can change the organizational culture or personnel policy by making them more family-friendly (Glass & Riley, 1998). Employers may then assess that selecting women is a "safer bet". An increasing share of women in higher positions can also influence the career development of other women, because they can act as mentor, sponsor or role model (Burke & McKeen, 1996). In contrast, only a few highly positioned women in the organization indicates - to both employers and employees - that it will be harder for others to break through.

The social support that women receive not only depends on their share at higher levels, but also on the supportiveness of the *organizational culture*. If colleagues think that women are less suited for working at higher job levels, their support will be smaller. This will cause women to see insufficient promotion opportunities or even to leave to a more female-friendly organization. Empirical findings on organizational cultures and promotion paths are scarce. However, a supportive culture towards work and family seems to lower the turnover intentions of employees (Thompson et al., 1999; Allen et al., 2003). This in turn can influence the risk assessments made by employers, who themselves are influenced by the same organizational culture.

A last organizational aspect is the degree to which it facilitates the career development of employees with caring tasks by means of *work/family arrangements*. In the presence of these arrangements, decision makers can assess that women with (expected) caring tasks present a lower risk of leaving or requesting a (small) part-time job. This, in turn, reduces their incentive to discriminate against women. Employees themselves can then also anticipate combining caring responsibilities with pursuing a career. Allen (2001) shows that employees who are offered more family-supportive benefits are more committed to the organization and have a lower intent to leave (see also Grover & Crooker, 1995; Thompson et al., 1999). Consequently, work/family arrangements have a signaling function both to the employer and to employees.

In this section, a number of job and organizational characteristics are discussed that are argued to operate differently for the career development of men than for that of women. In part, these conditions may reflect on all employees, although they can work out differently for men and women and may partly be directly aimed at the employment of women. Focusing on these practices can help uncover the dynamics behind inequality in work settings (see Reskin, 2003; Tomaskovic-Devey, 2004).

1.6 Research questions

The central argument in this book is that both employers and employees make risk assessments based on the job and organizational context. As a result, both structural settings can operate differently for the career developments of men and women. To investigate these matters, four research questions are distinguished, both from the employee and the employer side of the labor market. In each of these research questions, a different topic will be addressed. Each is related to vertical career progression, but places a different emphasis on the supply and demand side of career allocation. The focus of attention in these questions shifts from (1) the career orientations of employees themselves, to employees' actual career development in terms of (2) job mobility and (3) changes in job content, and ends with (4) the selection decisions for job vacancies made by employers. Below, each of the four questions is discussed more elaborately.

The classical view on career mobility starts with employees, who make choices that affect their further career development. It is often argued that women focus less on making a vertical career than men do (Loscocco, 1990; Rowe & Snizek, 1995). The question arises if this is really the case, and whether such differences are caused by the jobs and organizations in which they work. Therefore, the first topic of investigation is whether employees do indeed respond to their jobs and organizations, and whether this is reflected in their career orientations. In the light of organizational developments, such career orientations are argued to become more and more important. "As organizations become less and less paternalistic, individuals will have to take even greater responsibilities for self-assessing, planning and managing their own careers" (Feldman, 1995: 148; see also Bock & De Jong, 1994). This gives rise to the question whether job and organizational conditions affect the labor market orientations of women and men differently. Attention is paid to the aspirations of men and women to shift jobs, both internally, as well as externally. Their internal career orientations not only refer to the perceived promotion possibilities of men and women (are they able to pursue a career), but also to their intentions towards an internal career (do they want to pursue a career). Externally, the focus is on employees' intentions to leave the organization. The first research question is therefore:

1. *To what extent can job and organizational characteristics explain the perceived promotion opportunities and the internal and external career aspirations of men and women?*

Up until now, career processes have mostly been described in terms of job mobility. Indeed, in the traditional view of careers, the focus is on movements through a series of connected jobs, arranged within an organizational hierarchy (Form & Miller, 1949; Tolbert, 1996). In line with this, much research about careers focuses on changes in job level (e.g. Kalleberg & Reskin, 1995) or wages (e.g., Cotter et al., 2001). Many authors argue that this approach ignores the fact that organizations are becoming less hierarchically structured, therefore reducing the necessity of allocating employees through promotions and job openings only (Goffee & Scase, 1992; Arthur & Rousseau, 1996). Although this may indeed be the case, this does not imply that promotion steps are no longer an important topic to be studied. On the contrary, if promotions have become scarcer, their importance as career rewards may even increase, with employers' selection choices becoming stricter. The organizational setting not only influences career outcomes of men and women differently (see, e.g., Kalleberg & Van Buren, 1992), but this influence may also be stronger for some job shifts than for others. For example, if an organization has work/family arrangements, women are more likely to receive a promotion. This may especially apply to vertical shifts or to job shifts at higher job levels, where the negative consequences of employees leaving the organization are greater. This interplay between individuals and their structural settings will be investigated on both the job, as well as the organizational level in which employees are located. This leads to the second research question:

2. *To what extent can job and organizational characteristics explain the internal job mobility of men and women?*

Although job mobility is an important issue, it does not give a complete picture of a person's career development. As Bird (1996: 150) stresses, "in its deeper meaning career conveys more than a chronology of positions held". Especially nowadays, employers, as well as employees are perhaps focused less "on filling predetermined work roles, and more on cultivating and using skills and capabilities" (Arthur & Rousseau, 1996: 373). This suggests that the assumption that all employees strive for pursuing a career in terms of promotion steps may no longer hold. Consequently, while some employees can still attach great value to making a promotion, others pay more emphasis on development within their current position without actually switching to another job. In addition, while the job content of some employees hardly changes over time, others may receive an extension of their tasks and responsibilities. This not only enables their further career development, but in itself can be a rewarding outcome. Again, the structural setting can affect this career outcome for men and women. Since the topic of development in the job already requires controlling for the starting positions in those jobs, the focus of attention in this chapter is mostly on the organizational level in which employees work. Organizational conditions can facilitate the degree to which a development in the job is available for both men and women. Here, two related job aspects are referred to, namely the complexity and the wage level of employees' jobs. Therefore the third research question is:

3. *To what extent can organizational characteristics explain the development in job complexity and wages of men and women?*

The previous three research questions address the career outcomes of employees and, in this sense, can be seen as supply side questions. To gain a broader understanding of employees' careers and its causes, attention is also directed at the demand side of the labor market. Employers' selection decisions are often assumed to play a central role in explaining the career gap between men and women. Despite this fact, empirical research concerning internal career dynamics has hardly focused on the actual selection behavior of employers. As Baron and Bielby (1980) argue, it is especially important to get inside the "black box" of labor market allocation by investigating the allocation behavior of employers more directly. To achieve this, the selection behavior of employers is investigated. This is done by assessing which employees they select for internal promotions and whether these selection decisions are based on the organizational context and the types of job vacancies that occur. The topics addressed concerning employee promotions will, therefore, be replicated by means of employer-based information. The accompanying research question is:

4. *To what extent can job and organizational characteristics explain employers' selection decisions of men and women?*

To answer these research questions, data were gathered from a sample of organizations and their employees. This topic is discussed more elaborately in chapter two. In short, the data were gathered from twenty-eight Dutch organizations in manufacturing, services and government. Within each organization, two sets of written questionnaires were distributed. One was sent to a sample of employees in office departments, containing questions about their career development, and one was sent to a sample of heads of departments, containing questions about their selection decisions.

1.7 Scientific relevance of this research

The career development of employees is a topic studied by both sociologists and economists. Both disciplines focus on how the allocation of individuals to jobs can best be explained. Both sides are also starting to pay more and more attention to the interplay between individuals and their structural context (Reskin, 2003). Many theories stress the importance of intraorganizational processes in the allocation of positions, either at the job level (e.g. matching theories or the internal labor market approach) or at the level of employers and their organizational settings. In this book, I investigate this topic of intraorganizational career development by focusing on both job and organizational factors. In that sense, the current study can provide new insights as to how structural settings operate to improve or restrict women's relative career prospects. Combining both structural settings in one study has so far been applied to a limited extent, although previous studies show that it is a promising approach (Kalleberg et al., 1996). A starting point throughout the book is the role of risk assessments. Although this concept is commonly used for explaining job differences (between high and low risk jobs), it is also employed here to explain the effect of the organization on male and female career development. This study can thereby determine whether such an approach is a valuable endeavor.

An important question is not only if jobs and organizations affect the careers of men and women differently, but also whether this difference arises through the choices of employees or employers. The research design used here enables us to investigate this question in a manner that would not be possible by means of case studies of a single organization or individual-based surveys. First, using data on individual employees' careers creates the opportunity to compare their career development to that of their direct competitors in different organizational settings (Lazear, 2000). Second, using data on employees' careers and employers' selection decisions helps determine whether the gender gap in career dynamics is attributable to the behavior of employees or employers. In this sense, the study on employers' selection decisions directly tests to what extent the selection theories that use these decisions as a starting point indeed apply.

Additionally, this study can contribute to scientific development, as it adds two relatively new perspectives. The first is that vertical job shifts are not homogeneous steps, but rather differ in terms of their relationship between originating and destination job. As some job shifts may occur over larger distances than others, they can reflect different allocation processes (see, e.g., Barnett et al., 2000; Ishida et al., 2002; Hultin, 2003). Women may not (only) differ from men in terms of making vertical job shifts (as is found in previous studies), but also in the types of job shifts they make; it is possible that the job shifts they make are less beneficiary to their further career development.

A second new perspective employed in this book is the view that employees not only shift between jobs, but also develop within them. Although wage development within jobs has received a high degree of attention, especially by economists, development in job content has not (for an exception see Tomaskovic-Devey & Skaggs, 2002). Since wages are partly reflective of underlying salary scales, the actual changes in job content can reveal more about the allocation of new tasks to favorable employees on a fast career track. Since the allocation of tasks and responsibilities is more subtle and possibly more subject to individual preferences than formal promotion steps or wage raises, the gap in career development may arise not only when vacancies occur, but also even before then. Addressing these topics by means of a data set containing both organizations and employers and their employees can lead to new insights about the existence and working of intraorganizational career mechanisms in a broader perspective.

1.8 Policy-related relevance

In many societies, women's careers and employment positions are found to lag behind those of men. There has been an increase in attention from governments, as well as private organizations to diminish these gender inequalities. Partly following international directives of the European Union and the United Nations, the Dutch government is paying more and more attention to the reduction of barriers to women's career development and to the implementation of work/family arrangements (Remery, 1998; SCP, 2004). Labor organizations also recognize that it is of increasing value to understand and eliminate the barriers that women face in pursuing a career. For a large part, this is due to demographic changes and the shortage of qualified personnel (Igbaria & Baroudi, 1995). In this sense, reducing gender discrimination on the labor market is not only a goal in itself, but can also enhance economic efficiency. The International Labour Office (ILO) argues (2003: 6):

> "Equality for women and men in more and better jobs makes the most of human talents and potentials, promotes worker morale, reduces labor turnover, improves the socially responsible image of companies and means better business performance".

To contribute to this target, this study aims to provide empirical knowledge about the gendered barriers that exist within organizations, both in terms of their structure, as well as in their policies and cultural climate. Policy measures are often either based on the assumption that women and men are different, and are therefore aimed at employees to change, or they address the organizational restrictions for employees, requiring organizations - instead of employees - to change (Kanter, 1993). Which of these approaches is most fruitful and how they can be implemented best is, in the end, an empirical matter, which is based on the question which measures work and which do not. In this respect, detailed knowledge about how organizations facilitate or restrict the careers of women is greatly missed. As women are still lagging behind men in their career development, the aim should be how to diminish the barriers in order to obtain an equal career development. As Van Doorne-Huiskes and Van Hoof (1995: 114) argue:

> If a society or organization "wishes to diminish social inequality between men and women, it needs to understand the causes of these persistent patterns of inequality. An important element is that specific constraints lead the behavior of men and women in different directions. If this behavior is to change, the constraints must be altered."

1.9 Outline of the book

The four research questions of this book are investigated in subsequent empirical chapters. These topics are summarized in table 1.2, which also shows the data sets and the types of statistical analysis used in this book. Chapters three, four and five address the supply side of the labor market, and chapter six deals with the demand side (employers' selection decisions). In all four empirical chapters, attention is paid to the influence of job and organizational characteristics, although the precise topics can differ between chapters. The chapter concerning development within the job mostly focuses on the organizational level in which employees work. Hence, one extra organizational topic is discussed in that chapter, namely the human resources policies employed by organizations. These policies especially refer to following courses aimed at improving employees' job skills and abilities. In this sense, they are most strongly related to how employees acquire additional tasks within those jobs. As for the data set, the choice and collection of data are discussed in chapter two. Because of the nested design of the data used (individuals within organizations), at least some form of multilevel model has been employed in all cases. In these models, measurements for level single units (individuals) are regarded as dependent upon other individuals within the same organizational settings. The book ends with a final chapter containing a summary of the empirical findings and a discussion about their implications.

Table 1.2 Overview of empirical chapters concerning organizational careers of men and women

	What is explained?	By what? ... Job level	... Organizational level	Which data set?	Which type of analysis?
Chapter 3	Career aspirations	Hierarchical level of the job, presence on internal labor market, gender composition job and department, commonness part-time labor, gender of supervisor	Formalized personnel policies, share women higher job levels, organizational culture, child care facilities	Employees in 28 Organizations	Multilevel ordinal logistic regression analysis
Chapter 4	Job mobility	Hierarchical level of the job, distance between originating and destination job, presence on internal labor market	Formalized personnel policies, organizational culture, child care facilities	Employees in 28 Organizations	Competing risks event history analysis
Chapter 5	Growth in job complexity and wages	Hierarchical level of the job	Formalized personnel policies, HRM policy, share women higher job levels, organizational culture, child care facilities	Employees in 28 Organizations	Linear regression growth model analysis
Chapter 6	Selection decisions by employers	Hierarchical level of the job, distance between originating and destination job, gender composition job	Formalized personnel policies, share women higher job levels, organizational culture, child care facilities	Departments heads in 23 Organizations	Multilevel ordinal logistic regression analysis

2 Research Design and Participating Organizations

Abstract

In this study, the influence of the organizational setting on the careers of men and women is investigated. In order to do this, a number of decisions have to be made about the design of the research, the methods of data collection and the measurement of relevant concepts, which are the topics of this chapter. I will elaborate on the choice of a suitable research design and specify the research design of this study in more detail. Next, the sample in this survey is addressed, both at the organizational and employee level. Additionally, I will describe the organizations under study and the operationalization of their characteristics. The chapter ends with a description of the employees participating in this research.

2.1 The research design

2.1.1 A household-based and organization-based approach

In the past, a large number of studies have investigated the relationship between employees and their organizations. Two appropriate research designs combining employees and organizations can be distinguished: a household-based and an organization-based approach (for an overview, see Abowd & Kramarz, 1999; Lazear & Oyer, 2004).

The first often starts with a sample of the labor force in a geographical area, after which information is gathered about the organizations in which they work. One way of accomplishing this is to use employees as informants, even though it is argued that individual workers are less able to report about detailed topics (such as an organization's policy measures), due to incomplete information or biased opinions. This inaccuracy is probably even larger when concerning information about their work setting in the past (Carroll & Mayer, 1986; Kalleberg, 1994). A second option is to let respondents provide the names and addresses of their organizations, and use key informants to gather information about those organizations. This design can be very powerful, because of its high chance of being representative. Therefore, it is especially well suited for questions that are also directed at employees of small and new firms. However, for the kind of research questions in this study, it has some serious disadvantages. Most importantly, "household based samples rarely include more than one or two people who work in the same organization, and so the researcher is generally unable to investigate potentially important within organization differences" (Kalleberg, 1994: 227). Additionally, a design such as this becomes very impractical and costly when having to locate, for example, a thousand respondents and then trying to contact the organizations in which they work. An example of this approach is the National Organizations Survey (NOS) in the United States (Kalleberg et al., 1996).

The second approach is organization based, often focusing on the determinants of job mobility within a single firm. "The appeal of this design is that it permits the organizational structure to be described in some detail, and allows the interplay between human capital variables and position in the firm to be investigated. An evident problem exists with respect to generalizing from case studies, but these investigations nonetheless are revealing about institutional arrangements and the consequences of particular organizational structures for individual achievement" (Spilerman, 1986: 45). Especially when detailed organizational practices are the primary topic of investigation, much time will be needed to learn about their application. This can be done by studying an organization's work documents and personnel records and performing interviews with key informants about organizational practices (ibid; see, e.g., Rosenbaum, 1984; Van Veen, 1997). A second option within this same approach is to draw a sample of organizations and, within each organization, a

sample of employees (see, e.g., the Norwegian Survey of Organizations and Employees, NSOE; Mastekaasa, 1992). Because this research design has a number of advantages for a comparative study of careers inside organizations, it is employed in this book. One major advantage is that it not only enables researchers to investigate characteristics both at the individual and organizational level, but that it can also distinguish the differences between, as well as within organizations. A related advantage is that researchers can take a clustering of individuals *within* each organization into account (Kalleberg, 1994). An example that is often referred to is the segmentation of employees within organizations, either inside or outside an organization's internal labor market. The design also offers a number of practical advantages. First, if researchers can make use of an available pool of organizations, including information about general characteristics, this enables them to select organizations based on criteria such as size or type of industry. Other advantages are the possibility to exclude well-defined groups of employees in the survey (such as blue collar employees) or the option to gain better insight into nonresponse based on employees' background characteristics (if these are available in the organization). Additionally, a design such as this offers the opportunity to investigate not only the career steps of employees, but also the selection decisions by employers. Representatives of the organization can bring the researcher in contact with employees responsible for decision-making regarding internal job mobility. A research design aimed at these decision makers and their selection decisions is described and employed in chapter six.

Despite the above-mentioned advantages of this approach, it is also important to discuss some of its disadvantages, since these point to possible biases that may arise in the empirical findings. The difficulty with this approach is that employers need to give permission for access to employee lists (Kalleberg, 1994). A related - and more fundamental - disadvantage is the problem of selectivity. A sample of participating organizations and their employees may differ substantially from other organizations in society as a whole. For example, organizations that fear that their employees are relatively unsatisfied may not participate in a study such as this one. Although selectivity may always be a problem (also in the case of household surveys), it is less worrying in this case; the focus of this study is not so much empirical generalization to the total population of organizations in the Netherlands, but to test empirically if certain theoretical mechanisms apply. The problem of selectivity at the individual level is discussed in more detail in section 2.2.2.

2.1.2 The research design employed in this book

The data collection in this study took place between 2001-2002, and was carried out in cooperation with a fellow researcher who investigated working time patterns in organizations (Baaijens et al., 2005). A sample of organizations was drawn from a well-defined pool of labor organizations

dispersed over a wide variety of sectors in the Netherlands. The pool consisted of 308 Dutch labor organizations with two hundred employees or more, all of which publish yearly corporate social reports of their organization (Tijdens et al., 2001).[1] In the Netherlands, the provision of corporate social reports is not compulsory by law, but their use is relatively common among larger organizations (Van Lamoen & Van Tulder, 2001). From these 308 organizations, a selection was made of organizations in three general sectors, namely manufacturing, services and the public sector. The underlying reason for this choice is to incorporate a wide variety of types of organizations and, thus, ensure sufficient variation on the organizational outcomes. Only a selection of (sub-)sectors from each sector is included in this research, with the purpose of gaining comparability between organizations. Sectors with very specific types of work (such as police and fire departments) are excluded, as well as sectors in which the jobs that are part of the organization's primary process offer only limited promotion prospects (such as industrial cleaning or secondary education). The included sub-sectors are listed in table 2.1. These are based on the Dutch Standard Organizational Classification (SBI) 1993, a systematic classification of organizations, based on their economic main activity (CBS, 1993).[2]

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1 Not all sectors are represented in the survey of corporate social reports: the sectors Agriculture, Fishing, Private households and Extra-territorial organizations are not included.

2 The SBI '93 classification consists of six levels, in which the two highest levels (sections and subsections) are indicated by letters, and the lower levels (divisions, groups, classes and subclasses) are indicated by numbers. Internationally, the SBI classification is almost identical to the NACE Rev. 1, established by the EU Statistical Office Eurostat and applied in all EU member states. At the highest levels of classification, both the SBI '93 and NACE Rev. 1 are identical to the ISIC Rev. 3.1 (International Standard Industrial Classification of All Economic Activities), i.e. the recommended classification of economic activities by the United Nations.

Table 2.1 Overview of sectors used as a sample frame

D	Manufacturing [a]
15	Manufacture of food products and beverages
....	.....
36	Manufacture of furniture; manufacturing n.e.c.
E	Electricity, gas and water supply [b]
40	Electricity, gas, steam and hot water supply
41	Collection, purification and distribution of water
J	Financial intermediation
65	Financial intermediation, except insurance and pension funding
66	Insurance and pension funding, except compulsory social security
67	Activities auxiliary to financial intermediation
K	Real estate, renting and business activities [c]
72	Computer and related activities
73	Research and development
74	Other business activities [d]
L	Public administration and defense; compulsory social security [e]
75	Public administration and defense; compulsory social security
M	Education
803	Higher education [f]

a Organizations with the following SBI-codes are not included in the data set of corporate social reports: 16 (Manufacture of tobacco products), 18 (wearing apparel; dressing and dyeing of fur), 20 (wood, cork and straw products), 23 (coke, refined petroleum products and nuclear fuel), 32 (radio, television and communication equipment) and 34 (motor vehicles, trailers and semi-trailers).

b At the time of the survey these organizations were still part of the public sector.

c Organizations with SBI-code 71 (renting of machinery and equipment) are not incorporated in the data set, while the few organizations with code 70 (real estate activities) are excluded from the research.

d The category "Other business activities" consists of a number of sectors of which the following two are excluded from the research: 746 (investigation and security activities) and 747 (industrial cleaning).

e Excluded is SBI-code 752: Provision of services to the community as a whole (including Foreign affairs, Defense activities, Justice and Judicial activities, Public security, Law and Order activities and Fire services).

f SBI-code 801 (primary education) is not included in the data set, while 802 (secondary education) and 804 (adult and other education) are excluded from the research.

To ensure comparability between the organizations and to establish an employee sample that includes a sufficient number of men and women, we only selected organizations with a minimal share of 10 percent and a maximum share of 60 percent of women. In total, 141 organizations in the data set were approached. In the course of the data gathering, this list of organizations was supplemented with a number of other organizations, both in the public as well as private sector, in order to reach an adequate number of participating organizations. For manufacturing and services, 53 extra organizations were selected from the "Intermediary Yearbook 2000". A large number of organizations present themselves to students in higher education in this annual publication. For the public sector, a sample of 25 provincial and local (municipality) governments were drawn from a list of provinces and municipalities with a minimum of two hundred employees.

After selecting organizations, the question arises at which level these should be studied. This question is important, since some have decentralized their organizational policy to separate divisions (Tijdens et al., 1998). If an organization had one personnel department and published one yearly social report, the general organizational level was approached. If the organizational personnel policy was formulated at the level of a division which had its own personnel department and publication of social reports, one of the lower level divisions was addressed. Divisions were only selected if they consisted of two hundred employees or more and if their share of women fell within the determined range.

The heads of the selected organizations' personnel departments received a written letter asking for their cooperation and explaining the purpose of the research. Subsequently one of the two executive researchers would telephone the person addressed.[3] Organizations often received additional information about the questionnaires, and a meeting was scheduled to explain the research in more detail or to negotiate about the terms under which they were willing to cooperate (such as sample size and anonymity). After this meeting, the research was generally submitted for approval to the organization's board of directors and/or work council. A personnel officer from each of the participating organizations (mostly the head of the personnel department) was then interviewed about the organizational structure and its policies. The interviews were held with the use of a semistructured questionnaire, which provided the opportunity for more detailed questions if

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[3] Since this research was part of a larger research program, the letter explained that two topics were to be studied, namely the careers and working times of employees. The desired sample size differed between 100 and 250 per organization, depending on the organization's size. Of these employees, half would receive a questionnaire concerning their career development and half a questionnaire about their working times. This was done in order to limit the time burden for each employee. In the same letter we also requested that three to five heads of personnel departments received a separate questionnaire (see chapter six) and mentioned that each organization would receive a report of their findings compared to all other organizations.

necessary. This was often the case regarding policy measures such as work/family arrangements; the interviews gave us the opportunity to ask not only about their presence, but also about their contents.

For reasons of comparability, a number of employee categories were excluded from the research. In manufacturing, only nonmanual personnel participated in the research. This was done to increase comparability with the other two sectors. Additionally, employees in supportive services, in all three sectors, whose tasks are often outsourced by organizations were excluded. This refers to categories such as catering, postal services and security personnel. Within municipalities, employees working for the local fire department and employees working outside of the main office (for example wardens or employees in cleansing departments) were excluded, in provincial governments and ministry departments, only employees at the main office (core department) were included. Consequently, most employees included in the three sectors are white collar personnel.

A random sample of the selected employees received a written questionnaire about their career development. The use of written questionnaires is quicker and more convenient for respondents timewise than interview sessions. The use of questionnaires is also well established, since the topics addressed in them have been studied intensively in the past. A return envelope and letter, guaranteeing anonymity and requesting cooperation were included with the questionnaires. Where possible, the questionnaire was accompanied by an additional letter from the personnel department of their organization, asking for their cooperation and emphasizing that all answers would be processed anonymously. In some organizations, employees received the questionnaire at their home address, while in other organizations the questionnaires were sent to internal work addresses. In all but one organization, employees received a reminder about two weeks after the initial letter, again asking for their cooperation. This reminder was sent to all employees, as it was not possible to know who returned the questionnaire and who did not.

2.2 Response

2.2.1 The organizational level

A total of 28 organizations participated in the research, 14 in the public sector, 9 in services and 5 manufacturing organizations. The willingness to participate is clearly higher in public sector organizations than it is in services and especially manufacturing (table 2.2). The response rate in the latter group is only 6 percent. Reasons for not participating are not enough time, the organization conducts its own employee surveys, the organization has recently participated in another study, or the organization is preparing for or is in the middle of a process of restructuring.

To shed some light on the possible bias in participating organizations, the size of these 28 organizations are compared with the organizations approached in table A-1 in the appendix.[4] In all three sectors, organizations with more than 2,000 employees are underrepresented. This bias in organizational size is partly related to the reasons given for not participating. Especially larger organizations may conduct their own personnel surveys, reconstruct their organization more often and be confronted more regularly with requests for participation from other researchers.

Table 2.2 Response rate of organizations per sector

Sector	Number of organizations addressed	Number of organizations participating	Response rate
Public sector	72	14	19%
Manufacturing	77	5	6%
Services	70	9	13%
Total	219	28	13%

2.2.2 The individual level

At the level of individual respondents, response rates varied between 24 and 119 persons per organization, with an overall response rate of 46 percent. In total, 1,153 employees filled in a questionnaire.[5] Although the response per organization varies considerably, the overall response rate per sector is almost equal. In all three sectors, a little less than half of those approached completed a questionnaire (table 2.3). Especially in the services sector, the reminder a few weeks after the survey increased the response considerably.

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[4] Only the size of the organizations approached is commonly available, and even then in a limited number of cases (157 of the 219 organizations addressed). Still, this organizational characteristic is informative, since it is often related to other organizational measures such as formalization of personnel policies, availability of work/family arrangements and the presence of internal labor markets (e.g., Carroll and Mayer, 1986; Kalleberg & Van Buren, 1992).

[5] In four of the organizations, this sample was stratified, with a proportional sample of employees by their job category or, in the case of a merger, by their origin before the fusion. This choice was made because the organizations in question preferred this distinction for a report with organization specific results. Since the focus of this study is not on a descriptive analysis about career outcomes, but on explanatory and multivariate analyses, no weighting factor is used.

Table 2.3 Response rate of employees per sector[6]

Sector	No. of employees approached	Response rate before reminder	Response rate after reminder	Total response rate	Total no. of respondents
Public sector	1,235	35%	10%	45%	552
Manufacturing	425	32%	12%	44%	186
Services	868	32%	16%	48%	415
Total	2,528	34%	12%	46%	1,153

Both employees who have never worked in the organizations under study, as well as those who have already left the organization are not represented in the sample. Consequently, a possible disadvantage of this organization-based approach is that a selective group of employees participates in the survey, which can influence the results. Whether this is the case can in part be derived in chapter 3, in which the turnover intentions of employees are investigated. For the same purpose, a number of background characteristics of employees in the survey are compared with those of employees in all three sectors under investigation. A detailed description of this comparison can be found in appendix B. In short, the sample composition differs on a number of aspects from the three sectors as a whole. Since only white collar employees were included in the survey - excluding, for example, factory workers, as well as supportive jobs such as catering - the employees in this sample are, on average, more highly educated than employees in the sectors as a whole are; they also fill higher positions and generally work full-time more often than the average employee. Although this implies that the results cannot automatically be generalized to these sectors, the types of employee categories that are included represent the work situations of many white collar employees in general, regardless of the sectors in which they work (see Powell & Snellman, 2004). Below, the possible bias in nonresponse at the individual level is discussed more elaborately.

An important question is whether the response rate of women differs from that of men. For eleven organizations, this question can be answered by comparing the gender distribution of respondents with the name tags of all persons approached (table 2.4). Six of these are public sector organizations in which the response rate is slightly higher for women than for men; in four services organizations the response rate of women is two percent higher than that of men, while in one manufacturing organization, it is clearly higher for men than it is for women. On average, no indication is found that employees of either gender responded more often than the other.

[6] In one services organization it was not possible to send a reminder. The response for this organization is included in the total response. If this one organization is excluded, the total response for services before the reminder becomes 29 percent, the response after the reminder remains the same, and the total response for services becomes 44 percent.

Table 2.4 Response rate for men and women per sector (for 11 of the 28 organizations)[7]

	Men	Women
Public sector (N = 6)	38%	43%
Manufacturing (N = 1)	58%	46%
Services (N = 4)	54%	56%
Total (N = 11)	47% (300)	48% (183)

Another important topic for the study of career development is whether higher level employees respond differently than lower level employees. This could be investigated for a smaller number of organizations. A comparison in made in the three universities based on university title. Employees with a university diploma responded most often (38 percent), followed by employees with a PhD title (34 percent) and employees without a university diploma (25 percent). The response rate of full professors is lowest (21 percent). Although this might indicate an underrepresentation of employees at the highest and lowest positions, other findings suggest otherwise. In a manufacturing organization, employees within a collective labor agreement responded less often than higher level employees with additional benefits did (43 versus 57 percent). The response rate of support employees in one consultancy organization is 52 percent; for consultants, it is 56 percent. No general picture about the response emerges: higher personnel responded more often sometimes and less often other times; in general, support personnel appear to have responded less often, but this lower response rate can sometimes be quite small.

A final step in the analysis of nonresponse is based on the timing of returning a questionnaire. Some respondents sent back their questionnaire relatively late, possibly because they needed a reminder to persuade them to participate. Based on this, these late responders may share certain sociodemographic similarities with nonrespondents, for example in terms of working pressure. It may take longer for some to find the time to fill in the questionnaire, and others may not have time at all. Assuming that late respondents shed at least some information about nonrespondents, two different multivariate analyses were performed. The first is based on the ranking of respondents per organization from first to last, using OLS regression analysis.[8] The second is whether people

[7] Two of these eleven organizations are universities, in which the gender of respondents is only available for people without a university diploma.

[8] For this outcome a linear transformation is used, with the first respondent returning a survey to receive the value zero, and the last respondent the value one. For this type of analysis it is assumed that the dependent variable is measured at the interval level, although it should be noted that this need not be the case. For instance, the distance between the first and second respondent may not be the same as the distance between the last and one but last.

respond before or after the reminder (by means of a logistic regression analysis). A number of standard sociodemographic characteristics are used as predictors, which are often incorporated in mobility research.[9] The results indicate that no gender bias appears to occur (see table 2.5). In general, almost none of the predictors have a significant influence on both outcomes. Only employees who have been working longer respond a little later than employees with less working experience. On average, employees in management jobs respond even earlier than employees in line jobs; a person's wage level is found to have no effect. Both findings indicate that there is no lower chance of employees in higher positions participating. However, there is a higher chance of employees who hardly think about applying for an internal vacancy responding after the reminder has been sent. This could indicate that employees who are not interested in the topic of career development are less likely to participate in the survey. Notably, the explanatory power of all the predictors incorporated is relatively low. This supports the view that late responders hardly differ from early responders.

[9] For a description of the precise construction of the characteristics incorporated in this analysis, see chapter three, in which the same characteristics are used to investigate the career attitudes of men and women.

Table 2.5 Regression analysis of timing of response and logistic regression analysis of response before or after reminder (unstandardized coefficients)

	Timing of response	Response after reminder
Female	0.03	-0.12
Education (in years)	0.01	-0.01
Duration current job	0.00	-0.01
Previous job experience	0.00*	0.01
Number of jobs before current job	-0.01	-0.07
Log gross wages in job	0.01	0.09
Works in support job (ref. is line job)	0.02	0.02
Works in customer job (ref. is line job)	-0.01	0.34
Works in staff job (ref. is line job)	0.05	0.49
Works in management (ref. is line job)	-0.23**	-0.72
Works part-time (less than 36 hours)	0.02	-0.08
Has child(ren) under the age of 6	0.03	-0.13
Sees reasonable to good promotion prospects	0.01	0.12
Thinks regularly or often about applying internally	-0.03	-0.50*
Thinks regularly or often about applying externally	0.01	0.09
Constant	0.33	-1.59
(Pseudo) R^2	1.9%	1.5%

* $p < 0.05$; $p < 0.01$

2.3 Description of participating organizations

2.3.1 Types of organizations

As was mentioned earlier, a total of twenty-eight organizations participated in the research. The fourteen public sector organizations consist of three ministry departments, three core departments of provincial governments, five local governments (municipalities) and three universities (table 2.6). These are all universities of human and social sciences. Two of them are, in fact, separate faculties (in different universities) that have their own personnel departments and publish their own corporate social reports. The manufacturing sector consists of two technical plants, one pharmaceutical organization, the main office of a division of a chemical plant and one branch of a food company. The services sector can be divided into two separate categories: one consists of two banking

organizations and two insurance companies; the second consists of five consultancy organizations. Of these five, two are specialized at technical consulting, two are IT companies and one is an accountancy organization.

Overall, differences in response between the types of organizations are relatively small. The only exceptions are two extremes within the public sector: municipalities with a relatively high response (62 percent) and universities with the lowest response of all types of organizations (32 percent).

Table 2.6 Total response, by type of organization and sector

Sector	Type of organization	No. of organizations	No. of surveys	Total response rate	Total no. of respondents
Public sector	Ministry departments	3	375	40%	149
	Provinces	3	275	45%	123
	Municipalities	5	310	62%	193
	Universities	3	275	32%	87
	Total	14	1,235	45%	552
Manufacturing	Manufacturing organizations	5	425	44%	186
Services	Banking/insurance org's	4	300	41%	123
	Consultancy organizations	5	568	51%	292
	Total	9	868	48%	415
Total		28	2,528	46%	1,153

2.3.2 Organizational policies

In this section, the construction of organizational measures is discussed, and a description is given of how the organizations differ on these outcomes. These descriptions are accompanied by quotes from employees in the written questionnaire. At the end of the questionnaire, respondents were given the possibility to make additional remarks. No indication was given about the topic of the study. Thus, we can presume that their answers reflect thoughts about issues that are important to them. The answers are not meant as an empirical test of the implications of organizational measures; however, they can be exemplary by pointing out how employees perceive organizational measures in practice.

Formalized personnel policy

To determine the formalization of personnel policies, a number of indicators are used, following the approach employed by the U.S. National Organizations Survey (Kalleberg et al., 1996). Personnel managers of participating organizations were asked how often the following personnel procedures are used:

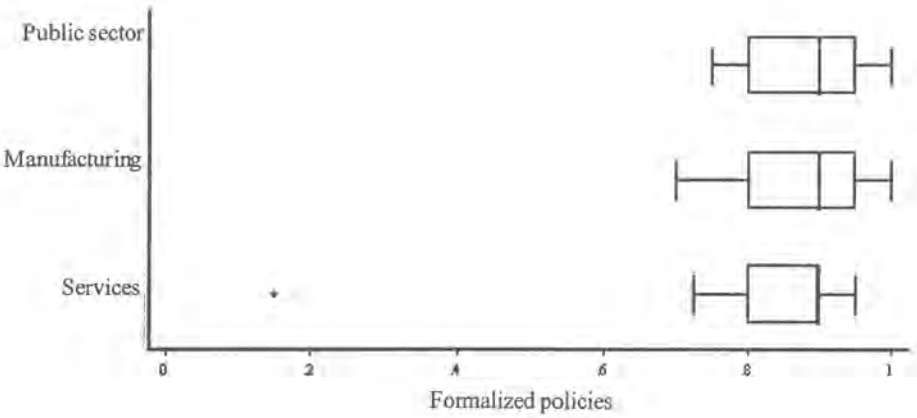
- (a) 'internal publication of vacancies';
- (b) 'asking specific employees to apply for a vacancy';
- (c) 'using educational criteria for internal vacancies';
- (d) 'applying experience criteria for internal vacancies';
- (e) 'job descriptions' and;
- (f) 'performance evaluations'.

The response categories for the first four questions are 'never', 'sometimes', 'regularly', 'often' and 'always'. The categories for the two latter questions are 'for none of the jobs', 'for a small share of jobs', 'for about half of the jobs', 'for most jobs' and 'for all jobs'. Scores on all questions are added together, and the answers for 'asking specific employees to apply' are reversed. A reliability analysis indicates that the alpha of all these items is 0.70. Values are transformed into z-scores for comparability with other measures. Coefficients in the empirical chapters represent the effect of an increase in formalized policies by one standard deviation compared to an organization's average degree of formalization. In descriptive tables, this is transformed into a scale that ranges from 0 (no formalization) to 1 (complete formalization), again for reasons of comparability.

The main argument about formalized personnel procedures is that they reduce subjectivity in the assessment of performance (Huffman & Velasco, 1997). Some employees question this neutrality. One policy employee in a ministry department suspects that functioning evaluations are a form of window dressing, and are not taken seriously by management. A staff employee in a province expressed his dissatisfaction with the job evaluation system in his organization, "because it appears to be objective, but it isn't". A third employee pointed to the negative consequences of formalized policies: "They lessen the promotion chances of employees without university diplomas, since employers look only at mandatory education and not at someone's performance in the job" (customer employee working in manufacturing). Related to the argument of window dressing is the notion that it is not so much formalized policies that matter, but their use in practice. This is illustrated by the comment of a maintenance employee in a ministry department. He noted that he has not had a formal evaluation in the past five years. He also mentioned that new vacancies, presented in an internal magazine, were often already filled. To indicate the use of formalized personnel procedures in practice, the share of employees who have had a personnel evaluation with their supervisor in the last year were calculated per organization (based on the employee survey). Figure 2.1 shows that

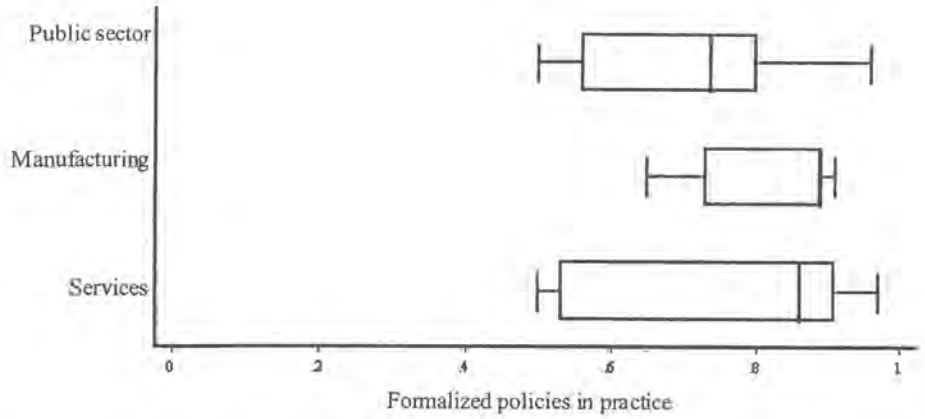
most organizations have formalized a large portion of their personnel policies.[10] Variation between manufacturing organization is largest, although there is one services organization that has hardly formalized its policies. Comparing this picture with figure 2.2, it is noteworthy that the use of personnel evaluations varies much more strongly in practice than in the formal score of organizations. For detailed scores per type of organization, see table A-2 in the appendix.

Figure 2.1 Degree of formalization of organizational personnel policies, by sector (on scale from 0 to 1; range in practice from 0.15 to 1.0)



[10] The vertical line inside the box represents the median, its borders represent the 25th and 75th percentile, and the outer lines are the smallest and largest values except possible outliers. If there are no outliers, then these outer lines are the minimum and maximum values.

Figure 2.2 Formalized policies in practice, by sector (on scale from 0 to 1; range in practice from 0.50 to 0.97)



Human resources policy

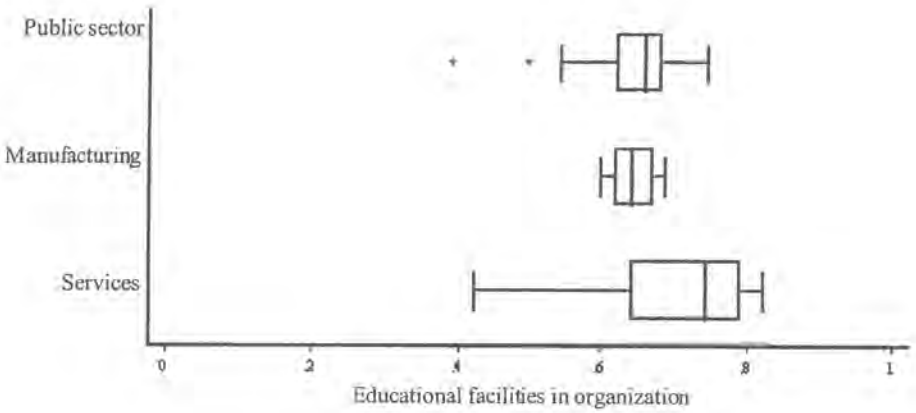
A second organizational factor, in terms of employee investments, is the human resources policy. Personnel officers were often only able to provide very general information on their company's educational policy. Although almost all organizations reserve a budget for the educational development of their employees, they differ considerably in the manner in which this budget is registered. Some restrict their educational spending to a percentage of the total salary budget, others to a fixed amount per employee, while others determine a fixed amount in total. This complicates the comparison between organizations. The degree of detail in information about educational spending also differs considerably between the organizations. The social report of only one public sector organization shows how many men and women have followed a certain course and the costs of these courses. In private sector organizations, such information is presented with much less detail or is not presented at all, often because it is seen as competition-sensitive information. Because of this variety in information between organizations, and also because it is especially relevant whether these educational resources are widely accessible, the answers of respondents in the employee survey have been used to indicate educational facilities. This choice of approach is supported by the comments given by some of the respondents, who point to the discrepancy between formal educational policy and the actual consequences for employees. For example, one policy employee states that her province does offer educational facilities, but that despite of this, progress through the organization goes slowly. Others point to the fact that following courses may appear to be possible on paper, but not in practice; as employees do not receive extra time to follow courses, their

working pressure and sometimes that of their colleagues will increase (stated for example by a department head in a bank/insurance company and by a policy employee in a province).

For the measurement of educational opportunities, the employee survey included the following question: 'How many educational opportunities does your establishment / organization offer?'[1] Response categories are 'very little', 'reasonably little', 'not many, not little', 'reasonably many' and 'very many'. For each organization, the mean of these answers is used to indicate how extensive an organization's HRM policy is. Values are transformed into z-scores for the explanatory analyses, and into a range from 0 to 1 for all descriptive tables. A high score indicates that this policy is accessible to a large share of employees.

Based on figure 2.3, the picture emerges that sectors can differ strongly in terms of their variation in educational opportunities. Organizations in services score both highest and lowest on having broad accessible educational facilities (answers vary between 0.39 and 0.82). Organizations in manufacturing, on the contrary, are relatively uniform in their educational opportunities. In part, this uniformity may be due to the sample restrictions imposed on the employee selection. Due to the fact that manual workers were excluded from the survey, the employees in manufacturing more frequently have staff jobs, which may offer more opportunities to follow additional courses.

Figure 2.3 Educational opportunities in the organization, by sector (on scale from 0 to 1; range in practice from 0.39 to 0.82)



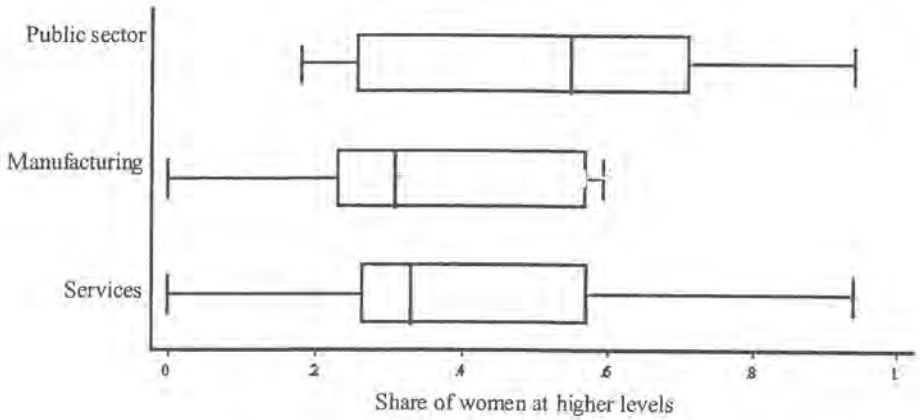
[1] The formulation of this question differs between organizations. In organizations with one establishment, the statements are of the format 'in my organization'. In organizations with more than one establishment, the statements are of the format 'in my establishment' to ensure that employees do not answer this question for their organization world wide.

Share of women at higher job levels

To measure the proportion of women in higher positions in each organization, respondents' job titles were used. Information from employers themselves turned out to be difficult to compare. Some organizations only report on the share of women above a certain wage level; others only report the share of women in management, while again others have no information about women at higher job levels. The job titles of employees are classified into eight job levels, with the highest level corresponding with management jobs in the organization as a whole (see also section 2.4). The line between higher and lower level jobs is drawn at level five, the level of positions such as policy makers, assistant professors or accountants. Per organization, the percentage of women in jobs at levels five and higher is calculated compared to all women in the total sample. Since this partly indicates in itself how many employees work at higher job levels, it is then divided by the percentage of male employees at higher job levels. A value of one implies that the share of women at higher job levels is comparable to their share in the total sample of the organization. A value lower than one means that women are underrepresented, given their proportion in the sample. In the empirical chapters, values are transformed into z-scores.

Organizations vary considerably in their gender distribution at higher job levels. On average, women's representation is most equal in the public sector and least in manufacturing (figure 2.4). The services sector does not differ strongly from the public sector, although its median score is far lower (indicated by the vertical line). Of all types of organizations, the average share of women is actually lowest in municipalities and universities (table A-4 in the appendix). As one (female) staff employee in a municipality states: "Men have better chances for a promotion than women in this organization due to conservatism and prejudice by (male) management, and because of lack of experience with female supervisors". Another female employee, working in a consultancy organization links this share of women to part-time work: "Working part-time is only possible up to a certain job level. Since many women will want to work part-time, this often leads to a management consisting only of men".

Figure 2.4 Share of women at higher job levels compared to men, by sector (on scale from 0 to 1, with 1 is equal representation; range in practice from 0 to 0.94)



Part-time friendly organizational culture

What constitutes an organization's culture and how to measure it varies strongly between empirical studies, and depends partly on the topics that are addressed. For example, Thompson et al. (1999) investigate three dimensions of organizational culture (work/family, managerial support, and organizational time demands), while Allen et al. (2003), as well as Stinglhamber and Vandenberghe (2003) focus on perceived organizational support. In this research, the focus is on the attitudes towards part-time work, for both men and women. In part, this choice is made because part-time work is often associated with the topic of career progression. In the theoretical background it is argued that women's lower chance of reaching higher job levels is partly due to their higher part-time risk. Additionally, female employment in itself is relatively common in the Netherlands, but it is also strongly associated with working part-time.

To indicate whether the organizational climate is supportive towards working part-time, also at higher job levels, employees' opinions per organization are used, rather than the views of only one or two key informants per organization. Respondents were asked how strongly they agree or disagree with the following propositions about their establishment or organization:[12]

- (a) 'In my organization people think it is strange if a man wants to work part-time';
- (b) 'In my organization people think it is strange if a woman wants to work part-time';
- (c) 'If an employee wants to work fewer hours, the organization seriously considers the possibilities';

[12] Similar to the question concerning educational spending, the formulation of this question differs between organizations with one or more establishments.

- (d) 'In my organization part-time work is only accepted at lower levels' and;
- (e) 'In my organization working fewer hours has negative consequences for your career'.

Response categories for all questions are 'strongly disagree', 'reasonably disagree', 'neither agree, nor disagree', 'reasonably agree' and 'strongly agree'. To indicate that a higher score reflects a more supportive organizational culture, and to interpret propositions in the same direction, the categories of proposition (a), (b), (d) and (e) are reversed. For each proposition, the average is calculated per organization. A reliability analysis shows that the corresponding alpha of these items is 0.95.[13] Next, the sum score per organization is taken as an indicator of organizational culture, which is transformed into z-scores and a range from 0 to 1.

A large number of employees comment about their organizations' view towards working part-time, mostly because of their own position as a part-timer. Some point to the different positions that female and male part-timers hold. A staff employee in a consultancy organization concludes that "it is more and more accepted that women work part-time, while for men this is not the case. For women the turning point appears to be at three days a week, and for men at four days a week". Another employee in a consultancy organization, interprets the organizational culture and its gender difference more negatively: "As soon as you start working four day weeks it is assumed that you 'therefore' do not want / are not able to pursue a career. (...) In the case of men this is actually pointed out, in the case of women it isn't. Does this mean that they never had any career intentions for us at all?".

In general, from a scale from 0 to 1, variation between organizations in terms of their support for part-time work is rather small. It should be noted, though, that a value of zero would imply that all employees in an organization strongly disagree with the various propositions presented. Public sector organizations show a relatively high support of part-time work, while this support is much lower in services and especially manufacturing organizations (figure 2.5). Still, the fact that working part-time is damaging for a person's career is not only mentioned by respondents in the private sector, but also in the public sector. For example, a female senior policy employee in a ministry department considers the traditional male culture to be very dominant. She relates this especially to the role of supervisors, who are afraid that because of too many part-timers "they will lose their status and control when people find out that they can arrange their work in a completely different manner. Supervisors attach a great deal of importance to full buildings and having their subordinates within arms reach". A male (senior staff) employee in a consultancy organization also points to this role of supervisors, who "often do not take into account the fact that work and private life should be in balance. Not everybody is a career maker!".

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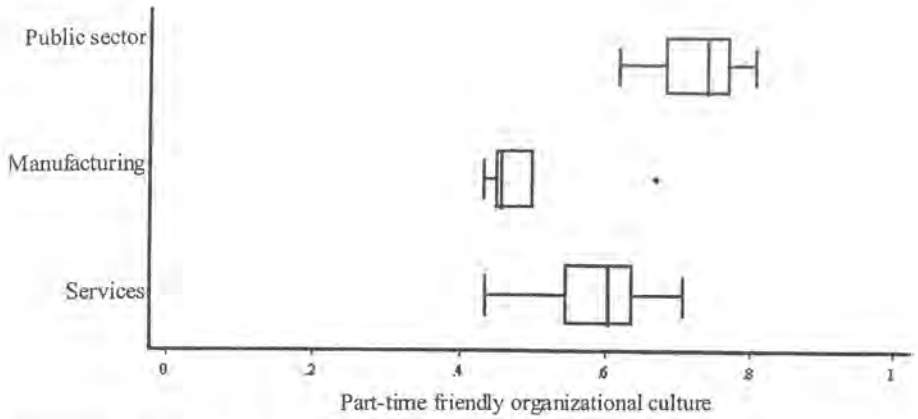
[13] This high alpha value corresponds with the fact that, averaged per organization, the five items correlate relatively highly. At the level of employees, variation in answers is larger, but even then the alpha is relatively good (0.78).

Figure 2.5 Organizational culture towards part-time employment in the organization, by sector (on scale from 0 to 1; range in practice from 0.43 to 0.81)



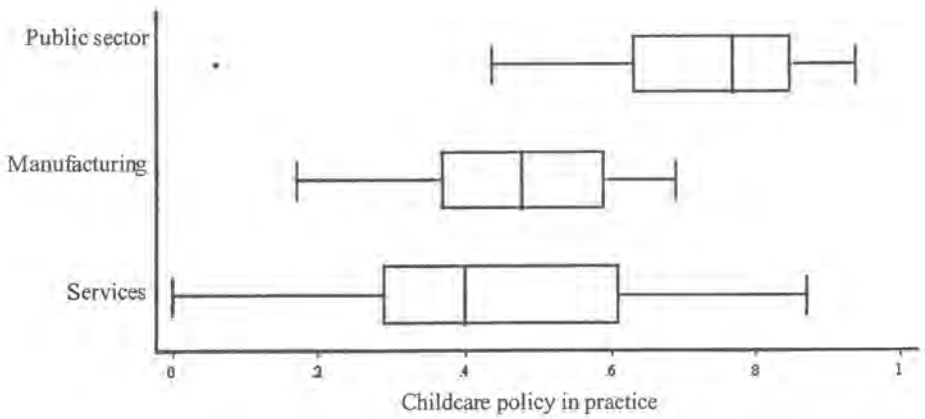
Presence of work/family arrangements

For the measurement of work/family arrangements, the focus is on the presence of child care facilities, which are often argued to enable employees to combine their work with caring responsibilities. Good work/family arrangements can keep employees with caring tasks within the organization. This is illustrated by the comments of a female senior policy employee in a ministry department: "Our organization has a good leave arrangement in case of sick children and also offers a good parental leave arrangement. These aspects contribute to my decision to remain working for this employer". Personnel officers were asked if their organization offers child care facilities, and if so, what measures are incorporated. Only two organizations have no child care facilities. In organizations that do offer child care, this is generally available to both men and women. Organizations often apply a number of general criteria, for example, that the employee has a tenure position or that the employee works more than twelve hours a week. Especially in private sector organizations, a number of additional criteria are formulated, mostly concerning employees' household situation; children are often required to be living in the same household as the parent in question, or the employer may only pay half of the costs if the employee has a working partner. The content of child care also differs between organizations. Especially public sector organizations not only pay a financial contribution, but also arrange child care places or mediate when looking for a child care center, sometimes through an external intermediary. Intermediation also often occurs outside of the public sector, but here child care is often limited to a financial contribution. In three private sector organizations, child care facilities are budget neutral. Employees in that case only receive a limited financial compensation, which is deducted from their gross wages. This is cost free for the organization itself; for employees the financial benefit strongly depends on the height of their

wages. Based on these answers, organizational facilities are divided into two categories: 'no or limited' versus 'reasonable or good child care facilities'. Organizations are seen as having limited child care if their facilities are budget neutral. Most of the participating organizations offer reasonable to good child care facilities. Only one public sector organization, one manufacturing organization and three consultancy organizations offer no to limited child care facilities. Apart from the argument of cost-efficiency, employers sometimes argue that they do not want to give employees with children a financial advantage "just because they have children". Having children is seen as a personal choice. Consequently, the share of organizations with reasonably to good child care is 93 percent in the public sector, 80 percent in manufacturing and 67 percent in services.

To determine if opinions of employees about child care facilities are in line with the official policy, each respondent was asked whether the organization offers child care facilities. The response categories are 'yes', 'no' and 'don't know'; the category 'yes' is compared to the two other categories. Even in organizations with child care facilities, a large minority of the employees does not think that there are such facilities (figure 2.6). For a part, they are not aware of the presence of child care, however, these answers also reflect opinions about the level of child care in their organization. For example, a female employee in a manufacturing organization mentions that her organizational child care facilities, in the form of arranged places in a child care center, have deteriorated due to a new collective labor agreement. The same employee answered the question whether her organization offers child care facilities with 'no'. This indicates that at least some of the employees may give a negative answer to this question if they think that their organization's child care facilities are insufficient.

Figure 2.6 Opinions of employees about the presence of child care in the organization, by sector (on scale from 0 to 1; range in practice from 0 to 0.94)



2.4 Description of job level characteristics

Apart from the organizations in which employees work, the jobs they hold are also discussed in greater detail, as both levels arguably affect employees' career progression. First, the hierarchical level of employees' jobs is discussed, after which the concepts of internal labor markets and gender composition of the job are presented in greater detail.

To determine the hierarchical level of employees' jobs, researchers often make use of a general job classification, such as a socioeconomic index, based on the job codes for (almost) all jobs on the labor market (see, e.g., Ganzeboom et al., 1992). A general index such as this is often too crude to distinguish between job levels at the organizational level. For example, if two employees work in a policy department, one at a regular level and the other at a senior level, both receive the same occupational score. From an organizational perspective, however, the step from regular to senior level is regarded as a vertical move. In other cases, jobs may have a different occupational score, but are at a similar level in their organizations (or vice versa). To capture such distinctions, but also in order to make use of a classification schedule that is broad enough to ensure comparisons between organizations, I developed a different schedule. The underlying notion is that employees in different types of jobs or organizations can be seen as having a similar position within their organizational hierarchy. The construction of this classification is discussed in greater detail in appendix C.

Table 2.7 shows the distribution of men and women over the various hierarchical levels. Each level is accompanied by an example of a corresponding job title. Women work more often at lower levels, while men often work higher in the organizational hierarchy. Overall, about 7 percent of all employees work at the management level, either at the departmental or overall level. A large majority of these employees (81 percent) is male.

Table 2.7 Job levels of current job (with examples), by gender

	Men	Women	Total
Lowest level (e.g. telephone operator)	1%	3%	2%
Second level (e.g. secretary)	6%	26%	14%
Third level (e.g. junior policy employee)	14%	21%	17%
Fourth level (e.g. assistant project leader)	20%	23%	21%
Fifth level (e.g. accountant)	26%	15%	22%
Sixth level (e.g. senior personnel advisor)	25%	9%	19%
Seventh level (e.g. head of policy department)	8%	3%	6%
Highest level (general manager)	1%	0%	1%
Total	693	448	1,141

Chi-square: p = 0.00

To indicate the gender division in the job levels that employees achieve inside their organizations, an analysis is conducted in which employees' current job level is explained by their gender and the level of their first job in the organization (table 2.8). This excludes about half of the employees who work in their first job on the labor market or whose previous job was located outside of the organization. In a way, the model is analogous to Blau and Duncan's (1967) status attainment model, which has been widely applied in social mobility research. Given the nesting of employees within their organizations, the analysis is performed by means of multilevel analysis. As the dependent variable (job level) contains eight ordinal categories, a two level ordinal probit analysis is performed (see also section 3.3.4). Since no person worked at job level eight prior to the current job, only the effect of job levels one to seven are compared, with the lowest and highest levels combined with their adjacent level.

Being female has a negative influence on the job level achieved, which represents the unequal distribution of men and women over job levels. When a person's first job inside the organization is added, the negative effect of being female drops considerably, but remains significant. In other words, a large part of the gender difference in career success is caused by factors that existed when women entered their current organizations. Still, the process of mobility *inside* the organization also contributes to the underrepresentation of women at higher job levels.

Table 2.8 Two level ordinal logistic regression analysis of current job level, by gender and first job level in the organization

	Empty model	Female	Female + first job in organization
Female		-0.77**	-0.21*
Job level (ref. = fifth level, e.g. accountant)			
Lowest or second level (e.g. secretary)			-2.93**
Third level (e.g. junior accountant)			-1.72**
Fourth level (e.g. assistant project leader)			-0.87**
Sixth or seventh level (e.g. senior/head dept.)			0.75**
Variance at organizational level (s.e.)	0.08 (0.04)	0.08 (0.04)	0.02 (0.02)
Intra Class Correlation (ICC)	7.7%	7.3%	2.1%
R^2	-	11.3%	62.9%
BIC	-	2,009	1,601
Log likelihood	-993.2	-960.3	-740.3

* $p < 0.05$ ** $p < 0.01$

Based on the job classification used, an additional job measure is constructed, namely working inside an internal labor market (ILM). In the past, case studies of a single organization have often used detailed personnel records to determine the presence of an internal labor market (Rosenbaum, 1984). Studies that stretch out over several organizations often have to make use of general indicators for the presence of an ILM. In this study, it was possible to examine the organizational rules of a smaller number of organizations, based on documents such as promotion schemes and labor agreements. Based on this, a distinction was made between job types to indicate an internal labor market. This was done by employees' job titles and the names of departments that respondents filled in. Line jobs are seen as the strongest indicators of an internal labor market, compared to staff jobs, customer jobs and support jobs. Management jobs are a somewhat different category, since they often form the end stations of organizational job ladders. Only seven respondents supervise at the overarching level of the organization, while sixty-seven respondents work as head of a of line, staff or customer department. Both groups are combined in the category of management jobs, because it is not always possible to distinguish between the two levels, especially in smaller organizations.[14]

There are clearly more men working inside internal labor markets, indicated by their higher share in line jobs (61 versus 41 percent), while there are more women in support jobs (14 versus 37 percent). Women appear to be trapped in secondary jobs outside of the organization's internal labor market more often than men, possibly also with stronger limits on vertical career advancement (Gaertner, 1980; Althauser, 1989). Not only in hierarchical terms, but also based on the types of jobs that men and women hold, the latter group clearly has a less beneficial position inside the organization.

[14] To assess the applicability of this distinction, I compared it with a person based distinction based on two survey questions. The first is if employees have had a personnel evaluation with their supervisor during the past year. This is the case for about three quarters of the employees in all job types. The second question is if respondents think that incumbents in their jobs have a good chance of making a promotion within five years after having started in their job. In all types of jobs, one third or less says that the jobs offer good to very good promotion prospects. Regarding both measures, employees at the lowest organizational levels (in support jobs) do not differ distinctly from those in line jobs, indicating that these particular measures are less suited for determining who works in an internal labor market.

Table 2.9 Currently working inside an internal labor market (with examples), by gender

	Men	Women	Total
Works in line job (e.g. policy employee)	61%	41%	53%
Works in support job (e.g. office manager)	14%	37%	23%
Works in customer job (e.g. account manager)	6%	8%	7%
Works in staff job (e.g. personnel advisor)	10%	11%	10%
Works in management job (e.g. head of line department)	9%	3%	7%
Total	693	448	1,141

Chi-square: p = 0.00

A third job level factor is the gender composition of a person's job. Respondents were asked if they have any colleagues in their organization or establishment with approximately the same job, and what percentage of them is female. Since this does not include the respondent, the percentage of females is recalculated based on the respondent's own gender. Similarly, respondents reported the percentage of females in their department. Since this also incorporates the respondent, the answers on this question are unaltered. In a pre-test, the share of part-timers turned out to be difficult to assess by means of asking for the percentage of part-timers in a certain job. Hence, five response categories were used, based on which two dichotomous variables are constructed: 'about one third of a person's colleagues work part-time' and 'about half or more work part-time'. The reference category is the group with hardly any part-time working colleagues. For information on the gender of supervisors, employees were asked if they have a supervisor, and if so whether this is a man or a woman.

Men and women clearly work in different gender-typed settings. Most women are surrounded by other women in their jobs; this is less the case in their departments as a whole. Men far more often have jobs in 'male-dominated' settings. Similarly, men work far more often in jobs in which most employees work full-time, and they less often have a female supervisor. Overall, about one in five employees has a female supervisor, again indicating the underrepresentation of women at higher (supervisory) job levels.

Table 2.10 Gender and part-time composition of one's job and/or department, by gender

	Men	Women	Total
Share of females in job (0 - 100) [a]	17% (18)	67% (26)	36% (33)
Share of females in department (0 - 100) [b]	28% (22)	52% (25)	37% (26)
Works in job with (almost) no part-timers [c]	68%	37%	56%
Works in job with 33% part-timers	22%	27%	24%
Works in job with 50% or more part-timers	10%	36%	20%
Has a female supervisor [d]	13%	27%	19%
Total	693	448	1,141

[a] T-test: p = 0.00; [b] T-test: p = 0.00; [c] Chi-square: p = 0.00; [d] Chi-square: p = 0.00

2.5 Description of employees

To form an idea about the composition of the workforce sampled in the twenty-eight organizations, a number of background and career characteristics of employees are presented here. Their operationalization can be found in chapter three. In table 2.11, employee characteristics are presented per sector. In the public sector, almost half of the sample is female; in manufacturing and services about one third is female. Additionally, the share of part-timers is clearly higher in the public sector: 35 percent works less than 36 hours, compared to 16 percent and 13 percent in services and manufacturing, respectively. Employees in the services sector are younger on average than in the other sectors and less often have a higher vocational or university diploma. Wage levels are highest in manufacturing, while they are lowest in services. Concerning career development, the table shows that employees in services have worked in their current job for a shorter period than employees in manufacturing and especially the public sector. There are also more employees in services who are still working in their first job (13 versus 6 and percent). The average duration of employees' current and past jobs is shortest in the services sector; employees in the public sector make a job shift least often. The average job duration in services is 4.1 years, in manufacturing 4.6 years and in the public sector 5.3. Concerning the working experience in the current organization, a similar picture emerges. On average, employees in services have worked in their current organization for less than six years; in both other sectors, employees have worked in their current organization for over twelve years. To a certain extent, these aspects are interrelated. Because employees in services are younger, they are more often still in their first job, and they have generally been in their current job or organization for a shorter period. This lower degree of work experience, plus the lower educational level in services can explain the lower wages in the services sector.

To summarize the relative time that an employee has worked inside an organization, their time in the current organization is divided by their total number of years on the labor market. A score of 100 percent indicates that an employee has never worked in another organization (this applies to about one in five employees). On average, employees in all three sectors have spent more than half of their working career in their current organization (between 54 and 65 percent). This result illustrates that careers within a single organization are still a large part of employees' career development.

Since the main topic of this investigation is the career development of women compared to men, the results are presented for both groups separately (table 2.12). On average, men are about five years older than women, and they more often have a higher vocational or university diploma (76 versus 56 percent). About half of the female employees work part-time, compared to 10 percent of all men. Men and women hardly differ in terms of having young children: about one in five employees has one or more children younger than six. In terms of working experience and career development, there are a number of differences. On average, women have been in their current jobs two years shorter than men (4.1 versus 6.1 years), and they also stay in their jobs for shorter periods: 4.0 versus 5.2 years per job. Bivariately, women make more job shifts than men do. In part, this finding is related to the younger age of women; employees make more job shifts when they are younger. The working experience in the current organization also differs considerably between men and women. On average, women have worked in their organization for eight years, while for men this average is almost twelve years. Still, the relative working experience in the current organization hardly differs between men and women: women have worked in the current organization for 55 percent of their working lives versus 60 percent for men.

Table 2.11 Composition of employee sample, by sector (percentages and averages)

		Public	Manufact.	Services	Total
Gender	Men	55%	65%	66%	61%
	Women	45%	36%	34%	39%
Age	Younger than 45 years	53%	64%	79%	64%
	45 years or older	48%	36%	21%	36%
	Average age	43.0 (9.2)	40.7 (9.8)	36.3 (9.4)	40.2 (9.9)
Highest education	Lower or intermediate education	31%	28%	36%	32%
	Higher or university education	70%	72%	64%	68%
Official working hours	Less than 36 hours	35%	13%	16%	25%
	36 hours or more	65%	87%	84%	75%
Having caring tasks	Child(ren) under the age of 6	18%	19%	19%	19%
	Older or no children	82%	81%	81%	81%
Gross monthly wages (for full-time work)	Lower than € 3,000	53%	49%	74%	60%
	€ 3,000 or more	47%	51%	27%	40%
	Average wage level (in Euro's)	3,012 (1,081)	3,224 (1,300)	2,617 (992)	2,903 (1,111)
Working experience current job	2 years or less	32%	33%	51%	39%
	3 - 10 years	47%	49%	39%	44%
	More than 10 years	22%	18%	10%	17%
	Average job duration (in years)	6.5 (7.0)	5.2 (5.3)	3.8 (5.0)	5.3 (6.2)
Number of jobs (including current job)	Works in first job	5%	6%	13%	8%
	Works in second or third job	34%	34%	40%	36%
	Works in fourth or more job	61%	61%	47%	56%
	Average duration per job (years)	5.3 (3.9)	4.6 (3.7)	4.1 (4.1)	4.7 (4.0)
Working experience in current organization	2 years or less	21%	21%	45%	29%
	3 to 10 years	34%	28%	34%	33%
	More than 10 years	45%	51%	21%	38%
	Av. duration in current org (years)	12.0 (9.0)	12.4 (9.4)	6.9 (8.1)	10.2 (9.1)
Number of organizations	Works in first organization	18%	22%	26%	21%
	Works in second or more org.	82%	78%	74%	79%
	Share total exp. current org.	59% (32)	65% (31)	54% (36)	58% (33)
No. of resp's		547	183	411	1,141

Table 2.12 Composition of employee sample, by gender (percentages and averages)

		Women	Men	Total
Age	Younger than 45 years	78%	55%	64%
	45 years or older	22%	45%	36%
	Average age	37.2 (8.5)	42.2 (10.2)	40.2 (9.9)
Highest education	Lower or intermediate education	44%	24%	32%
	Higher or university education	56%	76%	68%
Official working hours	Less than 36 hours	48%	10%	25%
	36 hours or more	52%	90%	75%
Having caring tasks	Child(ren) under the age of 6	20%	18%	19%
	Older or no children	80%	82%	81%
Gross monthly wages (for full-time work)	Lower than € 3,000	75%	50%	60%
	€ 3,000 or more	25%	50%	40%
	Average wage level (in Euro's)	2,487 (1,013)	3,173 (1,089)	2,903 (1,111)
Working experience current job	2 years or less	44%	36%	39%
	3 - 10 years	47%	43%	44%
	More than 10 years	9%	22%	17%
	Average job duration (in years)	4.1 (5.0)	6.1 (6.8)	5.3 (6.2)
Number of jobs (including current job)	Works in first job	8%	8%	8%
	Works in second or third job	35%	37%	36%
	Works in fourth or more job	57%	55%	56%
	Average duration per job (years)	4.0 (3.6)	5.2 (4.2)	4.7 (4.0)
Working experience in current organization	2 years or less	35%	26%	29%
	3 to 10 years	37%	30%	33%
	More than 10 years	28%	44%	38%
	Av. duration in current org (years)	8.0 (7.5)	11.6 (9.8)	10.2 (9.1)
Number of organizations	Works in first organization	22%	21%	21%
	Works in second or more org.	78%	79%	79%
	Share total experience current org.	55% (35)	60% (32)	58% (33)
No. of resp's		448	693	1,141

2.6 Summary

In this chapter, the data collection of this research is described, which led to a sample of twenty-eight organizations in manufacturing, services and the public sector. Since this sample cannot be regarded as a representative sample of all organizations in these sectors, special attention was given to the problem of selectivity, both at the organizational and employee level. The description of policy measures and organizational circumstances clearly shows that not only organizations with a high score on employee-friendly measures participated in this research. Organizations vary considerably, for example, in the degree of the formalization of their personnel policies or share of women at higher job levels. Not only organizations with extensive child care facilities participate in the research either. These results indicate that the sample does not consist of a homogeneous group of organizations, but that their variation on the characteristics under study is large enough for an empirical examination of their influence on career outcomes. What is especially important in this respect is that the differences in outcomes are not always between public versus private sector organizations. Within the group of public sector organizations, there is certainly variety in the different organizational measures. Additionally, in the description of organizational measures, it is apparent that the presence of an official policy is no guarantee that the existence of this policy is also known and felt; employees do not always experience the policies of their organizations as they are intended. This is especially clear in the case of formalized policies and child care facilities. Even if organizations have such policies, employees do not necessarily agree that they really do.

The response of employees within the organizations was relatively good. Although female employees appear to have responded a little more often than male employees, there are no large biases in response in terms of gender or hierarchical position. Employees participating in this study do differ from all employees working in their sectors, as only white collar employees are incorporated. Still, the types of employee categories that are included (such as staff officers, policy makers, engineers, IT specialists, et cetera) reflect the work situations of many employees, regardless of the sectors in which they work.

Employees' backgrounds differ considerably between sectors and between men and women. As a general pattern, though, many employees stay within the same organizations for a large part of their working lives. This supports the view that an important part of the allocation of employees to jobs occurs within organizations and that studying internal career dynamics within organizations can be helpful for understanding the differences between male and female employment. Equally important is the finding that women are underrepresented at the highest job levels. This is partly explained by the situation at the time of their entry into the organization. Still, various forces during men and women's stay inside the organization also lead to a difference in career success between the two. The focus of attention in the empirical chapters of this book is to determine the mechanisms behind this intraorganizational gender difference.

3 Internal and External Career Aspirations of Men and Women within their Organizations*

Abstract

In this chapter, I investigate how job and organizational conditions influence the career aspirations of male and female employees. Focus is on the promotion opportunities that employees see for themselves, if they think about applying for a job internally and if they think about applying externally. For the analyses, a survey is used of over 1,100 employees in twenty-eight Dutch organizations. Men and women do not differ in their career aspirations, but they are clearly affected differently by their working context. Only women are influenced by the presence of formalized personnel policies, while the share of women at higher job levels only affects men. For women, no indication is found that social support or sponsorship by other women affects their career aspirations, while being surrounded by many women affects men positively. None of the organizational conditions under study influence employees' aspirations to apply for a job internally, which indicates that employees who want to apply for a job, do this regardless of organizational policy. Organizational measures do contribute in keeping employees within the organization and in ensuring that they see better career prospects.

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3.1 Introduction

Despite the fact that the share of women in the labor force has increased considerably over the last decades, their career development is generally found to lag behind that of men. One of the most consistent findings regarding men's and women's careers is that women reach senior job levels far less often than men do (Kramer & Lambert, 2001; Warren et al., 2002). For example, in 2001 the share of female members of US Fortune 500 boards of directors is about twelve percent, in the Netherlands it is two percent (Catalyst, 2002; SCP, 2004).

Could it be that this gender gap in career success is caused by the career wishes of men and women, or is it that the cause lies more in the constraints they face to realize those wishes? To investigate these matters, a large number of studies try to answer the question which factors facilitate or hinder the career aspirations of women compared to men. Attention especially goes out to two types of aspirations, whether women have higher turnover intentions than men, and whether they have lower internal career aspirations. Both topics are closely related to gender and career development. Female employees are often argued to lack the aspiration for pursuing a career, which could be the explanation for their lower promotion rates, while it is also claimed that women leave the organization more often (Rowe & Snizek, 1995). However, research findings about both topics are relatively unclear. Regarding turnover intentions some studies show that women look less often for a new job outside of the organization (Batt & Valcour, 2003), others that there is no gender difference (Kirschenbaum & Weisberg, 2002; Aryee et al., 1998), and again others that women look more often for a new job than men (Stroh et al., 1996). Regarding internal career orientations the precise topic to be addressed often differs. Some find that men see better opportunities to make a promotion (Hansen et al., 2000), while others find no gender difference regarding who intends to make a promotion (Kirschenbaum & Weisberg, 2002) or who finds a promotion important (Cassirer & Reskin, 2000). The fact that the first type of research shows a gender difference while the second and third do not, might imply that women may see more restrictions for pursuing a career, but that they are not less motivated to do so.

Investigating the career aspirations of men and women has become especially relevant in the light of organizational developments during the last decade. In many western countries organizational structures have become flatter, based less on hierarchical principles, while production processes have become more flexible (Clegg, 1990; Halford et al., 1997). As a consequence, employees have fewer opportunities for steady and predictable career paths within their organizations (Feldman, 1995; DiPrete et al., 2001), which leads to a growing concern - both for employers as well as employees - how intraorganizational mobility can be accomplished (Ostroff & Clark, 2001). At the same time, an opposite development has characterized organizations. In response to the growing

share of women and personnel shortages since the 1990s, employers have begun to make their personnel policies more employee-friendly, especially with respect to combining labor with caring tasks (Glass & Estes, 1997; Harker, 1996; Remery et al., 2002). In the Netherlands - with a majority of the labor force subject to collective labor agreements - the share of agreements containing child care arrangements has increased between 1991 and 2000 from 21 to 68 percent (Schaeps et al., 2002). How these developments affect the career aspirations of men and women remains unclear. On the one hand, as organizations have become flatter - making promotions more scarce - it may very well be that this is especially harmful to female employees, who already have lower promotion chances than men. On the other hand, a stronger emphasis on work-family may be especially beneficial to women, since they are often mostly responsible for caring tasks (Van der Lippe, 1997). In light of these developments, the possible influence of constraints within the work context on career outcomes receives growing attention (see, e.g., Rowe & Snizek, 1995; Cassirer & Reskin, 2000). This mostly refers to the jobs or organizations in which employees work. Some studies focus on general aspects of jobs and organizations, such as the presence of internal labor markets or an organization's promotion policies (Marsden et al., 1993; Ostroff & Clark, 2001; Allen et al., 2003). Others address the influence of gender- and work/family-related matters, such as social support from others (Nielson et al., 2001; Stinglhamber & Vandenberghe, 2003) or the presence of work/family arrangements (Allen, 2001). In this study, I pay attention to general, as well as gender-related conditions in the working context. Insight into the constraints to employees' career aspirations sheds information whether organizational policy measures affect the labor market aspirations of women and men differently. Such information can help reduce work-family conflicts and prevent organizations from wasting valuable human capital if employees leave the organization or see insufficient opportunities to pursue a vertical career. Based on the foregoing, the research problem is formulated as follows: *To what extent can job and organizational characteristics explain the perceived promotion opportunities and the internal and external career aspirations of men and women?*

In section 3.2, I will elaborate on the approach followed to explain career aspirations, followed by hypotheses with regard to the job and organizational context. Section 3.3 addresses the research design and data set of this study, followed by the empirical results in section 3.4. The chapter ends with conclusions and recommendations.

3.2 Background and hypotheses

3.2.1 Introduction

Many of the studies aimed at explaining the career orientations of men and women either do this by means of individual conditions or by means of conditions of the working context. Empirical findings on a variety of outcomes indicate that neither is in itself sufficient in explaining career differences (e.g., Betz & O'Connell, 1989; Marsden et al., 1993). In part, this is due to the fact that both approaches have a limited view on the role of work and personal circumstances. Whereas only looking at individual circumstances ignores the working context, the second approach ignores the different positions that men and women hold outside of the organization (see Halford et al., 1997). Women are still more often responsible for household- and caring tasks than men, or they may anticipate such responsibilities for the future (Scandura & Lankau, 1997). It is therefore likely that conditions that influence this relationship between work and care turn out differently for men and women. For that reason I follow a mixed approach, in which the working context can influence men's and women's career aspirations differently (Rowe & Snizek, 1995).

Next, I formulate predictions concerning the influence of the working context on the career aspirations of men and women, first addressing the jobs of employees and second their organizations as a whole. At both levels, attention is paid to general factors and factors focused on gender differences and work/family matters.

3.2.2 The job level

Presence in an internal labor market. The existence of internal labor markets (ILM's) refers to the idea that some jobs are part of a job ladder in an organization's internal labor market, shielded off from external competitors and having better promotion opportunities (Rosenbaum, 1984; Althauser & Kalleberg, 1981). Since women's jobs are less often part of job ladders and since their job ladders are shorter than those of men, this may explain the different career aspirations of men and women (Baron et al., 1986; DiPrete & Soule, 1988). Next to this gender-neutral effect, being in an internal labor market can also affect men and women differently (Cassirer & Reskin, 2000). If women regard (future) caring tasks to be more important compared to a career than men do, they may put their careers secondary to their domestic roles while men give priority to their careers. As a result men should be more sensitive to signals reflecting the chance of promotion than women are. Cassirer and Reskin (2000) find no support for this expectation, and in the present research I will test if the same results are found. If men are more sensitive to the signal of being in an internal labor market, it then especially affects the career aspirations of men.

Share of women in the job and department. It is often argued that employees whose gender differs from the majority of their colleagues draw more attention and receive less social support, since they do not fit the ideal picture of their group (Kanter, 1977). This may apply especially to women, since employers tend to have a preference for male candidates (Cassirer & Reskin, 2000; Ellemers et al., 1996). I therefore expect that being in a minority position affects women's career aspirations negatively. Being surrounded by many colleagues of the opposite gender can influence men positively. They see that other men are promoted out of female-dominated jobs (Maume, 1999) and prefer to compete with female colleagues who may be less career-driven or less preferred by employers. On the other hand, female-dominated jobs tend to be regarded as peripheral for the organization with lower promotion opportunities (ibid). If especially men are sensitive to this, then being in a minority position should affect their aspirations negatively. Previous studies sometimes focus on jobs or occupations (ibid; Cassirer & Reskin, 2000), sometimes on departments or workgroups (Kanter, 1977; Riordan & Shore, 1997). In contrast with common expectations Tsui et al. (1992) find that men in a minority position show lower levels of organizational attachment, increased absence and a lower intent to stay, while women in a minority position show higher levels of attachment. Cassirer and Reskin (2000), Hansen et al. (2000) and Riordan and Shore (1997) find no effects. Here, I will investigate the influence of the gender composition in one's job, as well as department, and will test if both women and men are affected positively by working in a female-dominated setting.

Share of part-timers in the job. The formal possibility to work part-time is an important working time arrangement for women, but it is also important how common such an arrangement is in practice, making the employees who want to make use of it possibly more accepted (Tomaskovic-Devey, 1993; Allen, 2001). Employees with part-time jobs or a higher chance of working part-time in the future (i.e. mostly women) do not need to fear that this causes them to be regarded as exceptions who receive less social support. Hansen et al. (2000) find no effect of the share of part-timers in one's department on the promotion opportunities that men and women see. Scandura & Lankau (1997) investigate a related working-time arrangement, and find that only women are more committed and satisfied if their organizations offer flexible working hours, even if they don't make use of those working hours themselves. Similarly, female employees may conclude that when many colleagues work part-time, the organization is more receptive towards alternative working hours, which affects their career aspirations positively. This can also influence men's career opportunities positively, partly because some men want to work part-time, and partly because men expect to have better promotion opportunities than their part-time working colleagues. Again, it is possible that the opposite effect occurs, as jobs with many part-timers may act as a signal of lower promotion prospects. For now, I expect an effect of working part-time, formulated in a positive direction.

Gender of one's supervisor. Perceived social support from supervisors is often found to affect employees' aspirations positively (Wayne et al., 1998; Allen, 2001). Supervisors also have a stronger preference for employees who are of the same gender as they are (Tsui & O'Reilly, 1989). If employees are aware of this preference, they may expect to benefit from having a supervisor of the same sex, since these can act as a sponsor, mentor or role-model (Burke & McKeen, 1996). I therefore expect that having a supervisor of the same gender influences the career aspirations of employees positively.

3.2.3 The organizational context

Formalization of personnel policies. It is often argued that when an organization's personnel and promotion policy is more formalized, subjective assessment and selection based on employees' gender is reduced (Carroll & Mayer, 1986; Huffman, 1995; Kalleberg & Reskin, 1995). The reason for this is that "written job descriptions and personnel evaluations, at least in theory, function to reduce managers' discriminatory behavior by attaching a paper trail to their actions" (Huffman & Velasco, 1997: 218; see also Dobbin et al., 1993). Employees themselves can also be affected by this degree of formalization, and indeed, women in organizations in which they regularly receive formal evaluations attach a greater importance to promotions than in other organizations; for men no effect occurs (Cassirer & Reskin, 2000). Assuming that formalized policies result in a more neutral assessment of women versus men, the presence of such procedures should have a positive influence on women's career aspirations. Men may then see insufficient promotion opportunities, even though they may also appreciate a formal evaluation of their performance. In my hypothesis, I follow the first line of reasoning, and expect that men are influenced by these procedures negatively.

Share of women at higher job levels. Not only supervisors but also women in higher positions in the organization as a whole can act as a mentor, sponsor or role model to other women. As women reach higher job levels, they are also able to influence the organizational culture or personnel policy by making them more "family-friendly" (Burke & McKeen, 1996; Glass & Riley, 1998). In contrast, only a few women higher in the organization indicates that it is harder for others to break through. Men may interpret this situation in a different manner. A high share of women indicates a stronger competition with female employees, since employers apparently have a smaller preference for men than in other organizations, or at least their preference has not prevented women from reaching higher levels. Additionally, women themselves will invest more in their careers, making it more difficult to pass them over for a promotion. Although this can affect men's career aspirations negatively, they can also argue that female colleagues - especially with caring tasks - are less willing or able to make the same career investments as men make. This is especially so, since the possibility

to work part-time is often small at higher positions. For now, I follow the first line of reasoning, and expect the influence of a higher share of women to be negative for men.

Organizational culture. Two organizations with an equal share of women at higher levels can still differ in their organizational support towards women. If colleagues think that females and/or part-timers are less suited for working at higher job levels, their support will be smaller, causing women to see insufficient promotion opportunities and to leave to a more female-friendly organization. Findings suggest that organizational cultures are indeed important, although what constitutes a culture differs between studies. Thompson et al. (1999) investigate three dimensions of organizational culture - work/family, managerial support, and organizational time demands - and find that the first two dimensions lower employees' turnover intentions. Allen et al. (2003) focus on perceived organizational support and find it to reduce turnover intentions, although Stinglhamber and Vandenberghe (2003) find no such effect. In the case that organizational cultures reflect underlying attitudes towards female employment it is likely that they affect both men and women. Women are possibly receptive to signals indicating that they are in place within their organization which can affect their aspirations positively. The same may apply to men, since a female-friendly organization can indicate a employee-friendly organization in general. On the other hand, men may then expect women to compete for a career more often, which lowers men's relative chances to reach higher positions. Additionally, employers possibly have a smaller or even nonexistent preference for men in female-friendly organizations. For now I assume the second effect, negatively influencing men.

Work/family arrangements. Organizations sometimes facilitate the career development of employees with caring tasks by means of work/family arrangements. Decision makers may then assess that women with (expected) caring tasks have a lower risk of leaving or working in a (small) part-time job, which reduces their incentive to discriminate against women. Also employees themselves can then expect combining caring responsibilities with pursuing a career. Allen (2001) shows that employees who are offered more family-supportive benefits are more committed to the organization and have a lower intent to leave. The availability of maternity leave and child care information also reduce employees' turnover intentions (Grover & Crooker, 1995; see also Thompson et al., 1999). Based on this, I expect work/family arrangements to influence women's career aspirations positively. How they affect men is not clear. Some men indeed have caring tasks or make use of work/family arrangements, but in general less often and less extensively than women. Others may assess that as women are better able to combine work and care, they become stronger competitors for job openings. For now I follow the second line of reasoning, which is consistent with my previous expectations.

In table 3.1, all hypotheses concerning the job and organizational level are summarized, for men and women separately, and for the difference between them. A positive sign indicates that women are affected positively by a condition compared to men.

Table 3.1 Summary of hypotheses: the effect of working context on career aspirations men and women

Level of working context	Effect on men	Effect on women	Difference
Job level			
Presence in internal labor market	++	+	-
Share of females in job or department	+	+	0
Share of part-timers in job	+	+	0
Having a female supervisor	-	+	+
Organizational level			
Formalized personnel policies	-	+	+
Share of women at higher job levels	-	+	+
Female friendly organizational culture	-	+	+
Presence of work/family arrangements	-	+	+

3.3 Data and methods

3.3.1 Data set

In this study, I make use of a survey containing information about employees in several organizations. This design enables us to unravel the influence of the organizational context, by comparing the career aspirations of employees within and between organizations (Kalleberg, 1994). The data collection took place in 2000-2001. From a larger set of organizations with social year reports a selection was made of organizations in the government, services and manufacturing. Each organization had over 200 employees and a minimal share of women of 10 percent, this to ensure comparability between organizations. A total of 28 organizations participated in the research, 14 in the government sector, 9 in services and 5 manufacturing organizations.

Within each organization, a personnel employee (mostly the head of the personnel department) was interviewed about the organization and its policies. Of these employees, a random sample received a written questionnaire about their career development. Employee categories in supportive services whose tasks are often outsourced are not incorporated, such as catering, postal services

and security personnel. In manufacturing, only office personnel is included, to increase comparability with the other sectors. Depending on the size of each organization, fifty or more employees received a questionnaire. Response varied between 24 and 119 persons per organization, with a total response rate of 46 percent. In total 1,153 employees filled in a questionnaire. Due to incomplete information, the analyses are based on 1,115 individuals.

3.3.2 Operationalization

Dependent variables

Perceiving internal promotion opportunities is measured using the question: 'Suppose you want to make a promotion. Do you have sufficient opportunities at your current employer?' Response categories are 'none', 'hardly', 'somewhat' and 'certainly'. *Thinking about applying for a job internally* is measured by asking two questions: do you ever think about applying for another job (a) within your own department or establishment, and (b) outside of your own department or establishment but within the total organization? The highest score of both can be regarded as their intention to apply in the organization as a whole. *Thinking about leaving the organization* is measured by asking if respondents ever think about applying for a job at another employer. For these questions the response categories are 'never', 'sometimes', 'frequently' and 'often'.

Explanatory variables

Being part of an internal labor market is determined by first studying the organizational rules of a selection of the organizations under study, by means of documents such as labor agreements. Based on this, a distinction between types of jobs is made to indicate their presence in an internal labor market, with line jobs as the strongest indicator of an internal labor market, followed by staff, customer and support jobs. To which category each job belongs is determined based on the job descriptions and names of departments that respondents filled in. Management jobs are a somewhat different category, since they often form the end stations of organizational job ladders. Only seven respondents supervise at the overarching level of the organization, while sixty-seven respondents work as head of a of line, staff or customer department. Both groups are combined in the category of management jobs, since the distinction between both levels cannot always be made, especially in smaller organizations. *Share of females in the job* is measured by asking if respondents have any colleagues in their organization or establishment with about the same job, and what percentage of them is female. Since this does not include respondents, the percentage of females is recalculated based on the gender of respondent themselves. Similarly, respondents were asked to fill in the *share of females in their department*. Since this question also incorporates the respondent, answers on this question are used unaltered. In a pre-test the *share of part-timers* turned out to be difficult to

assess by means of asking for the percentage of part-timers in a job. I therefore used five response categories, based on which two dichotomous variables are constructed, the first indicating that about one third of their colleagues work as part-timers, the second that half or more work part-time. Reference category is the group who hardly has any part-timers as colleagues.

Formalized personnel policies are determined by asking key informants how often each organization uses the following personnel procedures in the case of internal vacancies: 'internal publication of vacancies', 'asking specific employees to apply for a vacancy' and 'using educational criteria for internal vacancies'. Response categories are 'never', 'sometimes', 'regularly', 'often' and 'always'. Two additional indicators are how often the organization makes use of job descriptions or performance evaluations, both with five response categories ranging from 'none of the jobs' to 'all jobs'. Scores on all questions are added together, with answers on the question 'asking specific employees to apply' reversed. The alpha of all these items is 0.70. Values of this measure are transformed into z-scores for comparability with other measures. Coefficients in the models then represent the effect of an increase in formalized policies with one standard deviation compared to an organization's average degree of formalization. In the descriptive tables in section 3.3.3, this and all subsequent variables are transformed into a scale that ranges from 0 to 1, again for reasons of comparability. *Share of females at higher job levels* is indicated using the job titles of respondents. These are classified into eight levels, with the highest level corresponding with management jobs in the organization as a whole. The line between higher and lower level jobs is drawn at level five, which corresponds with higher knowledge jobs such as policy makers, assistant professors or accountants. Per organization the percentage of females in level five and higher is calculated compared to all females in the sample. Since this partly indicates how many employees work at higher job levels, it is then divided by the percentage of male employees at higher job levels. This measure ranges from 0 to 1, and is transformed into z-scores in the explanatory analyses. *Organizational culture* is measured by focusing on the support in each organization towards working part-time. Respondents could answer if they agree with the following propositions about their establishment or organization: (a) 'people think it is strange if a man wants to work part-time', (b) 'people think it is strange if a woman wants to work part-time', (c) 'if an employee wants to work fewer hours, the organization seriously considers the possibilities', (d) 'part-time work is only accepted at lower levels' and (e) 'working fewer hours has negative consequences for your career'. Response categories range from 'strongly disagree' to 'strongly agree'. To indicate that a higher score reflects a more supportive organizational culture, response categories of proposition (a), (b), (d) and (e) are reversed. The alpha of all items is 0.95. The mean sum score per organization is taken as an indicator of organizational culture, again converted into z-scores in the analyses and into a scale of 0 to 1 in the descriptive tables. *Presence of work/family arrangements* is determined by

asking key informants if their organization has a child care arrangement, and what measures it incorporates. These answers are divided into two categories: 'no or limited child care facilities' versus 'reasonable or good child care facilities'. Organizations are seen as having limited child care if their facilities are budget neutral. Employees in that case only receive a limited financial compensation, which is deducted from their gross wages. This tax reduction is cost free for the organization, while for employees the financial benefit depends on their wage level.

Control variables

To control for an employee's human capital, I include his or her *educational level after leaving daytime education*, measured as the number of years of daytime education, corresponding with each level and the value zero equal to having finished lower vocational schooling. To indicate additional training, the *number of courses during the current job* is incorporated. For a person's labor market experience I used two indicators, namely the *duration in the current job* and *work experience before the current job*, both measured in years. A related control variable is the *number of jobs before the current job* (after leaving daytime education), reflecting the career success of employees. An additional indicator of career success is one's hierarchical level in the organization, measured as the log of each person's *gross monthly wages* on full-time basis. I also take the *size of one's job* into account, making a distinction between full-time and part-time jobs (working less than 36 hours a week). To indicate the amount of caring tasks of employees, I use the fact if somebody has *children younger than six years old*. As a control variable at the organizational level, the *sector* of each organization is added, comparing the public with the private sector.

3.3.3 Descriptive analyses

In table 3.2, the relationship between all three career outcomes and employees' gender is presented. Since they hardly differ between men and women, each career outcome is presented with two instead of four categories. A little over half of all men and women see opportunities for making an internal promotion. Men and women also think similarly about applying for another job within or outside of the organization: the majority of all employees never or sometimes think about both options. Apparently, men and women do not think differently about pursuing a career.

Table 3.2 Career aspirations of men and women

	Men	Women	Total	Chi-square
Seeing possibilities for an internal promotion: Somewhat or Certainly (vs. None or Hardly)	56%	58%	57%	p = 0.37
Think about applying for a job internally: Regularly or Often (vs. Never or Sometimes)	17%	17%	17%	p = 0.76
Think about applying for a job externally: Regularly or Often (vs. Never or Sometimes)	27%	24%	26%	p = 0.27
Total	N = 679	N = 436	N = 1,115	

The three career aspirations may not only be related to gender in a similar manner, but also to each other. To assess whether this is the case, table 3.3 addresses the relationship between the three outcomes separately. Having more promotion opportunities does not correspond with thinking about applying for a job internally. Employees who see promotion opportunities think equally often about applying for a job as employees who hardly see opportunities. There is, however, a clear relationship between seeing promotion opportunities and thinking to apply for a job: employees who see more opportunities think less often about leaving. Still, of the persons who do see promotion opportunities about one fifth think about leaving the organization, while of the persons who hardly see opportunities about two thirds do not want to leave. The relationship is not strong enough to suggest that having more promotion opportunities automatically keeps employees inside the organization. Finally, applying for a job internally are compared with applying externally. Their relationship is counterintuitive: employees who think more about applying for a job internally often also think about leaving. They apparently want to change jobs, regardless of whether they can stay or not. Still, most employees do not think about applying for a new job at all.

Table 3.3 Relationship between the three career aspirations

	Seeing possibilities for an internal promotion		
	None or Hardly	Somewhat or Certainly	Total
Thinking about applying internally: Regularly or Often (vs. Never or Sometimes)	17% N = 484	17% N = 631	17% N = 1,115
	Chi-square statistic: p = 0.88		
Thinking about applying externally: Regularly or Often (vs. Never or Sometimes)	33% N = 484	20% N = 631	26% N = 1,115
	Chi-square statistic: p = 0.00		
	Thinking about applying internally		
	Never or Sometimes	Regularly or Often	Total
Think about applying externally: Regularly or Often (vs. Never or Sometimes)	19% N = 926	58% N = 189	26% N = 1,115
	Chi-square statistic: p = 0.00		

The descriptive statistics of all variables are presented in table 3.4 for men and women separately. Male employees are on average higher educated, work longer in their current and previous jobs and have higher wages than female employees. Men also work more often in line and management jobs, while women work more often in support jobs. The average share of female colleagues in the job or department is higher for women than for men. The same applies to the share of part-timers within the job. Female employees also work more often in a part-time job themselves, while being supervised more often by female supervisors. Regarding the organizational characteristics, the most notable finding is that women work more often in public sector organizations.

To provide more information on the twenty-eight participating organizations, table 3.5 shows how the organizational characteristics are distributed over the private and public sector. Public sector organizations have on average a more formalized personnel policy, a higher share of women at higher job levels, a more part-time friendly organizational culture and offer child care facilities more often. All relations are in line with common expectations, although only the organizational culture differs significantly between private and public sector.

Table 3.4 Descriptive statistics (minimum - maximum values) for men and women in the sample: averages (standard deviations and percentages)

	Men	Women
Highest educational level in years (-4 - 6) **	4.3 (2.0)	3.4 (2.4)
Number of courses in current job (0 - 40) **	4.3 (5.1)	3.3 (3.9)
Number of years working in current job (0.1 - 33.1) **	6.1 (6.9)	4.1 (5.0)
Labor market experience before current job (0 - 41.8) **	13.1 (9.9)	10.0 (7.5)
Number of jobs before current job (0 - 19)	3.2 (2.3)	3.1 (2.1)
Current gross monthly wages in Euro's (943 - 7,658) **	3,168 (1,086)	2,494 (1,020)
Works part-time (less than 36 hours) **	10%	48%
Has child(ren) younger than 6 years old	18%	20%
Works in line job **	62%	41%
Works in support job **	14%	37%
Works in customer job	6%	8%
Works in staff job	10%	11%
Works in management job **	9%	3%
Share of female colleagues in job (0 - 100) **	17% (18)	67% (26)
Share of female colleagues in department (0 - 100) **	28% (22)	52% (25)
Works in job with 33% part-timers	23%	27%
Works in job with 50% or more part-timers **	10%	36%
Has a female supervisor **	13%	27%
Works in public sector organization *	44%	54%
Degree of formalized personnel policy in organization (0.15 -1.0)	0.85 (0.14)	0.86 (0.13)
Relative share of women at higher job levels (0.0 - 0.94)	0.46 (0.27)	0.45 (0.27)
Part-time friendliness of the organizational culture (0.43 - 0.81) *	0.64 (0.12)	0.65 (0.11)
Presence of child care facilities in the organization *	79%	84%
Total	N = 679	N = 436

* = $p < 0.05$; ** = $p < 0.01$

Table 3.5 Descriptive statistics (minimum - maximum values) for organizations in the public and private sector: averages (standard deviations) and percentages

	Private sector	Public sector
Degree of formalized personnel policy in organization (0.15 - 1.0)	0.82 (0.21)	0.88 (0.08)
Relative share of women at higher job levels (0.0 - 0.94)	0.38 (0.30)	0.53 (0.28)
Part-time friendliness of the organizational culture (0.43 - 0.81) *	0.55 (0.10)	0.73 (0.6)
Presence of child care facilities in the organization	71%	93%
Total	N = 14	N = 14

* = $p < 0.05$; ** = $p < 0.01$

3.3.4 Method

In order to gain insight into the career aspirations of men and women, both groups are analyzed separately, to investigate whether the determinants of career aspirations differ for men and women. For this, I first present the model with job characteristics and all control variables for all three career outcomes (table 3.6). In a separate analysis of the full sample, the difference between men and women is tested by means of interaction terms with job characteristics under study. Significant interaction terms are highlighted in bold. If and how organizational characteristics influence men and women separately is shown in table 3.7. Due to the small sample size at the organizational level (twenty-eight organizations) these are incorporated one at a time, with the distinction between public and private sector as a control at the organizational level. Again, interaction terms with gender are analyzed in the full model and highlighted if significant. In this table no coefficients for control variables and job characteristics are presented, for efficiency reasons. The full results are presented in appendix D.

Since attention goes out to the effects of organizational characteristics on the career aspirations of employees, a multilevel - random intercepts - analysis will be used, controlling for the nesting of employees within their organizations. The dependent variables contain of four ordinal categories, as a result of which a two level ordinal probit analysis is performed. In this type of analysis, probabilities of observing a certain response are modeled, under the assumption that the observed dependent variable has ordered categories which reflect an unobserved latent continuous variable (Long, 1997; Borooah, 2001). Cutpoints at the bottom of table 3.6 indicate the size of each group, in terms of z-scores of the boundaries between groups. Additionally, the unexplained variance at level two is presented, based on which the Intra Class Correlation (ICC) is derived. This measure indicates the relative homogeneity within groups in ratio to the total variation. A value of one shows that all variance is between organizations and that all employees within an organization give an

identical answer. Based on this unexplained variance and on the predicted estimates based on the added variables (i.e. the fixed part of the model), the total proportion of explained variance is calculated (Snijders & Bosker, 1999).[1] Empty models are presented in appendix D. All models are estimated using the procedure GLLAMM within the software package Stata (Rabe-Hesketh et al., 2001).

3.4 Results

3.4.1 Job level

To investigate how the jobs of employees determine their career aspirations, I first address whether one's job is part of an internal labor market. Especially line jobs are part of an internal labor market, while support jobs are not. Regarding the three career outcomes I find no difference between employees in both types of jobs. When it comes to seeing internal promotion opportunities, none of the four job types differ significantly from line jobs. There are some differences concerning the two other outcomes. Men in staff and women in customer jobs think more about applying internally than their colleagues in line jobs (based on a one-sided significance test). Women in customer jobs also think more about leaving, indicating that they are strongly motivated to make a job shift. Noteworthy is also that only women in management think less often about applying for a job internally. Only one interaction effect is significant. Women in staff jobs think less often about applying for a job internally than their male counterparts. Other than that, no indication is found that men are more susceptible to being in an internal labor market as an indicator of promotion prospects.[2]

A second issue concerning the job level is the gender composition of the workforce, which only affects men. When surrounded by many females in their jobs, men want to apply internally or externally more often. Although the first outcome is in line with the expectations, the second is not. Perhaps, men in female-dominated jobs do not feel comfortable with their minority position, and want to move to a more gender-balanced setting. Both interaction terms are in contrast with my

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1 Since estimated models are not always nested, their model fit can be compared in terms of the Bayesian information criterion (BIC), presented below each model (Raftery, 1995). Smaller or more negative BICs indicate a better model fit. Kass and Raftery (1995) argue that a BIC difference larger than ten is considered 'very strong' evidence in favor of the model with the smaller BIC; a difference of six to ten as 'strong'; two to six as 'positive'; and zero to two as 'weak'.

2 To investigate if women see more restrictions at higher job levels, rather than in line jobs, an additional interaction was investigated, namely between wage level and being female. Differences for seeing internal possibilities are not significant; in the case of wanting to apply internally and externally, both interaction effects are significant and positive. Possibly, women at higher levels are more career-driven than their male counterparts.

expectations: women are affected negatively by the share of female colleagues compared to men. The amount of female colleagues in one's department does not influence men or women.[3] Only men are influenced by having a supervisor of the same sex. In contrast with my expectations, men with female supervisors see better promotion opportunities. Having part-time workers in one's job affects the aspirations of men, but in a different manner than I expected: men with many part-time workers in their job see worse internal career opportunities than men with almost no part-time colleagues. Women are, however, influenced positively by the presence of many part-timers: they then want to apply more often for a job internally (based on a one-sided test). The interaction effects indicate that men surrounded by many part-timers see worse promotion opportunities than women and think less often about applying internally. Apparently, men do not expect to have an advantage when competing with part-time working colleagues but, rather, feel marginalized in typical part-time jobs. That this does not affect women negatively indicates that men are perhaps more sensitive to signals of career prospects.

At the end of this discussion of results at the job level, it is important to point to the presence of gender differences, regardless of working conditions. Analyses for men and women combined show that the direct effects of being female on all three career outcomes are not significant (results not shown). This is in line with table 3.2, in which also no gender differences were found.

[3] To investigate if the share of women in one's job or department has a nonlinear effect on one's career aspirations quadratic terms were added in separate analyses. In all cases, these quadratic terms were not significant, giving no indication that effects are indeed nonlinear.

Table 3.6 *Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately*

	Seeing internal career poss.		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Education	-0.04	-0.05	0.04	-0.00	0.06*	0.06+
Extra courses in job	-0.02*	-0.00	0.00	0.03+	0.01	0.03*
Duration current job	-0.03**	-0.05**	-0.01	-0.00	-0.03**	0.01
Experience before job	-0.03**	-0.01	-0.01+	-0.01	-0.03**	-0.04**
Number of jobs before job	-0.00	-0.02	0.10**	0.05	0.08**	0.09**
Log gross wages in job	-0.22	-0.05	-0.23	0.38+	-0.21	0.48*
Works part-time	0.00	0.16	-0.31+	-0.34*	0.01	-0.34*
Has child(ren) under age 6	0.21+	-0.29+	0.10	0.02	0.13	-0.01
Works in public sector	-0.40**	-0.10	-0.07	0.43*	0.27 *	0.27+
Works in support job	-0.17	-0.09	0.04	0.09	-0.17	-0.13
Works in customer job	-0.08	0.05	0.06	0.46+	-0.01	0.54*
Works in staff job	-0.14	-0.28	**0.27+**	**-0.35+**	0.17	0.20
Works in management	0.06	-0.01	-0.22	-0.94**	0.18	-0.52
% Females in job	-0.00	-0.01+	**0.01****	**-0.00**	**0.01****	**-0.00**
% Females in department	0.00	0.00	-0.00	-0.00	-0.00	0.00
33% part-timers in job	-0.09	0.02	-0.07	-0.06	-0.23+	-0.01
50% or more part-tim. job	**-0.33***	**0.04**	**-0.07**	**0.26+**	-0.27	0.08
Female supervisor	0.26*	0.02	0.01	-0.02	-0.23+	0.01
Cut point 1	-3.99**	-2.60	-1.98	2.52	-2.19	3.36*
Cut point 2	-2.80**	-1.43	-0.41	4.05*	-0.91	4.74**
Cut point 3	-1.75	-0.27	0.55	4.82**	-0.04	5.54**
Variance org. level (s.e.)	0.05 (0.03)	0.16 (0.07)	0.08 (0.04)	0.10 (0.05)	0.00 (0.00)	0.04 (0.03)
Intra Class Corr. (ICC)	5.2%	14.2%	7.8%	8.8%	0.0%	3.8%
R^2	21.0%	7.2%	8.8%	10.1%	15.1%	18.9%
Log likelihood	-822.0	-536.6	-705.7	-458.1	-790.2	-490.1
BIC	1,788	1,205	1,555	1,050	1,723	1,114

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

3.4.2 Organizational level

To start with the first organizational factor, working in an organization with more formalized personnel procedures only influences women, who expect to have better career opportunities and want to leave less often, but do not apply internally more often. Both interaction effects show that the presence of formalized policies affects women positively compared to men.[4] Similar to having more female colleagues in one's job, a high share of females at higher job levels only causes men to see better promotion opportunities. However, the interaction term with gender is not significant. Even though the share of women at higher job levels does not affect women, the cultural climate within the organization does: women in part-time friendly organizations see better promotion opportunities, while only men in more part-time friendly organizations want to leave less often. One interaction term is significant: a part-time friendly organizational culture works out positively for women's promotion opportunities compared to men. The presence of child care facilities only affects men: when having child care facilities in the organization, men want to leave less often, while women are not influenced by their presence. This difference between men and women is not significant. Since the presence of child care facilities may especially influence employees with caring tasks, I incorporate an interaction term between child care facilities and having caring tasks for young children (results not shown). For men, as well as for women the interaction terms are not significant, indicating that employees with children are not influenced positively by having child care facilities in their organization.[5]

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[4] It is often argued that it is not so much formalized policies that matter, but rather their actual use in practice. I therefore repeated the analyses with a different indicator, namely each organization's percentage of employees having had a personnel evaluation in the last year. In that case, results are not significant.

[5] Of the four organizational characteristics, both the organizational culture and having child care facilities correspond strongest with labor market sector. To ensure that significant effects are not due to collinearity, I repeated the analyses with organizational size as control instead of sector. Gender differences remain significant and in the same direction, supporting the argument that both characteristics are indeed related to the different career aspirations of men and women. To test whether child care facilities mostly affect women with children, an additional interaction term was included. For all three outcomes, differences between women with children and other employees are nonsignificant.

Table 3.7 *Multilevel ordered probit analyses of the three career outcomes by individual, job and organizational characteristics, for men and women separately (for full models, see appendix D)*

	Seeing internal career poss.		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
a) Formalized policies	**0.00**	**0.21****	-0.05	0.02	**-0.00**	**-0.14+**
b) Share women higher levels	0.16*	0.14	0.04	0.08	-0.08	0.03
c) Part-time friendly org. culture	**0.11**	**0.50****	0.05	0.11	-0.16*	-0.10
d) Child care facilities org.	-0.12	-0.10	0.28	0.24	**-0.19+**	**0.08**
a) Intra Class Corr. (ICC)	5.2%	10.9%	7.5%	8.8%	0.0%	2.6%
R^2	21.0%	9.9%	9.0%	10.1%	15.1%	20.0%
BIC	1,794	1,207	1,561	1,056	1,730	1,117
b) Intra Class Corr. (ICC)	3.2%	12.8%	7.8%	8.4%	0.0%	3.8%
R^2	22.6%	8.1%	8.9%	10.5%	15.5%	19.1%
BIC	1,788	1,209	1,561	1,055	1,728	1,120
c) Intra Class Corr. (ICC)	5.0%	8.1%	7.6%	8.5%	0.0%	3.6%
R^2	21.7%	14.1%	8.8%	10.3%	15.9%	19.2%
BIC	1,209	1,199	1,055	1,055	1,120	1,119
d) Intra Class Corr. (ICC)	5.1%	14.6%	6.3%	7.9%	0.0%	3.7%
R^2	21.2%	7.3%	9.5%	10.7%	15.5%	18.9%
BIC	1,794	1,211	1,559	1,055	1,728	1,120

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

At the end of this section I briefly discuss the results concerning all control characteristics since they are interesting by themselves (see table 3.6). First of all, higher educated employees think more often about applying elsewhere. Also women who have followed extra courses during the job think more about applying externally, while men who followed additional courses see less internal career opportunities, which is not in line with human capital expectations. Experience in or before the current job both have a negative effect on seeing promotion opportunities and turnover intentions. Employees on a fast career track - indicated by their number of jobs in the past - think more about applying for a job, in the case of men both internally and externally, in the case of women only externally. These employees apparently have a stronger desire to achieve a vertical career than other employees, even though they do not think that their chances of a vertical career are better. Higher

wage women also want to apply for a new external job more often.[6] Especially noteworthy is the finding that women with young children see less internal career possibilities (based on a one-sided significance test), but that they do not want to apply less often for another job internally or externally. Interaction terms show that only the gender difference concerning internal career possibilities is significant. Apparently, women with children are equally career-driven than other employees, even though they see more - organizational - restrictions to pursue such a career. Part-timers also hardly differ from their full-time working colleagues, especially when it comes to seeing career possibilities. On the other hand, female part-time workers think less often about applying for a new job internally and externally, which indicates a lower desire to be upwardly mobile.

3.5 Discussion

A striking finding of this research is that within the organizations under study, male and female employees do not differ in their career aspirations. This does not imply that the career aspirations of men and women are influenced by the same conditions. In general, men and women are affected differently by their working context. Among others, only women are influenced by formalized personnel policies, while only men are influenced by the share of women at higher job levels.

For female employees, no indication is found that social support or sponsorship affects their career aspirations, indicated by the share of women in one's job, in one's department, having a female supervisor and the share of women at higher job levels. Since the organizational culture does cause women to see better promotion opportunities, this can imply that it is not so much social support from other women but rather the social support from all colleagues that is important for their career success (Stinglhamber & Vandenberghe, 2003). Men's relation towards female co-workers appears to be twofold. When being surrounded by female colleagues in their job they not only want to apply more often internally, but also externally, perhaps in search of a more gender-balanced setting. At the same time, when having a female supervisor or working in an organization with many women at higher job levels, they see more internal career possibilities. Possibly, men with more female competitors equal to or above their own hierarchical position think they have a good chance to overtake these women in their quest for a higher position. In line with this, men in part-time friendly organizational cultures think less about leaving the organization. This finding can also suggest that both men and women are affected positively by social support from others, as a part-time

[6] To determine whether women at higher levels perceive more career barriers (i.e. a glass ceiling; Cotter et al., 2001), interaction terms between wage level and gender are added. Such a barrier is not found, as, women want to apply for a new job more often, both inside and outside the organization. Possibly, they are more career-driven when having reached these positions than men are.

friendly organization can reflect a employee-friendly organization in general. Although men surrounded by women apparently do not feel marginalized, this does apply to men who are surrounded by many part-timers. Since the research took place in the Netherlands, in which the share of part-time work is relatively high, this suggest that this effect may even be stronger in countries where part-time work is less common.

Based on the present study, it is difficult to answer the question whether the job or organizational level is more important for predicting employees' career aspirations. For women, no gender-related job aspects are important, while for men some are. Working inside an internal labor market is of limited importance to both. The organizational conditions under study are important equally often for the career aspirations of men and women, and they generally have a positive effect on women compared to men. Based on this, the organizational level appears to be slightly more important for employees' career aspirations than their job level. A second question is whether the three career outcomes reflect different aspects of career dynamics or if they are interchangeable. The results suggest that the first case applies. For example, the presence of formalized personnel policies does lead women to see more promotion opportunities compared to men, but it does not cause them to apply more often for a job internally than men do. In general, none of the organizational conditions influence employees' thoughts about applying for a job internally. Even though organizational factors can cause employees to see better career opportunities, and to remain working in the organization, whether they actually want to shift jobs internally apparently depends on different factors. A final question is how well these findings apply to other organizations. Although three distinct sectors - manufacturing, services and government - are represented, this does not imply that the results hold for all organizations in those sectors. However, the research is restricted to office- and knowledge workers who hold positions that share similarities with jobs in many other organizations. On top of this, the conditions that I investigate are not unique to the organizations under study, but apply to many organizations. These are strong arguments for generalizing the results to other settings. Still, a number of suggestions can be made for future research. An ideal but time consuming design is to gather more detailed and longitudinal information about a large amount of work settings. Especially network research can make the social support from colleagues or supervisors more visible, while a prospective research sheds information about the jobs and organizations that men and women move to after some time. The current research design implies that a selective group of employees who do not want to work for these twenty-eight organizations, or who have already left prematurely are not represented in the sample.

At the end of this study, I want to discuss a number of policy implications. One is to make organizational cultures more female- and part-time friendly, since this is beneficial to the career success of women and men. Although this change is difficult to accomplish, a first step can be to

increase the share of women at higher job levels and enabling employees to work part-time at those job levels. Such policy, however, strongly depends on the willingness of employees, and in particular men, to actually choose working part-time, also when reaching higher job levels. Many already indicate that they would like to do so, but choose not to in practice (Fouarge & Baaijens, 2004). Showing them that part-timers have equal opportunities by means of formalized personnel policies can be an important step. Such formalized measures already influence the career aspirations of female employees positively, indicating the importance of making personnel policies transparent so that employees know which criteria they have to meet (be it for making a promotion, following courses or going on extended leave). Especially as the working population is composed of more and more dual earners who share their caring tasks, these measures can be an important step for the future.

4 Job Mobility of Men and Women: Types of Job Shifts within the Organization

Abstract

In this chapter, the career development of men and women is investigated. The focus is on the different types of promotions they make instead of regarding all promotion steps as the same. Hypotheses are tested concerning the hierarchical distance between jobs and whether the occurrence of these types of job shifts varies according to organizational circumstances. A data set is used for the analyses, containing career information about 1,114 employees working in 28 organizations in Dutch manufacturing, services and government. In general, the career gap between men and women is small to nonexistent. However, organizational policy measures can still be an important means for enhancing women's career development compared to that of men, particularly an organization's high share of women at higher job levels and a more supportive organizational culture.

4.1 Introduction

One of the most consistent findings in Western countries is that, compared to men, women are underrepresented at higher job levels (ILO, 2002). This gender-specific barrier is often referred to as a "glass ceiling", through which women seem unable to break (Maume, 1999; Cotter et al., 2001). To investigate whether it is especially difficult for female workers to reach higher level jobs, two different types of approaches have commonly been used. The first one focuses on employees' originating jobs, mostly by investigating how promotion chances vary with hierarchical position (Spilerman, 1986; Spilerman & Lunde, 1991; Spilerman & Petersen, 1999; Sels et al., 2000). In the second approach, the attention shifts to employees' destination jobs. As the salaries of these positions increase, women's chances of being selected decrease compared to men's (Pfeffer & Konrad, 1991; see also Kramer & Lambert, 2001; Warren et al., 2002). Similarly, women are less likely to be chosen for management or supervisory jobs than men; this difference does not occur in lower level jobs (DiPrete & Krecker, 1991; Reskin & Ross, 1992; Datta Gupta, 1994).

By studying the differences in promotion chances between jobs, more and more attention is paid to how the resources of individual employees interplay with their labor market context (Baron & Bielby, 1980; Lazear, 1992; 1995). Still, the idea is that promotions in themselves are the same, and no or only limited attention is paid to the relationship between originating and destination jobs. Although vertical job shifts are often distinguished from horizontal shifts (e.g., Rosenbaum, 1984; Dohmen et al., 2003), vertical shifts (i.e. promotions) can also entail shifts over larger or shorter distances (Kalleberg & Reskin, 1995). Studies with specific interest in the distance between adjacent jobs mostly focus on the consequences of promotions in terms of salary changes (Bognanno, 2001; Dohmen et al., 2003). Barnett et al. (2000), for example, find that men's wage levels increase more after a promotion than women's do (see also Trappe & Rosenfeld, 1998; Ishida et al., 2002).

The interaction between individual resources and the labor market context refers to the job level, as well as to the organizational level in which jobs and employees are located. Not only is the organization the most immediate context in which individuals spend a large share of their careers (Allen et al., 1999), but the process of promotions is especially well-defined at this organizational level (Spilerman & Petersen, 1999). Organizational circumstances are also widely found to influence the career outcomes of men and women (see, e.g., Kalleberg & Van Buren, 1992; Osterman, 1995; Burke & McKeen, 1996; Huffman & Velasco, 1997; Remery, 1998). Although mostly general mobility outcomes of men and women are compared, the organization can also affect the types of job shifts that take place (Bielby & Baron, 1986; Spilerman & Petersen, 1999).

In this study, the attention is directed at internal mobility within organizations. Not only do studies show that internal and external job shifts are distinct pathways in career development (e.g., DiPrete & Krecker, 1991; Le Grand & Tåhlin, 2002), but the influence of organizational circumstances on career development is especially tangible for internal career development. The aim is to gain more insight into the promotion chances of men and women in relation to the types of job shifts they make and the organizational settings in which these are located. The topic of career mobility is addressed from an integrated angle, paying attention to the interaction between individuals and their job level, as well as the organizational context. This leads to the following problem formulation: *To what extent can job and organizational characteristics explain the internal job mobility of men and women?*

4.2 Background

Explanations of job mobility often focus on either employees or employers as the dominant actors whose decisions cause career differences. In selection theories that originate from the employer's viewpoint, it is often stressed that someone's functioning in a future job is uncertain (Thurow, 1975; Baron, 1984). Employers may try to reduce this uncertainty by assessing risk groups and making selection decisions based on their characteristics, either by excluding them or requiring higher standards for their selection (i.e. statistical discrimination; Arrow, 1973). A second strategy is to construct an incentive structure which encourages employees to act according to the employers' wishes, such as the construction of an internal labor market or the payment of "efficiency wages" (Baron, 1984; Spilerman, 1986; Boxman et al., 1994).

The notion of future risk assessments is often used to explain the hiring of external candidates. It also applies to the internal selection of employees, since past performance of internal candidates is no guarantee for their performance in a future job (Jacobs, 1981). This is especially the case since performance - in terms of returns of training costs - not only refers to the qualifications and productivity of employees, but also to the risk of them leaving prematurely or wanting to work on a part-time basis (Boxman et al., 1994). Some authors have also argued that selection criteria are especially subjective in the case of internal mobility, because promotion decisions are less visible than hiring decisions (Baldi & McBrier, 1997; Reskin et al., 1999).[1] Especially since employers do not know the (future) household situation of their employees in great detail, they have to make crude assessments based on candidates' gender. This can lead to the conclusion that the risk of selecting women is higher; women are not only expected to have a higher exit risk than men (Lazear &

[1] However, Petersen et al. (2000) argue that external hiring is more often subject to bias.

Rosen, 1981), but are also expected to want to work on a part-time basis more often, as this is often the case, especially in the Netherlands (CBS, 2004). In both cases, employers face a loss of training investments and additional costs of finding a suitable replacement if an employee departs unexpectedly. Employers can also use gender as an additional criterion to minimize risks, by selecting candidates of the same sex as themselves (Reskin & McBrier, 2000).

It is likely that the roles that exit risks and the risk of employees' wanting to work part-time play in selection decisions differ between vacancies. As Bills (1988: 91) argues, "if employers wish to weed out undesirable candidates for 'low risk' jobs, educational screening is a sensible policy. If they wish to minimize the chances of a poor hiring decision for a 'high risk' position, they will supplement their evaluation of educational credentials with additional information." In other words, since the costs of a bad selection decision are higher for some jobs than for others, selection criteria such as gender will vary accordingly. This is an extension of matching theories (Jovanovic, 1979; Hartog & Visser, 1987; Barron et al., 1989), in which it is argued that the productivity of candidates depends both on their abilities and on the characteristics of the vacancy. An optimal match exists between candidates and specific jobs, while in other jobs other candidates will be more productive (De Wolf, 2000). Employers are argued to use information about employees' previous jobs in assessing candidates for job shifts. In empirical studies, the focus is mostly on the human capital that employees have acquired during these jobs, indicated in terms of job and labor market tenure (Baldi & McBrier, 1997; Beeson Royalty, 1998). However, information about a previous job can also refer to the relationship between a person's current and future job. If a candidate's job level is much lower than the vacancy, then performance in this future job is more difficult to predict (Jacobs, 1981). Some job shifts are only a small step upwards, while others entail a shift over larger distances. There is more uncertainty about an applicant in the latter case; hence, a male candidate may be a safer bet, simply because men work at higher job levels more often than women do. Similar to Bills' distinction between high and low risk jobs, it is therefore also possible to distinguish between high and low risk promotions. Previous research, focusing on external selection and on characteristics of the future job, indicates that employers are indeed guided by these kinds of risk assessments. Sanders (1991) finds that employers especially prefer male external candidates over female candidates when the available job requires a high commitment in terms of time and effort (see also Boxman et al., 1994). Bielby and Baron (1986) hypothesize that employers reserve jobs with high replacement costs for men, and they indeed find that women are underrepresented in specialized jobs and jobs that require more training time (see also Tomaskovic-Devey & Skaggs, 2002).

Up until this point, I have emphasized the role of employers as actors in determining which employees make a job shift. However, job shifts cannot simply be seen as events that happen to employees; employees play an active role in this process by choosing if and for which jobs they apply and how much they invest in their careers to reach those positions. Women are often argued to be less focused on a career than men and to be especially interested in jobs which enable them to combine work with caring responsibilities (Sanders, 1991; Rowe & Snizek, 1995). Empirical evidence, however, only provides limited support for this, since studies investigating whether employees intend to make a promotion or whether they considers it important to make a promotion do not find any gender differences in this respect (Cassirer & Reskin, 2000; Kirschenbaum & Weisberg, 2002). In the next section, the formulation of empirical expectations is focused predominantly on the employer's point of view, but the subsequent topics are also viewed from an employee-oriented perspective.

4.3 Expectations

Given the foregoing, the main expectation is that employers especially have a preference for male candidates if the distance between an applicant's originating job and destination job is larger. This implies that women's chances of making a job shift are especially lower than those of men in the case of job shifts over larger distances. However, if adjacent jobs are located at a similar level, this gender difference declines. In hypothesis:

1. *The larger the distance between the originating and future job, the lower women's chances of making a job shift compared to men's.*

Even though the distance between job levels is an extension of the idea of making a promotion, this does not imply that this distinction is the same under all circumstances. If an employee in a higher level job does not perform as expected or if (s)he leaves unexpectedly, the employer is faced with a loss of training investments and with the additional costs of finding a new suitable candidate. For jobs at lower levels, these costs are likely to be lower (McKenna & Johnson, 1981; Spilerman, 1986). This leads to the following prediction:

2. *The higher the level of both originating and future job, the lower women's chances of making a job shift to a relatively higher level compared to men's.*

One of the underlying reasons why jobs matter is the notion that some jobs are part of a job ladder on an organization's internal labor market (ILM), shielded off from external competitors and offering better promotion prospects compared to other jobs (Althauser & Kalleberg, 1981; Rosenbaum, 1984). Since women's jobs are less often part of a job ladder, or their job ladders are shorter than those of men, these structural differences partly explain the difference in men and women's career

patterns (Baron et al., 1986; DiPrete & Soule, 1988). Additionally, being part of an internal labor market can affect men and women's careers differently; employers may prefer men to advance through these internal labor markets, in which the damage potential of failure is higher. If, on top of this, women regard (future) caring tasks more important compared to a career than men do, they themselves may be less sensitive than men are to signals reflecting promotion opportunities, such as their presence an internal labor market (Cassirer & Reskin, 2000). In hypothesis:

3. *The more a job is part of the organization's internal labor market, the lower women's chances of making a job shift to a relatively higher level compared to men's.*

The career progression of employees does not take place in a social vacuum, but, instead, depends partly on the organizational context, which can act as a gender-specific incentive structure. One such organizational aspect is the degree to which an organization has formalized its personnel policies. In more formalized settings, subjective assessment and selection based on employees' gender are argued to be reduced (Carroll & Mayer, 1986; Huffman, 1995; Kalleberg & Reskin, 1995). The reason for this is that "written job descriptions and personnel evaluations, at least in theory, function to reduce managers' discriminatory behavior by attaching a paper trail to their actions" (Huffman & Velasco, 1997: 218; see also Dobbin et al., 1993). This should improve women's selection chances and reduce the gap between men and women's careers. Women themselves can then also conclude that if their application for a job is formally assessed, rather than through informal decision-making, they will have a more equal chance of reaching higher job levels. Reversely, a lower degree of formalization should especially benefit men.[2] The accompanying paper trail hypothesis is therefore as follows:

4. *The higher the degree of formalized promotion procedures in the organization, the higher women's chances of making a job shift to a relatively higher level compared to men's.*

Since the work of Kanter (1993), a great deal of attention has gone out to the gender composition of the work force, especially at higher job levels (see, e.g., Burke & McKeen, 1996). As women reach higher job levels, they can change the organizational culture or personnel policy by making them more family-friendly (Glass & Riley, 1998). Employers may then assess that selecting women is a 'safer bet'. An increasing share of women at higher levels can also influence the career development of other women, because they can act as a mentor, sponsor or role model (Burke & McKeen, 1996). In contrast, fewer women in higher positions within an organization indicates, both to employers and employees, that it is harder for women to break through. As employers either have

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[2] In addition to reducing uncertainty, formalized policies often prescribe how employees progress on predetermined job ladders. It is therefore possible that formalized policies exclude the possibility of making large job shifts or make such larger job shifts more difficult to occur. Even then, formalized policies can be more important for job shifts to one level higher than shifts to an equal level job.

a smaller preference for men than in other organizations or their preference has not prevented women from reaching higher levels, men may interpret a high share of women differently, indicating more competition with female employees. The accompanying role model hypothesis is:

5. *The higher the share of women at higher job levels in the organization, the higher women's chances of making a job shift to a relatively higher level compared to men's.*

The social support that women receive not only depends on their share at higher levels, but also on the supportiveness of the organizational culture. If colleagues think that women are less suited for working at higher job levels, their support will be smaller. This, in turn, will prevent women from seeing sufficient promotion opportunities and may even result in them leaving to a more female-friendly organization. Empirical findings on organizational cultures and promotion paths are scarce, although a more supportive culture towards work and family seems to lower employees' turnover intentions (Thompson et al., 1999; Allen et al., 2003). It is likely that a more positive culture towards female employment can affect the career chances of both men and women. Employers possibly have a smaller or even nonexistent preference for men in female-friendly organizations, which improves the promotion prospects of women directly, as well as indirectly, through their own career assessment. This, in turn, should lower men's relative chances to reach higher positions. The organizational culture hypothesis can be formulated as follows:

6. *The more supportive the organizational culture towards female employment, the higher women's chances of making a job shift to a relatively higher level compared to men's.*

A last topic of investigation is the degree to which the organization facilitates the career development of employees with caring tasks by means of work/family arrangements. In the presence of such arrangements, decision makers can assess that employees with (expected) caring tasks present a lower risk of leaving or wanting to work in a (small) part-time job. In practice, this refers most often to women (SCP, 2004). This, in turn, reduces employers' incentive to discriminate against women. Female employees themselves can anticipate combining caring responsibilities with pursuing a career and may perceive the presence of child care facilities as indicative of the employer's commitment towards female employment. Allen (2001) shows that employees who are offered more family-supportive benefits are more committed to the organization and have a lower intent to leave (see also Grover & Crooker, 1995; Thompson et al., 1999). Consequently, work/family arrangements have a signaling function both towards employers and employees. When more work/family policies are present, women may become stronger competitors for job openings. This leads to the following work/family-hypothesis:

7. *The more extensive work/family policies in the organization, the higher women's chances of making a job shift to a relatively higher level compared to men's.*

4.4 Data and methods

4.4.1 Data set

In this study, a survey is used containing information about employees in several organizations. This design offers the opportunity to study the influence of the organizational context, by comparing the careers of employees within and between organizations (Kalleberg, 1994). The data collection took place between 2000 and 2001. A selection was made out of a large set of organizations in manufacturing, services and government with corporate social reports. Each organization has over 200 employees and a minimal 10 percent share of women, this to ensure comparability between organizations. A total of 28 organizations participated in the research, 14 in the government sector, 9 in services and 5 manufacturing organizations.

A personnel employee (mostly the head of the personnel department) from each organization was interviewed about the organization and its policies, and a random sample of employees received a written questionnaire about their career development. Employee categories in supportive services whose tasks are often outsourced were not incorporated, such as catering, postal services and security personnel. Only office personnel were included in the manufacturing sector. This was done in order to increase comparability with the other sectors. Depending on the size of each organization, fifty or more employees received a questionnaire. The response varied between 24 and 119 persons per organization, with a total response rate of 46%. In total, 1,153 employees completed the questionnaire. Due to incomplete information, the analyses are based on 1,119 individuals.

4.4.2 Method

Employees' chances of making a shift towards different destination jobs are investigated by means of discrete event history analysis (Blossfeld & Rohwer, 1995). The data set contains retrospective information about employees' current, previous and first jobs in the current organization. Based on this information, employees' shifts between the previous and current job and between the first and previous job, if these are consecutive, can be determined. A person-period file was constructed, which contains the transitions that employees make during each quarter year they are at risk. For each job shift, the risk period is the time between the start of one job until the start of a next. Employees who, at the time of the survey, have only ever worked in their current jobs are treated as right censored. A discrete choice model is used for the analyses, estimating two types of models. The first is if employees make a job shift, regardless of the type of job shift, by means of a logistic regression model. Second, competing risk models are estimated for shifts to equal level jobs, jobs at one level higher and at two levels higher. A multinomial logistic model is used in this second case.

The fact that vertical job shifts cannot occur for all categories of explanatory variables complicates the matter; employees working at the highest job levels cannot make an upward shift, and employees at the one but highest levels can only rise one level. Consequently, this model is estimated by means of a conditional logistic regression analysis, in which the values of explanatory variables (in this case job level) can differ for each outcome. To facilitate this specification, the person-period file is expanded for each category of the outcome, and explanatory variables are constructed as sets of interactions with each of these possible outcomes (Scott Long, 2001).[3] In both models, the estimated coefficients are transformed into odds ratios, i.e. e^{β}. An effect of being female of 1.25 means that women's odds of making a job shift to another job is about 1.25 times larger than men's odds. In the multinomial logistic models, all estimates are presented compared to the reference category 'not making a job shift'. Consequently, the effect of, for example, making a lateral shift cannot automatically be compared with the other outcomes, such as shifts up two levels. Therefore, an additional test is performed whether coefficients for being female and for interaction effects differ from each other. If so, then this is mentioned explicitly. Another consideration is the fact that models are not always nested, i.e. with the addition of extra conditions on top of previous models. As a result, model comparisons are made by means of evaluating the Bayesian information criterion (BIC), with smaller BICs indicating a better model fit (Raftery, 1995; Vermunt, 2004).[4] Analyses are performed with the software package Stata.

4.4.3 Operationalizations

Dependent variable

An *increase in hierarchical levels between jobs* is measured by subtracting the job level of a person's originating job from the level of a person's destination job. To determine the job level of employees, I developed a job schedule consisting of twenty job categories, which can be divided up into eight levels. For a description of the full schedule, see appendix C. Based on this level, and the level of the preceding job, the size of the job shift is determined. Employees either make a lateral shift or a move up one or two levels. Notably, a small share of employees has made a downward shift. These downward shifts are left out of the analyses, because of limited observations (about four

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[3] The data set consists of subjects within the same organizations that cannot be regarded as independent measures. However, in conditional logistic regression analysis, it is not possible to correct for this dependence, since the analyses are already corrected for the grouping of matched cases, i.e. all possible outcomes per respondent per time period.

[4] Following Kass and Raftery (1995), a BIC difference larger than ten can be considered 'very strong' evidence in favor of the model with the smaller BIC; a difference of six to ten as 'strong'; two to six as 'positive'; and zero to two as 'weak'.

percent of the job shifts are downward) and the possibility that downward shifts may entail a different phenomenon. Including these observations until the time they make a downward shift would violate the assumption of uninformative censoring. These observations are, therefore, left out of the analyses if an employee had made no prior job shifts or was censored at the end of a job one job shift prior to this downward move.

Explanatory variables

The *hierarchical level of the previous job* is based on the same job classification as the dependent variable. Since job levels are ranked ordinally, they are included as a number of dummy variables. Only a limited amount of employees work at level eight, and only in their current jobs. Working in a job at level eight is then a perfect predictor for not making a job shift, thus these employees are treated as censored from the start of their current jobs. *Working in an internal labor market (ILM)* is often determined in case studies of a single organization by means of detailed personnel records (e.g., Rosenbaum, 1984); studies that stretch out over several organizations often have to make use of general indicators for the presence of an ILM. In this study, the organizational rules of a smaller number of organizations were assessed, based on documents such as promotion schemes and labor agreements. Due to this, a distinction between types of jobs is made to indicate an internal labor market, again by using employees' job titles. Line jobs are seen as the strongest indicator of an internal labor market compared to staff jobs, customer jobs and support jobs. Management jobs are a somewhat different category, since they often form the end stations of organizational job ladders. Since the distinction used here partly coincides with the hierarchical level, its influence is estimated by focusing only on job levels three to seven, comparing line jobs with all other job categories. The position of department head (level seven) is regarded as a management job, partly because it is not always possible to distinguish between managing positions at the department level and managing positions at the organizational level. *Formalized personnel policies* are determined by asking key informants how often each organization uses the following personnel procedures in the case of internal vacancies: 'internal publication of vacancies', 'asking specific employees to apply for a vacancy' and 'using educational criteria for internal vacancies'. Response categories range from 'never' to 'always'. Two additional indicators are how often the organization makes use of job descriptions or performance evaluations, both with five response categories ranging from 'none...' to 'all of the jobs'. The scores of all questions are added together, and the answers on the question 'asking specific employees to apply' are reversed. The alpha of all these items is 0.70. Values of this measure are transformed into z-scores for comparability with other measures. The coefficients in the models represent the effect of an increase in formalized policies by one standard deviation compared to an organization's average degree of formalization. In the descriptive tables in section 4.4.4, this and all subsequent variables are transformed into a scale that ranges from 0 to 1, again for reasons

of comparability. *Share of females at higher job levels* is indicated using respondents' job levels. The line between higher and lower level jobs is drawn at level five. This level corresponds with higher knowledge jobs such as policy makers or accountants. Per organization, the percentage of females at level five and higher is calculated compared to all females in the sample and divided by the percentage of male employees at higher job levels. This measure ranges from 0 to 1, with the latter value referring to an equal representation of men and women at higher levels. The estimate is transformed into z-scores in the explanatory analyses. *Organizational culture* is measured by focusing on the attitudes inside organizations towards working part-time. Respondents could answer if they agree with the following propositions about their establishment or organization: (a) 'people think it is strange if a man wants to work part-time', (b) 'people think it is strange if a woman wants to work part-time', (c) 'if an employee wants to work fewer hours, the organization seriously considers the possibilities', (d) 'part-time work is only accepted at lower levels' and (e) 'working fewer hours has negative consequences for your career'. Response categories range from 'strongly disagree' to 'strongly agree'. To indicate that a higher score reflects a more supportive organizational culture, the response categories of proposition (a), (b), (d) and (e) are reversed. For each proposition, the average is calculated per organization. The alpha of all items is 0.95. The mean sum score per organization is taken as an indicator of organizational culture, again converted into z-scores in the analyses and into a scale of 0 to 1 in the descriptive tables. *Presence of work/family arrangements* is determined by asking key informants if their organization has child care facilities, and what measures are incorporated. The answers are divided into two categories: 'no or limited child care facilities' versus 'reasonable or good facilities'. Organizations are regarded as having limited child care if their facilities are budget neutral. In the case of neutral budgets, employees only receive a limited financial compensation, which is deducted from their gross wages. This is cost free for the organization; for employees the financial benefit depends on their wage level.

Concerning the organizational characteristics, two points should be stressed. The first is that for most organizations under study, information about their personnel policies in the past is either only available for the past few years or not at all. Therefore, the present level is used as a time-constant explanatory variable for all organizational characteristics except the presence of child care facilities. Since information about the year in which an organization introduced child care is available, this organizational characteristic is added as a time-varying covariate. The score 0 is used if the time of measurement was before the introduction of a child care facility or if the organization does not have a child care facility to date. A second issue is that, given the small share of organizations (twenty-eight in total), it is not possible to test the effect of all organizational characteristics simultaneously. Therefore, each organizational characteristic is added separately, in combination with the control variable 'public sector organization'.

Control variables

A number of control variables are incorporated that are common in most labor market research. To model the duration-dependence of each hazard, the *time spent in each job* and the *time squared* are added as time-varying covariates. The *educational level (after leaving daytime education)* is measured as the number of years of education corresponding with each level (the value zero refers to having finished lower vocational schooling). *Labor market experience before the job* is incorporated as the number of years a person has worked on the labor market after leaving daytime education, minus any career interruptions. The total duration of these *career interruptions* are also added in the analyses, measured in years. A time-varying covariate is added to indicate if employees *work part-time* in a particular period; the reference category is working 36 hours or more. Another time-varying dummy variable represents *having children under the age of six* in each time period. As a control variable at the organizational level, the *sector* of each organization (public versus private) is added. Finally, since the year to which a person's mobility chances refers lies between 1970 and 2001, two controls concerning *time period* are added: whether the time at risk was before 1985 or between 1985 and 1995. The reference category is the period after 1995.

4.4.4 Descriptive statistics

In table 4.1, the descriptive statistics of all explanatory variables are presented for men and women separately. Asterisks indicate whether men and women differ significantly from each other. This is determined either by means of a t-test in the case of interval variables, or by means of a chi-square statistic in the case of dichotomous outcomes. These results show that, on average, women have been in their current job for a shorter period, have had a lower level of education and have had less labor market experience prior to their current job. Another notable difference is that about fifty percent of all women work part-time, while the percentage of men working part-time is ten. Men work at the highest job levels more often than women do (nine versus three percent). They also work more often inside internal labor markets, indicated by their higher share in line jobs, while there are more women in support jobs. Gender differences in terms of career history are relatively small. About nine percent of all men and women are currently in their first job on the labor market. Fifty percent of all employees has made one or more job shifts within the current organization, and about forty percent of the employees have previously filled positions outside the organization they currently work for.

Table 4.1 Descriptive statistics (minimum to maximum) for total sample and for men and women separately: means (standard deviations) and percentages

	Men	Women	Total
Duration of current job in years (0.1 to 31) **	5.9 (6.5)	4.1 (5.0)	5.2 (6.1)
Educational level in years (-4 to 6) **	4.3 (2.0)	3.4 (2.4)	4.0 (2.2)
Experience before current job in years (0 to 42) *	13.3 (9.9)	10.0 (7.6)	12.0 (9.2)
Career interruption before current job in years (0 to 23) **	0.1 (0.6)	1.2 (3.1)	0.5 (2.1)
Number of jobs before the current job (0 - 14)	3.2 (2.3)	3.1 (2.1)	3.2 (2,2)
Currently works part-time **	10%	48%	25%
Currently has child(ren) under the age of 6 *	18%	21%	19%
Currently works at highest or one-but highest level **	9%	3%	7%
Works in line job **	61%	41%	53%
Works in support job **	14%	37%	23%
Works in customer job	6%	8%	7%
Works in staff job	10%	11%	10%
Works in management job **	9%	3%	7%
Works in first job on labor market	8%	8%	8%
Worked in other organization before this job	40%	45%	42%
Has made one or more job shifts in current organization	52%	47%	50%
Total	N = 680	N = 439	N = 1,119

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

To shed more light on the twenty-eight organizations participating in this study, a description is given in table 4.2 of how they score on the organizational characteristics incorporated. The results are presented for the public and private sector separately. On average, the public sector organizations have a more formalized personnel policy. They also have a more part-time friendly organizational culture and more often have child care facilities. Of the five organizations which have no or only limited child care facilities, four are in the private sector and one is in the public sector. Of the three characteristics, only the organizational culture differs significantly between sectors.

Table 4.2 Descriptive statistics (minimum - maximumvalues) for organizations in the public and private sector: averages (standard deviations) and percentages

	Private sector	Public sector
Degree of formalized personnel policy in organization (0.15 - 1.0)	0.82 (0.21)	0.88 (0.08)
Relative share of women at higher job levels (0.0 - 0.94)	0.38 (0.30)	0.53 (0.28)
Part-time friendliness of the organizational culture (0.43 - 0.81) *	0.55 (0.10)	0.73 (0.06)
Presence of child care facilities in organization	71%	93%
Total	N = 14	N = 14

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Next, I will assess whether women, overall, make less job shifts than men do. Table 4.3 shows that men have made four hundred and thirty job shifts, while women made about two hundred and sixty job shifts. The share of job shifts that men made is 0.63 job shifts per person; women, on average, made slightly fewer job shifts, with 0.59 job shifts per person. However, since men work on the labor market for a longer period, they actually make job shifts less often than women do. On average, men make a job shift once every 10.7 years, while women make a job shift once every 9.3 years. This difference is significant, and indicates that women are actually more mobile on the labor market than men are. The top half of the same table displays the number of levels employees climb when making a job shift. Women move to similar level jobs a little more often than men do (54 versus 49 percent), while men move to jobs one level higher a little more often. Making a job shift up two levels is relatively rare, both for men (8 percent) and women (10 percent). It should be noted, though, that the results do not yet take into account the different job levels of men and women, which may explain these gender differences.

Table 4.3 Number of job shifts, for men and women: total number of shifts and to different levels

	Men	Women	Total
Made a job shift to a similar level job	49%	54%	51%
Made a job shift to a job one level higher	43%	37%	41%
Made a job shift to a job two levels higher	8%	10%	8%
Total number of job shifts	430	257	687
Number of job shifts per person	0.63	0.59	0.62
Average time before a job shift (in years)[5] **	10.7	9.3	10.1
Total number of employees	N= 678	N = 436	N = 1,114

Chi-square statistic to different levels: p = 0.11; t-test for average job shifts: p = 0.00

One of the objectives of this study is to determine the effect of organizational measures on mobility patterns. Table 4.4, therefore, describes how men and women's job shifts vary between organizations. All organizational measures are presented with two categories: either below or above the average of all organizations. Only the presence of child care facilities is used as such.[6]

When looking at formalized policies, two patterns emerge. First, in more formalized settings women especially make lateral shifts instead of moving up one level; in less formalized organizations, these types of job shifts hardly differ. Second, in formalized settings, men and women change jobs at an equal rate. Yet, in less formalized settings, women are relatively quicker at shifting jobs. This latter finding is contrary to the notion that less formalized organizations are less supportive towards female career development. The share of women at higher levels does appear to contribute to the career prospects of women. They make similar types of job shifts to men, and even make these job shifts at a slightly faster pace than men do. The same applies to organizations with a part-time friendly culture and to organizations with extensive child care facilities. In contrast, it appears that women in less supportive organizations have to settle for lateral instead of vertical shifts. On an aggregate level, the type of organization in which women work clearly affects their mobility prospects compared to those of men.

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5 For this measure, each employee's number of job shifts was divided by the number of years they have been at risk, resulting in the number of job shifts per year. The average number of job shifts per year is 0.094 for men, which is then transformed (1/0.094). T-tests are performed on these job shifts per year. Directly calculating the time before a job shift (years / number of job shifts) would lead to an exclusion of employees who have not yet made a job shift (years / 0).

6 For reasons of comparison, the presence of child care at the time of the survey is used. In the multivariate analyses, however, child care is added as a time-varying variable.

Table 4.4 Types of job shifts of men and women by organizational characteristics (low vs. high) and average time till job shift

	Low organizational score		High organizational score	
	Men	Women	Men	Women
	Organizational characteristic: Formalized policies			
Shift to similar level	54%	53%	46%	55%
Shift up one level	39%	42%	46%	33%
Shift up two levels	7%	6%	8%	12%
Average time before shift	10.7**	7.8**	10.7	10.8
Chi-square statistic	0.82		0.04	
	Organizational characteristic: Share of women at higher levels			
Shift to similar level	48%	55%	51%	52%
Shift up one level	45%	33%	41%	42%
Shift up two levels	7%	12%	8%	6%
Average time before shift	9.5	9.0	12.2**	9.7**
Chi-square statistic	0.05		0.77	
	Organizational characteristic: Part-time friendly organizational culture			
Shift to similar level	45%	64%	52%	48%
Shift up one level	43%	29%	43%	42%
Shift up two levels	12%	7%	5%	10%
Average time before shift	9.9	9.9	11.3**	9.0**
Chi-square statistic	0.01		0.11	
	Organizational characteristic: Child care facilities			
Shift to similar level	40%	62%	51%	53%
Shift up one level	48%	35%	42%	38%
Shift up two levels	13%	4%	7%	10%
Average time before shift	9.3	12.9	11.1**	8.9**
Chi-square statistic	0.13		0.31	

** t-test of the time before a job shift for women versus men; $p < 0.01$

4.5 Results

In this section, hypotheses are tested regarding men and women's chances of making a job shift by means of logistic and multinomial logistic models (table 4.5). Bivariately, women make more job shifts than men do, but after taking into account individual and job characteristics, this effect no longer holds. Overall, men and women have an equal chance of making a job shift. This not only applies to lateral job shifts, but also to job shifts up one or two levels. The hypothesis that especially women have lower mobility chances in the case of larger vertical shifts, therefore, has to be rejected.[7] The effect of employees' job level on the types of job shifts is quite clear. Employees at lower job levels have a far higher chance of making vertical job shifts; at intermediate level jobs they generally move up one level. Employees at the higher end of the organizational hierarchy have a higher chance of making a lateral shift, as they are faced with a ceiling in vertical career progression. Additionally, the duration of a person's job has a nonlinear effect on the chance of making a job shift: first, the risk of making a job shift increases over a certain period of time, after which it decreases, indicating that the gates of opportunity only stay open for so long.

Given that women do not have lower mobility chances for job shifts over larger distances, the question arises if this also applies to job shifts that take place at higher job levels (the second hypothesis). Each model is estimated, including interaction terms between the level of a person's originating job and their gender (table 4.6). To assess the general pattern, a person's job level is added as a linear term. Although women's vertical promotion chances were expected to decrease at higher job levels, this is not the case. Thus, no indication is found that women's chances of job mobility at higher job levels are any different than those of men.[8]

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[7] To determine whether women's equal mobility chances are caused by the fact that men are on the labor market for a much longer period, an extra check is performed: analyses are repeated for employees who entered the labor market in 1990 or later. Among this group, women, again, do not have lower chances of making a vertical job shift than men; they even have higher chances of making a lateral job shift than men do. In this sense, the findings are relative stable throughout the sample.

[8] For 'all job shifts', the same analysis was repeated, using job level as dummy variable. In this case, women are, again, not restricted at higher job levels. This confirms the overall finding.

Table 4.5 Analysis of all job shifts and of one of three types of job shifts by individual and job characteristics (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.01**	0.00**
Female	1.03	1.15	0.88	1.18
Time	1.14**	1.15**	1.13**	1.22*
Time squared	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.67**
Experience before the job in years	0.97**	0.97**	0.97**	0.97
Career interruptions before the job in years	0.99	0.99	0.97	1.02
Number of jobs before job	1.09**	1.08*	1.09*	1.11
Job level (ref.= fifth level, e.g. accountant)				
Lowest or second level (e.g. secretary)	2.40**	1.98**	2.05**	10.19**
Third level (e.g. junior accountant)	1.65**	1.19	1.69*	5.32**
Fourth level (e.g. assist. project leader)	1.54**	1.31	1.67**	1.99
Sixth level (e.g. senior accountant)	0.86	1.57*	0.40**	0.01
Seventh level (e.g. head of line departm.)	1.04	2.20**	0.29**	-
Has child(ren) under age of 6 (time-var)	1.02	0.94	1.09	1.14
Works part-time (time-var)	0.89	0.92	0.88	0.63
Works in public sector organization	0.83*	0.88	0.84	0.57*
Period (ref. = 1995 and later)				
Till 1985	0.25**	0.19**	0.24**	0.77
1985-1995	0.51**	0.45**	0.51**	1.04
Log Likelihood	-3,290	-3,856	ibid	ibid
Wald chi-sq (df)	253**	93,461*		
BIC	6,770	8,342		
Number of time-periods	36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Table 4.6 Analysis of all job shifts and of one of three types of job shifts: interaction female and job level (odds ratios; for full models, see appendix E)

	All job shifts	To equal level	Up one level	Up two levels
Female	0.89	0.98	0.84	0.64
Job level (ref.= fifth level, e.g. accountant)				
Lowest or second level (e.g. secretary)	2.59**	2.15**	2.10**	14.40**
Third level (e.g. junior accountant)	1.70**	1.24	1.70*	6.15**
Fourth level (e.g. assist. project leader)	1.56**	1.33	1.68**	2.09+
Sixth level (e.g. senior accountant)	0.85	1.56*	0.40**	0.01
Seventh level (e.g. head of line departm.)	1.02	2.17**	0.29**	-
Job level (interval) * Female	1.06	1.06	1.02	1.34
Log Likelihood	-3,290	-3,855	ibid	ibid
Wald chi-sq (df)	254**	93,462**		
BIC	6,780	8,376		
Number of time-periods	36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Next, the topic of working in an internal labor market is addressed (table 4.7). Here, line jobs are compared to support, staff and customer jobs.[9] Overall, women's relative chances of making any job shift are higher in support jobs than in line jobs. This effect is partly caused by women in support jobs having better chances of moving up one level than men do. Additionally, women's relative chances of a lateral move are better in customer jobs than in line jobs. Notably, in customer jobs women's chances of a lateral shift are also higher than their chances of moving up two levels are (as the difference between both coefficients, 2.98 and 0.22, is significant). Since men and women's promotion chances do not differ in terms of a direct gender effect, the gap in the reference category (i.e. line jobs) is small to nonexistent. It is not so much that men benefit from being in a line job, but rather that women's mobility chances improve in support and customer jobs. Although women appear to benefit from being outside the internal labor market, these jobs may more often be low-ceiling jobs, providing less access to the highest echelons of the organization in the long run (Althauser, 1989).

[9] The analyses were performed for job levels three to seven only, without hierarchical level of the job (as it partly coincides with type of job). If hierarchical level is also taken into account, effects are smaller but remain significant. Notably, the BIC values are far lower than in the model only with hierarchical levels (table 4.5). This is largely due to the selection of employee categories. If, instead, hierarchical level is added in both analyses, BIC values are lower than for the ILM model, without interactions (5,238 versus 5,277 and 6,488 versus 6,535). Apparently, hierarchical levels of jobs are more important for predicting career patterns than their clustering in- or outside the organizational internal labor market is.

Table 4.7 Analysis of all job shifts and of one of three types of job shifts: interaction female and internal labor market (odds ratios; for full models, see appendix E)

	All job shifts	To equal level	Up one level	Up two levels
Female	1.03	0.96	1.07	1.43
Type of job (ref. = line jobs)				
Works in a support job	0.89	0.82	0.68	4.48*
Works in a staff job	0.96	0.92	1.00	0.97
Works in a customer job	0.89	0.71	0.34+	8.90**
Support job * female	1.86*	1.81	2.45+	0.98
Staff job * female	1.09	1.38	0.69	2.28
Customer job * female	1.37	2.98*	1.06	0.22
Log Likelihood	-2,541	-2,982	ibid	ibid
Wald chi-sq (df)	193**	73,234**		
BIC	5,277	6,627		
Number of time-periods	28,950	113,942		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

With respect to the organizational hypotheses, it was first expected that formalized policies improve women's mobility prospects, also for job shifts over larger distances. No indication is found for this (table 4.8). The results without interaction terms show that formalized settings lower employees overall mobility chances, but not for each type of job shift separately (see Appendix E). Apparently, formalized personnel policies create steadier and more predictable career paths, for both women and men.[10] The results regarding the share of women at higher job levels are as expected, at least in the case of job shifts up one level: a high share of women at higher job levels increases women's chances of moving up one level compared to those of men. A value of zero indicates an average share of women at higher levels. Men and women in these settings appear to have equal mobility chances. Women's relative mobility chances are also higher compared to lateral moves or moves up two levels, as these coefficients differ significantly. In general, without looking at gender differences, a higher share of women has a small positive effect on the chance of any job shift, but not on the job shifts separately. The findings regarding the organizational culture are in line with the expectations. In organizations with a more supportive culture, women's chances of making a job shift both up one

[10] To investigate if the actual use of formalized policies is more important than their description on paper, the analyses were repeated with a different indicator, namely the percentage of employees within an organization who have had a personnel evaluation in the past year. In that case, the results are not significant.

and up two levels are higher compared to men's. These gender differences not only apply when comparing them to not making a job shift, but also in between. All three interaction terms differ significantly from each other, indicating that women's relative chances of vertical mobility are higher than their chances of lateral mobility.[11] The last topic of investigation is the presence of child care facilities. These facilities are argued to enable women to pursue a vertical career. In practice they do not affect women's relative chances of a job shift. Given the nonsignificant gap between men and women overall, this finding also entails that having extensive child care facilities do not benefit, nor restrict women's career progression. It is possible, though, that child care facilities are especially beneficial for employees with caring tasks. However, additional analyses reveal that this is not the case: interaction terms between child care facilities and having children, and with being female and having children are all nonsignificant.[12]

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[11] The BICs also indicate that a part-time friendly culture has the best model fit compared to the other organizational factors. This is not the case compared to including individual and job level characteristics only. However, a likelihood ratio test does show a significant model improvement. The difference between these BIC results and those of a likelihood ratio test is that the first can be more strict, as it compensates for the sample size and the number of additional parameters.

[12] Since part-time friendly organizational cultures and child care facilities partly coincide with public sector, both analyses were repeated using the log of organizations' size as a control instead. The results are mainly the same as when type of sector is added. With child care being the only time-varying organizational characteristic, it was also added as a time-constant effect. Interactions with gender are significant in two cases when extensive child care is present: women have a higher chance of making any job shift and a higher chance of moving up two levels. The first effect also holds when organizational size is used as a control variable. These organizations were possibly already "female-friendly" before they introduced child care facilities. To test this, the analyses were repeated for time periods before and after 1995 separately. Both include a comparable number of job shifts, and before 1995, most organizations had not yet, or had only recently introduced child care. Focusing on all job shifts, the results are nonsignificant for the first time period; for the second period they are. As child care is measured more accurately as a time-varying covariate, the results in table 4.8 are considered most reliable.

Table 4.8 Analysis of all job shifts and of one of three types of job shifts: interaction female and organizational characteristics (odds ratios; for full models, see appendix E)

		All job shifts	To equal level	Up one level	Up two levels
1)	Female	1.02	1.13	0.87	1.15
	Formalized policy org.	0.93	0.95	0.93	0.80
	Form. pol.* Female	0.97	0.90	1.01	1.48
	Log Likelihood	-3,289	-3,853	ibid	ibid
	Wald chi-sq (df)	256**	93,467**		
	BIC	6,787	8,408		
2)	Female	1.02	1.16	0.84	1.21
	Share women higher levels	1.06	1.11	0.96	1.35
	Share women * Female	1.09	0.93	1.45**	0.70
	Log Likelihood	-3,288	-3,850	ibid	ibid
	Wald chi-sq (df)	258**	93,473**		
	BIC	6,786	8,402		
3)	Female	1.02	1.15	0.85	1.09
	Part-time friendly org. culture	0.94	1.00	0.93	0.59*
	Part-time friendly cult. * Female	1.13	0.87	1.37*	2.99**
	Log Likelihood	-3,289	-3,845	ibid	ibid
	Wald chi-sq (df)	256**	93,483**		
	BIC	6,789	8,392		
4)	Female	0.88	0.91	0.76	1.21
	Child care facilities	1.11	1.24	1.07	0.64
	Child care * Female	1.23	1.35	1.22	0.99
	Log Likelihood	-3,288	-3,852	ibid	ibid
	Wald chi-sq (df)	258**	93,470**		
	BIC	6,787	8,405		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Apart from discussing findings regarding the formulated expectations, it is interesting to point to a number of other results (see table 4.5). Of the set of human capital characteristics, a person's educational level clearly improves the chances of a vertical job shift, either one or two levels upwards. Since these latter job shifts especially occur at lower levels, this group of employees may catch up with others after working at a level below their qualification level. Labor market experience before the job negatively affects a person's mobility chances; the number of jobs a person has had in the past only has a limited contribution to their further career development. It is noteworthy that both having children and working part-time do not affect a person's chances of making a job shift. In

other words, there is no indication that part-time employees or employees with caring tasks are restricted in their career progression. Studies find that having children has a very different influence on men's career progression than it does on women's; hence, an interaction term is added between having children and being female. However, this is found not to be significant (results not shown). The last topic of attention is the difference between public and private organizations. Working in a public sector organization reduces a person's chances of a job shift. Apparently, private organizations emphasize career mobility more strongly than public sector organizations do.

A final step in this chapter is to address the overall pattern of men and women moving through their organizations. Chapter two shows that men reach higher job levels than women do, and that this gender gap is only partly related to a different entry position inside the organization. Women apparently face restrictions during their organizational careers, but looking at separate promotion steps does not display the same gender pattern. For that purpose, table E-2 (see appendix) shows how employees' current job levels are explained by their gender and first job in the organization (see also section 2.4). The estimated models include other career characteristics incorporated in this chapter, as well as organizational conditions.[13] Although this type of analysis does not illuminate the black box of career steps during a person's time in an organization, it does show which factors are related to achieving a higher job position over time. The results are similar to those found using event history analysis. Adding career and background characteristics leads to the disappearance of a gender gap. A person's educational level, working experience and career interruptions are more important for predicting current job levels. Again, working part-time or having children do not appear to restrict women's career advancement. At the organizational level, a part-time friendly culture and child care facilities contribute positively to women's career advancement. However, the intra class correlation (ICC) becomes negligible, indicating that the organizational level hardly contributes to explaining employees' current job levels. The reason for this is partly because employees' first jobs are included in the analyses, which correlates highly with their current job level and already capture some of the differences between organizations. Overall, the results of both types of analysis (event history models and first-last job analysis) show that, when taking their backgrounds and career histories into account, the direct differences in career progression between men and women are small.

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[13] Only employees who have had two or more jobs in the organization are incorporated in the analyses. This excludes about half of the employees currently working in their first job on the labor market or whose previous job was located outside of the organization. As the dependent variable (job level) contains eight ordinal categories, a two level ordinal probit analysis is performed (see also section 3.3.4). Explanatory career characteristics are educational level, working experience, amount of career interruptions, number of jobs in the past, having worked part-time in the previous job, having children under the age of 6 and working in the public sector. All work-related issues, as well as having children, indicate employees' positions at the start of their current jobs.

4.6 Discussion

In this chapter, I addressed the types of job shifts that men and women make. The general notion that job shifts are especially difficult to realize over larger distances is supported only to a limited extend. Overall, such job shifts are relatively rare. This in itself may indicate that employers restrict such job steps (by means of formalized job descriptions), exactly because these steps entail a large increase in risks. On the other hand, the fact that these steps mostly occur at the lowest levels suggests, in part, a "catching on"-effect for higher educated employees (Treble et al., 2001; Ishida et al., 2002). The distinction between lateral and vertical job shifts is also not always apparent. Many of the findings are similar for both types of job shifts. In part, this may indicate that lateral shifts also entail the acquirement of new skills and are associated with selection risks. Additionally, lateral shifts not only indicate a less vertical career path, but also act as stepping stones for vertical transitions (Dohmen et al., 2003).

The main result of this chapter is that no clear career gap is found between men and women. What is especially important for the career progression of women is whether they are held back by a glass ceiling, which prevents them from reaching higher job levels. In this study, I found no indication of any such ceiling, and may conclude that men and women have a equal mobility chances within their organizations. For the correct interpretation of this finding, a number of notes should be made, the most important being that women are still underrepresented at the highest job levels. Both chapter two and four show that this gender gap is, in part, related to different positions when they entered the organization, although women also face some career restrictions during their stay inside the organization. These remain undetectable, however, when looking at a small number of detailed job shifts. For each job shift, women are possibly restricted to a small degree only. However, cumulatively, after a larger number of upward steps, both within and outside the current organization, the sum of each of these restrictions shows that men have climbed the organizational job ladder faster than women have. An additional, more empirical limitation of this study is the fact that its results are partly affected by a low share of employees at higher levels in general. To draw meaningful conclusions regarding this topic would require a more extensive study, especially incorporating men and women at the highest levels of the organization. Overall, the findings indicate that gender differences in terms of job shifts are relatively small. This is supported by the finding that women do not have lower promotion chances than men among the new entrants on the labor market (who began work in 1990 or later). The low share of women at the highest job levels may disappear as these women progress through the organizational hierarchy. The fact that career traps for women only become visible after some time and cannot be detected for separate job shifts may indicate the proximity, in this respect, of women's career development to that of men.

Despite finding no direct differences between men and women, organizational measures have proven to be important tools for facilitating women's career progression. The two organizational characteristics that are beneficial to women's career development are the part-time friendliness of an organization's culture and its share of women at higher job levels. To improve these will take considerably more time than merely implementing policy measures such as work/family arrangements. However, since more and more women are able to combine a career with caring tasks, these are both expected to change. The results indicate that combining work with caring tasks (or the choice to work part-time) is becoming less and less of a barrier towards career progression; this means an important breakthrough for women's position on the labor market.

At the end of this study, attention is directed at possible guidelines for future research. An important issue concerning the current organization-based study is that possible selection effects of the persons working in these organizations may have affected the results. For example, employees who are less interested in upward mobility, due to, for example, expected caring tasks, may have a preference for organizations in which less focus is placed on making (vertical) job shifts. Alternatively, employees who are interested in being upwardly mobile may have already left a particular organization to pursue a career elsewhere. To gain insight into these issues, the career trajectories of individuals should be studied as they move through different organizations. It is, therefore, preferable that a study concerning career development is performed prospectively, as the current study only incorporates retrospective information about employees' careers inside their current organizations; a large part of career differences may arise well before that.

Although the empirical evidence in this study supports the formulated ideas to a limited extend only, one of the overall findings is that job shifts - be it over large, small or medium distances - are not the same. This indicates that different types of job shifts can be important for understanding career developments in a broader perspective. Studying these topics from an organizational perspective proves to be a valuable endeavor.

5 Development within the Job: the Influence of Organizational Characteristics on Changes in Job Complexity and Wage Growth of Men and Women*

Abstract

This chapter addresses employees' job developments in terms of changes in job complexity and wage within the job. The focus is on the influence of five organizational characteristics on the job development of women versus men. For the analyses, a data set is used containing 28 Dutch organizations and 1,053 employees. When controlling for individual and job characteristics, we can observe that both the job complexity and wages of men and women do not change at different rates. Of all of the organizational characteristics investigated, only one affects men and women differently: in more part-time friendly organizations, women's increase in job complexity is higher. The presence of child care is found to positively affect both men and women with younger children, again increasing the growth of their job complexity. Apparently, both men and women with children can benefit from increased possibilities to combine work and caring tasks.

* A slightly different version of this chapter has been published in Dutch, co-authored by Tanja van der Lippe: Hansen, J. & T. van der Lippe (2002), 'De groei binnen de functie. De invloed van organisatiekenmerken op verschillen in functieontwikkeling tussen mannen en vrouwen', *Mens en Maatschappij*, 77-2: pp. 93-115.

5.1 Introduction

A great body of research has been aimed at explaining differences in labor market position and career development between men and women. It is often found that men are more likely to make a promotion and to reach higher job levels than women are (see for example Blossfeld, 1987; Hersch & Viscusi, 1996). Despite this general focus on job changes, a large share of employees do not switch between jobs, but still the contents of their jobs may change. It could be, for instance, that women make promotions less often, but that they are compensated by an extension of their job content. Conversely, men may grow more rapidly within their jobs, as a result of which they will change jobs more often. Even though employees' job development can be instrumental for the rest of their careers, research about changes in job content is scarce, especially in relation to gender differences.

Previous research has primarily focused on the job content at a given moment in time. Differences between men and women are explained by means of their human capital, their hierarchical positions in the organization or the segregation of men and women into different jobs (Glass, 1990; Tomaskovic-Devey, 1993). These factors only partly contribute to a gender gap in job content (Kalleberg & Leicht, 1986; Kalleberg & Van Buren, 1996; Adler, 1993). For example, if men and women have the same hierarchical position in an organization, men hold management tasks more often (Tomaskovic-Devey, 1993; Huffman, 1995). In other research, attention goes out to job characteristics, such as task complexity, autonomy, internal labor market opportunities and responsibility in the job. The prevailing approach among economists is to focus on wages as job outcome (Bartel, 1995; Brown, 1997). However, an increase in wages within the job is not necessarily accompanied by a change in job content, and vice versa. Gender biases may occur if increases in women's job content are reflected less often by an increase in wages than for their male counterparts. Therefore, it is not only important to study employees' wage growth, but also their developments in job content.

Clearly, many aspects of job content can be studied. It is especially valuable to aim research at characteristics that are important rewards on their own account, as well as instrumental for further career development. In the latter case, attention especially goes out to characteristics that relate to a vertical career and reflect a higher positioning within organizations. Two important job aspects that meet these criteria are the complexity and wage level of a person's job. Replacing employees with complex and highly paid jobs is more difficult, because these positions are likely to require more organization specific knowledge or a larger amount of training time (Bielby & Baron, 1986).

Developments in job content do not occur in a social vacuum, but are related to different social settings. Especially since the 1980s, it is argued that the influence of the organization on career outcomes should be studied (Baron & Bielby, 1980; Granovetter, 1981). After all, the organization

is the most immediate context in which employers and employees operate and in which people's allocation occurs. Also in empirical research, career outcomes are regarded more and more in relation to an organizational setting. Mostly, the focus is on general organizational characteristics such as size and the formalization of promotion policies (Carroll & Mayer, 1986; Rosenbaum, 1990; Kalleberg & Van Buren, 1992), or on specific issues such as personnel demography (Ott, 1985; Burke & McKeen, 1996) or the influence of work/family arrangements (Osterman, 1995; Remery, 1998). Organizational circumstances are often found to influence the career outcomes of men and women differently. This can also be the case for development within the job. The influence of the organizational context on job content is especially relevant given a number of recent organizational developments that have taken place. In different national settings, a delayering of organizational hierarchies and decentralization has been observed. This has lead to fewer linear career paths and a delegation of responsibilities to employees (Clegg, 1990; Feldman, 1995; Konrad & Cannings, 1997; Asselberghs et al., 1998). Accordingly, promotions are argued to occur less often, and the importance of job development increases both for organizations and employees.

In this chapter, I investigate changes in job complexity and wages. This is done in order to gain insight into the unequal positions and careers of men and women. Studying both job aspects together yields a more complete understanding of the growth within a job than when focusing on merely one of these aspects. Specific attention is paid to the organizations in which men and women work. This leads to the following research question: *To what extent can organizational characteristics explain the development in job complexity and wages of men and women?*

5.2 Explanations for developments in job content

Theories concerning changes in job content are relatively scarce. When labor market theories pay attention to this topic, it is mostly intended as a means to explain further job changes. For example, in human capital theory, it is argued that employees acquire knowledge and skills within the job which increases their productivity (Becker, 1964). This increase in productivity during the job is assumed to be equal between individuals across different jobs, given the same amount of working hours and job tenure. A more complex incorporation of changes in job content can be based on matching theories (Jovanovic, 1979; Hartog & Visser, 1987; Barron et al., 1989). Jobs are argued to differ in their training costs, which is used as a guideline in explaining selection decisions for different jobs. This suggests that in jobs with higher training costs, the productivity of employees will increase more strongly over time than in jobs with lower training costs. The job content itself may also change in this case, for example, since employees with higher productivity can handle a higher degree of responsibility. However, employees who are equally suitable for working in the same job are expected to develop in their job productivity in a similar manner.

When two equally suited employees are working in the same job, their job content can still change in different ways. These job changes are partly the result of an employee's own doing, but they can also be initiated by employers. For the allocation of extra tasks and responsibilities, employers have to make risk assessments about future work performance. These are founded either on an individual basis or on statistical discrimination, in which selection decisions depend on characteristics of risk groups (Arrow, 1973). This notion of future risk assessments is especially used to explain the hiring of external candidates, but also applies to internal selection decisions. Even though an employee's current performance is observable, this is no guarantee for future performance, especially if their new position involves new tasks (Jacobs, 1981). Gender differences in risk assessments can arise because of possible differences in expected training costs, but also because of different exit risks. Women are often expected to have a higher exit risk than men, because of expected career interruptions. Even though these interruptions are (usually) only temporary, the returns of their training costs are still lower than those of men, which can result in women being allocated fewer tasks. Moreover, chances are higher that women will want to work part-time. As a result of this, the returns of their training costs reduce, and employers will be less inclined to give women more responsibilities.

The organizational setting can strongly affect future risk assessments. In organizational literature, attention is mostly paid to general "incentive structures" for altering personnel's behavior, such as paying "efficiency wages" or constructing internal labor markets (see Baron, 1984; Spilerman, 1986; Boxman et al., 1994). When constituting the organization and the personnel policy, employers can also use this strategy specifically for women. If, subsequently, the risk of women leaving the organization or working part-time becomes smaller, the possibilities for women to grow in their jobs will increase. First, greater confidence can be placed on women by means of a general personnel and promotion policy. Second, a greater number of women in an organization can be seen as an indicator of future career possibilities for female employees. Third, specific organizational measures, for example, the availability of child care facilities, can be used to influence the future risk assessments of women.

Up until this point, the influence of the organization on job changes has been argued from the employer's point of view. Naturally, men and women themselves also determine the extent to which they invest in their careers. If female employees perceive more possibilities to grow in their jobs, they themselves may take on more responsibilities and, consequently, their wages will increase. The primary aim of this study is not to investigate to what degree career differences are caused by the behavior of employers versus employees. Instead, the notion of risk assessments of both parties is used in order to formulate expectations about the possible influence of organizational circumstances on the job development of men and women.

5.3 Expectations

The manner in which the personnel and promotion policy of an organization is shaped is often argued to influence the career development of men and women differently. In the literature, this mostly refers to the degree to which promotion policies are formalized (Huffman, 1995; Tomaskovic-Devey et al., 1996). More formalized policies are generally considered to reduce subjectivity in the assessment of performance. The reason for this is that "written job descriptions and personnel evaluations, at least in theory, function to reduce managers' discriminatory behavior by attaching a paper trail to their actions" (Huffman & Velasco, 1997: 218; see also Dobbins et al., 1993). Consequently, this should reduce the use of ascriptive criteria such as gender in selection decisions (e.g., Carroll & Mayer, 1986; Kalleberg & Van Buren, 1992; Huffman, 1995; Kalleberg & Reskin, 1995; Tomaskovic-Devey et al., 1996). This is especially expected to occur in the case of job mobility, since personnel and promotion policies are mostly used to determine how candidates are selected for a vacancy. An extension of responsibilities or a wage increase in the job possibly also reflects this paper trail. If female employees see that their future promotion chances are formally assessed, rather than through informal decision-making, they may conclude that they will have a fair chance at reaching higher job levels, and that the payoffs of job growth in the future will be high. Consequently, female employees will invest more in their career, take on more tasks and receive higher wages. Since men have less to fear from subjective negative assessments, the effect of formal policy making on their job development is expected to be smaller. The accompanying *paper trail hypothesis* is therefore as follows:

1. *The higher the degree of formalized promotion procedures in the organization, the stronger women's jobs will grow in terms of complexity and wages compared to those of men.*

A second organizational factor is the degree of the organization's investments in employees, also called human resource management (HRM). According to Ten Have (1993: 265), the central idea of HRM is that "employees are to be regarded as the 'human assets' of the organization, and the success or failure of the organization depends on the quality of those human resources. Thus, personnel policy is to be regarded as investment policy. Education and training, as well as developmental possibilities within the job and during the career are necessary conditions for the organization's long term success" [transl.]. Rosenbaum (1989) stresses that these investments are especially directed at employees who are thought to have the most to offer the organization. As he argues, "*it is expensive to keep the doors of opportunity open* because, as long as they are open, the firm is 'wasting' scarce investments on 'unproductive' people" (1989: 336; italics in original). If organizations do indeed invest in employees with high expected returns only, and thus conduct a

more restrictive HRM policy, this indicates that only a small share of employees with promising career prospects will profit from these policies. Subsequently, an organization will invest less in women, because of their higher exit risk. A more ample HRM policy implies investment in both men and women. The *human resources hypothesis* reads:

2. *The more ample the organization's HRM policy, the stronger women's jobs will grow in term of complexity and wages compared to those of men.*

Since the work of Kanter (1977), much attention has been paid to the influence of the gender composition of the work force on the career outcomes of men and women. Kanter's argument was that being in a minority position makes employees more noticeable and they subsequently receive less social support. Research shows that this effect is not gender-neutral. Men seem to benefit from being in a minority position, while women do not (Ott, 1985; Burke & McKeen, 1996). Especially the proportion of women in higher positions in the organization is argued to be important. These women may influence the career aspirations of other women, because they can act as a mentor, sponsor or role models and because they make the organization more female-friendly (Burke & McKeen, 1996; Glass & Riley, 1998). Accordingly, with few women at higher levels, it will be harder for others to break through. The same argument can hold for the development within jobs. Whether the share of women at higher job levels also influences the job development of men is not clear. On the one hand, male employees may be more worried about their own job developments if there are more women at high levels in their organization. Not only has a greater preference then been made for women, but other women can also invest more in their career development. On the other hand, men may be less worried in this case, as women more often work part-time or prefer to do so, while from the employers' point of view, many higher level jobs are ideally performed full-time. It is hard to predict which of the two lines of reasoning applies. Assuming the first, the *role model hypothesis* is as follows:

3. *The higher the share of women at higher job levels in the organization, the stronger women's jobs will grow in terms of complexity and wages compared to those of men.*

The social support that women receive within an organization not only depends on the share of women in higher positions, but also on the organizational culture. Even if two organizations have an equal share of women at higher levels, the general attitude and support towards this share of women may very well differ. If colleagues are, for instance, under the impression that females are less suited for working at higher job levels, precisely because they often work part-time, female employees may experience a lack of support and will invest less in their career. Employers may reason likewise and invest less in their female employees. Naturally, male employees benefit from this. The *organizational culture hypothesis* can be formulated as follows:

4. *The more supportive the organizational culture towards female employment, the stronger women's jobs will grow in terms of complexity and wages compared to those of men.*

A final difference between organizations with respect to gendered career outcomes is the degree to which they facilitate the labor market participation and career development of employees with caring tasks. If an organization offers extensive work/family arrangements, employees with caring tasks are better able to perform their jobs. They can anticipate having children without being restricted in their options to pursue a career within the organization. Work/family arrangements can have the same signaling function for employers. Although the presence of such arrangements is relevant for all employees with caring tasks, in practice this refers mostly to women; they often take on the bulk of the child care tasks (SCP, 2004). Remery (1998) indeed finds that work/family policies within organizations have a positive effect on the careers of women; Tomaskovic-Devey et al. (1996) draw the same conclusion. Consequently, when more work/family policies are present, women may invest more in their careers, as well as receive more tasks from their employers. Implementing this idea into job development leads to the following *work/family hypothesis*:

5. *The more extensive work/family policies the organization has, the stronger women's jobs will grow in terms of complexity and wages compared to those of men.*

5.4 Data and methods

5.4.1 Data

To investigate the influences of the organizational context on employees' career outcomes, I opted for a research design encompassing a data collection among a large number of employees from several organizations in the Netherlands. It is hereby possible to study the effect of the organization on employees by comparing the career developments of colleagues (Kalleberg, 1994). The data used in this study were collected between 2000 and 2001. From a larger set of organizations with corporate social reports, a selection was made of organizations in manufacturing, services and government, each with over 200 employees and a minimal 10 percent share of women. This was done to ensure comparability between organizations. A total of 28 organizations participated in the research, 14 in the government sector, 9 in services and 5 manufacturing organizations.

A personnel employee (mostly the head of the personnel department) from each organization was interviewed about the organization and its policies, and a random sample of employees received a written questionnaire about their career development. Employee categories in supportive services whose tasks are often outsourced were not incorporated, such as catering, postal services and security personnel. Only office personnel were included in the manufacturing sector. This was done

in order to increase comparability with the other sectors. Depending on the size of each organization, fifty or more employees received a questionnaire. The response varied between 24 and 119 persons per organization, with a total response rate of 46 percent. In total 1,153 employees filled in a questionnaire. Due to incomplete information, the analyses are based on 1,053 individuals.

5.4.2 Operationalization

Dependent variables

The development within the job is determined by focusing both on job complexity and wage growth. *Change in job complexity* is measured with the use of several questions. Both for the current situation, as well as for the situation at the beginning of the job, respondents were asked how often the following job aspects occur(ed): (a) working under high time pressure, (b) executing multiple tasks, and (c) supervising. Response categories are 'never', 'once or a few times a year', '... times a month', '... times a week' and '.... times a day'. Additionally, respondents were asked to describe their jobs in terms of their (d) degree of responsibility, (e) degree of independence, (f) degree of working overtime, (g) the number of tasks and (h) the necessity to be available for five days a week. Response categories range on a five point scale from 'very small' to 'very large'. These indicators are added and divided by eight, resulting in a sum score of one to five. Cronbach's alpha for the degree of job complexity in the current situation is 0.77. The difference between this measure and the measure at the start of the job indicates to what degree the job complexity has changed. This manner of determining the responsibility of respondents is, of course, a subjective approach, but it enables respondents in different types of jobs to complete all of the questions, which increases comparability between jobs.

To measure the *change in wages within the job*, respondents were asked to fill in their gross monthly wages in one of 24 categories. These ranged from 'less than € 454,-' (a thousand Dutch guilders) via steps of € 227,- (500 guilders) to 'more than € 5445,-' (12.000 guilders). Gross wages were opted for, since these reflect a person's level within the organization best, whereas net wages partly depend on household circumstances. This question was asked for the present situation and the situation at the beginning of the job. For respondents who work part-time, the gross monthly wages is replaced by the equivalent full-time salary. The response categories are replaced by their class means. Values are imputed in the first and last categories based on job level, tenure, educational level and respondents' age. Moreover, starting wages of employees are corrected for currency inflation by means of the consumer price index (Dutch Central Planning Office, 2001). After all, some employees have been working in their current job for longer than others, while yearly inflation rates vary strongly between periods.

Explanatory variables

The organizational characteristics incorporated in this study ideally reflect changes through time. As organizational measures change over the years, this may partly affect changes within the job. However, most characteristics were only obtainable from personnel officers for the current situation. Therefore, the current level is used as an explanatory variable for all organizational characteristics, with the exception of child care facilities. Its implementation is discussed in section 5.4.4.

Formalized personnel policies are determined by asking key informants how often each organization uses the following personnel procedures for internal vacancies: 'internal publication of vacancies', 'asking specific employees to apply for a vacancy' and 'use of educational criteria for internal vacancies'. Response categories range from 'never' to 'always'. Two additional indicators are how often the organization makes use of job descriptions or performance evaluations, both with five response categories ranging from 'none...' to 'all of the jobs'. The scores of all questions are added together, and the answers on the question 'asking specific employees to apply' are reversed. The alpha of all these items is 0.70. Values of this measure are transformed into z-scores for comparability with other measures. Coefficients in the models represent the effect of an increase in formalized policies by one standard deviation compared to an organization's average degree of formalization. In the descriptive tables in section 5.4.3, this and all subsequent variables are transformed into a scale that ranges from 0 to 1, again for reasons of comparability. The features of the *HRM policy* are measured by a question about the organization's investments in education. Since the personnel officers had only limited information about the organization's HRM, information received from employees is used. They were asked to indicate, on a five-point-scale, how many educational possibilities the organization offers to its employees. The response categories range from 'very little' to 'very many'. For each organization, the mean of these answers is transformed into z-scores and used as an indicator of accessible educational investments. A higher value reflects a more ample HRM policy. The *share of women at higher job levels* is indicated using respondents' job levels. The line between higher and lower level jobs is drawn at level five, which corresponds with higher knowledge jobs such as policy makers or accountants (see also appendix C). Per organization, the percentage of females at level five and higher is calculated compared to all females in the sample and divided by the percentage of male employees at higher job levels. This measure ranges from 0 to 1. The latter value reflects an equal representation of men and women at higher job levels. In the explanatory analyses, z-scores are used. Concerning the *organizational culture*, I concentrated on the attitudes in each organization towards working part-time. Respondents could indicate whether they agree with the following propositions about their establishment or organization: (a) 'people think it is strange if a man wants to work part-time', (b) 'people think it is strange if a woman wants to work part-time', (c) 'if an employee wants to work fewer hours, the organization seriously considers the possibilities', (d) 'part-time work is only accepted at lower levels' and (e)

'working fewer hours has negative consequences for your career'. The response categories range from 'strongly disagree' to 'strongly agree'. To indicate that a higher score reflects a more supportive organizational culture, the response categories of proposition (a), (b), (d) and (e) are reversed. For each proposition, the average is calculated per organization. The alpha of all items is 0.95. The mean sum score per organization is taken as an indicator of the organizational culture, again converted into z-scores in the analyses and into a scale of 0 to 1 in the descriptive tables. The *presence of work/family arrangements* is determined by asking key informants if their organization has child care facilities, and what measures are incorporated. The answers are divided into 'no or limited' versus 'reasonable or good child care facilities'. Organizations are regarded as having limited child care if their facilities are budget neutral. In the case of neutral budgets, employees only receive a limited financial compensation, which is deducted from their gross wages. This is cost free for the organization; the financial benefit for employees depends on their wage level.

Control variables

Next to organizational characteristics, a number of control variables at the individual, job and organization level are added to the analyses. The *number of years of daytime education* is used as an indicator of human capital, with the value zero reflecting lower vocational training. Labor market experience before the job is incorporated as the *number of years of working experience*. To also take into account that employees have worked in their current jobs for different lengths of time, their *tenure in the current job* is added as a control variable. Additional training during a person's job is indicated by the *amount of courses during the current job*. Since employees with a longer job tenure could have followed more courses, the amount of courses is divided by the number of years someone has worked in the current job. Furthermore, it is important to include the level at the start of the job. If, for instance, employees start out at the highest wage level, it is impossible to detect any further wage growth in the survey. To include both the complexity and starting wages of a certain job would lead to problems of multicollinearity, as these correlate highly. As wage levels are often argued to reflect hierarchical position best, the *logarithm of starting wages* is included in all models. Since jobs may not only differ in hierarchical terms, the type of job is added, as an indicator of *presence inside an internal labor market (ILM)*. A distinction between jobs is made, based on employees' job titles. Line jobs are seen as the strongest indicator of an internal labor market compared to staff jobs, customer jobs and support jobs. Management jobs are a somewhat different category, since they often form the end stations of organizational job ladders. Additionally, *working part-time* (less than 36 hours a week) and *having children under the age of six* are controlled for. As a final control variable at the organizational level, the *sector* of each organization is added, comparing the public with the private sector. The influence of each organizational characteristic is tested, together with this distinction between sectors.

5.4.3 Descriptive statistics of the explanatory variables

In table 5.1, the descriptive statistics for all explanatory variables are presented for men and women separately. Asterisks indicate whether men and women differ significantly from each other, either by means of a t-test in the case of interval variables, or by means of a chi-square statistic in the case of dichotomous outcomes. On average, women have lower starting wages, work more often in support jobs and have worked in their current job for a shorter period of time. Another notable difference is that almost half of all women work part-time, while only nine percent of all men work part-time. Women also work more often in organizations with a supportive organizational culture and in organizations that offer child care facilities.

Table 5.1 Descriptive statistics for men and women separately: means (standard deviations) and percentages

	Men	Women
Gross monthly wages at start of current job in Euro's (743 - 8,546) **	2,748 (1,142)	2,176 (999)
Job tenure in years (0.1 - 33.2) **	5.6 (6.6)	3.9 (4.9)
Experience prior to current job in years (0.0 - 41.8) **	15.8 (9.2)	14.2 (8.3)
Number of jobs before current job (0 - 14)	3.2 (2.3)	3.1 (2.1)
Educational level in years (-4 - 10) **	4.3 (2.0)	3.4 (2.4)
Courses per year in current job (0 - 10)	1.0 (1.2)	0.9 (1.1)
Works in line job **	62%	41%
Works in support job **	13%	37%
Works in customer job	6%	8%
Works in staff job	10%	10%
Works in management job **	9%	3%
Works part-time (less than 36 hours) **	9%	47%
Has child(ren) under the age of 6	19%	19%
Works in public sector organization *	43%	55%
Formalized personnel policy in the organization (0.15 - 1.0)	0.85 (0.14)	0.86 (0.13)
Educational investments by the organization (0.39 - 0.82)	0.66 (0.08)	0.67 (0.09)
Relative share of women at higher job levels (0.0 - 0.94)	0.46 (0.27)	0.45 (0.27)
Part-time friendliness of the organizational culture (0.43 - 0.81) *	0.64 (0.12)	0.66 (0.11)
Presence of child care facilities in organization *	78%	85%
Total	N = 639	N = 414

Test of the difference between men and women $+ = p < 0.10$; $* = p < 0.05$; $** = p < 0.01$

To shed more light on the twenty-eight organizations participating in this study, a description is given in table 5.2 of how organizational characteristics are distributed over organizations in the public and private sector. Public sector organizations have a more formalized personnel policy, a higher share of women working at higher job levels, a more supportive organizational culture and more child care facilities. Only on extensive educational possibilities does the private sector score higher than the public sector. Most of the associations are as expected, but only the organizational culture differs significantly between the public and the private sector.

Table 5.2 Descriptive statistics (minimum - maximum values) for organizations in the public and private sector: averages (standard deviations) and percentages

	Private sector	Public sector
Degree of formalized personnel policy in organization (0.15 - 1.0)	0.82 (0.21)	0.88 (0.08)
Educational investments by the organization (0.39 - 0.82)	0.68 (0.10)	0.63 (0.09)
Relative share of women at higher job levels (0.0 - 0.94)	0.38 (0.30)	0.53 (0.28)
Part-time friendliness of the organizational culture (0.43 - 0.81) **	0.55 (0.10)	0.73 (0.06)
Presence of child care facilities in organization	71%	93%
Total	N = 14	N = 14

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

5.4.4 Method

Since job complexity and wages are measured at the interval level, changes over time can be expressed in a yearly growth rate, which can be explained through a growth model. Particularly in the case of financial changes over time, it is common to express these as relative percentage growth rates. For instance one can think of inflation rates or collective labor agreements concerning pay growth.

For deriving the model, I assume that both job characteristics do not change with a constant rate over time, but can vary per year. In this section, wage is applied as an example. The wage of person i on time unit t can be seen as the product of growth rates over a time interval between t_0 and t_i and multiplied by wage on time unit 0. This gives the following equation:

$Yi_{t_i} = \prod t \leq t_i \, (1 + \alpha i_t)t_i \, . \, Yi_0$ with Yi_t as the wage of person i at time t_i, αi_t as the percentage increase per unit t and Yi_0 as the wage of person i at time 0, i.e. at the beginning of the job.

By taking the logarithm on both sides of the equation, the product changes into a sum on the right side of the equation. As a result of this, the wage change of person *i* is:

$$\ln Yi_t - \ln Yi_0 = \sum \ln (1 + \alpha i_t)$$

The dependent variable is the logarithm of someone's current wage minus the logarithm of the starting wage. In order to estimate growth percentages $\sum \ln (1 + \alpha i_t)$, a linear function of the explanatory variables in the analyses is used. The model enables an estimation to be made of the growth of employees per year (see also appendix E). Accompanying multivariate regression analyses are performed with the program Stata, taking into account the clustering of employees within their organization. This controls for the fact that observations are possibly not independent within organizations, but are between organizations. In tables 5.7 and 5.8, the unstandardized regression coefficients are displayed. These can be interpreted as the contribution of the regarding variable to the percentage change in someone's wage or job complexity per time unit. Because *t* is measured in years, this is equal to the growth rate per year.

5.5 Results

5.5.1 Development in the job

To give insight into the development in the job, table 5.3 shows changes in job complexity and table 5.4 shows wage changes. Men's job complexity changes more often than that of women (69 versus 60 percent), while a reduction of job complexity occurs less often for men (9 versus 14 percent). The yearly change in job complexity can be expressed as the average growth percentage per year (at the bottom of table 5.3). On average, this change is slightly smaller for women than for men, namely 4.0 percent versus 4.6 percent. A t-test shows that this difference is not significant. Looking at wages, for many employees, these have only slightly changed. For others, no wage change is observed, possibly because their change lies within the response categories in the questionnaire. Therefore, the wage changes are presented in table 5.4 for categories below or above a wage change of one percent per year. Differences between men and women are rather small. For a little less than two thirds of all men and women, wages have increased during their current job.[1] On

[1] When looking at employees whose wages remained exactly the same (or at least within the determined response categories), a similar picture emerges: 70 percent of all women had a wage increase, compared to 72 percent of all men.

average, though, women's wages actually appear to increase at a slightly higher rate per year (5.6 versus 5.0 percent).[2] Neither of these differences is significant.

Table 5.3 Change in complexity of the jobs of men and women through time: percentages employees per type of change, and average change per year

	Men	Women	Total
Complexity of job decreased through time	9%	14%	11%
Complexity of job remained the same through time	22%	26%	24%
Complexity of job increased through time	69%	60%	65%
Average growth rate per year	4.6%	4.0%	4.4%
Total	N = 639	N = 414	N = 1,053

Chi-square statistics for cross-tabulation: p = 0.01; t-test for average growth rate per year: p = 0.32

Table 5.4 Change in gross monthly wages of male and female employees (in percentages)

	Men	Women	Total
Wage has decreased through time (decrease >= 1 percent)	12%	16%	14%
Wage remained the same through time (change < 1 percent)	24%	22%	23%
Wage has increased through time (increase >= 1 percent)	64%	63%	63%
Average wage increase per year	5.0%	5.6%	5.2%
Total	N = 639	N = 414	N = 1,053

Chi-square statistics for cross-tabulation: p = 0.26; t-test for average growth rate per year: p = 0.33

5.5.2 Development in the job within organizations

Employees' development within the job occurs within their organizations. Because data is only available for a smaller set of organizations, which limits the possibilities for multivariate analysis, it is also informative to examine differences in job development between men and women bivariately. For each organization, the mean growth percentages of men and women are taken separately. Hence, 56 units at the organizational level are compared (28 for women and 28 for men). Tables 5.5 and 5.6 report whether the increase in job complexity and wage differs between men and

[2] Since wages are measured for full-time employment, it is relatively uncommon to decrease in wage level over a longer period of time. A closer look reveals that the largest part if this decrease is small and caused by the fact that wages are corrected for inflation. Respondents have then improved less in their wage level than the inflation rate. Persons whose wages decreased stronger had all been working in their current job for less than two years and appear to be set back in wage level on one occasion.

women depending on the organizational circumstances studied. According to the formulated hypotheses, these are expected to affect the job development of men and women differently. In the tables, organizational characteristics measured as interval outcomes are dichotomized around their median to bring about a clear order.

In the private sector, men's jobs increase more than women's jobs do, both in terms of job complexity and job wage. This is the other way around in the public sector. It was expected that in organizations in which personnel procedures are less formalized, the job development of women would be lower compared to men's job development than in organizations with a higher degree of formalization. In the case of job complexity, differences between men and women are indeed smaller in more formalized settings. For wage growth, a different pattern emerges: in more formalized settings, the wage growth of men and women is almost equal, but in less formalized settings women's wage increase is higher. Concerning HRM policy, differences between men and women, on both job aspects, are not in keeping with the expected direction. In organizations with less ample HRM policies, women's jobs develop to a higher degree than men's jobs do; in organizations with more ample HRM policies, they develop to a lesser degree. When it comes to the share of women at higher levels, no clear picture emerges. Regarding job complexity, women's job development is slightly lower than that of men in both types of organization; regarding wage growth, this is the reverse. As expected, organizations' part-time friendliness is advantageous for female job development. In part-time friendlier organizations, the gender gap in job complexity is smaller; women's wages increase even more that men's wages do. Child care facilities, however, show no clear image. Women's job complexity grows less in organizations with extensive child care facilities; regarding wage growth, no difference is found between types of organizations.

The findings discussed above reflect 56 observations based on averages for men and women separately. On this aggregate level, only a few of these findings are statistically significant; in this sense, organizations do not lead to large gender differences in job development. When taking employees' individual resources and variation into account, this may vary. The relationship between the organizational characteristics and all employees' job development within an organization is also discussed. Among others, wages and job complexity of employees increase more in the private sector than in the public sector. The most notable difference is the relation between child care facilities and wage growth. In organizations with limited or no child care facilities, employees' wages increase with eight percent per year, while with all other organizational characteristics, this growth rate is between four and seven percent on average. This can result from the personnel composition of these organizations. Likewise, it is possible that in organizations where attention for the work/family combination is limited, employees' wages improve to a larger extent because of financial compensation, which may be part of the organization's personnel policy.

Table 5.5 Growth in job complexity compared between organizations: average growth rates per year of men and women per organizational characteristic (percentages)

		Men	Women	Difference	All empl.
Sector +	Private	5.8	3.6	-2.2+	4.7
	Public	2.4	4.0	1.6	3.2
Formalized personnel policy	Less formalized	3.5	2.8	-0.7	3.2
	More formalized	4.5	4.4	-0.1	4.4
HRM policy organization +	Less extensive	3.2	4.1	0.9	3.6
	More extensive	5.2	3.5	-1.7	4.3
Share of women higher levels	Relatively low	5.0	4.6	-0.4	4.8
	Relatively high	3.2	3.0	-0.2	3.1
Part-time friendly org. culture	Less part-time friendly	4.4	3.9	-0.5	4.2
	More part-time friendly	3.8	3.7	-0.1	3.7
Child care facilities	Limited to none	5.1	5.2	0.1	5.1
	Reasonable to good	3.9	3.5	-0.4	3.7

Test of the difference between organizations + = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Table 5.6 Growth in wage level compared between organizations: average growth rates per year of men and women per organizational characteristic (percentages)

		Men	Women	Difference	All empl.
Sector *	Private	6.8	5.7	-1.1	6.2
	Public	2.8	5.7	2.9**	4.3
Formalizes personnel policy	Less formalized	3.4	5.5	2.1	4.5
	More formalized	5.7	5.9	0.2	5.8
HRM policy organization	Less extensive	4.4	6.2	1.8	5.3
	More extensive	5.2	5.1	-0.1	5.2
Share of women higher levels	Relatively low	4.9	5.7	0.8	5.3
	Relatively high	4.7	5.7	1.0	5.2
Part-time friendly org. culture	Less part-time friendly	6.2	6.0	-0.2	6.1
	More part-time friendly	3.3	5.4	2.1+	4.4
Child care facilities	Limited to none	7.3	8.3	1.0	7.8
	Reasonable to good	4.2	5.1	0.9	4.7

Test of the difference between organizations + = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

5.5.3 The influence of organizational characteristics on development within jobs: test of hypotheses

As final part of the analyses, the formulated hypotheses are tested multivariately. In table 5.7, the results are shown for the development in job complexity and in table 5.8 for wage growth. In both cases, women's jobs develop more each year than men's jobs do. After controlling for individual, job and organizational characteristics (public versus private sector), this difference disappears.

When it comes to the effect that the organization may have on male and female job development, the results show that this is often not the case. Although there are some interesting findings on the bivariate level, many of the organizational factors do not contribute both in growth of job complexity, as well as wage growth. There are, however, a few interesting exceptions. First, only one effect is in line with the formulated expectation. When working in more part-time friendly organizations, women's job complexity increases to a higher degree than that of men (based on a one-sided significance test). This supports the notion that women invest more in their careers or are more often entrusted with additional tasks when the organizational climate is more supportive towards part-time (and therefore female) employment. Their wage levels do not increase, however.[3] Partly following the same line of reasoning, the share of women at higher levels was also expected to enhance women's job development. No effect is found, indicating that social support from all colleagues may be more important than social support from higher level women. Another organizational characteristic, often linked to female employment, is an organization's child care facilities. Their presence does not affect men and women differently. Instead, the wage development of both is affected negatively by having extensive child care facilities; it does not affect job complexity. It may be the case that in exchange for being offered more generous work/family facilities, employees have to settle for a lower increase in wages. Alternatively, employees in organizations without such facilities may be compensated for this in terms of wage growth. It was also investigated if child care facilities mostly influence women (and men) with children. In terms of their growth in job complexity, extensive child care within an organization positively affects employees with children. This does not apply to women in particular, as the interaction between child care, having children and being female is nonsignificant (results not shown). Arguably, both men and women with children can benefit from more possibilities to combine work and care.[4] In contrast, more general policy measures do not

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[3] Since having a part-time friendly organizational culture is partly related to the difference between public and private sector organizations, the same analyses are repeated with the log of an organization's size. The results remain the same.

[4] As child care is the only organizational characteristics which is not treated as fixed in time, the analyses are repeated using child care facilities as a fixed variable, based on their presence at the time of survey. In that case, the presence of child care facilities no longer affects wage growth of

affect men and women's career development to a large degree. The presence of formalized policies positively affects the growth in job complexity of both men and women. Both may invest more in their careers when their performance is assessed more formally. However, this does not reflect in their salaries, as the effect on wage growth is nonsignificant.[5] HRM policies do not influence growth in job complexity or wages. Possibly, they are not effective. Other explanations may be that employees in these organizations may also follow courses more often, or that organizations with ample resources invest more in their employees, and accordingly, pay higher starting wages.[6]

Regarding the additional topics that were incorporated in the analyses, a number of findings are especially noteworthy. It turns out that employees' wage levels at the start of the job strongly affect their further development in that particular job. This refers to the growth in both job complexity and wages. Since relative, rather than absolute, growth was investigated, this implies that employees at higher levels also improve more rapidly in their career development. In this respect, the outcomes can be seen as related to each other; as employees' hierarchical positions increase, they are also faced with higher work demands, for which they are (in theory) compensated financially. Notably, though, the same does not apply to employees in managerial jobs, whose development in job complexity is far lower than in line jobs (the reference category). All other job categories hardly differ from each other. These managerial employees already work at the highest levels of their organization, which may partly coincide with wage level. No empirical indication is found that

men and women negatively; the effect for employees with children still holds. Similar to the organizational culture, having child care partly relates to the type of sector. Analyses were, therefore, repeated with the log of organizational size. The overall negative effect on wage growth still holds, and the effect on employees with children becomes nonsignificant.

5 As the presence of formalized policies only refers to their description on paper, it is interesting to see whether their use in practice is also important. This is indicated by each organization's percentage of employees having had a personnel evaluation sometime in the past year. The frequent use of personnel evaluations only positively affects wage growth, again for both men and women. By nature, such evaluations are mostly aimed at keeping track of employees' functioning in the job, which can then be rewarded with a wage increase. Using evaluations on a regular basis may therefore provide more opportunities to adjust employees' wages.

6 Both arguments appear to apply. When dividing organizations into having more or less educational opportunities, the amount of courses followed per year is indeed higher in organizations with more ample HRM policies (1.1 versus 0.8 courses per year; t-test: $p = 0.00$). Starting wages are also higher on average (€ 180,-; t-test: $p = 0.01$).

this leads to biased estimates.[7] Hence, employees in management appear to have reached a ceiling in their career development (as measured in this study). Wage levels of employees, however, reflect a more general pattern throughout the sample. It is interesting to see whether this benefit in job complexity and wage growth for higher positions benefits women and men equally. As women progress through the organizational hierarchy, they may be confronted with a "glass ceiling", restricting their progression (Cotter et al., 2001). For job complexity no gender difference is found. However the interaction with the job's wage level is negative and significant. As jobs increase in hierarchical level, barriers for female career improvement do indeed appear to increase. The importance of human capital characteristics is limited, although they are often argued to increase job productivity. Only following courses during the job positively affects wage growth. Working experience before the job, number of job shifts and educational level are hardly of any value. Duration in the current job negatively affects the growth in job complexity, indicating that employees' progression within the job only lasts for so long. Interestingly, having young children has a positive effect for both women and men. Since this would imply a wage benefit, rather than a penalty, for having children, this effect is investigated more closely. It is mostly caused by a small group of full-time working women with children. By far, most women with children have worked part-time in their current job for at least some time. In their case, no effect of having children is found. The results, however, do not appear to confound the other effects in the analyses. Working part-time in itself has no influence on the growth of job complexity and wages. Circumstances that influence a person's promotion chances appear to be less important for the development within the job itself.

[7] To investigate possible problems of multicolliniarity between wage level and managerial jobs, all employees in the latter group are left out of an additional analysis. In that case, wage level has a similar effect as in the full models, both for the growth in job complexity and wages. Employees in managerial jobs also do not score highest on the measure of job complexity. On a five-point scale their average score is 4.3 (sd 0.36) for the current situation and 4.2 (sd 0.40) at the start of the job. They are, however, located at the highest salary scale in the survey more often than average (17 out of 68 managerial employees). In total, 31 employees fall into this category. If all employees in the highest wage category are all left out of the analyses, results are again similar. Adding managerial jobs or these highest wages, apparently, does not lead to a confounding of the analyses.

Table 5.7 Regression analysis with cluster correction of the growth rate in complexity of the job, based on individual, job and organizational characteristics (unstandardized coefficients)

	Female	Controls	Form. policies	Form. pol * female	HRM policies	HRM * female	Share women	Share women * fem.	Org. culture	Org. cult. * female	Child care	Child care * female
Female	1.31**	0.18	0.12	0.14	0.20	0.21	0.13	0.13	0.16	0.02	0.16	-0.05
Log gross wages at start of job		0.36**	0.37**	0.37**	0.36**	0.36**	0.36**	0.36**	0.35**	0.36**	0.35**	0.35**
Duration of current job		-0.11**	-0.12**	-0.12**	-0.11**	-0.11**	-0.12**	-0.12**	-0.11**	-0.11**	-0.11**	-0.10**
Experience before current job		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.02	-0.02
Number of jobs before current job		-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
Educational level in years		-0.10+	-0.10*	-0.10*	-0.10+	-0.10+	-0.10*	-0.10*	-0.10+	-0.10*	-0.10+	-0.10+
Courses per year in current job		0.20	0.25	0.25	0.19	0.18	0.20	0.21	0.18	0.23	0.22	0.24
Works part-time		-0.04	-0.03	-0.03	-0.04	-0.04	-0.04	-0.03	-0.03	-0.03	-0.04	-0.04
Has child(ren) under the age of 6		0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.02
Works in support job (ref. = line)		-0.07	-0.02	-0.02	-0.07	-0.07	-0.05	-0.04	-0.13	-0.16	-0.02	-0.02
Works in customer job (ref. = line)		0.07	-0.05	-0.06	0.10	0.06	0.11	0.16	-0.08	-0.06	0.12	0.11
Works in staff job (ref. = line)		-0.26	-0.19	-0.20	-0.28	-0.26	-0.16	-0.14	-0.29	-0.29	-0.24	-0.29
Works in management (ref. = line)		-1.09**	-1.19**	-1.20**	-1.09**	-1.10**	-1.13**	-1.13**	-1.21**	-1.21**	-1.02**	-1.04**
Works in public sector org.		0.17	0.08	0.07	0.16	0.16	0.23	0.24	0.48*	0.51*	0.02	0.05
Formalized policies organization			0.25**	0.26**								
Formalized pol. * female				-0.13								
HRM policy organization					-0.06	-0.02						
HRM policy org. * female						-0.20						
Share women higher levels							-0.12	-0.16				
Share women * female								0.16				
Part-time friendly culture									-0.22	-0.29		
Part-time friendly culture * female										0.31+		
Child care facilities											0.00	0.00
Child care facilities * female												0.00
Log likelihood	-26.9**	215.8**	226.7**	226.9**	216.2**	216.8**	218.5**	219.2**	219.6**	222.4**	219.6**	221.6**
R^2	12.0%	44.5%	45.7%	45.7%	44.6%	44.6%	44.8%	44.9%	44.9%	45.2%	44.9%	45.1%
N	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
BIC	61	-334	-349	-342	-328	-322	-333	-327	-335	-334	-335	-332

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Table 5.8 Regression analysis with cluster correction of the growth rate in gross monthly wages in the job, based on individual, job and organizational characteristics (unstandardized coefficients)

	Female	Controls	Form. policies	Form. pol * female	HRM policies	HRM * female	Share women	Share women * fem.	Org. culture	Org. cult. * female	Child care	Child care * female
Female	1.75**	0.63	0.61	0.80	0.61	0.55	0.61	0.62	0.62	0.65	0.66	0.74
Log gross wages at start of job		0.28**	0.29**	0.28**	0.28**	0.27**	0.28**	0.29**	0.28**	0.28**	0.31**	0.31**
Duration of current job		-0.02	-0.02	-0.01	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03
Experience before current job		-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01	-0.01
Number of jobs before current job		-0.17+	-0.17+	-0.18+	-0.17+	-0.16+	-0.17+	-0.15	-0.17+	-0.17+	-0.18*	-0.18*
Educational level in years		0.09	0.09	0.09	0.09	0.10	0.09	0.09+	0.09	0.09	0.10	0.10
Courses per year in current job		0.76+	0.78+	0.80+	0.77+	0.80+	0.77+	0.74+	0.76+	0.74+	0.72+	0.71+
Works part-time		-0.05	-0.04	-0.05	-0.04	-0.02	-0.05	-0.07	-0.04	-0.05	-0.04	-0.04
Has child(ren) under the age of 6		0.22*	0.22*	0.22*	0.22*	0.20+	0.22*	0.21*	0.22*	0.22*	0.20+	0.20+
Works in support job (ref. = line)		-0.14	-0.12	-0.09	-0.14	-0.13	-0.13	-0.18	-0.16	-0.15	-0.22	-0.22
Works in customer job (ref. = line)		-0.85	-0.89	-0.94+	-0.89+	-0.71	-0.84	-1.08*	-0.90+	-0.91	-0.94+	-0.93+
Works in staff job (ref. = line)		-0.60	-0.58	-0.63	-0.57	-0.66	-0.57	-0.69	-0.61	-0.61	-0.63	-0.61
Works in management (ref. = line)		-1.10*	-1.13*	-1.22*	-1.11*	-1.06*	-1.11*	-1.14*	-1.14*	-1.14*	-1.23*	-1.22*
Works in public sector org.		-0.02	-0.05	-0.09	-0.01	-0.01	0.00	-0.08	0.08	0.08	0.23	0.22
Formalized policies organization			0.08	0.13								
Formalized pol. * female				-0.86								
HRM policy organization					0.07	-0.10						
HRM policy org. * female						0.84						
Share women higher levels							-0.03	0.15				
Share women * female								-0.83				
Part-time friendly culture									-0.08	-0.06		
Part-time friendly culture * female										-0.08		
Child care facilities											-0.01*	-0.01
Child care facilities * female												0.00
Log likelihood	-444.4**	-166.2**	-165.8**	-162.0**	-166.0**	-161.1**	-166.1**	-155.8**	-166.0**	-165.9**	-160.6**	-160.5**
R^2	10.0%	46.9%	47.0%	47.4%	47.0%	47.5%	47.0%	48.0%	47.0%	47.0%	48.0%	48.0%
N	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
BIC	896	430	436	435	436	434	437	423	436	443	426	432

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

5.6 Discussion

In this chapter, the possible influence of organizational conditions on the job development of men and women is investigated. The extent to which wages and job complexity increase is no different between men and women when taking into account background characteristics. There are no indications of discrimination against women concerning their wage growth or their increase in job complexity.

In brief, this study implies that the organizational context is less of an importance than individual and job characteristics, especially employees' hierarchical positions. Two general pictures do emerge, though, when evaluating the effect of organizational conditions. The first is that men and women's job development is only affected differently when it concerns changes in job complexity. This may reflect the fact that the allocation of new tasks is done more informally. Hence, employees will have more opportunities to invest directly in their careers if they perceive that such investments are rewarding (for example in terms of further career development). In contrast, wage changes (at least within the job) are part of the organizations' larger wage policy, and, therefore, affect all employees. Especially when looking at mobility inside the organization, wage increases are found to be mostly associated with job changes, rather than wage growth within the job (Le Grand & Tåhlin, 2002). The second general view is that the organizational factors that refer to more gender-specific matters also affect men and women's job development differently. Working in a more part-time friendly organization causes women's job complexity to increase more, possibly because of higher social support. Additionally, the presence of child care facilities is beneficial for all employees with children, as they are better able to combine work with caring tasks. Both they and their colleagues may pay a certain price for this, as the wage development in organizations with more child care facilities is lower. It should be noted, though, that these findings regarding child care facilities are not stable in all circumstances (e.g. when controlling for organizational size or treating child care facilities as fixed in time). Hence, they should be interpreted with caution. It will be interesting to investigate whether these findings also hold in other studies.

This study looks at the organization in which employees currently work. Although this has several advantages, it is possible that people who work within the organizations form a selective group. To gain insight into this issue, it is necessary to examine employees' career aspirations before they started working in the organization in question. In the current study, only retrospective information about employees' past job content is available. Ideally, research about changes over time is performed prospectively. In the latter case, job contents cannot only be assessed in more detail, but also in connection to other career outcomes like job satisfaction or turnover intentions. Linking them to supervisors' evaluation judgments and actual job mobility patterns can also help to answer the question whether skills acquired during the job, rather than employers' perceptions of

those skills, determine men and women's career development. Although the study does not find important gender gaps in job development, the allocation of tasks and responsibilities is - in theory - more subtle and possibly more subject to individual preferences than formal promotion steps or increases in wage level are. As jobs increase in complexity, employees may also need to consult with others, hereby reinforcing their position in the organizational network. This may benefit their further job and career development. Knowledge about such underlying patterns can be important for understanding career developments in a broader perspective.

6 Gender Differences in Career Development within Organizations: an Experiment of Department Head's Promotion Decisions

Abstract

In this chapter, the selection decisions by employers are investigated, with a special focus on the relationship between the gender of candidates and structural conditions of the labor market. The negative consequences of selecting a female candidate for a job are possibly larger for some jobs and job shifts than for others. It is also tested if these selection decisions differ according to organizational circumstances. For the analyses, a vignette survey is used containing the selection decisions of 58 office department heads in 23 organizations in Dutch manufacturing, services and government. In general, female job candidates receive a higher evaluation than male candidates, possibly indicating that socially desirable answers have been given. This is not the case when comparing part-timers and full-timers. Decision makers generally have a lower preference for part-timers, but this effect is stronger in the case of jobs in which hardly any women work. The more female-friendly an organization is, in terms of its share of women at higher levels, organizational culture and presence of child care facilities, the smaller the gap between full- and part-timers becomes. Changing these organizational conditions can help improve the career chances of part-timers, often women, for the future.

6.1 Introduction

It is well established that men and women often have different career developments and that women's promotion chances are generally lower than those of men (Kalleberg & Reskin, 1995; Kramer & Lambert, 2001). Selection decisions by employers are often argued to play a central role in explaining these differences. However, in spite of this, empirical research about the selection behavior of employers is relatively scarce, especially concerning internal selection processes. Often, selection behavior is studied based on data from suppliers on the labor market (e.g., Blossfeld, 1987; DiPrete & Krecker, 1991; Hannan et al., 1990; Jacobs, 1995). As Baron and Bielby (1980) have argued, it is especially important to get inside the "black box" of labor market allocation, by investigating the allocation behavior of employers more directly. The studies that do look at employer behavior mostly focus on entry into the organization, with mixed results concerning gender differences (Tosi & Einbender, 1985; Powell, 1987; Steinpress et al., 1999). Their applicability to internal selection is limited, since the hiring of new personnel often entails different selection mechanisms and criteria than internal selection processes, for example, in terms of the influence of educational credentials (based on supply side studies; e.g., Bielby & Baron, 1983; Bills, 1988; DiPrete & Krecker, 1991; Le Grand & Tåhlin, 2002). Many of these studies indicate that gender differences are also large when regarding internal career mobility, for example, in relation to the existence of internal labor markets (Baron & Bielby, 1984).

When investigating employee's job mobility - and thereby employers' underlying selection behavior - the focus is often on the question if it is especially difficult for female workers to reach higher positions such as management jobs (e.g., Pfeffer & Konrad, 1991; Datta Gupta, 1994). Such a gender-specific barrier is often referred to as a "glass ceiling", through which women seem unable to break (Maume, 1999; Cotter et al., 2001). The shift in attention to the interplay of individual resources and the labor market context is an important step forward from research focusing on the role of personal characteristics (Baron & Bielby, 1980; Lazear, 1992; 1995). Studies also indicate that vertical job shifts are not homogeneous by nature, but rather can entail shifts over larger or shorter distances (Kalleberg & Reskin, 1995). Employee-side studies with specific interest for the distance between adjacent jobs mostly address the consequences of promotions in terms of salary changes (Bognanno, 2001; Dohmen et al., 2003). Barnett et al. (2000), for example, find that men increase more in wage level after a promotion than women do (see also Trappe & Rosenfeld, 1998; Ishida et al., 2002). As the gap between a person's originating and destination job becomes larger, the selection criteria used can change accordingly.

The interaction between individual and labor market context not only refers to the jobs that employees hold, but also to the organizations in which jobs and employees are located. Organizations are the most immediate contexts in which individuals spend a large share of their

careers (Allen et al., 1999), and the process of vertical mobility is especially well-defined at this organizational level (Spilerman & Petersen, 1999). Organizational circumstances are often found to affect career outcomes of men and women differently (e.g., Kalleberg & Van Buren, 1992; Osterman, 1995; Burke & McKeen, 1996). Employees can be influenced by the organizational context, but so can employers. For example, if an organization has work/family arrangements, employers may regard female employees as more able to combine work and caring tasks and, therefore, consider promoting them into higher job levels more often.

In this chapter, I investigate the selection decisions of employers regarding male and female employees in relation to the structural context of jobs and organizational settings in which these decisions take place. This leads to the following research question: *To what extent can job and organizational characteristics explain employers' selection decisions of men and women?*

6.2 Background

Selection theories explaining job mobility often stress that a person's functioning in a future job is uncertain (Thurow, 1975; Baron, 1984). Employers may try to reduce this uncertainty by assessing risk groups, and making selection decisions based on their characteristics, either by excluding them or by requiring higher standards for their selection (i.e. statistical discrimination; Arrow, 1973). This notion of future risk assessments is often used to explain the hiring of external candidates. It can also apply to internal selection processes, since past performance of internal applicants is no guarantee for their performance in a future job (Jacobs, 1981). This is especially the case since performance, in terms of returns to training costs, not only refers to the qualifications and productivity of employees, but also to their risk of leaving prematurely or wanting to work on a part-time basis (Boxman et al., 1994). Some authors have argued that selection criteria are especially subjective in the case of internal mobility, since promotion decisions are less visible than hiring decisions (Baldi & McBrier, 1997; Reskin et al., 1999).

The cost of a bad selection decision may be higher for some jobs than for others, as a result of which selection criteria will vary based on job differences. This idea is elaborated in matching theories (Jovanovic, 1979; Hartog & Visser, 1987; Barron et al., 1989). The central argument here is that candidates' productivity depends both on their abilities and on the characteristics of the vacancy. There are optimal matches between specific candidates and specific jobs (De Wolf, 2000). As Bills (1988: 91) argues, "if employers wish to weed out undesirable candidates for 'low risk' jobs, educational screening is a sensible policy. If they wish to minimize the chances of a poor hiring decision for a 'high risk' position, they will supplement their evaluation of educational credentials with additional information". Consequently, selection criteria such as gender will vary

accordingly. Previous research focusing on external selection indicates that these risk assessments are indeed part of employers' decision-making. Sanders (1991) finds that employers especially have a preference for male external candidates when the available job requires a high commitment in terms of time and effort (see also Boxman et al., 1994). Bielby and Baron (1986) hypothesize that employers reserve jobs with high replacement costs for men, and find that women are underrepresented in specialized jobs and jobs that require more training (see also Tomaskovic-Devey & Skaggs, 2002).

When assessing which candidate is best for a specific job, employers are argued to use information about someone's personal background, as well as previous job history. In empirical studies, the focus is mostly on the human capital that employees have acquired during their jobs, indicated in terms of job and labor market tenure (Baldi & McBrier, 1997; Beeson Royalty, 1998). However, information about a previous job also indicates the relationship between this job and the future job. Some job shifts are only a small step upwards, while others entail a shift over larger distances. In these latter cases, future performance is more difficult to predict (Jacobs, 1981). Similar to Bills' distinction between high and low risk jobs, it is also possible to distinguish between high and low risk promotions here.

Up until now, little attention has been paid to the organizational context in which selection decisions take place. In order to reduce uncertainty in selecting a suitable candidate, employers can either assess risk groups or construct an incentive structure in order to increase the chances that employees will act according to the employers' wishes (Baron, 1984; Spilerman, 1986; Boxman et al., 1994). Examples of this are the construction of an internal labor market or the payment of "efficiency wages". A third approach of reducing uncertainty is a combination of both: by creating a group-specific incentive structure. Under some circumstances, employees' risks of future career interruptions or working part-time, are reduced, after which it is "safer" for an organization to hire or promote these employees. This makes the organizational context an important point of reference for employers when determining which types of employees will be successful.

6.3 Expectations

Based on the theory of statistical discrimination, employers especially select on group characteristics when such characteristics can provide additional information about future performance. Since employers do not exactly know what the (future) household situations of their employees look like, they have to make crude assessments based on candidates' gender, even in internal selection processes. Women are not only expected to present a higher exit risk than men (Lazear & Rosen, 1981), but they are also expected to want to cut back in working hours more often, especially in the

Netherlands (CBS, 2004). In both cases employers face a loss of training investments and additional costs of finding a suitable replacement if an employee departs. This can lead to the conclusion that the risk associated with selecting women is higher, as a result of which employers have a stronger preference for male than for female candidates. In hypothesis:

1. *Employers have a stronger preference for male candidates than for female candidates.*

Following a job matching approach, the stronger preference of employers for men possibly only comes into play for certain jobs. For some jobs, the negative consequences of exit or working part-time are greater than for others. As a result of this, selection criteria such as gender may vary accordingly. For jobs in which uncertainty about selecting candidates is larger, it may be a safer bet to choose a male candidate, that is, as long as male employees have proven to be successful in those jobs more often than female employees. This especially refers to jobs at higher levels, for which the loss of firm-specific knowledge and loss of training costs are expected to be higher (McKenna & Johnson, 1981). Based on this, a stronger preference for men is expected at higher job levels, while in other jobs the risk when selecting women compared to men is much smaller or even nonexistent. This leads to the following hypothesis:

2. *The higher the job levels of job vacancies, the stronger employers' preference for male candidates over female candidates.*

Not only the match between a candidate and the requirements of the vacant job determines someone's selection chances, but also the match between a current and future job does. If the distance between someone's current and future job is small, performance in this future situation is more predictable (since the employee has been working in a similar situation). Employers may argue that female employees, with a higher risk of exit or wanting to working part-time, have proven to perform successfully in these jobs, and that the extra negative consequences of transferring to a similar job are relatively low. Barriers towards female mobility should then be lower. On the other hand, if the gap between them is large, insecurity about future performance increases, leading to a stricter selection of candidates and the use of additional selection criteria on top of human capital arguments. Employers then especially prefer male candidates, because their chances of exit and cutting back on hours are considered lower than those of women. Additionally, when both jobs are located at higher levels, a larger gap between these jobs may entail a higher risk, as the loss of training investments and costs of finding another candidate may be especially high (McKenna & Johnson, 1981; Spilerman, 1986). Employers may therefore decide to allow larger job shifts for women only at lower levels, while men are also entrusted to make such steps at higher levels. The hypothesis is therefore as follows:

3. *The larger the gap between the previous job and vacancy, the stronger employers' preference for male candidates over female candidates; this is especially the case for job vacancies at higher job levels.*

Decisions about which candidates to select for which jobs are not made in a social vacuum, but instead depend partly on the organizational context, which can act as a gender-specific incentive structure. The term incentive structure mostly refers to overarching organizational characteristics. The job level and certain aspects of it can also fulfill this role, since the central argument in selection decisions is the reduction of uncertainty. This applies especially to the gender composition of the job that is available. Previous research has shown that jobs with a high share of women consist more often of routine work and offer shorter promotion ladders than male-dominated jobs do (Maume, 1999; Cassirer & Reskin, 2000), which complicates promotions out of these jobs. Reversely, making a job shift towards female-dominated jobs may be relatively easy, since they are associated with lower selection risks (McKenna & Johnson, 1981). Working in a female-dominated job can also be especially beneficial to women's careers. If employers have more detailed and reliable information about female employees, they need to rely less on gender as a crude indicator. When, on the other hand, there are only a few women in a certain position, information about their performance is scarce. Women can then be seen as tokens, who are not only in a minority position, but are also regarded as exceptions (Kanter, 1977). Based on this, the selection chances of women may especially be lower when there are only a few women in equal positions as the vacant job in question.[1] In hypothesis:

4. *The lower the share of women working in positions equal to the vacant job, the stronger employers' preference for male candidates over female candidates.*

One of the more overarching organizational characteristics that can affect the selection of men and women differently is the degree to which an organization has formalized its personnel policies. In more formalized settings, subjective assessment and selection based on employees' gender are argued to be reduced (Carroll & Mayer, 1986; Huffman, 1995; Kalleberg & Reskin, 1995; see also Lim, 2002). The reason for this is that "written job descriptions and personnel evaluations, at least in theory, function to reduce managers' discriminatory behavior by attaching a paper trail to their actions" (Huffman & Velasco, 1997: 218; see also Dobbin et al., 1993). Consequently, employers are better able to follow their own subjective judgments when working in more formalized settings. They can then try to minimize risk by selecting candidates whose performance in the future they think

[1] A related argument is made by Touhey (1974), who suggests that it is not possible to have a high selection risk in a female-typed occupation, because any profession with large numbers of women would be severely reduced in prestige.

can best be predicted. Due to women's exit and part-time risks, these candidates will be mostly men. This leads to the following expectation:

5. *The lower the degree of formalized promotion procedures in the organization, the stronger employers' preference for male candidates over female candidates.*

Since the work of Kanter (1977), much attention has been paid to how the gender composition of the work force affects the career outcomes of men and women differently. With respect to career development, not just the share of women in one's job is important, but also their share in higher positions in the organization as a whole is. These women can influence the attitudes of employers by acting as role models or good examples or by making the organizational culture or personnel policy more "family-friendly". If women have previously succeeded within the organization, also at higher job levels, this can signal to employers that women are able to have a vertical career within the organization (Burke & McKeen, 1996; Glass & Riley, 1998). Alternatively, with only a few women at higher job levels, choosing male candidates may be considered a safer bet. In hypothesis:

6. *The lower the share of women at higher job levels in the organization, the stronger employers' preference for male candidates over female candidates.*

The social support that women receive not only depends on their share at higher levels, but also on the supportiveness of the organizational culture. If colleagues think that women are less suited for working at higher job levels, their support towards them will be smaller. Employers, who are both influenced by and are part of the same organizational culture, will then support females less often, and may even be negatively biased in their selection decisions for higher job levels. Empirical findings on organizational cultures and promotion paths are scarce, although a more supportive culture towards work and family seems to lower the turnover intentions of employees (Thompson et al., 1999; Allen et al., 2003). This in turn can influence the risk assessments made by employers. The expectation is:

7. *The less supportive the organizational culture is towards female employment, the stronger employers' preference for male candidates over female candidates.*

A last organizational difference with respect to gendered career outcomes is the degree to which the organization facilitates the labor market participation and career development of employees with caring tasks. If an organization offers extensive work/family arrangements, employees can assess that pursuing a career when having caring tasks is still possible. This, in turn, lowers their chances of leaving the organization or moving to a (small) part-time job. Consequently, work/family arrangements can also have a signaling function to employers, decreasing their incentive to restrict women in their career development. To my knowledge, no empirical studies have investigated this influence of work/family arrangements on the selection behavior of employers. Employee-based studies do show that employees who are offered more family-supportive benefits are more

committed to the organization and have a lower intent to leave (Allen, 2001; see also Grover & Crooker, 1995; Thompson et al., 1999). As employers may make the same assessment, I expect that the preference of employers depends on the presence of work/family policies:

8. *The fewer work/family policies in the organization, the stronger employers' preference for male candidates over female candidates.*

Up until this point, this study has mostly regarded employers as empty entities, purely responding to the social context in which they make their selection decisions. This point of view excludes the background of employers themselves, such as their gender. One can argue that both male and female employers minimize risk by selecting candidates with the lowest exit risk, as a result of which both sexes have a preference for males. Results concerning external hiring confirm this notion (Steinpreis et al., 1999). On the other hand, female employers have their own career background as a reference point when evaluating internal candidates, which decreases their need to rely on crude assessments. Male employers without this personal experience may rely more on gender as a selection criterion. Additionally, according to the theory of homo-social reproduction, employers minimize risk by selecting candidates who resemble themselves (Reskin & McBrier, 2000). Therefore they tend to have a stronger preference for employees who share demographic similarities with them, such as gender (see also Baron, 1991; Härtel et al., 1999). Findings by Tsui and O'Reilly (1989) support this notion only partly. Female supervisors do indeed evaluate subordinates with the same gender more positively, but this does not apply to male supervisors. According to all lines of thought, male employers prefer male candidates, but the effect for female employers' preference is unclear. For now I assume that both sexes have a preference for male candidates. However, this effect is stronger for male employers, as female employers need to rely less on gender as a selection criterion. Consequently, especially male employers are expected to prefer male over female candidates:

9. *Employers have a stronger preference for candidates of the same gender as themselves; this applies especially to male employers.*

6.4 Data and methods

6.4.1 Data

In this chapter, a vignette survey is used to study employers' selection decisions. In such a study respondents are presented with vignettes or profiles of different candidates, containing relevant information. Gathering information about actual selection decisions by employers is complicated. This is because it requires information about all applicants in order to provide insight into candidates'

relative selection chances. Additionally, actual applicants differ in a large number of characteristics, some of them not easily detectable. This makes an observation of a large amount of selection decisions necessary (Van Beek, 1993). Using selection decisions based on vignettes makes it possible to focus on theoretically relevant features, while disregarding less relevant features that are more difficult to assess.

Studying internal selection decisions within organizations is relatively uncommon in comparison to studying external hiring decisions. In the latter case, a vignette with described characteristics is arguably a realistic approach to indicate actual selection decisions, for example, based on letters of application and résumé's. In the case of internal selection, employers may know the candidates personally, including their performance, social skills, et cetera. To prevent an internal vignette study from being too unrealistic, it ideally describes a situation in which candidates are unknown to decision makers. First, because these studies preferably take place in larger organizations, and second, because candidates, if possible, come from other divisions or departments within this organization. Under these conditions, an internal vignette study is well applicable, especially when using guidelines for relevant vignette criteria from previous career mobility research.

As representatives of the employer, department heads were used here. They are often involved in internal personnel selection and are easily detectible when selecting respondents (Lim, 2002). Personnel officers may be less active in actual personnel selection, especially in large and decentralized organizations. For this study, I make use of a data set of organizations with at least two hundred employees, which makes it more likely that heads of departments do not personally know all applicants. In twenty-six organizations in Dutch manufacturing, services and government, the department heads were approached through their personnel officers. In order to improve comparability, only the heads of "office departments" were selected, such as financial or policy departments. Respondents received a written questionnaire through the mail in which they were asked to think about three job titles within the department. This approach ensures a certain degree of variability between jobs and makes selection decisions more realistic. Because of comparability between organizations and the required connection with vignettes, respondents were instructed that the jobs selected should ideally meet the following criteria:

- all jobs are located within one's own department;[2]
- they are "white collar jobs";
- it is possible that new candidates for these jobs come from within the organization;

[2] This criterion was used so that additional questions could be asked about a respondent's department. Respondents could select jobs they supervise themselves (directly or indirectly) or other jobs, as long as they had sufficient information about these jobs to judge suitable candidates.

- in all jobs it is possible to work full-time or on a large part-time basis;
- occupants of all jobs generally have a long-term contract or at least a one year contract.

Previous research already shows educational level and labor market experience to be important determinants of career success. Therefore, the jobs that were selected had to fit one of four types based on these two dimensions. A different set of candidates was presented for each type. This not only ensures a good connection between vignette characteristics and job vacancies, but also creates more variation in job titles. The job types were described as follows:

- I) a job at intermediate vocational level for which relatively little experience is required;[3]
- II) a job at intermediate vocational level for which several years of experience is required;[4]
- III) a job at higher vocational or university level for which relatively little experience is required;
- IV) a job at higher vocational or university level for which several years of experience is required.

To avoid mismatches, candidates with different qualifications were presented, depending on the types of jobs. For example, no 22 years old candidates with intermediate vocational education were presented for a job on university level (for more details see appendix G). For each job, the respondent could judge eight candidates with a grade from 1 to 10, indicating how well each candidate fits the job vacancy in question. To avoid gender bias, no mentioning was made about the topic of the study, other than that it concerned an interest in general selection processes. Before judging candidates, respondents were asked only a few general and gender-neutral questions about each job title. Only at the end of the questionnaire additional questions were asked about jobs, the respondents themselves and the departments they worked in.

The data collection took place between 2000 and 2001. In total, 123 questionnaires were distributed among department heads in 26 organizations. Of those, 58 respondents in 23 organizations filled in a questionnaire, which is a response rate of 47 percent. Although most respondents evaluated all three job vacancies, there were some who only evaluated two. As a result, 168 different jobs were evaluated (on average 2.9 jobs per person). Not all respondents rated eight candidates per job title either. In some cases, only 4 candidates were evaluated per job title. In total, 1,248 candidates were evaluated (on average 21.5 candidates per respondent). Due to mismatches between candidates and selected jobs, the analyses are based upon 1,166 candidates (see section 6.4.3).

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[3] In an exemplification, 'little working experience' was described as follows: 'in a job such as this one, it is possible that a person has only been working on the labor market for a few years'.

[4] An extra description was as follows: 'in a job such as this one, it is important that a person has been working inside or outside of the organization for a longer period of time'.

6.4.2 Operationalization

Candidates presented on the various vignettes differed from each other on ten characteristics, each with a number of categories.[5] Keeping these descriptions short and relatively simple makes selection decisions easier, as the respondent can create a clear picture of the assessment. The amount of information on a vignette also depends on the degree to which a respondent is familiar with making such assessments (Selten, 1996). The vignette criteria are discussed i... lix G. An example of a vignette is sh... e and ... el of ... tics.

10 factoren
50 respondenten
3 vignetten pp
8 kandidaten per vacature/vignet
168 vacature, vignetten beoordeeld
1.248 kandidaten beoordeeld

... tes ... to ... 5 ... t ... t

Ex...atory variables: the individual and job level

To avoid suspicion about the goal of the study, the *gender of the candidate* was presented as part of a general description combined with age. Candidates are, for example, described as 'a 28 year old man'. To determine the *hierarchical level of the job vacancy* for which candidates applied, I developed a schedule consisting of twenty job categories, which can be divided into eight levels. For a detailed description of the full schedule, see appendix C. Based on job descriptions given by respondents, all jobs were transformed into one of the eight job levels. No job vacancies occur at the highest job level (level 8, i.e. management jobs), and the number of observations for jobs at levels 1 and 7 are relatively low. For that reason, both are combined with their adjacent level. This leads to five job categories. In the analyses, job levels 6 and 7 are compared with the other levels

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[5] Before the selection procedure begun the following instruction was given. 'It is of course possible that some criteria are very important for a certain job but that these are not mentioned. Possibly the presented characteristics give you some indication about them. If this is not the case then you can assume that candidates hardly differ on these criteria'.

(level 1 and 2, 3, 4 and 5). To indicate the *distance between someone's current job and the vacancy*, the wage difference between both is mentioned. Candidates can currently earn 250, 500, or 750 Dutch guilders less than the job vacancy, which is € 113,-, € 227,- or € 340,-, respectively. In the analyses, the latter category is compared with the first two. The *share of women working in positions equal to the vacant job* is measured by asking respondents, after they have evaluated the vignettes, how many women work in a specific job in their organization. Categories are '(almost) no females', 'about one third is female', 'about half is female, about half is male', 'about two third is female', '(almost) all are female'. The first category is compared with the rest.

Explanatory variables: the organizational level

The *formalization of personnel and promotion policies* is determined by asking a personnel officer in each organization how often the following personnel procedures are used in the case of internal vacancies: 'internal publication of vacancies', 'asking specific employees to apply for a vacancy' and 'using educational criteria for internal vacancies'. Response categories range from 'never' to 'always'. Two additional indicators are how often the organization makes use of job descriptions or performance evaluations. These both have five response categories ranging from 'none...' to 'all of the jobs'. The scores on all questions are added together, and the answers on the question 'asking specific employees to apply' are reversed. The alpha of all items is 0.70. The values of this measure are transformed into z-scores for comparability with other measures. The coefficients in the models represent the effect of an increase in formalized policies by one standard deviation compared to an organization's average degree of formalization. In the descriptive tables in section 6.4.3, this and all subsequent variables are transformed into a scale that ranges from 0 to 1, again for reasons of comparability. The *share of females at higher job levels* is indicated using the job levels of the participants in the employee survey in this book. The line between higher and lower level jobs is drawn at level five, which corresponds with higher knowledge jobs such as policy makers or accountants. Per organization, the percentage of females at levels five and higher is calculated compared to all females in the sample and divided by the percentage of male employees at higher job levels. This measure ranges from 0 to 1 and is transformed into z-scores in the explanatory analyses. The *organizational culture* is measured by focusing on the attitudes in each organization towards working part-time. The employee survey asked respondents if they agree with the following propositions about their establishment or organization: (a) 'people think it is strange if a man wants to work part-time', (b) 'people think it is strange if a woman wants to work part-time', (c) 'part-time work is only accepted at lower levels', (d) 'working fewer hours has negative consequences for your career' and (e) 'if an employee wants to work fewer hours, the organization seriously considers the possibilities'. Response categories range from 'strongly disagree' to 'strongly agree'. To indicate that a higher score reflects a more supportive organizational culture, the response

categories of proposition (a), (b), (d) and (e) are reversed. For each proposition, the average is calculated per organization. The alpha of all items is 0.95. The mean sum score per organization is used to indicate the organizational culture, converted into z-scores in the analyses and into a scale of 0 to 1 in the descriptive tables. The *presence of work/family arrangements* is determined by asking personnel officers if their organization has child care facilities, and what measures are incorporated in these facilities. The answers are divided into two categories: 'no or limited child care facilities' versus 'reasonable or good child care facilities'. Organizations are regarded as having limited child care if their facilities are budget neutral. Budget neutral child care facilities provide employees with a limited financial compensation, which is deducted from their gross wages. This is cost free for the organization; the financial benefits for employees depends on their wage level.

Control variables

A number of additional characteristics are included in the analyses, mostly referring to general human capital characteristics presented on the vignettes. To indicate *working hours*, a division is presented between working part-time and full-time, also with reference to future intentions to ensure that all respondents interpret the vignettes in a similar manner. Candidates are described as follows: 'works on a full-time basis (or 'works 32 hours a week') and prefers to do so in the future'.[6] Candidates' *educational level* is added by means of two dummy variables: intermediate vocational and academic education. The reference category is higher vocational. This division is chosen, because the reference category is presented for all job types, while the two dummy variables are only presented for jobs with the requirement of lower or higher education, respectively. Since some candidates are overqualified for a job, an additional variable is added: whether a candidate's *educational level is higher than the required educational level of the job*. This is determined by means of a question about the minimally required educational level of a job. The reference category is having had an education equal to the required level. An additional educational indicator is the *number of extra courses* during one's career. During their career, candidates have followed no, one, two or three courses at the same level as their daytime education. In the analyses, the latter two categories are compared with the first two. For each candidate, the working experience in the organization is described, ranging from 1 to 12 years. This internal working experience and the number of years of education corresponding with each candidate's educational level is subtracted from a candidate's age. The resulting experience measure is used in the analyses to indicate a person's *total working experience* on the labor market. *Previous job history* is indicated in terms of the number of jobs a candidate has had in the organization. Categories are 'currently working in

[6] This description proved to be clearest for respondents in a pre-test version of the questionnaire. It still makes it possible that candidates will want to change their amount of working hours in a later stage of their career.

his/her first job', 'has made one promotion to a higher job level', 'two promotions' or 'three promotions'. The last two categories are compared with the first two (reference category). To capture decision makers' knowledge about the *past performance* of internal candidates, the vignettes described how well candidates perform in their current job. Values are 'performs well' and 'performs very well'.[7] These also contained information to indicate the contents of candidates' current jobs, by referring to their *degree of responsibility*. Categories are 'little', 'a reasonable degree' and 'a high degree of responsibility'. The first is used as a reference category. Finally, the sector of each organization is added, and the public is compared with the private sector. The latter is used as reference category.

6.4.3 Descriptive analyses

Table 6.1 displays the grades that candidates receive by gender. Of the 1,248 candidates presented, 82 are excluded from the analyses, because their profiles differ considerably from the requirements for the jobs for which they were presented.[8] On average, female candidates receive a slightly higher grade than men (6.4 versus 6.2, respectively, on a scale from 1 to 10). The distribution over the five grade categories shows that this is mostly due to a higher share of women with a grade of 8 or higher (27 percent versus 22 percent). The overall difference between men and women is not significant, however. In table 6.2, descriptive statistics are presented for all other variables used in the analyses. Since the candidates' characteristics are constructed randomly, they reflect the distributions assumed beforehand. This does not apply to the contextual characteristics, such as jobs and organizations. The jobs selected spread out rather evenly over the various job levels, although the share of women in these jobs is rather tilted. There are (almost) no women in nearly half of the jobs chosen by respondents. One possible explanation for this male typed job composition is that most of the respondents are males themselves; only twenty percent are female. This distribution is also in line with the share of women at higher job levels in all 23 organizations. This share is a little below 0.5, indicating that women are clearly underrepresented at higher levels (a value of 1 denotes an equal gender distribution).

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[7] Since only promotion decisions are studied, rather than demotion decisions, it was chosen not to present any candidates that perform reasonably well or worse.

[8] Based on the minimally required experience and educational level for a job, which was determined by the respondents, candidates were excluded if their educational level was below the minimal requirement for a job (for example candidates with higher vocational schooling for an associate professor position), if their working experience was two years or more below minimally required, or if their educational level was two levels above the general level in a job and above the minimally required level.

Table 6.1 Grade level received for male and female candidates

Grade level	Male candidates	Female candidates	Total
Fully rejected (lowest till grade 4)	13%	13%	13%
Partly rejected (4.5 till 5)	15%	13%	14%
Partly accepted (5.5 till 6)	23%	21%	22%
Accepted (6.5 till 7.5)	27%	27%	27%
Fully accepted (8 till 10)	22%	27%	24%
Total	N = 588	N = 578	N = 1,166
Average grade level from 0 - 10 (sd)	6.2 (1.6)	6.4 (1.7)	6.3 (1.6)

Chi-square statistic p = 0.341; t-test means p = 0.08

Table 6.2 Descriptive statistics: candidate, job and departmental characteristics

Candidate characteristics	
Grade: mean (sd)	6.3 (1.6)
Female (ref. is male)	50%
Educational level intermediate vocational (ref. is higher vocational)	33%
Educational level academic (ref. is higher vocational)	36%
Educational level higher than common in job (ref. is common)	47%
Extra education: 2 or 3 extra courses (ref. is 0 or 1)	47%
Total working experience: mean (sd)	11.8 (5.9)
Job history: 2 or 3 times a promotion (ref. is 0 or 1)	39%
Degree of responsibility in current job is reasonable (ref. is low)	34%
Degree of responsibility in current job is high (ref. is low)	35%
Functions very well (ref. is functions well)	49%
Works 32 hours (ref. is works full-time)	29%
Total	1,166 (100%)
Job characteristics	
Hierarchical level of job	
Lowest or second level (e.g. secretary)	17%
Third level (e.g. junior accountant)	15%
Fourth level (e.g. assistant project leader)	28%
Fifth level (e.g. accountant)	19%
Sixth or seventh level (e.g. senior/head dept.)	22%
(Almost) no females working in job	47%
Total	167 (100%)

Table 6.2 Continued

Difference vacancy - current job (type of job change)	
Wage level current job € 113,- less than vacancy	33%
Wage level current job € 227,- less than vacancy	35%
Wage level current job € 340,- less than vacancy	32%
Total	1,166 (100%)

Contextual characteristics	
Respondent is female (N = 58)	21%
Level of formalization in organization: mean (sd)	0.86 (0.17)
Share of women at higher job levels: mean (sd)	0.47 (0.28)
Part-time friendliness organizational culture: mean (sd)	0.64 (0.12)
Presence of reasonable or good child care facilities	78%
Public sector organization	48%
Total	23 (100%)

6.4.4 Method

In vignette research it is possible to estimate the relative effects of characteristics on the judgment score multivariately. Since respondents are presented with several vignettes for one job, the data have a hierarchical structure (vignettes are nested within jobs nested within respondents). Since the focus of attention is partly on the effects of job and context characteristics on judgment scores (cross-level effects), a multilevel analysis is used with candidates defined as level one, jobs as level two and respondents as level three. As a result, the effects of jobs and respondents are estimated in a statistically correct manner.[9] The dependent variable (grade received) contains five categories, and, therefore, a three level ordinal logistic analysis is performed.

Section 6.5 shows the results of four different models. All models are estimated with a random intercept at levels two and three and with fixed effects of the independent variables on various levels. Although the results will show that the variance at the job level is nonsignificant, all models are estimated with three levels, since the aim is to disentangle candidate effects from job and respondent effects. Estimating a two level model would lead to a redistribution of the job level variance to the

[9] A fourth level refers to the organization, but because, to my knowledge, no software is available to estimate such a model with ordinal outcomes, organizational characteristics are added at the respondents' level. As a result, the levels of significance of these organizational characteristics are slightly biased. Coefficients are nonbiased, however.

other levels, which would affect the validity of hypothesis tests for fixed effects (Snijders & Bosker, 1999).[10] The first model (in table 6.3) is an empty model without covariates, in order to assess the degree of variance at the three levels. The following general model includes candidate characteristics plus the overall control variable 'public sector organization'. Next, characteristics of the job vacancy are added, followed by interaction effects with gender. Table 6.4 goes into the types of job changes that occur, again with interaction effects. In table 6.5, all contextual characteristics are added, interacting with the gender of candidates. Given the small share of organizations, each organizational characteristic is added separately, in combination with the control variable 'public sector organization'.

A strong characteristic of multilevel models is their ability to disentangle lower level from higher level effects. An important concept in this respect is the Intra Class Correlation (ICC), which measures the relative homogeneity within groups in ratio to the total variation. When one is interested in the grades given by respondents, i.e. the degree of inter-rater reliability, the focus is on the ICC within respondents. A value of one shows that all variance is between respondents, and that all candidates presented to a respondent get the same grade. When concentrating on the correlation between the grades received by candidates for a particular job, the attention shifts to the ICC at the job level. Since both approaches to the intra class correlation express different features of the data, each of them is presented below the estimated models.[11] The total proportion of explained variance is calculated (Snijders & Bosker, 1999) based on the predicted estimates (i.e. the fixed part of the model). It should be noted that the informative value of this explained variance cannot be regarded in the same light as studies that follow an observational design; the candidate characteristics under study are constructed randomly, while this explained variance is dependent on the variances and covariances of such predictor variables (Snijders & Bosker, 1994). Another consideration is the fact that estimated models are not always nested, i.e. with additional conditions on top of previous models. This is, for example, the case for each of the organizational models, which cannot be compared directly. As a result, model comparisons are made by means of evaluating the Bayesian

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[10] One exception to this rule was made, namely to assess if the model should be estimated with a random slope for candidate's gender. This random slope is not significant, while the model does not have a better fit than a model with no random slope (based on a likelihood ratio test). Apparently, decision makers are relatively homogeneous in their preference to select women over men, as a result of which all models are estimated with candidates' gender as a fixed effect.

[11] The corresponding calculation of both ICC measures is as follows: $ICC_{respondents} = Variance_{respondents} / (Variance_{respondents} + Variance_{jobs} + Variance_{candidates})$ and $ICC_{jobs} = Variance_{jobs} / (Variance_{respondents} + Variance_{jobs} + Variance_{candidates})$. In the case of logistic models the variance at the level of candidates is not presented as such, but is computationally derived as $\pi^2/3$ ($\approx 3{,}29$; Snijders & Bosker, 1999).

information criterion (BIC), which can be used to compare non-nested models (Raftery, 1995; Vermunt, 2004). Smaller BICs indicate a better model fit.[12] All models are estimated using the procedure GLLAMM within the software package Stata (Rabe-Hesketh et. al., 2001).

6.5 Results

In order to assess the variability in answers, I first estimate an empty model, without any predictors (table 6.3). Answers differ significantly between respondents, but not between jobs. Apparently, respondents evaluate candidates in a similar manner, regardless of the type of job that is presented. A next step is to estimate the model with gender and all control variables. Contrary to my expectations, women in fact receive a higher grade than men. Clearly, any discrimination found here is in the opposite direction than most employee-based studies, although other selection studies sometimes also find a preference of employers to select women over men (Powell, 1987).[13]

Whether the preference for women applies to all jobs is investigated by adding certain characteristics of the job vacancy, namely its hierarchical level and the share of females in the job. Direct effects indicate that candidates get similar grades in all job types. Since the background characteristics of candidates differ according to the type of job, this suggests that employers are able to select adequate candidates for jobs at all hierarchical levels. Of the interaction effects incorporated, only one points to the existence of a gender-specific barrier. When applying for a lower level job, women get a relatively higher grade than when the job vacancy is at the highest hierarchical levels. A closer look reveals that women are not selected more or less frequently than men at higher job levels, but women are selected more often at lower job levels. Hence, no indication is found of a "glass ceiling"-effect, as this would imply a dividing line between the highest and immediate levels (Cotter et al., 2001).[14]

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[12] Following Kass and Raftery (1995), a BIC difference larger than ten can be considered 'very strong' evidence in favor of the model with a smaller BIC; a difference of six to ten as 'strong', two to six as 'positive', and zero to two as 'weak'.

[13] Notably, the variance components at levels two and three increase in the general mode, and, correspondingly, the inter-rater and inter-job reliability increase, which is not uncommon in multilevel models (Snijders & Bosker, 1994).

[14] In a separate analysis (results not shown), two factors were added: the proportion of female candidates presented at the job and respondent level. This answers the question if women get a different grade when competing with a high share of male candidates (composition effect). The effect of being female hardly changes, while both additional coefficients are not significant. Since the model fit does also not improve, both proportion measures are left out of the analyses.

Table 6.3 Three-level ordinal logistic regression analysis of grade by individual and job characteristics: interactions with gender

	Empty model	General model	Type of vacancy	Type of vac. * female
Female		0.25*	0.25*	-0.06
Educ. level intermediate voc. (ref. = higher)		0.71**	0.81**	0.84**
Educ. level academic (ref. = higher)		0.38*	0.29	0.31
Educ. level higher than common		-0.32*	-0.25	-0.24
Has taken 2 or 3 courses		-0.33**	-0.33**	-0.34**
Total working experience in years		-0.04**	-0.04**	-0.04**
Made 2 or 3 promotions		-0.35**	-0.34**	-0.33**
Current responsibility reasonable (ref.= low)		1.09**	1.10**	1.10**
Current responsibility high (ref. = low)		1.76**	1.76**	1.78**
Functions very well		0.25*	0.25*	0.25*
Works 32 hours		-0.76**	-0.76**	-0.76**
Works in public sector organization		0.17	0.19	0.19
(Almost) no females working in job			0.11	0.10
Hierarchical level 1-2 of job (ref. = level 6 or 7)			-0.24	-0.64+
Hierarchical level 3 of job (ref. = level 6 or 7)			0.07	-0.03
Hierarchical level 4 of job (ref. = level 6 or 7)			-0.03	-0.17
Hierarchical level 5 of job (ref. = level 6 or 7)			0.18	0.06
Interaction level 1 or 2 *female				0.83*
Interaction level 3 * female				0.21
Interaction level 4 * female				0.28
Interaction level 5 *female				0.25
Variance at job level (s.e.)	0.05 (0.07)	0.17 (0.09)	0.15 (0.09)	0.15 (0.09)
Variance at respondent level (s.e.)	0.44 (0.12)	0.54 (0.15)	0.56 (0.15)	0.57 (0.15)
ICC_{jobs}	1.4%	4.2%	3.7%	3.7%
$ICC_{respondents}$	11.7%	13.5%	14.1%	14.2%
R^2	-	18.2%	18.2%	18.7%
Log likelihood	-1,794.1	-1,671.7	-1,670.2	-1,667.2
BIC	3,613	3,471	3,503	3,525

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

A next step is to go into the types of job changes that occur with reference to wage gaps (table 6.4). Not only does a wage gap not lead to a stricter selection, but this also holds for both women and men. Thus, no indication is found that employers raise selection criteria for job shifts over larger distances, or that any such a gap in selection criteria exists between men and women. It is also not found that such shifts over larger distances reduce women's selection chances at higher job levels. In general, none of the models with added job characteristics lead to an improvement of the model. This is consistent with the overall low degree of variance at the job level.

In table 6.5, characteristics of decision makers and their organizations are included in the analysis and compared to the general model. Although I expected male decision makers to have a stronger preference for men, in practice no indication of such a similarity effect is found. Both men and women are relatively uniform in their choice to prefer female over male candidates. When making this decision, they also do not seem influenced by the organizational context in which they work. Results on all organizational characteristics and their interaction terms with gender are the same. No evidence is found that the organizational measures under study influence the selection chances of women differently to men's chances.

Table 6.4 Three-level ordinal logistic regression analysis of grade by individual and job characteristics: interactions of type of job shift with gender

	Type of vac.	Share females * female	Type of job shift	Type of job shift * female	Type of shift * fem. * level
Female	0.25*	0.46**	0.25*	0.33*	0.27*
Educ. level intermed. voc. (ref. = higher)	0.81**	0.82**	0.81**	0.81**	0.82**
Educ. level academic (ref. = higher)	0.29	0.30	0.29	0.29	0.29
Educ. level higher than common	-0.25	-0.24	-0.24	-0.24	-0.24
Has taken 2 or 3 courses	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**
Total working experience in years	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**
Made 2 or 3 promotions	-0.34**	-0.34**	-0.34**	-0.34**	-0.34**
Current respons. reasonable (ref. = low)	1.10**	1.11**	1.09**	1.09**	1.09**
Current responsibility high (ref. = low)	1.76**	1.79**	1.76**	1.77**	1.77**
Functions very well	0.25*	0.25*	0.24*	0.24*	0.24*
Works 32 hours	-0.76**	-0.76**	-0.76**	-0.75**	-0.76**
Works in public sector organization	0.19	0.19	0.19	0.19	0.19
(Almost) no women working in job	0.11	0.30	0.10	0.10	0.10
Hierarchical level 1-2 of job (ref.= 6 or 7)	-0.24	-0.24	-0.25	-0.24	-0.29
Hierarchical level 3 of job (ref. = 6 or 7)	0.07	0.07	0.08	0.08	0.03
Hierarchical level 4 of job (ref. = 6 or 7)	-0.03	-0.03	-0.02	-0.02	-0.07
Hierarchical level 5 of job (ref. = 6 or 7)	0.18	0.18	0.19	0.19	0.14
Almost) no women in job * female		-0.42			
Current wages € 340,- less than vac.			-0.11	0.02	-0.08
Interaction € 340,- less * female				-0.26	
Interaction € 340,- less * lev 6-7 * fem.					-0.29
Variance at job level (s.e.)	0.15 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)
Variance at respondent level (s.e.)	0.56 (0.15)	0.57 (0.15)	0.57 (0.15)	0.57 (0.15)	0.57 (0.15)
ICC_{jobs}	3.7%	3.5%	3.6%	3.6%	3.6%
$ICC_{respondents}$	14.1%	14.2%	14.2%	14.3%	14.2%
R^2	18.2%	18.5%	18.2%	18.3%	18.3%
Log likelihood	-1,670.2	-1,668.4	-1,669.8	-1,669.2	-1,669.5
BIC	3,503	3,506	3,509	3,515	3,515

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Table 6.5 Three-level ordinal logistic regression analysis of grade by individual, job and contextual characteristics: interactions with gender (for full models, see appe

	Resp fem		ure	Org cult. * female	Child care	Child care * female
Female	0.25*		25*	0.55	0.25*	0.45*
Female respondent	-0.02					
Interaction female resp. * female						
Formalized policy in organization						
Interaction formalized policy * female						
Share of women at higher levels						
Interaction share of women * female						
Organizational culture			0.09	0.12		
Interaction org. culture * female				-0.06		
Child care facilities					0.07	0.21
Interaction child care fac. * female						-0.30
Variance at job level (s.e.)	0.17 (0.09		.17 (0.09)	0.17 (0.10)	0.17 (0.09)	0.17 (0.09)
Variance at respondent level (s.e.)	0.54 (0.15		.53 (0.15)	0.53 (0.15)	0.54 (0.15)	0.53 (0.15)
ICC_{jobs}	4.3%		4.3%	4.3%	4.3%	4.2%
$ICC_{respondents}$	13.5%		13.3%	13.3%	13.4%	13.4%
R^2	18.2%		18.3%	18.3%	18.2%	18.3%
Log likelihood	-1,671.7		-1,671.6	-1,671.5	-1,671.7	-1,670.9
BIC	3,478		3,477	3,484	3,478	3,483

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

To assess the value of this study, all additional characteristics are discussed (see table 6.3). Many of them have effects in the expected direction, which confirms the study's overall validity. What is especially important in this respect is the strong negative effect of working part-time, indicating that a possible gender difference is mostly cleared away by a person's amount of working hours. Also, the degree of responsibility in the current job and a person's educational level are strong selection predictors. Candidates with higher vocational training have a higher chance of being selected than candidates with an academic degree, and surprisingly the same also holds when comparing candidates at a higher vocational level to candidates at an intermediate vocational level. Being higher educated than common in a job also lowers selection chances, which shows that a good match between educational background and the job vacancy is important. It appears that, in the eyes of decision makers, the additional productivity of overeducated employees does not outweigh their higher risk of leaving in order to find a job at their own level.[15]

In overview of the results, it turns out that women generally receive a higher grade by employers than men, also when taking into account job and department characteristics. Decision makers possibly do have a stronger preference for women, although this is not always the way it turns out in real life. Alternatively, with reference to the external validity of this study, respondents give socially desirable answers. Even though any indication about the research topic was avoided before respondents evaluated candidates, it is still possible that they are aware of the importance of a gender-neutral personnel evaluation. Decision makers' backgrounds, in terms of their amount of supervising experience, do no affect the judgment of women and men differently (results not shown). If a bias occurs, it does not do so according to the characteristics that are distinguished. Additionally, based on Dutch findings, Van der Lippe (2004) shows that employers are willing to express objections against female employment at higher levels. A third possibility is that the difference between male and female candidates goes mostly through the amount of working hours. Since decision makers already know which candidates will want to work part-time, it is easier to select on this more acceptable criterion. Both Arvey (1979) and Tosi and Einbender (1985) evaluated selection research, and concluded that "when judges have limited information, they are more likely to base a decision on sex-role stereotypes, favoring men over women for jobs than men have traditionally done, but when there is adequate applicant information, there is little need to rely on stereotypes" (Tosi & Einbender, 1985: 713). To test whether this is the case, the same analyses and interactions are repeated comparing part-time with full-time candidates (table 6.6 and 6.7).

[15] This result is, of course, partly related to the situation on the labor market. On a tight labor market, employees will have fewer reasons to apply for jobs below their level, as a result of which employees who do so are considered exceptional.

Table 6.6 Three-level ordinal logistic regression analysis of grade by individual and job characteristics: interactions with working part-time (for full models, see appendix H)

	Share fem * part-time	Type vac. * part-time	Type of job shift	Type of shift * p-t	Type shift * pt-t * level
Female	0.25*	0.24*	0.25*	0.25*	0.25*
Works 32 hours	-0.45**	-0.82**	-0.76**	-0.76**	-0.77**
(Almost) no women working in job	0.29	0.10	0.10	0.10	0.11
Hierarchical level 1-2 of job (ref.= 6-7)	-0.26	-0.19	-0.25	-0.25	-0.23
Hierarchical level 3 of job (ref. = 6-7)	0.06	0.05	0.08	0.08	0.09
Hierarchical level 4 of job (ref. = 6-7)	-0.04	-0.03	-0.02	-0.02	0.00
Hierarchical level 5 of job (ref. = 6-7)	0.17	0.05	0.19	0.19	0.21
Almost) no women in job * part-time	-0.63**				
Interaction level 1 or 2 * part-time		-0.16			
Interaction level 3 * part-time		0.08			
Interaction level 4 * part-time		0.00			
Interaction level 5 * part-time		0.41			
Current wages € 340,- less than vac.			-0.11	-0.11	-0.12
Interaction € 340,- less * part-time				0.01	
Interaction € 340,- less * lev 6-7 * p-t					0.19
Variance	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)
Variance	0.56 (0.15)	0.56 (0.15)	0.57 (0.15)	0.57 (0.15)	0.57 (0.15)
ICC_{jobs}	3.5%	3.6%	3.6%	3.6%	3.6%
$ICC_{respondents}$	14.1%	14.1%	14.2%	14.2%	14.2%
R^2	18.6%	18.4%	18.2%	18.2%	18.2%
Log likelihood	-1,666.8	-1,669.0	-1,669.8	-1,669.8	-1,669.7
BIC	3,503	3,529	3,509	3,516	3,516

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Regardless of the level of the vacant job, decision makers have a clear preference for full-time over part-time employees. Part-timers do experience additional difficulty when entering male-dominated jobs. Employers apparently avoid selecting part-time workers for jobs that are gender typed as typically male, regardless of their job levels. When looking at the types of job shifts that occur, no indication is found that part-timers are faced with additional difficulties when trying to make a job shift over larger distances, or larger distances at higher job levels. In table 6.7, interaction effects with the respondents' gender and organizational circumstances are included in the models. Their influence on the selection of part-timers is in line with the expectations in almost all cases, leading to clear model improvements. First of all, female decision makers give part-timers a higher grade than male respondents do. Since the general effect of working part-time is negative, this indicates that female decision makers assess part-timers more neutrally. Of the four organizational characteristics, only the degree of formalization of the organization has no different effect on part-timers versus part-timers. The higher the share of women at higher job levels, the more positively decision makers evaluate candidates who work part-time. The same applies to decision makers who work in part-time friendly organizational cultures and to decision makers in organizations with more extensive child care facilities.

Table 6.7 Three-level ordinal logistic regression analysis of grade by individual, job and contextual characteristics: interactions with part-time (for full models, see appendix H)

	Resp fem	Resp fem * part-time	Form. policy	Fom. policy * part-time	Share of women	Share women * p-t	Org. culture	Org cult. * part-time	Child care	Child care * part-time
Female	0.25*	0.25*	0.25*	0.24*	0.25*	0.23*	0.25*	0.24*	0.25*	0.26*
Works 32 hours	-0.76**	-0.95**	-0.77**	-0.72**	-0.77**	-1.69**	-0.77**	-3.88**	-0.77**	-1.35**
Female respondent	-0.02	-0.34								
Interaction female resp. * part-time		1.12**								
Formalized policy in organization			0.12	0.12						
Interaction formalized policy * part-t.				-0.23						
Share of women at higher levels					-0.03	-0.20				
Interaction share of women * part-time						0.57**				
Organizational culture							0.09	-0.07		
Interaction org. culture * part-time								0.57**		
Child care facilities									0.07	-0.16
Interaction child care fac. * part-time										0.82**
Variance at job level (s.e.)	0.17 (0.09)	0.18 (0.10)	0.17 (0.09)	0.18 (0.10)	0.17 (0.09)	0.19 (0.10)	0.17 (0.09)	0.19 (0.10)	0.17 (0.09)	0.17 (0.09)
Variance at respondent level (s.e.)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.53 (0.15)	0.55 (0.15)	0.54 (0.15)	0.54 (0.15)
ICC_{jobs}	4.3%	4.5%	4.2%	4.4%	4.3%	4.7%	4.3%	4.7%	4.3%	4.3%
$ICC_{respondents}$	13.5%	13.4%	13.5%	13.5%	13.5%	13.4%	13.3%	13.6%	13.4%	13.4%
R^2	18.2%	18.9%	18.2%	18.3%	18.1%	19.4%	18.3%	19.8%	18.2%	18.2%
Log likelihood	-1,671.7	-1,665.9	-1,671.6	-1,670.5	-1,671.7	-1,662.9	-1,671.6	-1,661.7	-1,671.7	-1,667.0
BIC	3,478	3,473	3,477	3,482	3,478	3,467	3,477	3,465	3,478	3,475

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

6.6 Discussion

It can be concluded that employers do not have a stronger preference of male candidates over females. On the contrary, employers claim to prefer women over men. A glass ceiling at the highest levels was not detected. The results mostly indicate that decision makers primarily focus on candidates' working career instead of their gender (see also Tosi & Einbender, 1985). Especially employees' degree of responsibility determine their career chances in later life. Due to the segregation of men and women into different positions, this factor can strongly determine the negative career chances of women versus men (Baron et al., 1986; DiPrete, 1989; Cassirer & Reskin, 2000).

While no proof is found that women's career mobility is restricted compared to men's, working part-time is clearly unfavorable for a person's career chances. Employers have a general preference for employees who are available on a full-time basis, regardless of the level of the vacant position. In real life, employers may not always have the luxury to act upon this preference, for example, in the case of a tight labor market or due to national legislation. Given the large share of female part-time workers on the Dutch labor market, these results indicate that merely increasing the numbers of part-timers is not enough to enhance their career prospects, and hence those of women. Rather, policy measures and cultural changes - either at the national, or in this case organizational level - clearly contribute in providing chances for employees who work part-time. In that sense, the underlying notion here that the organizational context influences the risk assessments made by employers is supported.

An important issue with any research and with vignette studies in particular is whether their results apply to the labor market as a whole. In this research, only a small number of decision makers and organizations were investigated. All decision makers involved are, however, experienced in performing selection procedures; this makes the findings more valuable than when using non-experts. Additionally, even though a vignette research does not entirely reflect actual decision-making, it does give some indication about the criteria that employers take into account. One should keep in mind that experiments are deliberately simplistic in order to enhance the understanding of relevant factors (Falk & Fehr, 2003). The fact that most factors included in the analyses, apart from the contradictory findings on gender, have effects in the expected direction provides support for this validity.

When evaluating this study, it can be concluded that job matching based on gender or working part-time does not play a major role in employers' selection decisions; having the right set of competencies appears to be vital for all jobs. This may be partly due to the fact that only general descriptions of candidates' resources were used. Some respondents indeed indicated that they pay

more attention to other issues, in particular social skills and how well a person's character would fit in with the rest of their team. Adding such characteristics expands the research considerably, but may make these selection processes more realistic. A related strategy is to perform a vignette study within one field or occupational group. It then becomes possible to be more specific about the sort of education candidates have followed and in which jobs they have previously worked. In general, using vignettes to study internal selection could be a productive strategy for future research, for example, when studying allocation inside the job ladder of specific firms or sectors.

7 Summary and Discussion

Abstract

In this final chapter, I first summarize the aims of this study and report on the main findings based on the preceding empirical chapters. Findings for men and women are compared, and their interrelatedness with the jobs and organizations in which they work are discussed. Next, the study is evaluated at a more overarching level. The interpretation of empirical findings, their connection to the theoretical model and research design are addressed and a number of future research questions and possible policy implications are suggested.

7.1 Introduction

This book addresses the question how the careers of men and women inside organizations can be explained from a job and organizational perspective. It is argued that both jobs and organizations are important keys in unlocking the social phenomenon of women reaching lower positions on the labor market than men do. Although gender differences on the labor market are widely addressed, their possible foundation in the combined interplay of jobs and organizations is not. For that purpose, the careers of men and women are investigated by means of the following research question: *To what degree can differences in career development between men and women be explained when taking into account the job and organizational context in which they work?*

First, the empirical research questions and the research design employed are dealt with, after which the main findings of this study are addressed. After this summary, the study is evaluated at a more overarching level, both at the theoretical and methodological-empirical level. The chapter ends with a description of future research questions and policy implications.

7.2 Summary

7.2.1 Research questions

In chapter one of this book, four different research questions are distinguished. These questions are answered in the empirical chapters three to six. Each research question focuses on a different career outcome, reflecting the supply and demand side of the labor market. The first outcome starts at the supply side, by looking at the career orientations of men and women. This is in line with the classical (microeconomic) view on career mobility, regarding employees to be responsible for planning and managing their own careers, with the extension that they do this partly by responding to the working context that surrounds them. If the organization operates differently for men and women because of their own assessments and choices, this should then be reflected in their career aspirations. This topic is investigated in chapter three by answering the following research question: *To what extent can job and organizational characteristics explain the perceived promotion opportunities and the internal and external career aspirations of men and women?*

The second and third research question focus on more tangible career outcomes, in terms of the positions that men and women attain. Such objective outcomes are, in a way, in between the supply and demand side of the labor market, as their occurrence can be caused by actions and choices of employees, as well as by those of employers. In chapter four, the topic of investigation is men and women's job mobility, i.e. their movement through the organizational hierarchy through a series of connected jobs (Form & Miller, 1949; Tolbert, 1996). Job shifts are generally considered to be an

important distributing mechanism on the labor market, and even more so on the organizational labor market. This reinforcement of a person's position on the labor market can be seen in hierarchical (and/or financial) terms, but may also reflect job shifts without an increase in hierarchical position. To gain a more complete picture about men and women's career dynamics, both vertical and lateral movements through the organizational structure are looked at. The research question in this fourth chapter is: *To what extent can job and organizational characteristics explain the internal job mobility of men and women?*

Although promotion steps are an important issue, they do not give a complete picture of a person's career dynamics (Bird, 1996). Partly due to organizational developments, both employers and employees are perhaps focused less on employees climbing the organizational job ladder, and more on cultivating and developing employees' skills and capabilities within the jobs they hold. Consequently, while some employees' job contents hardly change over time, others may receive an extension of their tasks and responsibilities. This not only enables their further career development, but can also be a reward in itself. This topic is investigated in chapter five, focusing in particular on the organizational context. The research question in this chapter is: *To what extent can organizational characteristics explain the development in job complexity and wages of men and women?*

In the last empirical chapter, the demand side of the labor market is looked at more closely in order to gain a better understanding of employees' careers and their causes. Selection decisions by employers are often assumed to play a central role in explaining the career gap between men and women, and for this reason the allocation behavior of employers is investigated more directly. The focus of attention in this chapter is employers' selection decisions for internal promotions and whether these decisions are based on the organizational context and types of job vacancies that occur. The accompanying research question is: *To what extent can job and organizational characteristics explain employers' selection decisions of men and women?*

7.2.2 Sample and data

To test the hypotheses of this study, a survey was conducted among labor organizations in three distinct sectors, services, manufacturing and the public sector, in cooperation with a fellow researcher (Baaijens et al., 2005). To ensure comparability between the organizations and to establish an employee sample that includes sufficient men and women for a comparison, only organizations with a minimal share of 10 percent and a maximum share of 60 percent of women were selected. From a larger pool of organizations with corporate social reports, a sample of 28 organizations was willing to participate: 14 in the public sector, 9 in services and 5 in manufacturing. This number is higher than common in many previous studies (with the exception of a few international studies, such as the Norwegian Survey of Organizations and Employees, NSOE; Mastekaasa, 1992).

A personnel officer (mostly the head of the personnel department) from each of the participating organizations was interviewed about the organizational structure and its policies. In each organization, two types of additional data collections were conducted. For the first three research questions (chapters three to five), the career histories of employees were assessed by means of written questionnaires among a random sample of white collar employees in each of the organizations. This excludes, for example, employees in supportive services (such as catering, postal services and reception and security personnel) and, in manufacturing organizations, employees who work in manual labor jobs. In total, 1,153 questionnaires were returned, which amounted to a response rate of 46%. For the fourth research question (chapter six), data was gathered from department heads in the participating organizations. In order to improve comparability between the sectors, only the heads of office departments were selected, such as heads of financial or policy departments. Each respondent received a written questionnaire in which written profiles (vignettes) of applicants were presented for three jobs in their department. Fifty-eight respondents in 23 organizations filled in questionnaires, which is a response rate of 47%. In total, 1,166 candidates were evaluated for a promotion. Organizational measures incorporated in both data sets were either constructed based on information from personnel officers (such as formalized personnel policies and the presence of child care facilities) or on the employee questionnaires (such as the organizational culture towards part-time work).

7.2.3 Main findings

In line with previous findings, this study shows that women work at lower job levels than men do, leading to an underrepresentation of women at the highest job levels. Chapter two shows that this gender gap is for a large part attributable to differences that existed before employees entered their current organizations. Even after entering their current settings, though, women are restricted in their intraorganizational career development. When looking at more detailed career outcomes to explain this overall pattern, it turns out that men and women's careers hardly differ from each other, at least in terms of a direct gender difference. Taking into account the jobs they hold and the organizations in which they work, men and women are not found to differ in their career aspirations, their chances of upward mobility, nor in their development within the job (in terms of job complexity and wage growth). Women's unfavorable progression between their first and current job is also explained away after considering personal and work-related factors. Additionally, department heads are not found to discriminate against women when selecting candidates for a new job. These findings suggest that women are not restricted in their career development compared to men. Rather, more work-related conditions, such as educational levels, career histories and working part-time, are important for explaining career differences between employees. Looking at employers' selection decisions, it is especially this part-time

factor that limits employees' career progression the most. Working part-time also affects employees' career aspirations negatively, though to a lesser extent. Next, the empirical findings are discussed in detail, at both the level of employees' jobs and their organizational settings. This reveals a number of gender-related career patterns.

At the *job level* of employees, the influence of general job characteristics (hierarchical level and presence in an internal labor market) is investigated, as well as gender-specific characteristics (gender- and part-time composition and the supervisor's gender). These job differences are argued to affect women's career prospects, as they change the costs of a bad selection decision due to leaving the organization or wanting to work part-time. The main findings are summarized in table 7.1.

First, it was expected that women find it harder to progress through the organizational hierarchy as they reach *higher job levels*. In practice, these patterns hardly occur. Employers do have a stronger preference for women at the lowest levels, but there is no difference between the selection of men and women at the highest or intermediate levels. Based on employee data, actual chances of a job shift do not differ between men and women at higher levels either. Consequently, there is no clear proof that glass ceilings restrict women from entering these highest levels (see, e.g., Cotter et al., 2001). When having reached these positions, however, it is found that men's wages increase more rapidly in the job than women's wages do. Their progression does, however, not differ in terms of job complexity. Additionally, women at higher levels are interested in applying for a new job more often (both inside and outside the organization), indicating that they may be more career-driven than men who have reached these positions. *Job shifts over large distances* are not found to be more likely for men than for women. Overall, making job shifts upwards two levels is relatively rare. This in itself indicates that employers limit such job steps (by means of formalized job descriptions), exactly because they entail a large increase in selection risks.

When looking at the presence in an *internal labor market (ILM)*, men and women appear to be equally receptive towards signals of promotion; men and women in the two extremes on my ILM-scale, line jobs and support jobs, do not differ from each other in terms of career aspirations (see also Cassirer & Reskin, 2000). However, other gender differences are found on this job division, such as a lower chance for women in staff jobs to apply internally. Additionally, regarding actual job shifts, women make more lateral job shifts in customer jobs than men do, and more vertical shifts in support jobs. In line jobs, no gender difference is found. Customer and support jobs are possibly perceived as being more typically female, which partly coincides with the preference of employers for women at lower levels. Overall, men and women in similar jobs apparently have different career opportunities. This supports the general notion that the structural context works out differently for men and women.

Table 7.1 Schematic overview of hypotheses in the empirical chapters and subsequent findings[1]

	General hypoth.	Chapter 3: Career aspirations[2]			Chapter 4: Job mobility			Chapter 5: Growth job content		Chapter 6: Selection decision	
	Women vs. men	See int. poss.	Want apply internally	Want apply ext. less	Hor. shift	One up	Two up	Comple-xity job	Wages in job	Women vs. men	Part-t. vs full-time
Job level											
Hierarchical level of the job[3]	-	0	+	+	0	0	0	0	-	(-)	0
Presence on internal labor market[4]	-	0	0	0	0	-	0				
Share of women job	+	0	-	+						0	+
Share of women department	+	0	0	0							
Commonness part-time labor[5]	+	+	+	0							
Having a female supervisor	+	0	0	0						0	+
Organizational level											
Formalization personnel policy	+	+	0	+	0	0	0	0	0	0	0
HRM policy	+							0	0		
Share women higher job levels	+	0	0	0	0	+	0	0	0	0	+
Part-time friendly organizational culture	+	+	0	0	0	+	+	+	0	0	+
Child care facilities	+	0	0	-	0	0	0	0	0	0	+
Child care facilities * having children[6]	+	0	0	0	0	0	0	+	0		
Child care * having children * female[6]	+	0	0	0	0	0	0	0	0		

[1] + positive relationship with being female; - negative relationship; 0 nonsignificant.

[2] For applying externally the hypothesis is that women want to apply less often under the above mentioned conditions than men, while internally they are expected to apply more often.

[3] In the case of chapters 3 and 5 the effect of hierarchical level is not tested by means of job levels, but rather the log of one's wages.

[4] For the presence on an internal labor market, I compared line jobs with support, customer, staff or management jobs. Here, I focus on line versus support jobs, which are argued to differ most.

[5] The commonness of part-time labor is investigated, using two dummy variables: working in a job with one third part-timers and with 50% or more part-timers. In this overview, effects for the latter category are discussed, in reference to employees in jobs with hardly any part-time workers.

[6] The effect of child care is primarily compared with being female. In chapters three to five I also determined if this differs for women and/or all employees with children.

At the job level, no indication is found that women's career progression is enhanced by social support or mentorship of other women (indicated by a *high share of women in their jobs or departments* and *having a female supervisor*). However, female supervisors can enhance women's career prospects, as they select part-timers more often than male supervisors do. Notably, men think they have better promotion opportunities when having a female superior. In addition, they are more eager to apply for a job when surrounded by female colleagues. This is perhaps in search of a more gender-balanced setting. The process of men being promoted out of female jobs (described as a "glass escalator", Maume, 1999) may therefore very well be caused by their own actions and responses, rather than by the actions of the employers who select them.

Similar to the jobs that employees hold, *organizational characteristics* refer either to general policy measures (personnel and human resources policy) or to gender-specific topics (such as a part-time friendly culture or the presence of child care facilities). These circumstances are argued to make it "safer" to grant women promotions. Women themselves also invest more in their careers when chances of discrimination are lower.

The first organizational characteristic investigated is the operation of an organization's personnel procedures. More *formalized personnel prolicies* improve the career perceptions of women compared to those of men more, but they do not lead to a relative improvement of women's employment position. Rather, because job complexity increases faster in more formalized settings, it appears that both men and women invest more in their career development when their performance is assessed more formally. Additionally, the *human resources policies* implemented by organizations do not lead to an actual improvement of women's employment position. Apparently, general organizational policies are not particularly important for female career development, possibly because they are more related to the jobs that employees hold than to the personal characteristics of their incumbents.

Topics more directly related to female employment are found to be more influential, such as the *share of women at higher job levels*. A higher share of women at higher levels affects women's career progression positively compared to men's when moving up one job level. Decision makers select part-timers more often in organizations with a larger share of women at high levels; no influence is found regarding men and women's career aspirations. Apparently, an increase in the number of women at higher job levels mainly affects the views of employers, thus confirming the notion that they trust risk groups such as women and part-timers more when women have already proven to be successful in higher jobs.

Women also benefit from working in more *part-time friendly organizations*. In such settings, they see better promotion opportunities, have higher chances of making a vertical job shift and acquire more tasks in the job. The first finding does not seem to apply when women are surrounded by female colleagues or have a female supervisor. Hence, it appears that social support from all colleagues, rather than from other women only, is important for their career success (Stinglhamber & Vandenberghe,

2003). This social support from others possibly also affects the views of employers, whose restrictions against selecting part-time employees decrease when working in a part-time friendly environment. Since mostly women work part-time, they stand to benefit most from this.

The final organizational measure is aimed at the combination of work with family tasks through the presence of *child care facilities*, comparing none to limited with reasonable to good child care. Three topics were investigated: whether their presence is mostly beneficial for women, women with children or all employees with children. The latter is included as it cannot be assumed that only women with children are responsible for caring tasks. Studies, however, do show that women still mostly take responsibility for the care of their children (SCP, 2004). In practice, child care often does not affect men and women differently, nor do women with children benefit more from the presence of child care facilities than other employee groups. It is found, however, that all employees with children increase more in job complexity when child care is present. Being able to combine work and care possibly allows them to acquire more tasks. Interestingly, one contrasting result was found: when working in organizations with ample facilities, only men think less about leaving the organization. Overall, though, the picture emerges that having child care facilities neither benefits nor damages women's career prospects, for example, when it comes to actually making job shifts. Additionally, employers are more inclined to select part-timers when child care facilities are present. In sum, having child care facilities can contribute to women's career progression, but is no automatic guarantee for their career success.

7.3 Discussion

For a discussion of this study at a more overarching level, I will evaluate its implications, both theoretically and empirically. How should we interpret the empirical results, and what can be learned from this study? These questions are directed at evaluating the research findings from a theoretical and methodological angle, at their generalizability and at their implications for future research and policies.

7.3.1 Assessment of overall findings for women versus men

This study shows that women do not reach the same hierarchical positions as men do. This is partly attributed to differences that existed before they started working in their current organizations. The restrictions that women may face during their careers inside the organization remained largely undetectable. Compared to other studies, especially the equal promotion chances of men and women are relatively uncommon. Studies of white collar employees often do find a gender difference in intraorganizational career development (DiPrete & Soule, 1988; Spurr & Sueyoshi, 1994; Kalleberg & Reskin, 1995; Spilerman & Petersen, 1999). A number of considerations can help explain these findings.

First, during their stay inside the organization, mobility barriers for women appear to be limited when looking at a small number of detailed job shifts. It is possible that for each job shift, women are restricted only to a small degree. However, cumulatively, after say, five to ten steps upward, both within and outside the current organization, men are found to have climbed the organizational job ladder faster than women have. Given women's underrepresentation in management, this pattern indeed appears to apply. It should be noted, though, that this explanation can only refer to the findings concerning actual job mobility. Even then, the perceived career aspirations of men and women, as well as their development in job complexity and wages in the job do not differ from each other, regardless of the job shifts they make.

A second reason for men and women's equal careers may lie in the fact that only intraorganizational careers have been studied. Women may be discriminated against less when it comes to internal mobility, as the employer already knows them. In the case of external mobility, they do not have this advantage, while men can shift more easily between employers (DiPrete & Krecker, 1991; Le Grand & Tåhlin, 2002). Additionally, women and men differ strongly in the positions they hold when entering an organization. These differences may partly be caused by earlier career choices or by the restrictions they faced in previous organizations. The result, however, is that, for their progression inside the organization, other factors (such as career histories and educational level) are more important for explaining career differences. Partly because women mostly work at lower job levels and in support jobs (which are performed more often on a part-time basis), their chances of reaching the top are lower than men's chances. In this sense, women are trapped in low-ceiling careers with structurally imposed limits on advancement more than men are (Gaertner, 1980; Althauser, 1989).

A third, more empirical limitation is the fact that results are partly affected by a general low share of employees at higher levels (about 75 persons, of whom 81 percent is male). This low representation of managerial jobs may partly explain why gender gaps at higher job levels remain undetected. In this sense, oversampling employees at higher job levels can prove to be a better strategy for intraorganizational career studies. An organization-wide sample may be limited in its potential to gain insight into the restrictions that women face when trying to break through the glass ceiling, that is, unless it entails the detailed career trajectories of many employees, for example, by means of personnel records (see, e.g., DiPrete & Soule, 1988; Spilerman & Petersen, 1999).

An additional consideration refers to the selection decisions by employers and the reliability of these findings. Notably, they select women more often than would be expected when taking formal qualifications such as work experience into consideration. This may suggest that employers are aware of social views about gender discrimination in the workplace and try to compensate for this by selecting women more often. This interpretation is supported by the vignette design used in chapter six. Because these vignettes are fictitious, the effect of being female is, by definition, ascriptive by nature, due to

employers' judgments about this attribute. Some additional support for this notion of compensation lies in the consistent restrictions laid upon part-time candidates compared to full-timers. Additionally, Van der Lippe (2004) finds that employers do express objections against female employment at higher job levels.

After discussing a number of considerations, a last explanation could be that the findings do indeed reflect a decrease in gender gaps on the labor market. Given that employees were randomly selected at various levels of white collar work, there is no indication that the sample only consisted of a set of particularly successful women. A number of empirical considerations also concur with this explanation. First, analyzing the gap between a person's first and current job does not reveal gender differences after controlling for background characteristics. Second, although women work more often in jobs with limited promotion prospects, a large share of them does still have opportunities for a vertical career path, as forty percent of them work in line jobs. Third, the reliability of the results partly depends on their stability throughout the sample. As chapter four shows, women who entered the labor market in 1990 or later do not have lower chances of making a vertical job shift than their male counterparts. In that sense, the findings are not only relatively stable, but may also reflect a cohort effect with equal promotion chances for new entrants on the labor market based on gender. The small share of women at the highest job levels may therefore disappear as these women progress through the organizational hierarchy. The fact that career traps for women only become visible after some time and cannot be detected for separate job shifts, indicates the proximity of women's career development to men's careers.

7.3.2 Evaluation of the theoretical approach

In this book, a structural-individualistic approach is used for explaining men and women's careers. Overall, individual career backgrounds are especially important for future career success, although job and organizational conditions also play a role in career development. For example, some organizational factors only influence men's careers, while others only affect women. This implies that although men and women may aim for the same career targets, the organizational conditions that help them reach these targets can differ. In that respect, a structural-individualistic approach that incorporates these differences is more valuable than an individualistic or structural line of reasoning. At a more detailed level, the question arises whether the concept of risk assessments is useful for explaining why women have better career prospects based on some jobs and organizational settings than on others. In the past, this concept has especially been used for external selection and solely related to job aspects (see, e.g., Bielby & Baron, 1986; Sanders, 1991; Bosman et al., 1994; Tomaskovic-Devey & Skaggs, 2002). In this research, the usefulness of such an approach partly depends on the level of investigation, the job versus organizational level.

In the case of job level characteristics, the notion that it is safer to grant women promotions for certain jobs or job shifts only applies to a limited extent. An explanation can be that employers and employees both look at different indicators of promotability, such as career histories or aspects of the job content itself (e.g. degree of responsibility and employability). In that sense, having the right set of competencies (in terms of educational level and working experience) appears to be vital for all jobs and job shifts. Still, when choosing between part-time and full-time working employees, employers do appear to make risk assessments based on employee's current jobs. This suggests that employers indeed use working part-time as an indicator of future performance in relation to job conditions.

At the organizational level, support for the idea of risk assessments is larger, both for employees' career development and for employers' selection decisions. This applies mostly to gender-specific measures. This is in line with the idea of a group-specific incentive structure. Employers are especially influenced by the organizations in which they work, but mostly when selecting part-time versus full-time candidates. I expected that working part-time would be considered a risk. This view, however, is not widely shared by employers in organizations with equal gender distribution at higher levels and a more part-time friendly culture. This suggests that as organizations have become accustomed to part-timers, they have found ways to avoid the negative consequences of working part-time. An alternative explanation is that both employers and employees in these organizations have not only changed their normative opinions about part-timers, but consequently consider them less of an exception, which allows for better career prospects.

In general, the concept of risk assessments can especially be valuable for interpreting organizational differences, although a direct test of their working was not employed here. The current study does, however, show the usefulness of a number of auxiliary perspectives, used to derive expectations from this angle. One of these is that women are less sensitive to signals reflecting promotion chances than men are, because they regard (future) caring tasks more important compared to a career than men do (Cassirer & Reskin, 2000). As women are argued to have a so called "double life perspective", they are expected to be less focused on making a career and to be especially interested in combining work with caring responsibilities (Sanders, 1991). Similar to Cassirer & Reskin (2000), I find no support for this expectation regarding employees' presence in an internal labor market. In addition, the fact that women do not notice any better career prospects when the organization offers child care facilities can also be seen in this light. Overall, differences in career orientations between men and women are rather small. Apparently, they do not have different career orientations because of gender role differences that they bring to the workplace (see also Loscocco, 1990; Rowe & Snizek, 1995). A second angle is that being surrounded by other women enhances women's career prospects, while being a token (i.e. women in largely male-dominated settings) lowers women's promotion prospects (Kanter, 1977). Women are argued to benefit in terms of social support and mentorship from a working environment

in which the share of women is higher (either in the same job or at higher levels) or in which they have female supervisors. Indeed, a high share of women at higher levels enhances women's career progression. However, no evidence is found that this occurs through social support from other women, as women's career aspirations are not affected by this (see also Ellemers et al., 2004). Possibly, gender composition is related to other mechanisms than (merely) social support, such as increased competition. Social support provided by male colleagues may even be more valuable to women's career progressions.

Overall, the topics investigated in this study proved useful for explaining gender differences, although they do of course leave room for other mechanisms to play a part in explaining men and women's career patterns. Overall, though, the notion of risk assessments by rational actors can provide an overarching angle, which is filled in by means of other, auxiliary, perspectives, based on which the risk assessments by employers are made (see also Tomaskovic-Devey, 2004).

7.3.3 Methodological benefits and downsides of this study

The research design employed in this book (gathering information about a larger set of organizations) is relatively uncommon for investigating career dynamics. A main advantage of this strategy is that it provides accurate information about organizations in terms of their structural conditions, as well as policy measures, while also being able to investigate their influence on career advancement in a comparative manner. It has also proven to offer a number of advantages at the level of employees and their jobs. Because of the nesting of employees within the same organizations, individual career development can be compared to direct competitors. The measurement of the positions taken by employees (for example in terms of being part of a job ladder) is also assessed more reliably here than in employee-based surveys. In an organization-based design, it is possible to compare employees' answers with those of others in similar positions and with organizational information, such as promotion schemes and labor agreements. Another main advantage of this design is that it not only incorporates employees' career development, but also enables a comparative investigation of employers' selection decisions, linking it to organizational measures and individual career trajectories. A major disadvantage of the design is, however, that extending a case-study approach to a larger set of organizations has proven to be a time consuming strategy, especially since cooperation from organizations has to be ensured before information from employees and decision makers can be gathered. This can lead to problems of selectivity, as is discussed in the next section.

The time restrictions imposed on the design also affect the collection and measurement of relevant concepts, both at the individual and organizational level. Combining individuals' data with their supervisors' selection decisions or with information about vacancy chains (Stewman & Konda, 1983)

is arduous. Additionally, measuring relevant concepts is especially difficult when it concerns topics in the past. This refers to employees' career histories, but especially to organizational characteristics. As organizations appear to be mostly focused on the present and future, getting reliable information about policies and policy changes in the past, for example in the case of child care facilities, is rather difficult. In part, investigating organizational careers prospectively can circumvent such problems. In overview, employing a suitable organizational design strongly depends on finding a balance between incorporating sufficient organizations to enable comparisons to be made and gathering sufficiently detailed information about these organizations, as is the case in a case-study approach.[1]

7.3.4 Generalizability to other (national) settings

To assess how well these findings apply to other organizations and national settings, four different levels of representativeness should be considered: employees, decision makers, their organizations and the Dutch national setting. At the employee level, the results are partly affected by the composition of the sample. Chapter two shows that, on average, the employees under study are higher educated and work at higher job levels than employees in manufacturing, services and public sector as a whole do. Although this limits the generalization to these sectors, it should be noted that this difference is largely due to the sample restrictions imposed by focusing on white collar employees in all three sectors. As a result, the types of employee categories that are included (such as staff officers, policy makers, engineers, IT specialists, et cetera) represent the work situations of many employees, regardless of the sectors in which they work. Thus, a sample of over 1,100 employees working in various organizations throughout the Netherlands is indeed informative about the career patterns of men and women in the Dutch 'knowledge economy'.

To investigate employers' selection decisions, the answers of about sixty decision makers were analyzed; no information is available on how they compare to decision makers in other organizations. The decision makers that are included (i.e. department heads) are experienced in performing selection procedures, which makes the findings more valuable than when non-experts would have been studied. Additionally, even though a vignette research does not completely reflect actual decision-making, it does indicate the criteria that employers take into account. The fact that most factors have effects in the

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[1] A more technical point of evaluation is the methods of analyses used. In chapters four and five it was not possible to my knowledge to combine the techniques employed with so called random slopes multilevel models. Consequently, a cluster correction was used to take into account the nesting of employees within organizations. In the other chapters, empirical models could be used that corrected this clustering in a more manifest manner, distinguishing between variance at the lower and higher levels. Due to these different types of analyses, it is difficult to compare coefficients directly, although the results do not differ considerably between chapters, overestimating the effect of organizations in chapters four and five.

expected direction supports this validity. Additionally, even decision makers in organizations that are willing to participate have a strong preference for full-time employees over part-time employees. It is therefore likely that a similar preference exists in other work settings and especially in those in which female and part-time employment are even less common.

At the organizational level, twenty-eight organizations were investigated, which is higher than in many previous studies. Given the number of participating organizations, the potential of generalization to other organizations may be limited. Still, organizations varied considerably on the measures employed, indicating that not only employee friendly organizations participated. A second strong suit of the study is its focus on topics that are not unique to the organizations under study. All labor organizations, for example, have formalized their personnel policies to some degree and can be compared based on the presence of child care facilities. Organizations in other sectors can, therefore, also benefit from findings about these measures.

A final topic is how well these Dutch findings apply to other national settings. Typical for the Dutch labor market is its high share of part-timers in the workforce, and, perhaps related to this, the variety among organizations in terms of part-time friendliness is relatively small. In that sense, one might expect an even stronger effect of part-time culture when comparing organizations that differ more strongly on this topic. This suggests that in national settings where working part-time is less common, the career limitations that part-time workers face are greater. On the other hand, both in the Netherlands and in many other countries, part-timers are often underrepresented at the highest organizational levels, which improves the comparison with other national settings.

7.3.4 Future research questions

In this book, the topic of gendered careers is investigated by means of an organizations-based data set. This strategy proves to be a valuable approach and can be a fruitful endeavor for future study. A number of different research lines, which can be used separately or combined, are suggested below.

The first research line is to investigate in more detail the barriers that women face at the highest levels. Such a design, however, should not be restricted to men and women who have made it to the top, but rather, should include a comparison of career trajectories, both below and above the glass ceiling. Although the term glass ceiling suggests a fixed place within the organizational hierarchy, it can instead be viscous and broad in its nature (Cotter, et al., 2001). When studying such - and other job steps - two issues should be taken into consideration. The first is that vertical job shifts are not homogeneous, but rather can reflect different allocation processes. Job shift over large distances are different than shifts over short distances, as they appear to reflect a "catching on" effect for higher educated employees (Ishida et al., 2002; Treble et al., 2001). The second consideration is that

individual resources are still vital for career development, for instance, in terms of caring tasks. The underlying argument in this and many other studies is that employers make crude assessments based on the private situations of employees, including their future risks of exit or wanting to work part-time. More detailed information about expected and actual caring tasks of employees and their spouses can help determine whether caring tasks do indeed affect employees' promotion dynamics, rather than employers' perception of those tasks.

A second research line focuses on the career restrictions that employees face due to working part-time. Given that employers especially raise selection barriers for part-timers, the exact working of these barriers deserves further attention. Organizations differ in the degree to which they consider working part-time a risk, based, among others, on the part-time friendliness of the organizational culture. These organizations are suggested to have found ways to avoid the negative consequences of employees working part-time. A comparison with organizations in which part-timers have less career prospects can shed light on the exact working of these barriers. Does the difference between them lie in different normative opinions, in the types of tasks that are performed or in the way these tasks are monitored and transferred? Since working part-time is strongly associated with the careers of women, this kind of research could contribute to lowering the barriers that mostly women face.

A third research line is to link the choices and opinions of employers and employees' careers together by incorporating the social networks between colleagues. For example, do all female employees benefit from working for a supervisor who evaluates performances objectively, and are women with a supervisor whose evaluation strategy is more informal more dependent on their personal relations with their supervisor? Due to practical restrictions, and to the fact that the general question of how gendered careers are related to organizational practices had not been answered, I employed a research strategy in which social networks remained largely unaddressed. Combining network perspectives with notions of risk assessments can help uncover the exact workings of the career barriers that employees face (see Van der Hulst, 2004). Ideally, this kind of design should try to incorporate as many organizations and policy measures plus as much detailed information about personal networks in those organizations as possible. So far, due to its high demands on time and effort, network studies have predominantly focused on one or a few organizational settings (see, e.g., Burt, 1998; Van der Hulst, 2004).

A fourth research line, partly employed in this book, is the view that employees not only shift between jobs, but also that the contents of their jobs develop over time. While wage development in the job has received a high degree of attention, especially by economists, the development in job content has not (for an exception, see Tomaskovic-Devey & Skaggs, 2002). In this study, no support was found that women's jobs develop differently than those of men. However, this is informative, especially when linked to men and women's actual future career steps. In theory, the allocation of tasks and

responsibilities is more subtle and possibly more subject to individual preferences and discrimination than the more formal allocation of job shifts and wage raises. Understanding the dynamics of intra-job task allocation, in relation to, among others, supervisory evaluations and social networks can contribute to revealing gaps in career development.

A last and overarching research line is to make use of a prospective research design by using panel data, as many of the questions raised in this section are ideally answered by means of this type of data. Although studies over time are costly and time consuming, they offer a number of advantages, both at the level of employees, as well as organizations. Designs such as these would be better equipped for establishing causality in career patterns and in following employees as they move through different organizations. Focusing on one organizational setting has proven to exclude a large share of the (organizational) barriers that women face during their careers. This design sheds insight into the jobs and organizations that men and women move through and on which factors these moves are based. It also enables researchers to investigate how organizational *changes* affect the careers of men and women, such as the introduction of work/family policies (Remery, 1998). This indicates whether it is indeed policy measures such as these that affect employees' careers, or whether it is underlying factors that are left unobserved.

7.3.5 Policy implications

At the end of this study, I discuss a number of policy implications that can be derived from its findings. The focus here is on one overarching policy aim, namely to raise the representation of women at higher job levels; an aim increasingly shared by organizations as well as national governments. Among others, it is one of the key targets of the Dutch government's emancipation policy (SCP, 2004). Although women do not appear to face strong restrictions in their career development, the outcome is still that their representation at the highest levels lags behind that of men. Barriers therefore appear to be subtler by nature, and policy measures can help to diminish such barriers. Here, the focus is on organizational policies, as they are most easily implemented by personnel offices and can affect the careers of men and women throughout the organization.

One of the means to achieve the target of more equal representation is to place continuing emphasis on formalized personnel policies, as these signal to employees that the evaluation of performances and allocation of positions proceed in a formal manner. By making internal personnel policies transparent, employees know which criteria they have to meet (be it for making a promotion, following courses or going on extended leave). Measures such as these - like the internal publication of vacancies - should, however, not merely remain a formality. Rather, they are to be used and verified in practice, because the appearance of window dressing can undermine the legitimacy of formalized policies.

Female representation at higher job levels is increasingly recognized as a topic of internal monitoring of organizations' performance. Raising the share of women at higher job levels can clearly benefit other women within organizations, possibly even more so if it is visible to employees that the topic is under attention of their employers. In practice, however, many organizations do not address this topic in specific policies. In the organizations under study, only a few still have an equal opportunities policy aimed at helping more women progress to higher job levels. One way of achieving this goal is by defining the increase of women at higher job levels as part of an organization's strategic policy. Making a representative of the board of directors responsible for this policy can give additional momentum and improve visibility. At the lower organizational levels, targets can be set on how to increase the share of women in specific divisions or departments of the organization. This could be done by making contracts with the managers responsible for these divisions.

Based on this study, it is difficult to conclude that the presence of child care facilities helps the progression of women through the organization, as it was not found to have a major influence on the careers of men and women. Still, as employers are less inclined to restrict part-time workers from making promotions, the presence of child care facilities can be one of the means of facilitating both women and men with caring tasks to pursue a career. Additionally, although a large share of the organizations participating do have child care facilities, a number of them only have limited facilities in terms of a so-called budget neutral child care arrangement. Improving the quality of child care is therefore still a topic that deserves organizations' attention.

The last organizational topic discussed is an organization's cultural climate towards part-time work. This factor not only has the strongest influence on career dynamics, but is also most difficult to implement through policy measures. Currently, working part-time and organizational attitudes towards working part-time still form a barrier for the career progression of both men and women who want to combine their working lives with caring tasks or other activities. Especially as the working population is composed more and more of dual earners who share their caring tasks, lowering this barrier can be an important step for the future. Although this change is difficult to accomplish, a first step could be to enable employees to work part-time at higher levels, in terms of four days weeks. Employers and their employees can also try to find an agreement on which periods in their lives employees can work part-time. Part-time policies, however, strongly depend on the willingness of employees, and in particular men, to actually choose to work part-time, and also when reaching higher job levels. Many already indicate that they would like to do so, but choose not to in practice (Fouarge & Baaijens, 2004), possibly because it affects their careers negatively. Organizations can overcome such negative consequences by developing models and guidelines of how tasks such as supervising can be performed on a part-time basis. Supervisors who work four days a week are equally present and visible in the organization as supervisors who work full-time but work outside the office at least one day a week.

Other, more formal policy implementations can also contribute in this change, for example, by showing part-timers that they have equal opportunities by means of formalized personnel policies. In that sense, realizing cultural changes requires a long-term approach, integrating them with policy measures. Whether these attempts to change actually succeed will depend strongly on the willingness of both employees and employers. If employers want to be ensured of having qualified personnel, especially given the demographic changes and the shifting work/family balances of more and more employees, it is in their best economic interest to strive for these goals.

Appendices

Appendix A Additional tables chapter two

*Table A-1 Comparison of organizational size by sector**

Sector	Size	Org's approached	Org's participating
Public sector	200 - 500 employees	27%	36%
	501 - 1,000 employees	21%	29%
	1,001 - 2,000 employees	27%	21%
	2,001 employees or more	25%	14%
		(48)	(14)
Manufacturing	200 - 500 employees	47%	20%
	501 - 1,000 employees	33%	40%
	1,001 - 2,000 employees	9%	40%
	2,001 employees or more	11%	0%
		(48)	(5)
Services	200 - 500 employees	33%	44%
	501 - 1,000 employees	30%	22%
	1,001 - 2,000 employees	20%	22%
	2,001 employees or more	17%	11%
		(64)	(9)
Total		(157)	(28)

* Only for organizations for which information is available, i.e. all of the participating organizations and about two thirds of the organizations approached

Table A-2 Degree of formalization of the organizational personnel policy, by type and sector: averages and standard deviations

Sector	Type of organization	Official policy: scale of formalized policies		Policy in practice: use of personnel evaluations	
Public sector	Ministry departments	0.80	(0.05)	0.69	(0.08)
	Provinces	0.88	(0.10)	0.87	(0.07)
	Municipalities	0.93	(0.06)	0.71	(0.18)
	Universities	0.87	(0.06)	0.60	(0.13)
	Total	0.88	(0.08)	0.72	(0.15)
Manufacturing	Manufacturing organization	0.87	(0.12)	0.81	(0.12)
Services	Banking / insurance org.	0.69	(0.36)	0.74	(0.26)
	Consultancy organization	0.88	(0.09)	0.80	(0.17)
	Total	0.80	(0.25)	0.77	(0.20)
Total	(range 0.15-1.0; 0.50-0.97)	0.85	(0.16)	0.75	(0.16)

Table A-3 Educational opportunities in the organization, by type and sector: averages and standard deviations

Sector	Type of organization	Employees' opinions about educational facilities in the organization	
Public sector	Ministry departments	0.70	(0.04)
	Provinces	0.63	(0.08)
	Municipalities	0.62	(0.07)
	Universities	0.58	(0.16)
	Total	0.63	(0.09)
Manufacturing	Manufacturing organization	0.64	(0.04)
Services	Banking / insurance org.	0.76	(0.08)
	Consultancy organization	0.65	(0.14)
	Total	0.70	(0.13)
Total	(range 0.39 - 0.82)	0.65	(0.10)

Table A-4 Share of women at higher job levels in the organization compared to men, by type and sector: averages and standard deviations

Sector	Type of organization	Perc. of women at higher level	Perc. of men at higher level	Share of women compared to men
Public sector	Ministry departments	62% (10)	75% (12)	0.84 (0.13)
	Provinces	55% (31)	77% (21)	0.69 (0.20)
	Municipalities	18% (13)	51% (15)	0.38 (0.25)
	Universities	27% (9)	82% (11)	0.33 (0.11)
	Total	37% (25)	68% (19)	0.53 (0.28)
Manufacturing	Manufacturing org.	22% (16)	67% (16)	0.34 (0.25)
Services	Banking / insurance org.	18% (17)	49% (16)	0.40 (0.40)
	Consultancy org.	16% (10)	45% (13)	0.41 (0.33)
	Total	17% (12)	47% (14)	0.40 (0.33)
Total	(range 0-90; 28-100%; 0.0-0.94)	28% (22)	61% (19)	0.46 (0.29)

Table A-5 Organizational culture towards female and part-time employment in the organization, by type and sector: averages and standard deviations

Sector	Type of organization	Average level of support to part-timers	
Public sector	Ministry departments	0.72	(0.04)
	Provinces	0.79	(0.02)
	Municipalities	0.69	(0.05)
	Universities	0.73	(0.05)
	Total	0.73	(0.06)
Manufacturing	Manufacturing organization	0.50	(0.10)
Services	Banking / insurance org.	0.58	(0.09)
	Consultancy organization	0.58	(0.11)
	Total	0.58	(0.09)
Total	(range 0.43 - 0.81)	0.64	(0.12)

Table A-6 Presence of child care facilities in the organization, by type and sector: averages and standard deviations

Sector	Type of organization	Presence of child care		Share of employees who think there is child care	
Public sector	Ministry departments	100%	0%	0.82	(0.15)
	Provinces	100%	0%	0.78	(0.04)
	Municipalities	80%	20%	0.63	(0.33)
	Universities	100%	0%	0.64	(0.21)
	Total	93%	7%	0.70	(0.22)
Manufacturing	Manufacturing organization	80%	20%	0.46	(0.20)
Services	Banking / insurance org.	100%	0%	0.61	(0.25)
	Consultancy organization	40%	60%	0.30	(0.18)
	Total	67%	33%	0.44	(0.26)
Total	(range share empl. 0.0 - 0.94)	82%	18%	0.58	(0.26)

Appendix B Comparison of employees in the sample with employees in all three sectors

To shed light on the comparability of the employees participating in this survey, they are described in a comparison with all employees in the three sectors under investigation. Table A.8 shows the working population in all three sectors on a number of employment outcomes. In 2001, there were a little over three million employees working in the three sectors, which is about 44% of all employees in in the Netherlands. Regarding the share of women, differences between the sample and the Netherlands as a whole are relatively small. Only in manufacturing, the sample consists of a higher share of women than in the manufacturing sector as a whole (36% versus 21%). Except for in the public sector, the share of male and female part-timers is lower in the sample than in the Netherlands as a whole.

An additional topic that is important for this research is the share of men and women at higher job levels. Employees' jobs are classified into jobs at elementary, lower, intermediate, higher and scientific levels, based on the Standard Occupational Classification (SBC-1992), which is used by the Central Bureau of Statistics Netherlands (CBS, 1992). Employees in higher and scientific jobs are compared between the three sectors as a whole and the sample. Overall, the share of these higher level jobs is larger in the sample: 55% of all women and 65% of all men in the sample have a higher level job; in the three sectors as a whole this percentage is 41% and 40%. Especially in manufacturing, the share of higher and scientific jobs is much larger in the sample than in the sector as a whole. This is due to the fact that only white collar personnel are incorporated in this sample. It should be noted, though, that this job level classification refers mostly to the educational level of jobs and that employees' relative position in the organization's hierarchy can differ. This is illustrated by the fact that junior accountants or PhD students are considered as higher (scientific) jobs, although their position on the organization's job ladder is relatively low. This also illustrates one of the main advantages of an organizational approach, namely that it allows to determine the job levels, and, therefore, career patterns, of employees more accurately.

Two additional figures are not available for men and women separately at the national level and are, therefore, presented for both sexes combined. The share of employees with a higher education (higher vocational and university) shows a similar picture as the share of higher and scientific jobs: in all three sectors, the sample is much higher educated than in the sector as a whole. Age differences between employees are much smaller; on average about one thirds of the employees in the sample and in the Netherlands are 45 years or older; employees in services are mostly younger.

In summary, the employee composition of the sample differs on a number of aspects from employees in the three sectors as a whole. Since only white collar personnel was included in the survey (excluding e.g. factory workers as well as many supportive jobs such as catering) the employees in this sample are on average more highly educated and in higher job levels than all employees. Although this implies that the results cannot automatically be generalized to the sectors as a whole, the types of employee categories that are included do represent the work situations of white collar employees in general, regardless of the sectors in which they work (see e.g. Powell & Snellman, 2004).

Table A-8 Comparison of employee sample with all employees in the three sectors

	The Netherlands (* 1,000)[1]				Sample			
	Manufact.[2]	Services[3]	Public[4]	Total	Manufact.	Services	Public	Total
Share of women	21%	39%	45%	35%	36%	34%	45%	39%
Share of female part-timers	49%	51%	59%	54%	32%	41%	57%	48%
Share of male part-timers	10%	10%	16%	11%	2%	4%	17%	9%
Share women high/scientific jobs[5]	14%	33%	62%	41%	57%	48%	58%	55%
Share men high/scientific jobs[5]	18%	54%	55%	40%	73%	59%	67%	65%
Share of higher educ. employees	16%	35%	41%	31%	70%	64%	69%	68%
Share employees >= 45 years old	33%	25%	43%	33%	36%	21%	47%	36%
Total number of employees	1,039	1,143	981	3,163	186	415	552	1,153

[1] Source: Statistics Netherlands (CBS), 2004; figures reflect the year 2001.

[2] Numbers for manufacturing nationally reflect all types of manufacturing, including those not incorporated in the sample.

[3] Numbers for services comprise the sectors "Financial intermediation" and "Real estate, renting and business activities".

[4] Numbers comprise "Public administration and defense; compulsory social security" and "Education".

[5] Numbers for the sample are based on the SBC-classification, which is also used for the Netherlands as a whole. For this reason the division in the sample differs from the organizational classification used in the empirical chapters.

Appendix C Construction of a job classification

To determine the job level of employees, researchers often make use of a general job classification, such as a socioeconomic index, which is based on the job codes for (almost) all jobs on the labor market (see, e.g., Ganzeboom et al., 1992). A general index such as this is often too crude to distinguish between job levels at the organizational level. For example, if two employees work in a policy department, and one operates at a regular level and the other at a senior level, both are regarded as having the same occupational score. From an organizational perspective, however, only the step from regular to senior level can be regarded as a vertical move. In other cases, different jobs may have a different occupational score, but are at a similar level in their organizations.

To capture these distinctions and, at the same time, make use of a classification schedule which is broad enough to ensure comparisons between organizations, I developed a different schedule. The underlying notion is that employees in different types of jobs or organizations can still have a similar position within their organizational hierarchy. A precondition for this classification is that the work performed in each organization resembles the work in other organizations to a certain degree. An example is junior knowledge workers in varying organizations. This refers both to junior accountants in accountancy organizations, junior policy workers within the government and junior researchers within universities. Within the 28 organizations that participate in this study, the only real complication occurs in the case of IT professionals; their hierarchical position differs between organizations. In most cases, employees who work as IT professionals are part of the support department of the organization. They manage the computer network and offer assistance to other employees if necessary. However, in IT companies, the job content of these professionals is somewhat different; jobs are more focused on advising external clients than on providing technical support for the organization itself. In this sense, IT jobs within IT organizations are part of the primary process of those organizations, and can be seen as line jobs instead of support jobs. Notably, an occupation-based classification would often consider all IT professionals the same.

The appropriate job type of each respondent is determined by a comparison of job titles and a list of tasks in that job given by the respondents. I also made use of additional information, namely the wage level of the job and whether a respondent supervised the work of others. In order to gain more insight into the structure of job titles within organizations, I made use of organizational schemes that were provided by most organizations. Below, a distinction is given of five groups of jobs that are represented in all organizations under study. Each group of jobs consists of several levels, with a supervising employee at the head. There are twenty job categories in total, which are divided up into eight levels:

Appendix C (job classification)

1. Support jobs: five levels (ranging from receptionist to head of support department)
2. Line jobs knowledge work: five levels (from junior knowledge worker to head of line department)
3. Contact jobs: five levels (from help desk employee to head of contact department)
4. Staff jobs: four levels (from staff employee intermediate level to head of staff department)
5. Higher management: one level (only consisting of general managers at the overarching, organizational level).

The full list of job titles is as follows:

Table B-1 Classification of job titles with examples and corresponding hierarchical level

No.	Description	Examples of jobs	Hierarchical level
1	Support job, lower level	Receptionist / telephone operator	1
2	Support job intermediate level	Administrative worker or secretary	2
3	Support job higher level	Management secretary, office manager	3
4	Computer job, lower level	Technical support	2
5	Computer job, higher level	Application operator	3
6	Head of support department	Head of administration office	5
7	Line/knowledge job, junior level	PhD-student, junior accountant	3
8	Line/knowledge job, intermediate level	Post-doc fellow, assistant project leader	4
9	Line/knowledge job, regular level	Assistant professor, accountant	5
10	Line/knowledge job, higher level	Associate professor, senior accountant	6
11	Head of line/knowledge department	Head of policy department	7
12	Contact job, lower level	Help desk - front desk employee	2-3*
13	Contact job, regular level	Client advisor, account manager	4-5*
14	Contact job, higher level	Senior account manager	6
15	Head of contact department	General account manager	7
16	Staff job, intermediate level	Personnel employee	4
17	Staff job, regular level	Personnel advisor	5
18	Staff job, higher level	Senior personnel advisor	6
19	Head of staff department	Head of personnel department	7
20	Head at the organizational level	General manager	8
21	Company-owner / independent worker	Freelance journalist / consultant	3-8**

(Comments on following page)

* Within contact jobs the accurate job level strongly varies between organizations and occupations. For example in some organizations the job "account manager" is a relatively low level job, while in other settings it is a higher level job. For that reason the precise job level can vary within this group of job titles based on a respondent's job description, wage level and the presence of supervisory tasks.

** Employees who used to work outside an organization received the code '21'. The corresponding job level varies according to the type of job they performed and if they had subordinates. For example, a freelance journalist is considered to work at the same level as a regular knowledge worker (level 5).

Appendix D Additional tables chapter three

Table D-1 Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately: empty model without covariates

	Seeing internal career possibilities		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Cut point 1	-1.21**	-1.29**	-0.51**	-0.46**	-0.55**	-0.54**
Cut point 2	-0.11	-0.17+	1.00**	1.00**	0.62**	0.71**
Cut point 3	0.87**	0.94**	1.92**	1.74**	1.44**	1.43**
Variance org. (s.e.)	0.23 (0.08)	0.16 (0.07)	0.10 (0.05)	0.11 (0.05)	0.00 (0.00)	0.04 (0.03)
Intra Class Correlation (ICC)	19.0%	13.9%	9.2%	9.5%	0.0%	3.5%
Log likelihood	-872.8	-550	-730.8	-475.6	-836.4	-527.4
N	679	436	679	436	679	436

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Table D-2 Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately: formalized policies

	Seeing internal career possibilities		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Education	-0.04	-0.06	0.04	-0.00	0.06*	0.06+
Extra courses in job	-0.02*	-0.00	0.00	0.03+	0.01	0.03*
Duration current job	-0.03**	-0.05**	-0.01	-0.00	-0.03**	0.01
Experience before job	-0.03**	-0.01	-0.01+	-0.01	-0.03**	-0.03**
Number of jobs before job	-0.00	-0.02	0.10**	0.05	0.08**	0.09**
Log gross wages job	-0.22	-0.01	-0.25	0.38+	-0.21	0.44*
Works part-time	0.00	0.15	-0.32+	-0.34*	0.01	-0.32*
Child(ren) under age 6	0.21+	-0.30+	0.11	-0.02	0.13	-0.00
Works in public sector	-0.40**	-0.15	-0.05	0.43*	0.27*	0.29*
Works in support job	-0.17	-0.09	0.03	0.09	-0.17	-0.14
Works in customer job	-0.08	0.04	0.06	0.46+	-0.01	0.54*
Works in staff job	-0.14	-0.27	0.27+	-0.34+	0.17	0.19
Works in management	0.06	-0.01	-0.22	-0.94**	0.19	-0.51
% Females in job	-0.00	-0.01+	0.01**	-0.00	0.01**	-0.00
% Females department	0.00	0.00	-0.00	-0.00	-0.00	0.00
33% part-timers in job	-0.09	0.02	-0.06	-0.06	-0.23+	0.00
50% or more part-t. job	-0.33+	0.03	-0.06	0.26+	-0.27	0.09
Female supervisor	0.26*	0.03	0.01	-0.02	-0.23+	0.01
Formalized policies	0.00	0.21*	-0.05	0.02	-0.00	-0.14+
Cut point 1	-3.98**	-2.35	-2.12	2.53	-2.21	3.09*
Cut point 2	-2.79*	-1.17	-0.55	4.06*	-0.93	4.47**
Cut point 3	-1.74	-0.02	0.41	4.84**	-0.06	5.26**
Variance org. level (s.e.)	0.05 (0.03)	0.12 (0.06)	0.08 (0.04)	0.10 (0.05)	0.00 (0.00)	0.03 (0.03)
Intra Class Corr. (ICC)	5.2%	10.9%	7.5%	8.8%	0.0%	2.6%
R^2	21.0%	9.9%	9.0%	10.1%	15.1%	20.0%
Log likelihood	-822.0	-533.5	-705.5	-458.1	-790.1	-488.4
BIC	1,794	1,207	1,561	1,056	1,730	1,117
N	679	436	679	436	679	436

+ = p < 0.10; * = p < 0.05; ** = p < 0.01

Table D-3 Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately: share women higher levels

	Seeing internal career possibilities		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Education	-0.03	-0.06	0.04	-0.00	0.05+	0.06+
Extra courses in job	-0.02*	-0.00	0.00	0.03+	0.01	0.03*
Duration current job	-0.03**	-0.04**	-0.01	-0.00	-0.03**	0.01
Experience before job	-0.03**	-0.01	-0.01+	-0.01	-0.03**	-0.04**
Number of jobs before job	0.00	-0.03	0.10**	0.05	0.08**	0.09**
Log gross wages job	-0.27	-0.08	-0.24	0.35	-0.16	0.46*
Works part-time	0.01	0.16	-0.31+	-0.34*	0.02	-0.33*
Child(ren) under age 6	0.23*	-0.29+	0.10	-0.02	0.11	-0.01
Works in public sector	-0.48**	-0.15	-0.09	0.39*	0.31**	0.26+
Works in support job	-0.18	-0.09	0.03	0.09	-0.15	-0.13
Works in customer job	-0.09	0.06	0.06	0.47+	-0.01	0.55*
Works in staff job	-0.15	-0.29	0.27+	-0.35+	0.17	0.20
Works in management	0.07	0.00	-0.22	-0.93**	0.17	-0.51
% Females in job	-0.00	-0.01+	0.01**	-0.00	0.01**	0.00
% Females department	0.00	0.00	-0.00	-0.00	-0.00	0.00
33% part-timers in job	-0.11	0.03	-0.07	-0.06	-0.22+	-0.00
50% or more part-t. job	-0.36*	0.04	-0.07	0.26+	-0.25	0.08
Female supervisor	0.25+	0.02	0.01	-0.02	-0.21	0.01
% Fem. higher levels	0.16*	0.14	0.04	0.08	-0.08	0.03
Cut point 1	-4.44**	-2.86	-2.06	2.29	-1.85	3.24*
Cut point 2	-3.25*	-1.69	-0.49	3.82*	-0.57	4.62**
Cut point 3	-2.20	-0.53	0.47	4.59**	0.30	5.41**
Variance org. level (s.e.)	0.03 (0.03)	0.15 (0.07)	0.08 (0.04)	0.09 (0.05)	0.00 (0.00)	0.04 (0.03)
Intra Class Corr. (ICC)	3.2%	12.8%	7.8%	8.4%	0.0%	3.8%
R^2	22.6%	8.1%	8.9%	10.5%	15.5%	19.1%
Log likelihood	-819.2	-534.8	-705.6	-457.7	-789.0	-490.0
BIC	1,788	1,209	1,561	1,055	1,728	1,120
N	679	436	679	436	679	436

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Appendix D (chapter three)

Table D-4 Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately: part-time friendly org. culture

	Seeing internal career possibilities		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Education	-0.04	-0.06+	0.04	-0.00	0.06*	0.06+
Extra courses in job	-0.02*	-0.00	0.00	0.03+	0.01	0.03*
Duration current job	-0.03**	-0.05**	-0.01	-0.00	-0.03**	0.01
Experience before job	-0.03**	-0.01	-0.01*	-0.01	-0.03**	-0.03**
Number of jobs before job	0.00	-0.02	0.10**	0.05	0.07**	0.09**
Log gross wages job	-0.22	-0.01	-0.23	0.38+	-0.21	0.47*
Works part-time	0.00	0.12	-0.31+	-0.35*	0.02	-0.33*
Child(ren) under age 6	0.21+	-0.29+	0.11	-0.02	0.15	-0.01
Works in public sector	-0.57**	-0.80**	-0.14	0.28	0.48**	0.41+
Works in support job	-0.18	-0.09	0.04	0.09	-0.16	-0.13
Works in customer job	-0.09	0.07	0.06	0.46+	-0.02	0.54*
Works in staff job	-0.13	-0.28	0.28+	-0.34+	0.12	0.21
Works in management	0.07	0.03	-0.22	-0.92**	0.15	-0.53
% Females in job	-0.00	-0.01	0.01**	-0.00	0.01**	-0.00
% Females department	0.00	0.00	-0.00	-0.00	-0.00	0.00
33% part-timers in job	-0.11	0.01	-0.07	-0.06	-0.18	-0.00
50% or more part-t. job	-0.35+	0.01	-0.08	0.25	-0.21	0.09
Female supervisor	0.25+	-0.01	0.01	-0.03	-0.20	0.02
Part-time friendly org. cult.	0.11	0.50**	0.05	0.11	-0.16*	-0.10
Cut point 1	-4.13**	-2.72	-2.00	2.45	-2.10	3.40*
Cut point 2	-2.94*	-1.54	-0.43	3.98*	-0.81	4.78**
Cut point 3	-1.89	-0.39	0.53	4.76**	-0.06	5.57**
Variance org. level (s.e.)	0.05 (0.03)	0.16 (0.07)	0.08 (0.04)	0.10 (0.05)	0.00 (0.00)	0.04 (0.03)
Intra Class Corr. (ICC)	5.0%	8.1%	7.6%	8.5%	0.0%	3.6%
R^2	21.7%	14.1%	8.8%	10.3%	15.9%	19.2%
Log likelihood	-821.5	-529.6	-705.6	-457.8	-787.5	-489.8
BIC	1,209	1,199	1,055	1,055	1,120	1,119
N	679	436	679	436	679	436

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Table D-5 Multilevel ordered probit analyses of the three career outcomes by individual and job characteristics, for men and women separately: child care facilities

	Seeing internal career possibilities		Applying for a job internally		Applying for a job externally	
	Men	Women	Men	Women	Men	Women
Education	-0.04	-0.05	0.04	-0.00	0.06+	0.06+
Extra courses in job	-0.02*	-0.00	0.00	0.03+	0.01	0.03*
Duration current job	-0.03**	-0.05**	-0.01	-0.00	-0.03**	0.01
Experience before job	-0.03**	-0.01	-0.01*	-0.01	-0.03**	-0.04**
Number of jobs before job	-0.00	-0.02	0.10**	0.05	0.08**	0.09**
Log gross wages job	-0.20	-0.05	-0.26	0.38+	-0.15	0.48*
Works part-time	0.00	0.16	-0.31+	-0.34*	0.02	-0.34*
Child(ren) under age 6	0.22+	-0.29+	0.09	-0.02	0.15	-0.01
Works in public sector	-0.37**	-0.13	-0.13	0.39*	0.30**	0.26+
Works in support job	-0.15	-0.09	0.01	0.09	-0.13	-0.13
Works in customer job	-0.07	0.04	0.03	0.45+	0.02	0.53*
Works in staff job	-0.14	-0.29	0.27+	-0.35+	0.17	0.21
Works in management	0.06	-0.01	-0.22	-0.95**	0.18	-0.52
% Females in job	-0.00	-0.01+	0.01**	-0.00	0.01**	-0.00
% Females department	0.00	0.00	-0.00	-0.00	-0.00	0.00
33% part-timers in job	-0.09	0.02	-0.07	-0.07	-0.21+	-0.01
50% or more part-t. job	-0.32+	0.03	-0.08	0.25	-0.24	0.07
Female supervisor	0.27*	0.02	0.01	-0.02	-0.22+	0.01
Child care facilities org.	-0.12	0.10	0.28	0.24	-0.19+	0.08
Cut point 1	-3.92**	-2.53	-2.02	2.71	-1.88	3.42*
Cut point 2	-2.72	-1.36	-0.45	4.24**	-0.60	4.80**
Cut point 3	-1.68	-0.20	0.51	5.01**	0.27	5.59**
Variance org. level (s.e.)	0.05 (0.03)	0.17 (0.08)	0.07 (0.03)	0.09 (0.05)	0.00 (0.00)	0.04 (0.03)
Intra Class Corr. (ICC)	5.1%	14.6%	6.3%	7.9%	0.0%	3.7%
R^2	21.2%	7.3%	9.5%	10.7%	15.5%	18.9%
Log likelihood	-821.8	-535.6	-704.8	-457.6	-788.8	-490.0
BIC	1,794	1,211	1,559	1,055	1,728	1,120
N	679	436	679	436	679	436

+ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$

Appendix E Additional tables chapter four

Table E-1 Analysis of all job shifts and of one of three types of job shifts: interaction female and job level (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.00**	0.00**
Female	0.89	0.98	0.84	0.64
Time	1.15**	1.15**	1.13**	1.22*
Time squared	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.68**
Experience before the job (yrs)	0.97**	0.97**	0.97**	0.97
Career interruptions before the job (yrs)	0.99	1.00	0.97	1.02
Number of jobs before job	1.09**	1.08*	1.09*	1.12
Job level (ref.= fifth level, e.g. accountant)				
Lowest or second level (e.g. secretary)	2.59**	2.15**	2.10**	14.40**
Third level (e.g. junior accountant)	1.70**	1.24	1.70*	6.15**
Fourth level (e.g. assist. project leader)	1.56**	1.33	1.68**	2.09+
Sixth level (e.g. senior accountant)	0.85	1.56*	0.40**	0.01
Seventh level (e.g. head of line departm.)	1.02	2.17**	0.29**	-
Has child(ren) < 6 yrs (time-var)	1.02	0.94	1.09	1.12
Works part-time (time-var)	0.89	0.93	0.88	0.63
Works in public sector org.	0.83*	0.88	0.84	0.55*
Period (ref. is 1995 and later)				
Till 1985	0.24**	0.19**	0.24**	0.79
1985-1995	0.51**	0.45**	0.51**	1.07
Job level (interval) * Female	1.06	1.06	1.02	1.34
Log Likelihood	-3,290	-3,855	ibid	ibid
Wald chi-sq (df)	254**	93,462**		
BIC	6,780	8,376		
Number of time-periods	36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Table E-2 Analysis of all job shifts and of one of three types of job shifts: interaction female and internal labor market (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.02**	0.01**	0.01**	0.00**	0.02**	0.01**	0.01**	0.00**
Female	1.16	1.19	1.12	1.24	1.03	0.96	1.07	1.43
Time	1.18**	1.19**	1.14**	1.35*	1.18**	1.19**	1.14**	1.36*
Time squared	0.99**	0.99**	0.99**	0.98*	0.99**	0.99**	0.99**	0.98*
Educational level in years	1.10**	1.06	1.10*	1.55**	1.10**	1.06+	1.11*	1.54**
Experience before the job	0.96**	0.97**	0.96**	0.93*	0.96**	0.97**	0.96**	0.93*
Career interruptions before job	1.00	0.99	1.01	1.08	1.00	0.99	1.01	1.06
Number of jobs before job	1.07*	1.08*	1.06	1.08	1.07*	1.08*	1.06	1.10
Has child(ren) < 6 yrs (time-var)	0.98	0.88	1.08	1.11	0.97	0.87	1.08	1.10
Works part-time (time-var)	0.89	0.99	0.84	0.52	0.89	0.99	0.84	0.49
Works in public sector org.	0.81*	0.91	0.73*	0.74	0.83+	0.92	0.75*	0.72
Period (ref. is 1995 and later)								
Till 1985	0.25**	0.16**	0.31**	0.65	0.25**	0.16**	0.31**	0.62
1985-1995	0.45**	0.36**	0.50**	1.09	0.45**	0.36**	0.50**	1.03
Type of job (ref. = line jobs)								
Works in a support job	1.16	1.02	1.05	4.56**	0.89	0.82	0.68	4.48*
Works in a staff job	0.97	1.01	0.87	1.52	0.96	0.92	1.00	0.97
Works in a customer job	0.98	1.16	0.34*	6.53**	0.89	0.71	0.34+	8.90**
Support job * female					1.86*	1.81	2.45+	0.98
Staff job * female					1.09	1.38	0.69	2.28
Customer job * female					1.37	2.98*	1.06	0.22
Log Likelihood	-2,543	-2,988	ibid	ibid	-2,541	-2,982	ibid	ibid
Wald chi-sq (df)	189**	73,221**			193**	73,234**		
BIC	5,250	6,535			5,277	6,627		
Number of time periods	28,950	113,942			28,950	113,942		

+ p < 0.10; * p < 0.05; ** p < 0.01

Table E-3 Analysis of all job shifts and of one of three types of job shifts: interaction female and formalized policies (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.00**	0.00**	0.01**	0.01**	0.00**	0.00**
Female	1.02	1.14	0.87	1.19	1.02	1.13	0.87	1.15
Time	1.15**	1.15**	1.13**	1.22*	1.15**	1.15**	1.13**	1.22*
Time squared	0.99**	0.99**	0.99**	0.99*	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.67**	1.16**	1.04	1.21**	1.67**
Experience before the job (yrs)	0.97**	0.96**	0.97**	0.97	0.97**	0.97**	0.97**	0.97
Career interruptions before job	0.99	0.99	0.97	1.02	0.99	0.99	0.97	1.02
Number of jobs before job	1.09**	1.08*	1.10*	1.12	1.09**	1.08*	1.10*	1.13
Job level (ref.= fifth level)								
Lowest or second level	2.40**	1.98**	2.05**	10.22**	2.40**	1.98**	2.05**	10.04**
Third level	1.66**	1.20	1.70**	5.40**	1.66**	1.20	1.70**	5.56**
Fourth level	1.57**	1.34	1.70**	2.03	1.57**	1.34	1.70**	2.05
Sixth level	0.84	1.53*	0.39**	0.00	0.84	1.54*	0.39**	0.00
Seventh level	1.05	2.23**	0.29**		1.05	2.21**	0.29**	
Has child(ren) < 6 yrs (time-var)	1.02	0.95	1.09	1.14	1.02	0.95	1.09	1.13
Works part-time (time-var)	0.89	0.93	0.89	0.63	0.89	0.94	0.89	0.62
Works in public sector org.	0.84*	0.90	0.84	0.57*	0.84*	0.90	0.84	0.57*
Period (ref. is 1995 and later)								
Till 1985	0.25**	0.19**	0.24**	0.78	0.25**	0.19**	0.24**	0.78
1985-1995	0.51**	0.45**	0.51**	1.05	0.51**	0.45**	0.51**	1.05
Formalized policy organization	0.92+	0.91	0.93	0.91	0.93	0.95	0.93	0.80
Formalized policy * Female					0.97	0.90	1.01	1.48
Log Likelihood	-3,289	-3,854	ibid	ibid	-3,289	-3,853	ibid	ibid
Wald chi-sq (df)	257**	93,465**			257**	93,467**		
BIC	6,777	8,374			6,787	8,408		
Number of time-periods	36,876	145,646			36,876	145,646		

+ p < 0.10; * p < 0.05; ** p < 0.01

Table E-4 Analysis of all job shifts and of one of three types of job shifts: interaction female and share of women at higher levels (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.00**	0.00**	0.01**	0.01**	0.00**	0.00**
Female	1.03	1.15	0.88	1.19	1.02	1.16	0.84	1.21
Time	1.15**	1.15**	1.13**	1.22*	1.15**	1.15**	1.13**	1.22*
Time squared	0.99**	0.99**	0.99**	0.99*	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.66**	1.16**	1.04	1.21**	1.68**
Experience before the job	0.97**	0.97**	0.97**	0.97	0.97**	0.97**	0.97**	0.97
Career interruptions before job	0.99	1.00	0.97	1.03	0.99	1.00	0.97	1.02
Number of jobs before job	1.09**	1.08*	1.09*	1.11	1.08**	1.08*	1.09*	1.11
Job level (ref.= fifth level)								
Lowest or second level	2.42**	2.00**	2.07**	10.13**	2.46**	1.97**	2.22**	9.79**
Third level	1.66**	1.20	1.69**	5.36**	1.67**	1.19	1.76**	5.27**
Fourth level	1.59**	1.31	1.67**	1.96	1.54**	1.30	1.68**	1.96
Sixth level	0.85	1.56*	0.40**	0.00	0.85	1.56*	0.40**	0.00
Seventh level	1.06	2.23**	0.30**		1.05	2.23**	0.29**	
Has child(ren) < 6 yrs (time-var)	1.02	0.95	1.10	1.16	1.02	0.95	1.07	1.19
Works part-time (time-var)	0.89	0.93	0.88	0.62	0.89	0.92	0.90	0.62
Works in public sector org.	0.79**	0.85	0.80+	0.53*	0.79**	0.84	0.81	0.52*
Period (ref. is 1995 and later)								
Till 1985	0.24**	0.19**	0.24**	0.74	0.24**	0.19**	0.24**	0.76
1985-1995	0.51**	0.45**	0.51**	1.04	0.51**	0.45**	0.51**	1.05
Share women at higher levels	1.09+	1.07	1.10	1.18	1.06	1.11	0.96	1.35
Share women * Female					1.09	0.93	1.45**	0.70
Log Likelihood	-3,288	-3,854	ibid	ibid	-3,288	-3,850	ibid	ibid
Wald chi-sq (df)	257**	93,465**			258**	93,473**		
BIC	6,776	8,402			6,786	8,402		
Number of time-periods	36,876	145,646			36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Table E-5 Analysis of all job shifts and of one of three types of job shifts: interaction female and part-time friendly culture (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.00**	0.00**	0.01**	0.01**	0.00**	0.00**
Female	1.03	1.15	0.88	1.17	1.02	1.15	0.85	1.09
Time	1.14**	1.15**	1.13**	1.22*	1.15**	1.15**	1.13**	1.23*
Time squared	0.99**	0.99**	0.99**	0.99*	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.68**	1.16**	1.04	1.22**	1.70**
Experience before the job (yrs)	0.97**	0.97**	0.97**	0.97	0.97**	0.97**	0.97**	0.98
Career interruptions before job	0.99	0.99	0.97	1.02	0.99	1.00	0.96	1.00
Number of jobs before job	1.09**	1.08*	1.09*	1.11	1.09**	1.08*	1.10*	1.12
Job level (ref.= fifth level)								
Lowest or second level	2.39**	1.96**	2.06**	9.97**	2.42**	1.94**	2.13**	11.05**
Third level	1.65**	1.20	1.68*	5.39**	1.65**	1.19	1.68*	5.22**
Fourth level	1.54**	1.30	1.68**	1.98	1.53**	1.32	1.64**	1.79
Sixth level	0.86	1.56*	0.40**	0.00	0.85	1.57*	0.40**	0.00
Seventh level	1.03	2.16**	0.29**		1.01	2.19**	0.28**	
Has child(ren) < 6 yrs (time-var)	1.02	0.95	1.09	1.16	1.02	0.95	1.08	1.04
Works part-time (time-var)	0.89	0.93	0.88	0.63	0.88	0.94	0.86	0.67
Works in public sector org.	0.86	0.95	0.82	0.68	0.85	0.96	0.80	0.56
Period (ref. is 1995 and later)								
Till 1985	0.25**	0.19**	0.24**	0.79	0.25**	0.19**	0.24**	0.83
1985-1995	0.51**	0.45**	0.51**	1.05	0.51**	0.45**	0.51**	1.09
Part-time friendly org. culture	0.98	0.95	1.02	0.89	0.94	1.00	0.93	0.59*
Part-time friendly cult. * Female					1.13	0.87	1.37*	2.99**
Log Likelihood	-3,290	-3,856	ibid	ibid	-3,289	-3,845	ibid	ibid
Wald chi-sq (df)	253**	93,462**			256**	93,483**		
BIC	6,780	8,377			6,789	8,392		
Number of time-periods	36,876	145,646			36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Table E-6 Analysis of all job shifts and of one of three types of job shifts: interaction female and child care facilities (odds ratios)

	All job shifts	To equal level	Up one level	Up two levels	All job shifts	To equal level	Up one level	Up two levels
Intercept	0.01**	0.01**	0.00**	0.00**	0.01**	0.01**	0.00**	0.00**
Female	1.02	1.12	0.87	1.21	0.88	0.91	0.76	1.21
Time	1.15**	1.15**	1.13**	1.22*	1.15**	1.15**	1.13**	1.22*
Time squared	0.99**	0.99**	0.99**	0.99*	0.99**	0.99**	0.99**	0.99*
Educational level in years	1.16**	1.04	1.21**	1.67**	1.16**	1.04	1.21**	1.67**
Experience before the job (yrs)	0.97**	0.96**	0.97**	0.97	0.97**	0.97**	0.97**	0.97
Career interruptions before job	0.99	1.00	0.97	1.02	0.99	0.99	0.97	1.02
Number of jobs before job	1.09**	1.09*	1.09*	1.12	1.09**	1.08*	1.09*	1.12
Job level (ref.= fifth level)								
Lowest or second level	2.44**	2.05**	2.07**	9.99**	2.47**	2.07**	2.10**	9.86**
Third level	1.67**	1.22	1.70**	5.18**	1.65**	1.21	1.69*	5.19**
Fourth level	1.58**	1.37	1.70**	1.89	1.57**	1.36	1.69**	1.89
Sixth level	0.86	1.57*	0.41**	0.00	0.86	1.58*	0.40**	0.00
Seventh level	1.05	2.23**	0.29**		1.04	2.22**	0.29**	
Has child(ren) < 6 yrs (time-var)	1.01	0.94	1.08	1.18	1.01	0.93	1.08	1.18
Works part-time (time-var)	0.88	0.92	0.88	0.63	0.88	0.92	0.88	0.63
Works in public sector org.	0.80**	0.82+	0.81	0.64	0.80**	0.82+	0.81	0.64
Period (ref. is 1995 and later)								
Till 1985	0.28**	0.24**	0.26**	0.55	0.28**	0.24**	0.26**	0.55
1985-1995	0.56**	0.54**	0.55**	0.81	0.56**	0.54**	0.55**	0.81
Child care facilities org.	1.19+	1.38*	1.14	0.64	1.11	1.24	1.07	0.64
Child care facilities * Female					1.23	1.35	1.22	1.00
Log Likelihood	-3,289	-3,853	ibid	ibid	-3,288	-3,852	ibid	ibid
Wald chi-sq (df)	256**	93,468**			258**	93,470**		
BIC	6,778	8,371			6,787	8,405		
Number of time-periods	36,876	145,646			36,876	145,646		

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$

Table E-7 Two level ordinal logistic regression analysis of current job level by individual, job and contextual characteristics: interactions with gender

	Empty model	Female	First job	All controls	Form. policy	Fom. pol. * female	Share of women	Share wo-men * fem.	Org. culture	Org cult. * female	Child care	Child c. * female
Female		-0.77**	-0.21*	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.09	-0.05	-0.11
Hier. level first job 1 or 2 (ref. = 5)			-2.93**	-2.52**	-2.52**	-2.51**	-2.51**	-2.52**	-2.52**	-2.54**	-2.52**	-2.51**
Hierarchical level first job 3 (ibid)			-1.72**	-1.53**	-1.53**	-1.53**	-1.54**	-1.54**	-1.53**	-1.56**	-1.54**	-1.58**
Hierarchical level first job 4 (ibid)			-0.87**	-0.80**	-0.79**	-0.79**	-0.80**	-0.80**	-0.80**	-0.83**	-0.80**	-0.79**
Hierarchical level first job 6 or 7 (ibid)			0.75**	0.66**	0.66**	0.66**	0.66**	0.66**	0.66**	0.65**	0.64**	0.65**
Educational level (years)				0.19**	0.19**	0.19**	0.19**	0.19**	0.19**	0.18**	0.19**	0.20**
Experience before current job				0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
Career interrupt. before current job				-0.05*	-0.06*	-0.05*	-0.05*	-0.06*	-0.05*	-0.05+	-0.06*	-0.06*
Number of jobs before current job				0.12**	0.12**	0.12**	0.12**	0.12**	0.12**	0.12**	0.12**	0.12**
Worked part-time at end of prev. job				-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.12	-0.12	-0.17
Had child(ren) < 6 yrs start current job				0.15	0.15	0.15	0.16	0.16	0.15	0.15	0.16	0.15
Works in public sector				-0.18+	-0.18+	-0.18+	-0.21*	-0.21*	-0.19+	-0.18+	-0.05	-0.08
Formalized policy in organization					-0.02	-0.04						
Interaction formalized policy * female						0.06						
Share of females at higher levels							-0.04	-0.03				
Interaction share of women * female								-0.03				
Organizational culture									0.01	-0.17**		
Interaction org. culture * female										0.46**		
Child care facilities											-0.09	-0.22**
Interaction child care * female												0.44**

(Model estimates next page)

Table E-7 continued

	Empty model	Female	First job	All controls	Form. policy	Fom. pol. * female	Share of women	Share women * fem.	Org. culture	Org cult. * female	Child care	Child care * female
Cut point 1	-2.60**	-3.05**	-5.21**	-4.05**	-4.05**	-4.05**	-4.04**	-4.06**	-4.05**	-4.20**	-3.98**	-4.03**
Cut point 2	-1.19**	-1.57**	-3.40**	-2.08**	-2.08**	-2.08**	-2.08**	-2.09**	-2.09**	-2.18**	-2.01**	-2.05**
Cut point 3	-0.65**	-0.98**	-2.52**	-1.13**	-1.14**	-1.14**	-1.14**	-1.15**	-1.14**	-1.21**	-1.07**	-1.10**
Cut point 4	-0.12**	-0.41**	-1.56**	-0.06	-0.07	-0.07	-0.06	-0.08	-0.07	-0.11	-0.01	-0.01
Cut point 5	0.50**	0.25**	-0.50**	1.10**	1.10**	1.10**	1.10**	1.09**	1.09**	1.08**	1.17**	1.19**
Cut point 6	1.48**	1.27**	0.95**	2.63**	2.62**	2.62**	2.62**	2.61**	2.62**	2.63**	2.70**	2.75**
Variance organization level	0.08	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(s.e.)	(0.04)	(0.04)	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intra Class Correlation (ICC)	7.7%	7.3%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
R^2	-	11.3%	62.9%	69.3%	69.3%	69.3%	69.3%	69.3%	69.3%	70.6%	69.4%	70.6%
BIC	-	1,971	1,557	1,515	1,521	1,527	1,521	1,506	1,520	1,508	1,522	1522
Log likelihood	-993.2	-960.3	-740.3	-697.2	-697.1	-697	-697	-696.9	-697.2	-686.2	-696.4	-687.1

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Appendix F Derivation of explanatory variables in growth model chapter five

For the estimation of the growth model of the change in complexity and wages of employees per year, a linear function of the explanatory variables is being used:

$$\sum \ln (1 + \alpha i_t) = \sum X'i_t \beta + \sum \epsilon i_t$$

$$= \sum (\beta_0 + \beta_1 t_i + \beta_2 X2_i + \beta_3 X3i_t + \ ...+ \beta k \ Xki_t + \sum \epsilon i_t)$$

with: $\beta 1 \ t_i$ as the influence of t (duration in the job) on the change in job content, $X2$ as a time-constant covariate, $X3$ as a time-varying covariate and ϵi_t distributed normally: $\sum \epsilon i_t = N (0, t_i \sigma^2)$

Suppose an employee has been working for three years in the current job. This leads to the following model:

at t = 0: $\beta_0 + \beta 1_0 + \beta 2 \ X2_i + \beta 3 \ X3_{i\,0} + ... + \beta k \ Xk_{i\,0} + \epsilon i_0$

at t = 1: $\beta_0 + \beta 1_1 + \beta 2 \ X2_i + \beta 3 \ X3_{i\,1} + ... + \beta k \ Xk_{i\,1} + \epsilon i_1$

and at t = 2: $\beta_0 + \beta 1_2 + \beta 2 \ X2_i + \beta 3 \ X3_{i\,2} + ... + \beta k \ Xk_{i\,2} + \epsilon i_2$

Since the sum of (0 + 1 + 2 + ... + t) is equal to ½ t (t + 1), this leads to the following model:

$$\sum \ln (1 + \alpha i_t) = \beta_0 \ t_i + \beta 1 \ ½ \ t_i (t_i + 1) + \ \beta 2 \ X2_i \ t_i + \beta k \ Xk_{i\,t} \ ½ \ t_i (t_i + 1) + \sum \epsilon i_t$$

with $\sum \epsilon i_t = N (0, t_i \sigma^2)$

Consequently, in the empirical analyses the log of a persons current job complexity minus the log of the complexity at the start of the job is used as dependent variable. The same applies to wages. All explanatory variables in the analyses are multiplied with the job tenure of respondents (in years). Since β_0 is dependent on t, and not constant, the model is estimated without an intercept. Residuals are normally distributed, with a standard deviation of $t_i \ \sigma^2$. As a result, the model is weighted for t, the duration of the job. Formulating the model in this manner enables us to estimate the growth rate of employees per year, as well as to incorporate time-varying covariates, such as having worked part-time. If a person has worked part-time during his entire current job tenure, t is equal to the job tenure. However, if a person has only worked part-time for a limited period within his current job, only this limited period of working part-time is incorporated. The same applies to having children under the age of six and the presence of child care facilities. As the model also incorporates organizational characteristics, these vary at the individual, rather than the organizational level.

Appendix G Construction of vignettes in chapter six

Job candidates differ from each other on ten characteristics. Educational level, age and working experience vary according to the type of job opening; all other characteristics are the same for all job types. Additionally, due to the relation between a person's educational level, age and working experience, impossible or implausible combinations have been removed. For example, it is not likely that a candidate is 30 years old, has a university degree and has been working in his organization for 10 years. Additionally, implausible combinations between experience and job history have been removed. Candidates have to have worked for at least one year in an organization to have made one promotion, two years to have made two promotions and three years to have made three promotions. No restrictions were made for the period length of a person's stay in a particular job. For example, candidates may have worked in their first job for twelve years. The following ten characteristics were presented:

1. Educational level
   For job type I en II, two third of the candidates has finished an education on intermediate vocational level and one third has a higher vocational education. For job type III en IV, about half of the candidates have a higher vocational education, while the other half has a university degree.

2 Age
   For job type I, candidates were presented ranging from 22 years old to 30 years old (in steps of two years); for job type II, candidates vary between 32 and 42 years; for job type III, between 24 and 32 years and for job type IV, between 32 and 44 years old.

3 Company specific experience
   Candidates for job types I and III have worked within their organization for 1 to 5 years; candidates for types II and IV have worked in the organization for 1 to 12 years.

4 Job history within the organization
   Some candidates are currently working in their first job in the organization, while other candidates have made one, two or three promotions to a higher job level within the organization.

5 Wage difference between the current job and job vacancy
To indicate the distance between current job and the vacancy, the wage difference between both is mentioned. Candidates can currently earn 250, 500 or 750 Dutch guilders less than the job vacancy (i.e. € 113,-, € 227,- and € 340,-, respectively).

6 Degree of responsibility in the current job
Candidates differ from each other in the level of responsibility in their current job. Categories are 'little' 'a reasonable degree' and 'a high degree of responsibility'.

7 Performance in the current job
It is also mentioned how well candidates perform in their current job. Values are 'good' and 'very good'.

8 Number of extra courses followed during the career
During their careers, candidates have followed no, one, two or three studies at the same level as their previous daytime education.

9 Working hours
About two third of all constructed candidates are described as follows 'candidate works on a full-time basis and wants to continue doing so in the future'. One third of the candidates 'works 32 hours a week and prefers to continue doing so in the future'. This uneven distribution is chosen, because, considering the types of job vacancies, it is thought to be more realistic than presenting 50% of part-timers.

10. Gender
Half of the candidates is male; the other half is female.

An example of vignettes, as they were presented, is displayed on the following page.

Example of vignettes presented:

TYPE OF JOB I LOWER VOCATIONAL, LITTLE EXPERIENCE

Selection procedure 1

The following four candidates applied internally for the job which you described

Candidate 1:

- 22-year old man
- Previous education: intermed. vocational
- Has not followed any courses since then
- Has worked within this organization for 2 years
- This is his first job within the organization
- Currently earns € 113,- less than the wage level of the vacancy
- Has a high degree of responsibility
- Functions very well in this job
- Currently works full-time and wants to continue doing so in the future

Candidate 2:

- 26-year old woman
- Previous education: higher vocational
- Has followed 1 course since then
- Has worked within this organization for 5 years
- Has made 2 promotions to a higher job level within the organization
- Currently earns € 340,- less than the wage level of the vacancy
- Has a low degree of responsibility
- Functions well in this job
- Currently works 32 hours and wants to continue doing so in the future

Candidate 3:

- 30-year old woman
- Previous education: higher vocational
- Has followed 3 courses since then
- Has worked within this organization for 4 years
- Has made 1 promotion to a higher job level within the organization
- Currently earns € 113,- less than the wage level of the vacancy
- Has a high degree of responsibility
- Functions very well in this job
- Currently works 32 hours and wants to continue doing so in the future

Candidate 4:

- 27-year old man
- Previous education: interm. vocational
- Has followed 1 course since then
- Has worked within this organization for 1 year
- This is his first job within the organization
- Currently earns € 113,- less than the wage level of the vacancy
- Has a high degree of responsibility
- Functions very well in this job
- Currently works full-time and wants to continue doing so in the future

Your Choice			
Candidate 1		Candidate 2	
Candidate 3		Candidate 4	

Table H-1 Three level ordinal logistic regression analysis of grade by individual, job and contextual characteristics: interactions with gender

	Resp fem.	Resp fem. * female	Form. policy	Fom. pol. * female	Share of women	Share wom. * female	Org. culture	Org cult. * female	Child care	Child care * fem.
Female	0.25*	0.25*	0.25*	0.28*	0.25*	0.09	0.25*	0.55	0.25*	0.45*
Educ. level intermediate voc. (ref. = higher)	0.71**	0.71**	0.71**	0.71**	0.71**	0.71**	0.71**	0.71**	0.71**	0.71**
Educ. level academic (ref. = higher)	0.38*	0.38*	0.38*	0.38*	0.38*	0.38*	0.37*	0.38*	0.38*	0.38*
Educ. level higher than common	-0.32+	-0.32+	-0.32+	-0.32*	-0.32+	-0.32+	-0.31+	-0.32+	-0.32+	-0.32*
Has taken 2 or 3 courses	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**
Total working experience in years	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**
Made 2 or 3 promotions	-0.35**	-0.35**	-0.35**	-0.35**	-0.35**	-0.34**	-0.35**	-0.35**	-0.35**	-0.34**
Current resp. reasonable (ref. = low)	1.09**	1.09**	1.08**	1.09**	1.09**	1.09**	1.09**	1.09**	1.09**	1.09**
Current resp. high (ref. = low)	1.76**	1.76**	1.76**	1.76**	1.76**	1.76**	1.75**	1.75**	1.76**	1.75**
Functions very well	0.25*	0.25*	0.25*	0.25*	0.25*	0.25*	0.25*	0.25*	0.25*	0.25*
Works 32 hours	-0.76**	-0.76**	-0.77**	-0.77**	-0.77**	-0.77**	-0.77**	-0.76**	-0.77**	-0.77**
Works in public sector organization	0.17	0.17	0.16	0.16	0.18	0.18	0.03	0.03	0.15	0.14
Female respondent	-0.02	-0.02								
Interaction female resp. * female		0.00								
Formalized policy in organization			0.12	0.12						
Interaction formalized pol. * female				-0.15						
Share of females at higher levels					-0.03	-0.08				
Interaction share of women * female						0.10				
Organizational culture							0.09	0.12		
Interaction org. culture * female								-0.06		
Child care facilities									0.07	0.21
Interaction child care facilities * female										-0.3

(Model estimates next page)

Table H-1 continued

	Resp. fem.	Resp. fem. * female	Form. policy	Fom. policy * female	Share of women	Share wom. * female	Org. culture	Org cult. * female	Child care	Child care * fem.
Variance job level (s.e.)	0.17 (0.09)	0.17 (0.09)	0.17 (0.09)	0.17 (0.10)	0.17 (0.09)	0.16 (0.09)	0.17 (0.09)	0.17 (0.10)	0.17 (0.09)	0.17 (0.09)
Variance resp. level (s.e.)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.53 (0.15)	0.53 (0.15)	0.54 (0.15)	0.53 (0.15)
ICC_{jobs}	4.3%	4.3%	4.2%	4.3%	4.3%	4.1%	4.3%	4.3%	4.3%	4.2%
$ICC_{respondents}$	13.5%	13.5%	13.5%	13.6%	13.5%	13.5%	13.3%	13.3%	13.4%	13.4%
R^2	18.2%	18.2%	18.2%	18.2%	18.1%	18.2%	18.3%	18.3%	18.2%	18.3%
Log likelihood	-1,671.7	-1,671.7	-1,671.6	-1,671.0	-1,671.7	-1,671.4	-1,671.6	-1,671.5	-1,671.7	-1,670.9
BIC	3,478	3,484	3,477	3,483	3,478	3,484	3,477	3,484	3,478	3,483

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Table H-2 Three-level ordinal logistic regression analysis of grade by individual and job characteristics: interactions with working part-time

	Share fem * part-time	Type vac. * part-time	Type of job shift	Type of shift * p-t	Type shift * pt-t * level
Female	0.25*	0.24*	0.25*	0.25*	0.25*
Educ. level interm. voc. (ref. = higher)	0.80**	0.81**	0.81**	0.81**	0.81**
Educ. level academic (ref. = higher)	0.27	0.30+	0.29	0.29	0.29
Educ. level higher than common	-0.24	-0.25	-0.24	-0.24	-0.24
Has taken 2 or 3 courses	-0.33**	-0.32**	-0.33**	-0.33**	-0.33**
Total working experience in years	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**
Made 2 or 3 promotions	-0.32**	-0.34**	-0.34**	-0.34**	-0.34**
Current resp. reasonable (ref. = low)	1.10**	1.10**	1.09**	1.09**	1.10**
Current resp. high (re. = low)	1.76**	1.77**	1.76**	1.76**	1.76**
Functions very well	0.25*	0.24*	0.24*	0.24*	0.24*
Works 32 hours	-0.45**	-0.82**	-0.76**	-0.76**	-0.77**
Works in public sector organization	0.20	0.20	0.19	0.19	0.19
(Almost) no women working in job	0.29	0.10	0.10	0.10	0.11
Hierarchical level 1-2 of job (ref.= 6-7)	-0.26	-0.19	-0.25	-0.25	-0.23
Hierarchical level 3 of job (ref. = 6-7)	0.06	0.05	0.08	0.08	0.09
Hierarchical level 4 of job (ref. = 6-7)	-0.04	-0.03	-0.02	-0.02	0.00
Hierarchical level 5 of job (ref. = 6-7)	0.17	0.05	0.19	0.19	0.21
Almost) no women in job * part-time	-0.63**				
Interaction level 1 or 2 * part-time		-0.16			
Interaction level 3 * part-time		0.08			
Interaction level 4 * part-time		0.00			
Interaction level 5 * part-time		0.41			
Current wages € 340,- less than vac.			-0.11	-0.11	-0.12
Interaction € 340,- less * part-time				0.01	
Interaction € 340,- less * lev 6-7 * p-t					0.19
Variance	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)	0.14 (0.09)
Variance	0.56 (0.15)	0.56 (0.15)	0.57 (0.15)	0.57 (0.15)	0.57 (0.15)
ICC_{jobs}	3.5%	3.6%	3.6%	3.6%	3.6%
$ICC_{respondents}$	14.1%	14.1%	14.2%	14.2%	14.2%
R^2	18.6%	18.4%	18.2%	18.2%	18.2%
Log likelihood	-1,666.8	-1,669.0	-1,669.8	-1,669.8	-1,669.7
BIC	3,503	3,529	3,509	3,516	3,516

+ p < 0.10 * p < 0.05 ** p < 0.01

Table H-3 Three level ordinal logistic regression analysis of grade by individual, job and contextual characteristics: interactions with part-time

	Resp. fem.	Resp. fem. * p-t	Form. policy	Fom. pol. * p-t	Share of women	Share wom. * part-time	Org. culture	Org cult. * p-t	Child care	Child care * part-time
Female	0.25*	0.25*	0.25*	0.24*	0.25*	0.23*	0.25*	0.24*	0.25*	0.257*
Educ. level intermediate voc. (ref. = higher)	0.71**	0.71**	0.71**	0.70**	0.71**	0.72**	0.71**	0.67**	0.71**	0.684**
Educ. level academic (ref. = higher)	0.38*	0.39*	0.38*	0.37*	0.38*	0.40*	0.37*	0.36*	0.38*	0.36*
Educ. level higher than common	-0.32+	-0.33*	-0.32+	-0.32*	-0.32+	-0.30+	-0.31+	-0.33*	-0.32+	-0.33*
Has taken 2 or 3 courses	-0.33**	-0.34**	-0.33**	-0.34**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**	-0.33**
Total working experience in years	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**
Made 2 or 3 promotions	-0.35**	-0.33**	-0.35**	-0.35**	-0.35**	-0.35**	-0.35**	-0.36**	-0.35**	-0.36**
Current resp. reasonable (ref. = low)	1.09**	1.08**	1.08**	1.09**	1.09**	1.13**	1.09**	1.10**	1.09**	1.09**
Current resp. high (ref. = low)	1.76**	1.75**	1.76**	1.75**	1.76**	1.79**	1.75**	1.76**	1.76**	1.76**
Functions very well	0.25*	0.24*	0.25*	0.27*	0.25*	0.25*	0.25*	0.21	0.25*	0.24*
Works 32 hours	-0.76**	-0.95**	-0.77**	-0.72**	-0.77**	-1.69**	-0.77**	-3.88**	-0.77**	-1.35**
Works in public sector organization	0.17	0.17	0.16	0.17	0.18	0.20	0.03	0.04	0.15	0.15
Female respondent	-0.02	-0.34								
Interaction fem. resp. * part-time		1.12**								
Formalized policy in organization			0.12	0.12						
Interaction form pol. * part-time				-0.23						
Share of women at higher levels					-0.03	-0.20				
Int. share women * part-time						0.57**				
Organizational culture							0.09	-0.07		
Int. org. culture * part-time								0.57**		
Child care facilities									0.07	-0.16
Int. child care fac. * part-time										0.82**

(Model estimates next page)

Table H-3 continued

	Resp fem	Resp fem * part-time	Form. policy	Fom. policy * part-time	Share of women	Share wom. * part-time	Org. culture	Org cult. * part-time	Child care	Child care * part-time
Variance job level (s.e.)	0.17 (0.09)	0.18 (0.10)	0.17 (0.09)	0.18 (0.10)	0.17 (0.09)	0.19 (0.10)	0.17 (0.09)	0.19 (0.10)	0.17 (0.09)	0.17 (0.09)
Variance resp. level (s.e.)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.54 (0.15)	0.53 (0.15)	0.55 (0.15)	0.54 (0.15)	0.54 (0.15)
ICC_{jobs}	4.3%	4.5%	4.2%	4.4%	4.3%	4.7%	4.3%	4.7%	4.3%	4.3%
$ICC_{respondents}$	13.5%	13.4%	13.5%	13.5%	13.5%	13.4%	13.3%	13.6%	13.4%	13.4%
R^2	18.2%	18.9%	18.2%	18.3%	18.1%	19.4%	18.3%	19.8%	18.2%	18.2%
Log likelihood	-1,671.7	-1,665.9	-1,671.6	-1,670.5	-1,671.7	-1,662.9	-1,671.6	-1,661.7	-1,671.7	-1,667.0
BIC	3,478	3,473	3,477	3,482	3,478	3,467	3,477	3,465	3,478	3,475

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Samenvatting (Summary in Dutch)

Samenvatting (Summary in Dutch)

Achtergrond en onderzoeksvragen

In veel westerse landen is de arbeidsmarktparticipatie van vrouwen de afgelopen decennia sterk toegenomen. Dit heeft er echter niet toe geleid dat vrouwen inmiddels een gelijke positie op de arbeidsmarkt hebben als mannen. Vrouwen maken over het algemeen minder promoties en mede als gevolg hiervan zijn mannen op hogere functieniveaus nog steeds in de meerderheid. Blijkbaar zijn er factoren die het loopbaanverloop van vrouwen belemmeren. Veel arbeidsmarktonderzoek richt zich dan ook op het vaststellen van dergelijke belemmeringen. Vaak wordt aandacht besteed aan het type functies waarin mannen en vrouwen werken, aangezien deze deels de mogelijkheden bieden om carrière te maken. Ook is er steeds meer oog voor de rol die de arbeidsorganisatie heeft op de loopbaanontwikkeling van mannen en vrouwen. Organisaties zijn immers de directe werkomgevingen waarbinnen werknemers een groot deel van hun loopbanen doorbrengen en de mogelijkheden wie wel of niet van positie wisselt worden mede op dit organisatieniveau bepaald. Terwijl veel eerder onderzoek zich richt op één van beide aspecten van de arbeidscontext, staat in dit onderzoek juist de invloed vanuit zowel de functie- als organisatiecontext centraal. Daarbij richt ik me in het bijzonder op de interne loopbanen van werknemers binnen hun organisaties, mede omdat veel organisatiebeleid juist op deze interne doorstroming van werknemers gericht is. De centrale onderzoeksvraag in het boek is: *In welke mate kunnen loopbaanverschillen tussen mannen en vrouwen worden verklaard door rekening te houden met de functie- en organisatiecontext waarin ze werken?*

Voor het beantwoorden van deze onderzoeksvraag zijn vier deelvragen onderscheiden, die centraal staan in de verschillende empirische deelstudies in dit boek. Elk van deze vragen richt zich op een ander aspect van loopbanen, waarbij zowel de aanbod- als vraagkant van de arbeidsmarkt worden belicht. De eerste onderzoeksvraag (in hoofdstuk drie) stelt de aanbodkant centraal en gaat in op de loopbaaninschattingen van werknemers zelf. Ten dele hebben werknemers zelf immers de mogelijkheid om hun loopbaan vorm te geven en de vraag is of ze zich hierbij mede laten leiden door de arbeidscontext waarin ze zich bevinden. Als deze context de loopbanen van mannen en vrouwen anders beïnvloedt vanwege hun eigen inschattingen en keuzes, dan vertaalt zich dit naar verwachting ook in hun loopbaaninschattingen. Hierbij zijn drie verschillende loopbaaninschattingen onderzocht: de mogelijkheden die men ziet om intern promotie te maken, de wensen die men heeft om intern promotie te maken of de wensen om extern (buiten de organisatie) promotie te maken. De onderzoeksvraag luidt: *In welke mate kunnen functie- en organisatiekenmerken de ingeschatte loopbaankansen en interne en externe loopbaanwensen van mannen en vrouwen verklaren?*

De tweede en derde onderzoeksvraag richten zich op feitelijke loopbaanuitkomsten, in termen van de posities die mannen en vrouwen verkrijgen. Dergelijke uitkomsten bevinden zich op het snijvlak van de aanbod- en vraagzijde van de arbeidsmarkt, aangezien ze het gevolg kunnen zijn van de keuzes van werknemers of werkgevers. In hoofdstuk vier wordt ingegaan op de functiewisselingen die men maakt. Dergelijke wisselingen kunnen gezien worden in verticale, maar ook in horizontale termen, waarbij geen sprake is van verbetering van iemands hiërarchische positie. Voor een vollediger overzicht van loopbaanontwikkelingen wordt dan ook dieper ingegaan op het type functiewisseling. De onderzoeksvraag hierbij is: *In welke mate kunnen functie- en organisatiekenmerken de interne functiewisselingen van mannen en vrouwen verklaren?*

Hoewel functiewisselingen een belangrijk aspect vormen van iemands loopbaanontwikkeling, geven ze hierover geen volledig beeld. Mede als gevolg van organisatieveranderingen zijn zowel werkgevers als werknemers mogelijk minder gericht op verticale mobiliteit binnen de interne arbeidsmarkt, maar wordt het ontwikkelen van vaardigheden en competenties binnen de functie steeds belangrijker. Als gevolg hiervan kan het zijn dat de functie-inhoud van sommige werknemers nauwelijks verandert over de tijd, terwijl anderen een steeds uitgebreider takenpakket binnen hun functie krijgen. Dit kan niet alleen bijdragen aan hun verdere loopbaanverloop, maar is deels een belangrijke beloning op zichzelf. Dit onderwerp wordt nader onderzocht in hoofdstuk vijf. Twee aspecten van de functie staan centraal: veranderingen in de zwaarte van de functie en het inkomensniveau binnen de functie. Hierbij ligt de nadruk vooral op de rol die de organisatie speelt, aangezien de aard en de inhoud van de functie al mede ondervangen zijn in de te bestuderen loopbaanuitkomsten zelf. Dit leidt tot de volgende onderzoeksvraag: *In welke mate kunnen organisatiekenmerken de ontwikkeling in functiezwaarte en inkomen van mannen en vrouwen verklaren?*

In de laatste onderzoeksvraag wordt de vraagkant van de arbeidsmarkt centraal gesteld, om zo een beter inzicht te krijgen in de oorzaken van loopbaanpatronen (hoofdstuk zes). Vaak wordt verondersteld dat selectiebeslissingen door werkgevers van groot belang zijn voor de verschillende loopbanen van mannen en vrouwen. Om die reden zijn allocatiebeslissingen van werkgevers nader onderzocht. Het hoofdstuk richt zich op de door werkgevers gemaakte promotiebeslissingen en of deze afhangen van de organisatiecontext en het type vacature dat beschikbaar is. De bijbehorende onderzoeksvraag is: *In welke mate kunnen functie- en organisatiekenmerken de selectiebeslissingen door werkgevers van mannen en vrouwen verklaren?*

Verklaring voor loopbaanverschillen tussen mannen en vrouwen

In het verleden zijn loopbanen vaak verklaard, hetzij vanuit een individueel perspectief, hetzij vanuit een structureel perspectief. In het eerste geval ligt de nadruk op keuzes en kenmerken van werknemers zelf. In het tweede geval wordt juist gesteld dat structurele factoren, los van de persoon, iemands loopbaan bepalen. In dit boek wordt een structureel-individualistische benadering gehanteerd, waarbij individuen bepaalde keuzes maken, deels beïnvloed door de structurele context waarbinnen ze zich bevinden. Een dergelijke benadering maakt het mogelijk om te verklaren waarom dezelfde structurele omstandigheden (bijvoorbeeld in de functie of organisatie waarin men werkt) voor de ene groep werknemers andere gevolgen heeft dan voor de andere. Ook kan vanuit een dergelijke benadering de positie van zowel de werkgever als werknemer in ogenschouw worden genomen.

Centraal binnen de benadering in dit boek is het idee dat zowel werkgevers als werknemers te zien zijn als rationele actoren die geconfronteerd worden met beperkte informatie. Op basis hiervan moeten beiden risico-inschattingen maken over de toekomst, bijvoorbeeld met betrekking tot het functioneren van werknemers in een nieuwe functie. Werkgevers proberen deels op basis van de functie die beschikbaar is en deels op basis van organisatiefactoren een inschatting te maken welke werknemers het meest productief zullen zijn. Vertrekrisico's van werknemers of het risico dat zij in deeltijd gaan werken spelen hierbij een belangrijke rol; deze bepalen immers mede de opbrengsten van investering in een bepaalde werknemer. Met name van vrouwen wordt vaak verondersteld dat ze sneller de arbeidsmarkt verlaten en dat ze vaker in deeltijd werken, waardoor ze minder snel in aanmerking zullen komen om carrière te maken. Dit geldt echter in sterkere mate voor functies waarin de negatieve gevolgen van vertrek of deeltijdarbeid groter zijn. Vrouwelijke werknemers zelf kunnen vervolgens de inschatting maken dat ze voor dergelijke functies minder kansen hebben, hetgeen zich bijvoorbeeld vertaalt in hun loopbaaninschattingen. Het organisatieniveau speelt eveneens een rol bij het maken van risico-inschattingen, aangezien organisatieomstandigheden de kans op negatieve gevolgen kunnen verkleinen. Bijvoorbeeld, als de organisatie uitgebreide arbeid/zorg-regelingen aanbiedt, is de kans groter dat vrouwen in staat zijn om hun werk met zorgtaken te combineren, waardoor hun vertrekkansen dalen. Ook werknemers zelf zien dat dergelijke organisatieomstandigheden hun carrièremogelijkheden beïnvloeden. Samengevat is het idee van risico-inschattingen dan ook te zien als een overkoepelende insteek waarmee de invloed van zowel functie- als organisatieomstandigheden op interne loopbanen kunnen worden verklaard.

Steekproef en data

De relatie tussen werknemers en de organisaties waarin ze werken is inmiddels in een groot aantal studies onderzocht. Vaak wordt daarbij gebruik gemaakt van een steekproef van werknemers op de arbeidsmarkt, waarna vragen aan hen gesteld worden over de organisatie waarin ze werken. Een andere strategie is om te starten bij de organisatie waar men werkt, vaak middels een gevalstudie van één of enkele organisaties. In deze studie is eveneens gebruik gemaakt van een organisatiebenadering, maar richt deze zich op een groter aantal organisaties dan het geval is bij gevalstudies. In tegenstelling tot beide bovengenoemde benaderingen biedt dit de mogelijkheid om gedetailleerde informatie te vergaren over een groter aantal werknemers en hun arbeidscontext. Vervolgens kan met behulp van statistische technieken worden getoetst wat de invloed is van deze individuele en contextkenmerken op de loopbanen van mannen en vrouwen.

Voor de gegevensverzameling is gebruik gemaakt van een bestand met gegevens over sociale jaarverslagen van een groot aantal organisaties binnen Nederland. Aan de hand hiervan zijn vooraf een aantal selectiecriteria gehanteerd. Organisaties zijn geselecteerd uit drie verschillende sectoren: de overheid, zakelijke dienstverlening en industrie. Alleen organisaties met minimaal tweehonderd werknemers zijn in de steekproef opgenomen; ook zijn alleen organisaties geselecteerd met een aandeel vrouwen van minimaal tien en maximaal zestig procent in het personeelsbestand. Deze criteria bevorderen de vergelijkbaarheid tussen organisaties en leiden tot een werknemerssteekproef met voldoende mannelijke en vrouwelijke respondenten. In totaal hebben 28 organisaties deelgenomen aan het onderzoek: 14 in de overheidssector, 9 in de zakelijke dienstverlening en 5 in de industrie. Dit aantal is groter dan gangbaar is in veel arbeidsmarktonderzoek, met uitzondering van enkele internationale studies.

In elk van de deelnemende organisaties is een interview gehouden met een vertegenwoordiger van de afdeling personeelszaken (meestal het hoofd van de afdeling). Met behulp van een semi-gestructureerde vragenlijst zijn vragen gesteld over de structuur en het beleid van de organisatie. Daarnaast is voor het beantwoorden van de eerste drie onderzoeksvragen gebruik gemaakt van een schriftelijke vragenlijst, verspreid onder een willekeurige steekproef van medewerkers in elk van de organisaties. Vanwege vergelijkbaarheid zijn bepaalde werknemerscategorieën van het onderzoek uitgesloten. Dit betreft voornamelijk handarbeiders in de industrie en werknemers, werkzaam in functies die vaak extern worden uitbesteed (zoals bewaking en schoonmaak). Op basis hiervan zijn de deelnemers aan deze studie voornamelijk te typeren als kantoormedewerkers. Ze weerspiegelen in die zin het type functies van veel werknemers op de arbeidsmarkt, los van de sector waarin ze werken. In totaal hebben 1153 personen een vragenlijst ingevuld; het responspercentage is 46 procent.. Voor het beantwoorden van de vierde onderzoeksvraag zijn gegevens verzameld onder hoofden van kantoorafdelingen in de deelnemende organisaties, zoals verkoop- of beleidsafdelingen. Elke respondent

ontving een schriftelijke vragenlijst waarin beschrijvingen (vignetten) van fictieve sollicitanten werden gepresenteerd voor drie functies binnen hun eigen afdeling. De vragenlijst is ingevuld door 58 afdelingshoofden in 23 organisaties, een responspercentage van 47 procent. In totaal werden 1166 sollicitanten beoordeeld voor een interne promotie. Organisatiekenmerken, gebruikt bij de beantwoording van de vier onderzoeksvragen, zijn samengesteld op basis van informatie van personeelsfunctionarissen of op basis van de werknemersvragenlijsten in de organisaties.

Resultaten

Evenals in andere studies is gevonden, werken vrouwen vaker in lagere, ondersteunende functies en zijn ze ondervertegenwoordigd in de top van de organisatie. Voor een groot deel blijken deze verschillen al te ontstaan voordat werknemers binnen de huidige organisaties komen te werken, maar ook wanneer wordt rekening gehouden met de functiehoogte bij aanvang in de organisatie bereiken vrouwen minder hoge posities dan mannen.

Wanneer naar meer specifieke loopbaanuitkomsten wordt gekeken, ter verklaring van dit algemene patroon, blijken de loopbanen van mannen en vrouwen nauwelijks van elkaar te verschillen. Geen verschil tussen mannen en vrouwen is gevonden in termen van hun loopbaaninschattingen, hun kansen om horizontaal of verticaal van functie te wisselen en de ontwikkeling van hun functiezwaarte en inkomensniveau binnen de functie. Ook kiezen werkgevers niet vaker voor mannelijke sollicitanten bij interne vacatures. Dit lijkt erop te wijzen dat vrouwen nauwelijks belemmerd worden in hun loopbaanmogelijkheden ten opzichte van mannen. Meer werkgerelateerde factoren zoals ervaring, opleidingsniveau en het werken in deeltijd zijn belangrijker ter verklaring van loopbaanverschillen. Het selectiegedrag van werkgevers laat zien dat het werken in deeltijd een belangrijke belemmering vormt voor de loopbaanmogelijkheden van werknemers. Aangezien vooral vrouwen in deeltijd werken, worden zij hiermee het meest geconfronteerd. Directe verschillen tussen mannen en vrouwen in de bestudeerde loopbaanuitkomsten zijn kortom gering, maar wel blijken de functie- en organisatiecontext de loopbanen van mannen en vrouwen verschillend te beïnvloeden. Op deze verschillen wordt hier nader ingegaan.

Op het niveau van de functie waarin men werkt, is niet gevonden dat het lastiger is voor vrouwen om carrière te maken, naarmate ze *hoger in de organisatie* komen. Er is dan ook geen indicatie gevonden dat een glazen plafond vrouwen bij het toetreden van deze hoogste niveaus belemmert. Wel stijgen de inkomens van mannen op hogere niveaus sterker dan van vrouwen, maar de zwaarte van hun functie verandert niet verschillend. Ook willen vrouwen op hoger niveau vaker intern of extern solliciteren, hetgeen er mogelijk op wijst dat ze meer carrièregericht zijn dan mannen die hetzelfde niveau hebben bereikt. Ook maken mannen geen *grotere loopbaanstappen* dan vrouwen. Over het algemeen komen stappen waarbij een functieniveau werd overgeslagen weinig voor; deze betreffen vooral een

inhaaleffect van hoger opgeleide werknemers. Werken in een functie *binnen een interne arbeidsmarkt (IAM)* heeft geen andere invloed op de loopbaaninschattingen van mannen versus vrouwen (vastgesteld op basis van een vergelijking tussen lijnfuncties en ondersteunende functies). Mannen hechten dus niet meer belang aan omstandigheden die op betere promotiekansen wijzen dan vrouwen. Ook verschillen de feitelijke kansen op een functiewisseling tussen mannen en vrouwen in lijnfuncties niet van elkaar. Wel wisselen vrouwen onder andere vaker horizontaal van functie in klantgerichte functies en vaker verticaal in ondersteunende functies. Blijkbaar biedt de functiecontext wel verschillende mogelijkheden voor mannen en vrouwen.

Op het niveau van de functie wijzen de resultaten er niet op dat de loopbaanmogelijkheden van vrouwen worden vergroot door sociale steun of mentorschap door andere vrouwen (op basis van het *aandeel vrouwen in hun functie of afdeling* en het *hebben van een vrouwelijke leidinggevende*). Wel kunnen vrouwelijke leidinggevenden de loopbanen van vrouwen faciliteren, aangezien ze deeltijders vaker selecteren voor een functie dan mannelijke leidinggevenden doen. Dit zou suggereren dat voltijders (en dus vooral mannen) minder voordeel hebben wanneer ze een vrouwelijke leidinggevende hebben. Zelf maken mannelijke werknemers echter de inschatting dat hun loopbaankansen beter zijn wanneer ze een vrouwelijke leidinggevende hebben. Ook willen ze vaker voor een nieuwe functie solliciteren als ze veel vrouwelijke collega's hebben, mogelijk op zoek naar een meer mannelijke werkomgeving. Het patroon dat mannen vaker promotie maken uit door vrouwen gedomineerde functies lijkt dan ook uit hun eigen handelen voort te komen en wijst minder op voorkeursgedrag vanuit werkgevers.

Op het organisatieniveau is allereerst ingegaan op het personeelsbeleid van organisaties. Meer *geformaliseerde personeels- en selectieprocedures* zorgen ervoor dat vrouwen meer promotiemogelijkheden zien en minder vaak denken aan vertrek uit de organisatie. Hun feitelijke positie in de organisatie wordt hier echter niet door verbeterd. Wanneer hun functioneren op basis van formele criteria wordt beoordeeld, lijken zowel mannen als vrouwen meer in hun loopbaan te investeren. Ook het *scholingsbeleid* van organisaties verbetert de relatieve positie van vrouwen niet. Blijkbaar zijn algemene vormen van personeelsbeleid nauwelijks van belang voor de loopbaanontwikkeling van vrouwen, mogelijk omdat ze meer samenhangen met de functies waarin men werkt dan met de persoonskenmerken van werknemers binnen die functies.

Onderwerpen die meer gerelateerd zijn aan de arbeidssituatie van vrouwen hebben een duidelijker effect op hun loopbaanontwikkeling. Zo verhoogt een groter *aandeel vrouwen op hogere functieniveaus* de kans van vrouwen om een niveau te stijgen. Werkgevers selecteren deeltijders ook vaker wanneer het aandeel vrouwen op hoger niveau groter is. De loopbaaninschattingen van werknemers zelf worden hier echter niet door beïnvloed. Het feit dat het aandeel vrouwen op hoger niveau wel een rol speelt bij het oordeel van werkgevers komt overeen met de gedachte dat ze

risicogroepen zoals vrouwen en deeltijders meer vertrouwen schenken als vrouwen vaker op hoger niveau succesvol zijn gebleken.

Vrouwen zijn ook duidelijk gebaat bij het werken in een meer *deeltijdvriendelijke organisatie*. Naarmate collega's positiever oordelen over deeltijdarbeid, zien vrouwen meer loopbaanmogelijkheden, stijgt hun kans op het maken van promotie en krijgen ze meer taken binnen hun functie. De resultaten wijzen erop dat vooral de sociale steun van alle collega's, in plaats van alleen van vrouwen, van belang is voor hun loopbaansucces. Ook werkgevers selecteren deeltijders vaker voor een functie wanneer ze in een deeltijdvriendelijkere organisatie werken. Aangezien vooral vrouwen in deeltijd werken, hebben ze hiervan ook het meeste profijt.

Het laatste organisatiekenmerk dat is onderzocht, is gericht op de combinatie van arbeid en zorg, door het aanbieden van kinderopvangmogelijkheden. Organisaties met geen tot beperkte kinderopvang zijn vergeleken met organisaties met redelijke tot goede kinderopvang. Aangezien niet alleen vrouwen verantwoordelijk zijn voor zorgtaken, is onderzocht of kinderopvang de loopbanen faciliteert van drie groepen werknemers: vrouwen, vrouwen met kinderen en vrouwen én mannen met kinderen. De invloed hiervan blijkt in de praktijk beperkt. Zowel de loopbanen van vrouwen als van vrouwen met kinderen worden hier niet door beïnvloed. Wel neemt de functiezwaarte van werknemers met kinderen sterker toe als de organisatie ruimere kinderopvangmogelijkheden biedt. Mogelijk zijn ze hierdoor beter in staat om hun functie uit te voeren, maar dit vertaalt zich niet in grotere kansen op een functiewisseling. Ook selecteren werkgevers sollicitanten die in deeltijd werken vaker voor een interne vacature wanneer hun organisatie meer kinderopvang biedt. De aanwezigheid van kinderopvang kan de loopbanen van vrouwen dan ook positief beïnvloeden, maar is hier geen garantie voor.

Discussie

Voor een meer overkoepelende bespreking van het onderzoek wordt aandacht besteed aan de interpretatie van bevindingen en de nieuwe inzichten en vragen die het oplevert.

Hoewel vrouwen in deze studie niet dezelfde functieniveaus bereiken als mannen, blijken de precieze oorzaken hiervoor deels verborgen te zijn. Met name de bevinding dat vrouwen niet minder vaak promotie maken dan mannen is opvallend, in vergelijking met veel eerdere studies. Een mogelijke verklaring hiervoor kan zijn dat loopbaanbelemmeringen voor vrouwen verborgen blijven wanneer een kleiner aantal loopbaanstappen per persoon wordt onderzocht. Belemmeringen per loopbaanstap zijn in dat geval relatief gering, zodat pas na een groter aantal stappen zichtbaar wordt dat mannen sneller doorstromen dan vrouwen. Ook dan blijkt echter uit dit onderzoek dat loopbaaninschattingen en functie-ontwikkeling evenmin tussen mannen en vrouwen verschillen. Daarnaast speelt mee dat alleen loopbanen binnen organisaties zijn onderzocht. Vrouwen worden mogelijk minder belemmerd in hun loopbaanontwikkeling als ze eenmaal de organisatie zijn binnengekomen. Wanneer ze van buiten de

organisatie komen hebben ze echter niet het voordeel dat de werkgever hen al kent. Omdat de posities van mannen en vrouwen al verschillen bij binnenkomst in de organisatie, zijn als gevolg hiervan andere factoren belangrijker voor hun verdere loopbaanontwikkeling, zoals hun opgedane werkervaring. Omdat vrouwen ook vaker in ondersteunende functies belanden (die ook vaker op deeltijdbasis worden uitgevoerd), hebben ze minder kansen dan mannen om de top te bereiken. Vrouwen bereiken in die zin dan ook sneller een plafond in hun loopbaanontwikkeling, als gevolg van de beperkte loopbaanmogelijkheden die hun functies hen bieden. Een andere, empirische, beperking van het onderzoek is dat de steekproef op hogere functieniveaus relatief gering is: ongeveer 75 personen werken als afdelingshoofd of overkoepelend hoofd binnen de organisatie; 81% van hen is man. Tenzij men beschikt over omvangrijke gegevens, bijvoorbeeld op basis van personeelsadministraties, is een steekproef door de organisatie heen beperkt in haar mogelijkheden om precieze barrières vast te stellen. Opvallend is dat werkgevers vrouwen juist vaker selecteren dan op basis van hun opleiding en ervaring verwacht kan worden. Mogelijk geven ze sociaal wenselijke antwoorden en compenseren ze hiervoor door deeltijders extra streng te beoordelen. Hoewel bovenstaande overwegingen kanttekeningen plaatsen bij de gevonden resultaten, is het tot slot uiteraard ook mogelijk dat loopbaanverschillen tussen mannen en vrouwen inderdaad kleiner worden. Zo werkt een groot aandeel vrouwen in functies die meer mogelijkheden voor opwaartse mobiliteit bieden. Het feit dat loopbaanbeperkingen pas na enige tijd zichtbaar worden en niet voor afzonderlijke functiewisselingen te zien zijn, kan er in die zin op wijzen dat de loopbaanontwikkeling van vrouwen die van mannen steeds dichter genaderd is.

Vervolgens wordt ingegaan op de nieuwe inzichten en vragen die deze studie oplevert. Eén aspect hierbij is hoe generaliseerbaar de gevonden resultaten zijn. Aangezien veel werknemers op de arbeidsmarkt in vergelijkbare posities werken als de hier onderzochte onderzoeksgroep, zijn de gevonden gegevens informatief over het werken van mannen en vrouwen in de moderne 'kenniseconomie'. Daarbij geldt ook dat veel van de onderzochte onderwerpen, zoals de aanwezigheid van kinderopvang of het geformaliseerd zijn van personeelsbeleid, gelden voor veel sectoren, binnen en buiten Nederland. Wel is daarbij te verwachten dat bijvoorbeeld verschillen ten aanzien van de deeltijdcultuur voor andere organisaties en andere landen nog groter zijn, aangezien deeltijdarbeid niet overal even gebruikelijk is. Ten aanzien van de theoretische insteek blijkt het gebruik van een structureel-individualistische benadering met oog voor de risico-inschattingen door werkgevers en werknemers waardevol voor het verklaren van interne loopbanen. Dit geldt met name in relatie tot die organisatiekenmerken die sterker gerelateerd zijn aan sekseverschillen op de arbeidsmarkt. Op het functieniveau lijken vooral de juiste competenties van werknemers belangrijk te zijn. Wel geldt hierbij dat de rol van risico-inschattingen in dit onderzoek niet rechtstreeks getoetst is. Een waardevolle onderzoekslijn kan dan ook zijn om de posities van werkgevers en werknemers in verschillende organisaties met elkaar te verbinden, bijvoorbeeld met behulp van netwerkonderzoek. Een vaak

gehanteerd argument is immers dat werkgevers inschattingen maken op basis van de privé-situaties van werknemers, in relatie tot hun kansen om te vertrekken of in deeltijd te werken. Het koppelen van werkgeversevaluaties met de feitelijke en verwachte zorgtaken van werknemers én hun partners geeft meer zicht op de vraag of zorgtaken zelf loopbanen belemmeren of de percepties daarvan door werkgevers. Ook verdient het aanbeveling om nader onderzoek te doen naar de mogelijke barrières voor vrouwen op hoger niveau en op de barrières voor deeltijdarbeiders. Aangezien deeltijdarbeid in bepaalde typen organisaties minder een belemmering vormt, lijkt het erop dat deze organisaties manieren hebben gevonden om de negatieve gevolgen van deeltijdarbeid te voorkomen, bijvoorbeeld middels de overdracht van taken.

Tot slot van dit boek zijn een aantal beleidsaanbevelingen geformuleerd, gericht op de doorstroming van vrouwen naar hogere niveaus. Dit beleidsdoel wordt mede onderstreept in het emancipatiebeleid van de Nederlandse overheid. Barrières voor de doorstroming van vrouwen lijken subtiel van aard te zijn, en beleids- en cultuurveranderingen kunnen eraan bijdragen deze barrières te slechten. Zo draagt een groter aandeel vrouwen op hogere niveaus bij aan het verdere loopbaanverloop van vrouwen, en mogelijk vooral wanneer werknemers zien dat dit punt ook aandacht heeft in het beleid van hun organisaties. Het aanwijzen van een centraal hiervoor verantwoordelijke persoon in de top van de organisatie bevordert de zichtbaarheid van dit streven. Op lager niveau kunnen concrete afspraken worden gemaakt met divisie- en afdelingshoofden hoe het aandeel vrouwen te vergroten is. Daarnaast is het van belang dat de cultuur ten aanzien van deeltijdarbeid verandert, mede aangezien de arbeidsmarkt steeds meer bestaat uit tweeverdieners die arbeid en zorg combineren. Hoewel een dergelijke cultuurverandering moeilijk te bewerkstelligen is, kan een eerste stap zijn om vier dagen werken op hogere niveaus beter mogelijk te maken. Ook kunnen werkgevers en werknemers afspreken tijdens welke levensfases werknemers in deeltijd werken. Dergelijke regelingen hangen mede af van de bereidheid van werknemers, en vooral mannen om ook daadwerkelijk op hoger niveau in deeltijd te werken. Velen zeggen dit te willen, maar werken in de praktijk voltijd, mogelijk omdat het hun carrières schaadt. Organisaties kunnen dergelijke negatieve gevolgen helpen voorkomen, bijvoorbeeld door richtlijnen op te stellen voor het leidinggeven in vier dagen. Ook het aanpassen van personeels- en promotiebeleid toont deeltijders dat ze gelijkere loopbaanmogelijkheden hebben. In die zin vereist een cultuurverandering een lange-termijn aanpak, geïntegreerd met andere beleidsmaatregelen. Of zulke pogingen slagen, hangt sterk af van de bereidheid van werkgevers en werknemers. Als werkgevers verzekerd willen zijn van gekwalificeerd personeel, ook gezien demografische veranderingen en de verschuivende arbeid/zorg-balans van veel werknemers, is het in hun economisch belang om hiernaar te streven.

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Curriculum Vitae

Johan Hansen was born on June 15, 1972 in Linne, the Netherlands. From 1991 to 1997, he studied Sociology at Tilburg University. After graduating, he started as a PhD-candidate at the Interuniversity Center for Social Science Theory and Methodology (ICS) at the Department of Sociology of Utrecht University. In 1999, he was employed at the Institute of Economics, Utrecht University, conducting comparative research about gender inequality in the European Union. From 2002 to 2004, he worked as a researcher at the Department of Sociology at Tilburg University, addressing priority setting in health care. He is currently employed as researcher at NIVEL (Netherlands Institute for Health Services Research). His research topics include health care analysis as well as labor market and organizational research.

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