

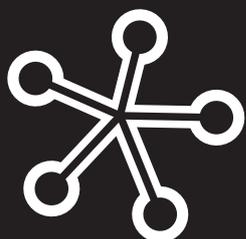


UNIVERSITY OF AMSTERDAM



Occupational segregation and gender inequality in job quality

Haya Stier and Meir Yaish

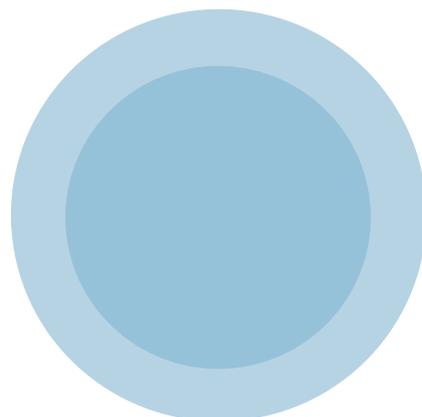
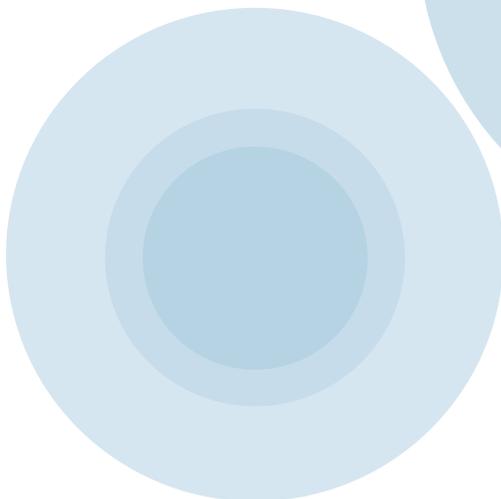


Working Paper 121

August 2012

Acknowledgements

This study was supported by Israel Science Foundation, grant no. 323/10. We would like to thank Efrat Herzberg and Dina Maskileyson for their valuable research assistance.



August 2012

© Haya Stier and Meir Yaish, Amsterdam

Bibliographic information

Stier, H. and Yaish, M. (2012). Occupational Segregation and Gender Inequality in Job Quality: A Multi-Level Approach. University of Amsterdam, AIAS Working Paper 121.

ISSN online: 2213-4980

ISSN print: 1570-3185

Information may be quoted provided the source is stated accurately and clearly. Reproduction for own/internal use is permitted.

This paper can be downloaded from our website www.uva-aias.net under the section: Publications/Working papers.

Occupational segregation and gender inequality in job quality

A multi-level approach

Haya Stier

Tel Aviv University

*Guest at the Amsterdam Institute for Advanced Labour Studies,
University of Amsterdam from August 2011-2012*

Meir Yaish

University of Haifa

Table of contents

ABSTRACT	7
1. INTRODUCTION	9
1.1.Occupational sex segregation and gender differences in the quality of employment.....	10
1.2.Occupational differences in job quality.....	12
2. DATA, VARIABLES AND ANALYTICAL TECHNIQUE	15
2.1.Data and Methodology.....	15
2.2.Dependent Variables.....	15
2.3.Independent variables: Individual-level.....	17
2.4.Independent variables: Occupational-level.....	17
3. FINDINGS	19
3.1.Multivariate analysis.....	21
4. CONCLUSIONS AND DISCUSSION	29
BIBLIOGRAPHY	33
APPENDIX TABLE A1	35
AIAS WORKING PAPERS (€ 7,50)	37

Abstract

We examine gender differences in perceived quality of employment (achievement, content, job insecurity, job flexibility, and physical and emotional conditions). We ask whether women's occupations provide better conditions in areas that facilitate their dual role in society, such as flexible working schedule, as a tradeoff for low monetary rewards. Specifically, we examine how closely women's concentration in broader occupational categories, embedded in particular national contexts, is associated with gender differences in job quality.

Utilizing the 2005 ISSP modules on work orientation, we find that women lag behind men on most dimensions of job quality. This result runs counter to the hypothesis that women's occupations compensate for their low wages and limited opportunities for promotion by providing better employment conditions. Just as important, however, the gender gap is found to narrow in most job quality dimensions as women's relative share in occupations grows. The implications of these results are discussed.

1. Introduction

It is well documented that men gain higher rewards than women from formal employment: men's employment is more stable, their salaries are higher and they have more opportunities for advancement and access to lucrative jobs (Blau, Brinton and Grusky 2006). Equally documented is the high level of sex segregation in labor markets, which indicates that men and women work in occupations heavily populated by same-gender employees (Charles and Grusky 2004). These two phenomena are said to move in tandem: as more women populate an occupation its rewards tend to decrease (Padavic and Reskin 2002). One explanation for the link between rewards and occupational gender segregation centers on women's dual role in modern society. Burdened by both economic and family responsibilities, women are said to satisfy the former by choosing 'women-friendly' jobs – with fewer demands and more flexible working conditions – in order to accommodate the latter (Polachek 1976; Petit and Hook 2009). These jobs – where most women are concentrated – do not offer high economic rewards; however, since they well suit women's preferences to accommodate their dual roles in society, women in these occupations are expected to be more satisfied than men with the quality of their employment (cf. Glass 1990).

In this study we focus on gender differences in job attributes to explore whether women's occupations offer work conditions and job characteristics that evidently compensate for the lack of high wages and good opportunities for advancement. Specifically, we are interested in the extent to which women's concentration in occupations embedded in specific national labor markets might explain gender differences in the subjective assessment of various aspects of job quality. This study thus joins the growing body of research on quality of employment, which adds to wages, as the main indicator of labor market success, a wide variety of job characteristics (Gallie 2007a b; Clark 2005; 2009; Esser and Olsen 2011; Munoz de Bustillo, Fernandez-Macias, Anton and Esteve 2011; Stier 2011). These include job discretion, autonomy, flexibility, skill utilization, physical and emotional conditions, as well as job security and the more general notion of job satisfaction (Gallie 2007a; Rubery, Earnshaw, Marchington, Cooke and Vincente 2002; Clark 2005; Handel 2005; Munoz de Bustillo et al. 2011). Studies on the determinants of the quality of employment show consistently that older, more educated and high-level white-collar workers have jobs of higher quality (Clark 2005; Diekhoff, Jungblut and O'Connell 2007).

1.1. Occupational sex segregation and gender differences in the quality of employment

Several accounts have been proposed for the link between rewards and occupational gender segregation. Supply-side explanations hold that women choose specific occupations because they value the particular attributes they offer. One line of explanation sees women's occupational choice as compensating for the low earnings or poor opportunities for upward mobility. These jobs often require shorter working hours and a flexible work schedule, and entail lower penalties associated with work separation. Women might therefore select these occupations to meet their family responsibilities (Polachek 1976). This argument is also in line with Hakim's (2002) "preference" theory, namely women select occupations that allow them to maintain the life style they value. Most women, according to this argument, prefer a balanced work-family life, therefore select occupations that allow a better combination of the two roles. Somewhat differently, it has been argued that women select occupations for the characteristics they entail due to 'gender essentialism' (Charles and Grusky 2004; England 2010). That is, women select occupations populated by women because they prefer to work with other women (Kanter, 1977). Just as important, it is argued, women value job attributes that allow social contacts and have a low level of stress (Glass 1990). From this point of view, although women's jobs are poorer than men's in material rewards, they should offer better work conditions, such as job flexibility and security, as well as physical and emotional conditions. This is especially true for female-dominated occupations, because they offer work conditions that most women value or because women, as a group, can influence work conditions to allow them a better fit between paid work and care work.

By contrast, the demand-side explanation rests on theories of gender discrimination (Petersen and Saporta 2004): women are denied access to good and rewarding labor market positions by employers, and because of their inferior power position in society their work is devalued and they are often "pushed" into low quality jobs (Reskin and Maroto 2011; Bergmann 2011; Cohen and Huffman 2003; Tomaskovic-Devey 1993). Theories of discrimination and devaluation of women's work accordingly see a general detrimental effect of occupational sex segregation on women's market rewards. Furthermore, it has been argued that the gender gap in female occupations will be larger than in more neutral occupations since men are in a much stronger position than women. In sum, the above discussion suggests that women's quality of employment will be lower than men's in all aspects of job attributes, and more so in occupations identified as female-type (see e.g. Cohen and Huffman 2003; Kraus and Yonay 2000; Yaish and Stier 2009).

From these two opposing arguments on the possible impact of occupational sex segregation on the quality of women's employment, two sets of hypotheses can be derived. The first two hypotheses, H1 and H2, arise from the "compensation/preference" arguments:

H1: *Although men enjoy higher material rewards (e.g., wages) in the labor market, women will have better quality of all aspect of employment than men.*

H2: *The gender gap in employment quality narrows as more women enter an occupation. Put differently, women's concentration in occupations is negatively associated with the gender gap in all aspect of job quality.*

In sharp contrast, the discrimination and devaluation of women's work give rise to

H3: *Women will have poorer quality of all aspect of employment conditions than men, and*

H4: *Women's concentration in occupations is detrimental to women's job quality, and the gender gap will be higher as the proportion of women in the occupation increases.*

Studies on the gender gap in job quality yield mixed results against this theoretical background. In her pioneering study, Glass (1990) examined the effect of women's occupational segregation in the US on job quality and found that women were generally disadvantaged in their work conditions compared with men, even in aspects of employment deemed to compensate for the lack of monetary rewards. That is, occupations mainly populated by women were found less flexible, and perceived as more difficult and less rewarding in social aspects or opportunities for advancement, than more gender-neutral occupations (Glass 1990).

Other studies report inconsistent gender differences on a variety of job quality measures. For example, Gallie found no gender differences in task discretion in the UK, France and Germany, some advantage for men in Sweden and a disadvantage for men in Spain (Gallie 2007a). Green and his associates (2001), as well as Erlinghagen (2008), did not find statistically significant gender differences in job insecurity across European countries, while Mauno and Kinnunen (2002) reported lower levels of job security for women in Finland. Similarly, Tahlin (2007), who analyzed skill formation in several countries, found that women were generally disadvantaged, while Dieckhoff et al. (2007) found no gender differences in training in most countries, and a slight advantage for women in Spain. These inconsistencies can be partly attributed to the focus on a single or very narrow array of countries that are also characterized by different labor market arrangements, characteristics, and most importantly employment conditions.

More recently, Muhlau (2009) examined gender inequality on a wide range of job characteristics and across a large number of countries. His study supports the claim that men hold jobs that demand high commitment to paid work, while women work at jobs more compatible with their role as care givers. These provide more safety and conventional hours, while men's jobs are more likely to offer good opportunities for advancement, skill enhancement, autonomy and complexity. Muhlau further showed that women in more egalitarian countries did not enjoy any advantage in terms of job characteristics. On the contrary, in those countries women lost their advantage in job aspects such as work safety and working hours.

While Muhlau's work sheds some light on country differences in job quality, it is not entirely clear whether these differences result from country-specific work conditions or from the particular occupations that men and women are engaged in. As we argue below, work conditions often depend more on specific occupations, while country differences might result from a variation in the occupational structures of men and women. In fact, apart from Glass's (1990) work on a US sample, little attention has been paid to occupations as determinants of gender inequality in the quality of employment. We discuss this issue next.

1.2. Occupational differences in job quality

Occupations are important contexts for understanding job quality because of both their content and the workers' characteristics. As stated earlier, female-dominated occupations may be organized differently from male-dominated occupations. Employment in the former entails less physical hardship and more opportunities for social contacts. Just as important, however, female-dominated occupations are also characterized by lower wages and fewer opportunities for advancement (England 2005; Levanon, England and Allison 2009; Padavic and Reskin 2002).

Nonetheless, the sex composition of occupations is only one aspect that affects the quality of employment. For example, white-collar occupations offer different work conditions from blue-collar occupations. Employment-related tasks in each category of occupations are conducted in different environments, and each category requires employees with different compositions of skills, tasks and demands. While white-collar occupations are more likely to be concentrated in the public sector and to be populated by more educated employees (especially in professional, technical and managerial areas), blue-collar occupations are more likely to be in the private sector and populated by less educated employees. Further, workers in high-

level white-collar occupations enjoy more training and better skill-formation opportunities than blue-collar workers (Fahlin 2007; Dieckhoff et al. 2007). These differences affect monetary rewards, but also other dimensions of employment.

Glass (1990), for example, found important differences in work conditions between occupational groups. Blue-collar workers were shown to have lower levels of job flexibility, wages, promotion prospects, and other social rewards than high-level white-collar workers. Just as important, she showed, workers in clerical occupations had relatively high job flexibility, as well as ease of work, compared with workers in other occupational categories. At the same time, however, Green and his associates (2001) found no evidence that job insecurity was associated with any particular occupation or industry, or with firm size.

Occupations, however, are embedded in specific national labor markets, so the way occupations are distributed in countries should also matter. This is mainly because countries differ in how the labor market is organized and in their general conditions of work. Studies have documented the importance of countries in assessing employment quality (see e.g. Gallie 2007b; Esser & Olsen 2011; Gesthuisen, Solga and Kunster 2010; Erlinghagen 2008). Moreover, countries differ in the demand for specific occupations, depending on factors such as industries' technological level, service sector size and general demand for skills. Countries also vary in workers' characteristics: education level, female labor force participation rates, and the types of occupation populated by women.

Overlooking the potential effect of occupations, and more importantly how occupations are organized in each country, should make it difficult to compare the results of the various studies, hence to generate informative and operable conclusions. That is, inconsistencies in the findings, including those related to gender disparities along different indicators of job quality, as reviewed above, might partly result from this limitation in previous research. In this study we therefore examine job quality while considering specific national occupational characteristics in order to account for the context in which work conditions are determined in each nation. Our focus on women's concentration in occupations and its effect on the gender gap in job quality should be understood in this way.

2. Data, Variables and Analytical Technique

2.1. Data and Methodology

The methodology in the current study combines macro- and micro-level research, as it attempts to explain relations at the individual level embedded in specific institutional contexts. Because our study aims to explain gender differences in job quality by occupational characteristics, we employ a multi-level modeling technique (Bryk and Raudenbush, 1992). Specifically, the study is based on three levels of analysis: individuals, who are embedded in occupational groups, which are embedded in countries. The individual level data are from the 2005 ISSP module on work orientation (<http://www.issp.org>). The 2005 ISSP data were collected from national probability samples in participating countries, and include detailed information on job values, job characteristics, perceptions and outcomes of job characteristics, as well as extensive background information on participants. The study sample include men and women in the labor force at the time of the survey. Our working file contain about 17,500 respondents (8,500 men and 9,000 women) in the following 27 countries: Australia, Belgium (Flanders), Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Israel, Japan, Latvia, New Zealand, Norway, Portugal, Russia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, and the USA. Because the country samples in the ISSP data set are relatively small, we employ only four macro occupational categories: high white-collar (professional, semi-professional and managerial occupations); low white-collar (clerical and service occupations); high blue-collar (skilled and semi-skilled occupations); and low blue-collar (mainly unskilled occupations). Occupational characteristics are country-specific to reflect country variations in labor market characteristics and arrangements (Table A1 illustrates country differences in women's share in each occupational category). We pooled ISSP data files from 2000-2005 to obtain country-specific occupational characteristics, as we explain below.

2.2. Dependent Variables

Quality of employment, which has several dimensions, is our dependent variable. Following earlier work in this field (cf. Clark 2005; Handel 2005; Gallie 2003; 2007a) we highlight the following six dimensions (characteristics) of employment quality: material rewards; job content; job security; time flexibility; physical and emotional conditions. We tap these six dimensions by questions pertaining to individual's perceptions on each one in their current job.

The first battery of questions in the ISSP questionnaire included those on the first two dimensions: rewards and content. Respondents were asked to state how appropriate each of the following statements was in respect of their main job (answers ranged from (1) highly appropriate, to (5) highly inappropriate):

- a) My income is high.
- b) My opportunities for advancement are high.
- c) My job is interesting.
- d) I can work independently.
- e) My job gives me a chance to improve my skills.

Factor analysis of these items confirmed a two dimensional structure, pertaining to materialistic rewards – or as Glass (1990) termed it, achievements (items a and b, $r=0.47$) – and to job content (items c through e, $\alpha=0.69$). We thus constructed two indices (achievement and content) by averaging the relevant items, and recoding these indices so that each ranged from 1 (low quality) to 5 (high quality).

Job security was measured as respondents' response to the question "To what extent, if at all, do you worry about the possibility of losing your job?" (Answers were recoded to range from (1) "I don't worry at all," to (4) "I worry a great deal.") We re-coded the variable so that 1 indicated the lowest job security (lowest quality job) and 4 the highest (highest quality job). Flexibility was created by factor analysis of the answers to the following three questions ($\alpha=0.67$):

- 1) Can respondent decide when to start and end work? (1=No–employer decides ...3=Yes–respondent decides).
- 2) Can respondent decide how to organize the daily work? (1=Yes–respondent is free to decide...3=No–respondent is not free to decide).
- 3) Can respondent take time off during working hours? (1=Yes...3=No).
- 4) We recoded the variables so that high score implied high level of flexibility (high quality job).

Finally, we measured physical and emotional conditions separately, with responses to two five-point scale questions for each. For physical conditions these were (a) How often does respondent perform hard physical work? (1=always; 5=never); (b) How often does respondent work in dangerous conditions? (1=always; 5=never) (the correlation between these questions is $r=.483$). For emotional conditions the questions were (a) Is the work stressful? (b) Does the respondent get home exhausted? (the correlation between these questions is $r=0.448$.) We recoded these variables and averaged each pair of questions, so that high value indicated high job quality.

2.3. Independent variables: Individual-level

The main independent variable of interest is gender (1=female). The models control for other individual-level characteristics as well: age (measured in years); working hours; education (in years), and the following dummy variables: married; children at home; education, employment in the public sector; union membership; job authority, working hours. Earlier studies found these variables to affect job quality (e.g. Clark 2005; 2009; Handel 2005; Stier 2011)¹.

2.4. Independent variables: Occupational-level

The main interest of this study is the effect of gender composition of occupations on gender differences in job quality, as specified in our hypotheses. In line with our theoretical discussion and hypotheses, each of the four occupational categories was then characterized, separately in each country, by two indicators: percent women employed and percent women with academic degree. We included educational level as a control variable, since women's concentration in occupations may be related to education. Estimates of these occupational characteristics per country were calculated by combining ISSP data files for 2000-2005. These pooled data-sets provided large enough samples of individuals for each country-specific occupational category (N ranged from 51 to 594 with an average of 192) so as to yield reliable estimates of the two indicators in question. Country-specific indicators are necessary here because countries differ substantially in occupational distributions and characteristics alike.

¹ We controlled for job authority although this job characteristic may be seen as an indicator of job quality to account for gender differences stemming from the actual position. Excluding the variable from the analyses did not change the results.

Except for the potential effects of these country-specific occupational characteristics we do not expect country variations in the gender gap in job quality. Hence, our hierarchical models include a random component for the country level (third level) only to account for possible variation in the general level of job quality due to the fact that the data are clustered by countries. Attention in these models will then focus on the effect of percent women in occupations on the effect of gender (i.e., the gender slope), net of other individual-level as well as occupational-level characteristics. Specifically, a positive cross-level interaction implies that women benefit from occupational segregation as regards job quality, as suggested by the “compensation/preference” argument, while a negative interaction provides support to the discrimination/devaluation hypothesis.

3. Findings

We start the analysis by examining gender differences in our six dimensions of job quality. Table 1 presents the values of all six measures for men and women in the total population, and within the four occupational groups. From the first column in this table, which disregards occupational group differentiations, men have a clear advantage over women in achievement (wage and promotion). While achievement is expected to be higher for men, the other five employment conditions in Table 1 are not. Nonetheless, the figures in the first column reveal a mixed picture. Contrary to our expectations, men have a statistically significant advantage over women in job flexibility and in emotional conditions, while the two sexes have similar levels of job security and job content. Only in physical conditions do women appear to have a statistically significant advantage over men. That is, men report having more physically demanding jobs than women.

Table 1: Dimensions of Job Quality by Occupational Groups and Gender, ISSP 2005

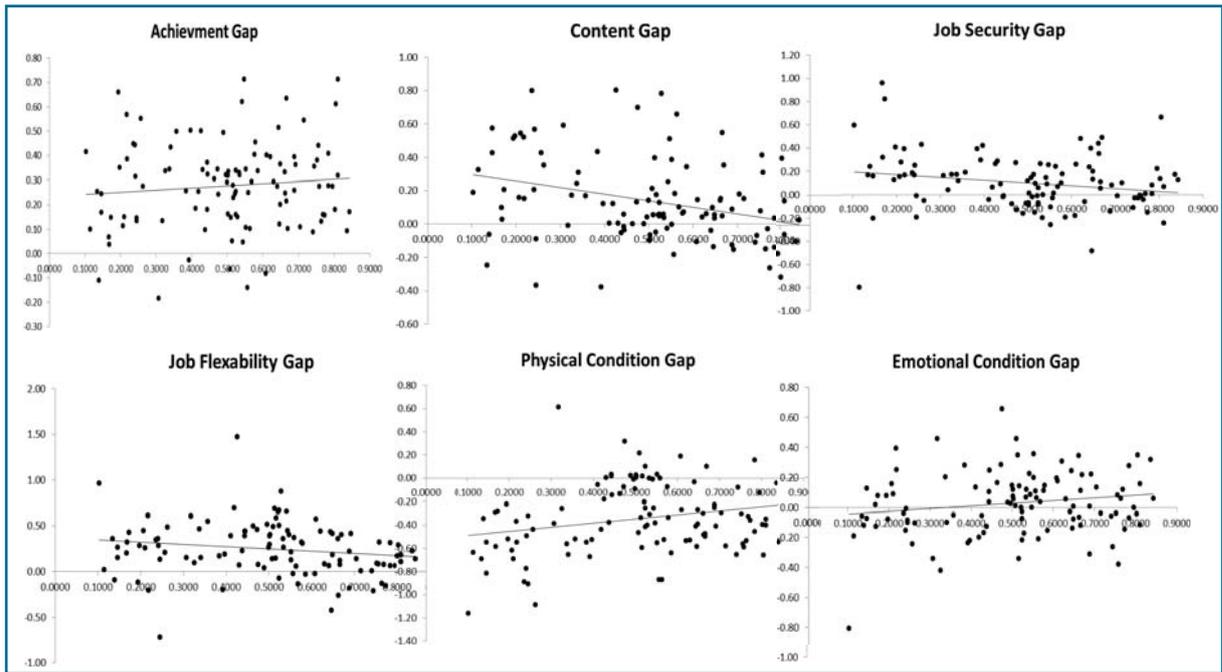
	All	High White Collar	Low White Collar	High Blue Collar	Low Blue Collar
Achievement					
Men (8,449)	2.804* (0.924)	3.043* (0.878)	2.757* (0.939)	2.644* (0.880)	2.538* (0.947)
Women (8,928)	2.545 (0.904)	2.751 (0.890)	2.440 (0.861)	2.316 (0.927)	2.233 (0.887)
Content					
Men (8,618)	3.726 (0.820)	4.003 (0.675)	3.592 (0.827)	3.605* (0.802)	3.432* (0.958)
Women (9,096)	3.707 (0.844)	3.999 (0.681)	3.611 (0.819)	3.294 (0.877)	3.210 (0.986)
Job Security					
Men (8,569)	3.085 (0.956)	3.251 (0.868)	3.068 (0.954)	2.956* (1.000)	2.999* (0.986)
Women (9,042)	3.087 (0.982)	3.211 (0.933)	3.113 (0.963)	2.647 (1.074)	2.847 (1.016)
Job Flexibility					
Men (8,421)	0.082* (1.023)	0.544* (0.900)	-0.136 (0.952)	-0.255* (0.923)	-0.089* (1.043)
Women (8,936)	-0.077 (0.972)	0.109 (0.967)	-0.177 (0.922)	-0.480 (0.896)	-0.186 (1.029)
Physical Conditions					
Men (8,554)	3.515* (1.117)	3.211* (0.933)	3.686* (1.011)	2.887* (0.987)	3.128* (1.056)
Women (8,993)	3.980 (0.971)	4.153 (0.868)	4.004 (0.954)	3.460 (1.054)	3.495 (1.002)
Emotional Conditions					
Men (8,625)	2.785* (0.822)	2.773* (0.777)	2.847 (0.853)	2.765 (0.833)	2.844 (0.841)
Women (9,107)	2.716 (0.831)	2.630 (0.782)	2.780 (0.840)	2.742 (0.858)	2.793 (0.903)

The remaining entries in Table 1 (columns 2-5) present men's and women's scores on each dimension, across occupational categories. Two points are noteworthy here: first, the general pattern discussed above is also apparent across occupations. Thus, men have an advantage over women in achievement and job flexibility across occupational groups as well, while women have an advantage over men in physical conditions. Second, in job security and job content, where men and women have similar levels overall, interesting gender differences appear across occupations. Women have lower levels of job security and lower quality in content in the blue-collar occupations, whereas gender differences do not exist in the white-collar groups. Also, women have lower job quality regarding emotional conditions in high white-collar occupations. Second, inasmuch as employment rewards and conditions are related to gender, they are also clearly related to occupation categories, so that for the most part high white-collar workers perceive their jobs as providing higher rewards and conditions than low blue-collar workers perceive theirs.

To summarize, the analysis of Table 1 does not support the claim that women enjoy a more relaxed and convenient work environment to compensate for their lack of achievement. Further, this analysis shows that both men and women in white-collar occupations enjoy better work quality on most dimensions than those in blue-collar occupations. The next analysis begins to explore our second hypothesis: the gender gap in job quality might be related to more specific characteristics of the occupations, namely the level of female concentration in occupations.

Figure 1 presents, for each dimension of employment, how the gender gap is linked to percent females in occupations. The dots in each of the six panes in Figure 1 represent each of the four occupational categories in each of the 27 countries covered. In all, each pane contains 108 dots. The x-axis in each pane indicates the percent of women in occupations; the y-axis indicates the gap in each dimension's score between men and women. Positive values represent gaps in favor of men, while negative values represent gaps in favor of women. A score of zero represents gender equality. Each pane also includes a regression line from regressing percent women in occupations on the gender gap.

Figure 1: Relation of Gender Gap in Job Quality to Percent Women in Occupations



It is clear from the figure that as the compensation hypothesis expects, the gender gap narrows in all but the achievement and the emotional conditions dimensions. Within this general trend in certain dimensions – job content, security, and flexibility – this narrowing is apparently because men tend to lose their advantage as percent women in occupations increases. The exception is physical conditions, which as we saw in Table 1 is a dimension where women have an advantage over men. However, Figure 1 indicates that women’s concentration in occupations greatly contributes to the erosion of this advantage. Whether or not this pattern holds even after individual compositional differences, as well as other occupational characteristics, are controlled for, is the focus of the multivariate analysis.

3.1. Multivariate analysis

As mentioned earlier, we use a three-level model to test the effect of women’s concentration in occupations on the gender gap in job quality. These three levels pertain to the individual worker, the occupational group, and the country. Here the last serves as a control, since countries differ in their occupational composition as well as in the general level of job quality reported by workers. Since we are mainly interested in the effect of occupational indicators on the gender slope, we focus attention on the cross-level interaction effect between country-specific occupational characteristics (level 2) and gender (level 1). The main effect (effect on the intercept) in this case pertains to male workers, while the interaction effect (effects on the gender slope) denotes the deviation of the women’s slope from the men’s. Before we move on to examine these

parameter estimates, we present in Table 2 the results of the analysis of variance across the three levels.

Table 2: Variance Components of the Three-Level Models

	Achievement	Content	Job Security	Job Flexibility	Physical Conditions	Emotional Conditions
Sources of Variation						
Individual	0.768	0.549	0.792	0.837	0.887	0.655
Occupation	0.062	0.085	0.021	0.062	0.256	0.011
Country	0.022	0.054	0.119	0.072	0.000	0.014
Total	0.852	0.688	0.932	0.971	1.143	0.680
% variation						
Occupation	0.073*	0.124*	0.022*	0.064*	0.224*	0.016*
Country	0.026*	0.078*	0.128*	0.074*	0.000	0.021*
Variation in Gender Slope						
Across occupations (81 df)	84.25	215.50*	126.28*	238.91*	340.90*	148.37*
Across countries (26 df)	35.86	17.21	29.64	21.09	28.08	26.21
Variation in Gender Slope Controlling for Individual-Level Variables						
Across occupations (81 df)	95.04	233.12*	127.49*	168.71*	283.19*	119.44*
Across countries (26 df)	25.73	16.20	27.30	21.40	33.62	41.15*

The point to be made here is fairly straightforward: most of the variation in job quality is evident between individuals, as can be expected. The variation in the gender slope, our main interest in this paper, is significant across occupations in all indicators of job quality except achievement. Just as important, the gender slope does not vary across countries, which vindicates our decision to omit any discussion – theoretical or analytical – of country-level characteristics and their possible effect on the gender gap in job quality, while focusing on the effects of country-specific occupational characteristics. Moreover, at the foot of Table 2 we see that variation across occupational categories in this gender gap remains largely unchanged and statistically significant, even after individual-level variables are controlled for. We can now proceed to discuss the results of the estimated parameters from the hierarchical models presented in Table 3.

Table 3: Parameter Estimates for Three-Level Models of Job Quality

	Achievement	Content	Job Security	Job Flexibility	Physical Conditions	Emotional Conditions
Effects at the Individual Level						
Intercept	2.579 (0.044)	3.536 (0.053)	3.005 (0.070)	-0.002 (0.070)	3.622 (0.046)	2.947 (0.037)
Female	-0.215* (0.017)	-0.084* (0.019)	-0.062* (0.022)	-0.148* (0.019)	0.275* (0.034)	-0.159* (0.023)
Age	-0.010* (0.001)	-0.001 (0.001)	-0.002* (0.001)	0.004* (0.001)	0.007* (0.001)	0.002* (0.001)
Marital	0.066* (0.018)	0.050* (0.011)	0.063* (0.019)	0.044* (0.015)	0.045 (0.021)	0.004 (0.020)
Children	0.011 (0.017)	0.009 (0.015)	-0.051* (0.020)	0.026* (0.018)	-0.037* (0.017)	-0.030* (0.013)
Public	-0.026 (0.045)	0.070* (0.014)	0.089* (0.032)	-0.177* (0.033)	-0.130* (0.028)	-0.027 (0.017)
Authority	0.315* (0.027)	0.211* (0.023)	0.109* (0.021)	0.249* (0.029)	-0.070* (0.029)	-0.127* (0.019)
Union membership	0.015 (0.027)	-0.020 (0.016)	-0.054* (0.026)	-0.241* (0.025)	-0.163* (0.027)	-0.104* (0.020)
Education	0.019* (0.004)	0.014* (0.002)	0.017 (0.004)	0.021* (0.003)	0.050* (0.004)	-0.003 (0.003)
Working hours	0.006* (0.001)	0.002* (0.001)	-0.002* (0.001)	-0.001 (0.001)	-0.007* (0.001)	-0.014* (0.001)
Effect on the Intercept						
% women in occupation	0.019 (0.050)	-0.262* (0.056)	0.029 (0.070)	0.083 (0.082)	1.097* (0.090)	0.124* (0.057)
% BA in occupation	0.746* (0.062)	0.810* (0.063)	0.261* (0.077)	1.248* (0.122)	1.868* (0.130)	0.015 (0.064)
Effect on gender slope						
% women in occupation	0.087 (0.077)	0.513* (0.122)	0.377* (0.117)	0.209 [^] (0.115)	-0.147 (0.136)	-0.130 (0.103)
% BA in occupation	0.072 (0.097)	0.415* (0.075)	0.258* (0.079)	-0.496* (0.095)	-0.706* (0.148)	-0.206* (0.087)

* $p < 0.05$; [^] $p < 0.10$

The models in Table 3 reveal marked gender differences in job quality. After individual characteristics, country and occupational distributions are taken into account, in all but the physical conditions dimension women lag behind men in their perceived quality of employment. Women have lower achievement ($b = -0.215$), lower quality in terms of job content ($b = -0.084$), lower job security ($b = -0.062$) and job flexibility ($b = -0.148$), and lower quality in emotional conditions ($b = -0.159$) than men. The only dimension where women have an advantage over men is physical conditions ($b = 0.275$), indicating that women work in a less dangerous environment than men. These findings echo those presented in Table 1, and run counter to our first hypothesis, suggesting that women's work is devalued in general and therefore less rewarding in all aspects of employment conditions.

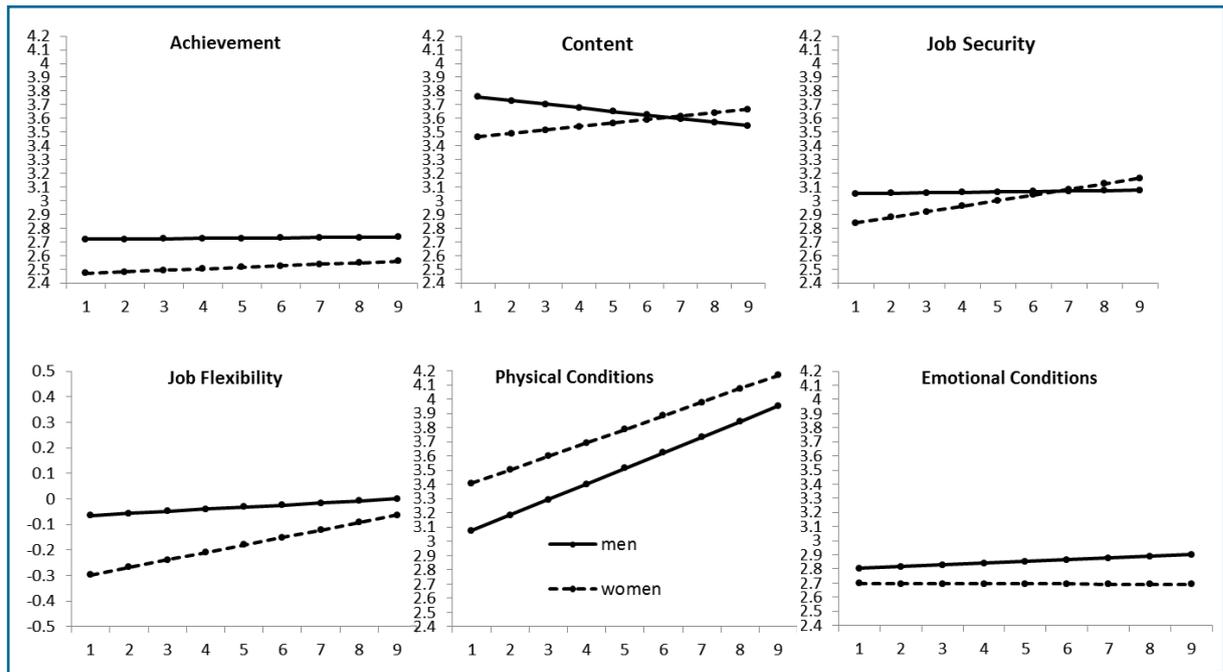
As for other individual-level variables, which serve mainly as controls in this study, most job quality dimensions are generally higher for more educated workers who are married (although being married is not related to physical and emotional conditions). Workers with job authority report higher quality on achievement, content, flexibility and security, though they seem to be safer from worse physical and emotional conditions. Workers who work longer hours have better achievements and higher job content quality, but also more physical and emotional hardship and lower level of security. Older workers have lower quality in achievements and job security but better quality in job flexibility and physical and emotional conditions. Other individual-level variables show much less consistent effects: for example, working in the public sector is associated with better job content, more job security and better physical conditions, but also with lower job flexibility. Further, being a union member is associated with lower quality in all job attributes except achievement and content, probably because of the nature of the jobs that tend to be highly unionized (mostly blue-collar workers).

As we stated at the outset, however, our main interest in this paper is to test whether women's concentration in occupations affects the gender gap. The interaction of this occupational characteristic with gender – net of individual characteristics as well as education level across occupational categories – reveals interesting patterns across the different dimensions. To remind the reader, our theoretical discussion, as well as Figure 1 above, suggests that the gender gap in job quality might be narrowed in all but the achievement and emotional dimensions.

Controlling for compositional differences, however, the results in Table 3 indicate that the gender gap is affected by female concentration in occupations in only three of the six dimensions of job quality: job content, job security and job flexibility. Importantly, and supporting hypothesis 2, when women's concentration in occupations affects job quality, it does so by reducing the gender gap. To better comprehend these cross-level interactions, Figure 2 presents a simulation based on the models presented in Table 2, for each job dimension separately. The graphs present the predicted level of job quality for men (straight line) and women (dashed line) with average individual-level characteristics, but in occupations that differ by women's percentage.

From the first model in Table 3 and from the graph pertaining to achievement, the gender gap in job quality is clearly quite resistant to changes in women's concentration in occupations. This result might suggest that women are discriminated against in the labor market.

Figure 2: Predicted job quality for men and women by percent women in occupations



The second model in Table 3 reveals that an increase in women's concentration in occupations results in narrowing gender gaps in job content: men's job content significantly deteriorates ($g=-0.262$), while women's improves as their proportion in occupations increases ($g=0.513$). At the extreme, that is, in female-dominated occupations, the gender gap seems to be reversed, as illustrated in the second panel of Figure 2. The gender gap in job security seems to narrow too, and then reverse, as the proportion of women in occupations increases (see also Figure 2). Here however the narrowing is mainly due to the positive effect of the rising proportion of women in occupations on their job security ($g=0.377$), coupled with an insignificant effect of this rise on men's job security. This probably reflects the fact that many female-dominated occupations are located in the public sector, which offers workers better protection (cf. Yaish and Stier, 2009). Women's concentration in occupations has a slight and not statistically significant effect on men's job flexibility, combined with a positive ($g=0.209$) but statistically significant effect only at $p=0.07$ level on women's job flexibility.² As a result, as Figure 2 illustrates, the gender gap in job flexibility narrows as women's concentration in occupations increases.

Finally, two dimensions of employment appear where women's concentration works against their quality of employment. In the case of physical conditions, women's 'initial' advantage erodes as their concentration in occupations increases. This is illustrated in Figure 2, and can be shown by examining the parameter estimates in Table 3. Such an examination reveals that women's initial advantage in this dimension (b for

2 As our hypothesis on the effect of women's concentration in occupations on the gender gap in job quality is one-sided, it makes sense to test its validity with a one-sided statistical significance test. In the case of job flexibility, a p-value equal 0.07 in a two-sided test should satisfy the conventional level of $p=0.05$ when a one-sided test is conducted.

gender=0.275), which is not affected statistically significantly by an increase in women's concentration in occupations, is reduced as men benefit from such an increase ($g=1.097$). In the case of emotional conditions, the gender gap in this particular dimension widens as women's concentration in occupations increases. Table 3 indicates that this is so because men's emotional conditions ameliorate as more women are concentrated in occupations ($g=0.124$) while women's are not affected statistically significantly by their concentration in occupations.

In all, these findings suggest a complex effect of women's concentration in occupations on their job quality, while only partly supporting our expectations. In some dimensions women indeed gain an advantage when they work in female-dominated occupations.³ Quite possibly, women prefer jobs that are interesting and autonomous, improve skills and provide security in exchange for pay and promotion. Similarly, we show that women concentrate in occupations that provide flexibility, probably to meet both work and family demands.

These results, we recall, are net of a national average level of education in an occupational category. When this effect is the focus of the analysis it shows that as the proportion of graduates increases in occupations the quality of work changes, but not necessarily in the same way for men and women. For example, with the rise in graduates in occupations, men's job flexibility increases (the effect of % BA in occupations on the intercept, which refers to men, $g=1.248$), while that of women declines (the effect of % BA in occupations on the gender slope, which indicates women's deviation from men, i.e., the intercept, $g=-0.496$), resulting in an increase in the gender gap in job flexibility. With the rise in proportion of graduates in occupations, women's quality of employment also deteriorates in physical and emotional conditions ($g=-0.706$ and $g=-0.206$, respectively). As this deterioration is coupled by an improvement or no change in men's quality of employment, the inevitable result is a widening of the gender gap in these dimensions. A positive relationship with graduate proportion in occupation is also apparent in achievement. However, the gender gap in achievement is not affected by changes in percent graduates in occupation. Finally, in job content and security women gain more than men from the concentration of graduates in occupation. As a result, the gender gap in these two dimensions narrows as more graduates enter occupation.

In sum, this uneven improvement in job quality for men and women suggests that part of the gender gap in job quality is located in occupations characterized by a relatively high proportion of college graduates.

3 The models do not take into account women's selection to paid employment, thus providing conservative estimates for the gender effect. Including a selection term in the models (see Appendix table A1) did not change the results. We decided not to present these models since most predictors of women's labor force participation are already included in the models, and the models control by and large for the composition of the female workforce in countries and occupational groups.

4. Conclusions and Discussion

Influenced by Glass's (1990) pioneering study, the current paper focuses on gender differences in subjective perceptions of various dimensions of employment. As such, it too reflects the growing research interest in the quality of employment (Gallie 2007a b; Clark 2005; 2009; Esser and Olsen 2011; Munoz de Bustillo et al. 2011; Stier 2011). The study is guided by two questions: first, how differently, if at all, do men and women perceive the quality of their jobs? Second, as we expect some gender differences in quality of employment, can women's concentration in occupations embedded in specific national labor markets explain these differences? These questions then feature in much larger, cross-disciplinary, discussions and debates on women's labor force behavior – employment motivations, patterns and trends, as well as on their other roles in most modern societies.

In this debate, economists argue the view that gender segregation in the labor market is a product of women's preferences for particular types of job which, although carrying wage penalties, allow them to combine work and family demands with the minimum level of such penalties (Polachek 1981). Sociologists, also adopting a "preference" approach, invoke the "gender essentialism" argument (e.g. England 2010): men and women prefer different qualities in their employment, so women are more likely to concentrate in occupations that are more interesting, allow them to work with other people, and are not as strenuous as men's occupations. Bearing these two views in mind, we expect to find women in occupations that compensate for the lack of monetary rewards or opportunities for advancement by offering other work conditions such as job security, flexibility, autonomy, skill enhancement or high interest. We also expect to find that women's concentration in occupations associated with improved conditions for women's employment. Contrary to these preference arguments, proponents of the gender discrimination approach (see Glass 1990) assert that women's disadvantage in the labor market extends to all aspects of their employment. That is, women's employment quality is expected to be lower than men's, in all job aspects.

With respect to the first question above, our findings indicate that women enjoy hardly any advantage over men in the labor market. We showed that women lag behind men on most employment dimensions: their jobs offer lower salaries and fewer opportunities for advancement, but also lower job security, worse job content (in terms of autonomy, skill enhancement or interest), less job flexibility and worse emotional conditions. These findings contradict the compensation arguments and accord with the discrimination argument. They also echo those reported by Glass (1990), suggesting that women's allocation to occupations is

less likely the result of choice and preference, as the supply-side arguments imply, but of discrimination on the demand side.

Nevertheless, our findings highlight some compensating mechanisms. With regard to women's concentration in occupations, we showed that in most dimensions the gender gap narrows as more women enter them. Yet this trend does not always result from an improvement in women's employment quality but from a deterioration in men's. For example, women's concentration in occupations has a positive effect on their job security and flexibility, thus promoting the narrowing of the gender gap in these dimensions. In job content, however, the concentration of women in occupations has resulted in deterioration in men's job quality, also resulting in a narrowing of the gender gap. As for wages and promotion prospects, our results indicate a very resilient gender gap, where women are perceived to gain lower rewards than men in all occupations, independent of gender composition.

Taken together, these are very important results, suggesting that women's concentration in occupations might have positive consequences for their employment quality; arguments for a possible tradeoff, or compensation, between monetary rewards and other employment characteristics cannot be ruled out. This being the case, gender segregation in the labor market might be partially the result of choices made by women. This however does not make women's position better in the labor market. For one, their dual roles force them to 'choose' female-friendly occupations – with relatively low monetary rewards and often of low quality in other aspects too, so these choices are far from free. Furthermore, these choices are made under conditions of discrimination, where women's position in both society and the labor market is relatively inferior to that of men.

To illustrate women's problematic position in society, we found that female-dominated occupations are associated with relatively high levels of work strain for women. A plausible explanation for this finding is that women experience more stress even prior to entering the labor force; they might report relatively high levels of exhaustion because they carry the burden of both family and employment. This is especially so in female-dominated jobs, which on the one hand furnish better conditions to combine work and family because they offer shorter working hours, but on the other hand leave these women sole responsibility for care work at home. Finally, our results also cast a dark cloud on women's employment prospects in the future. This is because of the finding that part of the gender gap in job quality lies in occupations characterized by a relatively high proportion of college graduates. Since the relative size of these high white-collar occupations is growing in most countries, the gender gap in job quality is not expected to vanish any time soon.

Our study is limited in that we could not measure specific occupations, but it does highlight some advantages and disadvantages due to the gender segregation. Future research should investigate in depth the role of detailed occupations embedded in different labor markets, in order to understand women's work conditions and the role of their occupational concentration in achieving gender quality.

Bibliography

- Bergmann, B.R. 2011. "Sex Segregation in the Blue-collar Occupations: Women's Choices or Unremediated Discrimination? Comment on England." *Gender & Society*, 25(1): 88-93.
- Blau, F., M. Brinton and D. Grusky. 2006. "The Declining Significance of Gender?" in F. Blau, M. Brinton and D. Grusky (Eds.), *The Declining Significance of Gender?* New York: Russell Sage Foundation.
- Bryk, A. S. and S. W. Raudenbush. 1992. *Hierarchical Linear Models: Applications and Data Analysis Methods*. Newbury Park: Sage.
- Charles, M. and D. Grusky 2004. *Occupational Ghettos: the Worldwide Segregation of Women and Men*. Palo Alto, California: Stanford University Press.
- Clark, A. E. 2005. "Your Money or Your Life: Changing Job Quality in the OECD Countries." *British Journal of Industrial Relations*, 43 (3): 377-400.
2009. "Work, Jobs and Well-Being across the Millennium." IZA Discussion Paper No. 3940. Available at SSRN: <http://ssrn.com>.
- Cohen, P. L. and M. L. Huffman. 2003. "Occupational Segregation and the Devaluation of Women's Work across U.S. Labor Markets." *Social Forces*, 81(3):881-908.
- Diekhoff, M., J.-M. Jungblut and P. J. O'Connell. 2007. "Job Related Training in Europe: Do Institutions Matter?" In D. Gallie (Ed.), *Employment Regimes and the Quality of Work*. Oxford: Oxford University Press, pp. 77-104.
- England, P. 2005. "Gender Inequality in Labor Markets: The Role of Motherhood and Segregation." *Social Politics*, 12(2): 264-288.
- England, P. 2010. "The Gender Revolution: Uneven and Stalled." *Gender & Society*, 24, 2:149-166.
- Erlinghagen, M. 2008. "Self-Perceived Job Insecurity and Social Context: A Multi-Level Analysis of 17 European Countries." *European Sociological Review*, 24 (2): 183-97.
- Esser, I. and K M. Olsen. 2011. "Perceived Job Quality: Autonomy and Job Security within a Multi-Level Framework." *European Sociological Review*, DOI: 10.1093/esr/jcr009.
- Gallie, D. 2003. "Employment and the Labour Market." In J. Hollowell (Ed.), *Britain since 1945*. Oxford: Blackwell, pp. 404-25.
- Gallie, D. 2007a. "Production Regimes, Employment Regimes, and the Quality of Work." In Duncan Gallie (Ed.), *Employment Regimes and the Quality of Work*. Oxford: Oxford University Press, pp. 1-34.
- 2007b. "Production Regimes and the Quality of Employment in Europe." *Annual Review of Sociology*, 33: 85-104.
- Glass, J. 1990. "The Impact of Occupational Segregation on Working Conditions." *Social Forces*, 68(3): 779-796.
- Green, F., A. Dickerson, A. Carruth and D. Campbell. 2001. "An Analysis of Subjective Views of Job Insecurity." Department of Economics Discussion Paper 01/08. Canterbury: University of Kent.
- Gesthuizen, M., Solga, H. and Kunster, R. (2010) 'Context Matters: Economic Marginalisation of Low-Educated Workers in Cross-National Perspective'. *European Sociological Review*, 2 (2): 264-280
- Hakim, C. 2002. "Lifestyle Preferences as Determinants of Women's Differentiated Labor Market Careers." *Work & Occupations* 29(4): 428-259

- Handel, M.J. 2005. "Trends in Perceived Job Quality, 1989 to 1998." *Work and Occupations*, 32(1): 66-94.
- Kanter, R. M. 1977. *Men and Women of the Corporation*. Basic Books.
- Kraus, V., & Yonay, P. Y. (2000). The Effect of Occupational Sex Composition on the Gender Gap in Workplace Authority. *Social Science Research*, 29(4): 583-605.
- Levanon, A., P. England & P. Allison. 2009. "Occupational Feminization and Pay: Assessing Causal Dynamics Using 1950-2000 U.S. Census Data." *Social Forces*, 88(2): 865-892.
- Mauno, S. & U. Kinnunen. 2002. "Perceived Job Insecurity among Dual-Earner Couples: Do Its Antecedents Vary according to Gender, Economic Sector and the Measure Used?" *Journal of Occupational and Organizational Psychology*, 75: 295-314.
- Muhlau, P. 2009. "Gender Inequality and Job Quality in Europe." *Management Revue*, 22(2), 114-131.
- Munoz de Bastillo, R., E. Fernandez-Macias, J.-I Anton and F. Esteve. 2011. *Measuring More than Money: The Social Economics of Job Quality*. Cheltenham, UK: Edward Elgar.
- Padavic, I. and B. Reskin. 2002. *Women and Men at Work*. 2nd edition. Thousand Oaks, CA: Pine Forge Press.
- Petersen, T. and I. Saporta. 2004. "The Opportunity Structure for Discrimination." *American Journal of Sociology*, 109 (4): 852-901.
- Petit, B. and J. L. Hook. 2009. *Gendered Tradeoffs: Family, Social Policy, and Economic Inequality in Twenty-One Countries*. New York: Russell Sage Foundation.
- Polachek, S. 1976. "Occupational Segregation: An Alternative Hypothesis." *Journal of Contemporary Business*, 5: 1-22.
- Reskin, B. F. and M.L. Maroto . 2011 "What Trends? Whose Choices? Comment on England." *Gender & Society*, 25(1): 81-87.
- Rubery, J., J. Earnshaw, M. Marchington, F.L. Cooke and S. Vincente. 2002. "Changing Organizational Forms and the Employment Relationship." *Journal of Management Studies*, 39 (5): 645-672.
- Stier, H. 2011. "Skill-Based Inequality in Job Quality: A Multilevel Framework." Paper presented at the RC28 meetings, Iowa, USA 2011.
- Tahlin, M. 2007. "Skills and Wages in European Labour Markets: Structure and Change." In D. Gallie (Ed.), *Employment Regimes and the Quality of Work*. Oxford: Oxford University Press, pp. 35-76.
- Tomaskovic-Devey, D. 1993. *Gender and Racial Inequality at Work: The Sources and Consequences of Job Segregation*. Ithaca, NY: ILR Press.
- Yaish, M. and H. Stier, 2009. "Gender Inequality in Job Authority: A Cross-National Comparison of 26 Countries." *Work and Occupation*, 36(4): 343-66.

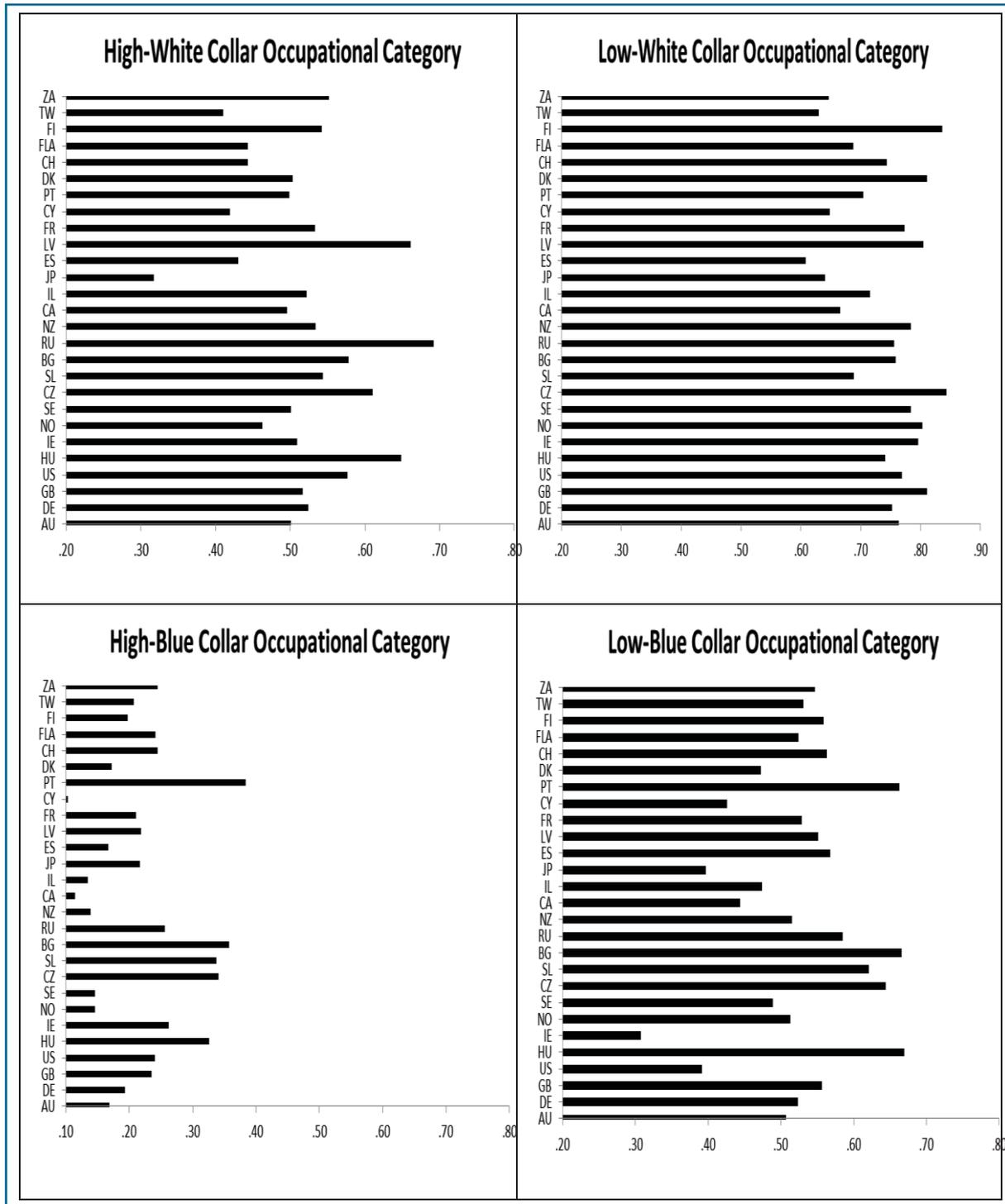
Appendix Table A1

Estimates of job quality indicators controlling for selection to the labor force*

	Achievement	Content	Job Security	Job Flexibility	Physical Conditions	Emotional Conditions
Effects at the Individual Level						
Intercept	2.581 (0.044)	3.534 (0.053)	2.996 (0.074)	0.006 (0.070)	3.621 (0.047)	2.942 (0.037)
Female	-0.220* (0.018)	-0.092* (0.021)	-0.109* (0.023)	-0.151* (0.019)	0.268* (0.034)	-0.190* (0.023)
Effect on the Intercept						
% women in occupation	0.017 (0.050)	-0.265* (0.056)	0.010 (0.068)	0.084 (0.082)	1.094* (0.090)	0.111* (0.055)
% BA in occupation	0.751* (0.059)	0.812* (0.063)	0.271* (0.079)	1.269* (0.117)	1.870* (0.130)	0.023 (0.064)
Effect on gender slope						
% women in occupation	0.095 (0.077)	0.518* (0.122)	0.410* (0.113)	0.213 [^] (0.117)	-0.143 (0.138)	-0.108 (0.101)
% BA in occupation	0.069 (0.091)	0.419* (0.075)	0.275* (0.081)	-0.482* (0.088)	-0.704* (0.147)	-0.195* (0.087)

*All models control for the individual level variables as in Table 3, including a selection term. The selection term was estimated separately for each country, by education, age, marital status and presence of children.

Figure A1: Proportions of Women Employed by Occupational Category and Country.



AIAS Working Papers (€ 7,50)

Recent publications of the Amsterdam Institute for Advanced Labour Studies. They can be downloaded from our website www.uva-aias.net under the subject Publications.

- 120 The impact of attitudes and work preferences on Dutch mothers' employment patterns
April 2012 - Justine Ruitenbergh and Paul de Beer
- 119 "He would never just hit the sofa" A narrative of non-complaining among Dutch Mothers.
A qualitative study of the influences of attitudes on work preferences and employment patterns of Dutch mothers
April 2012 - Justine Ruitenbergh
- 118 Collective redress and workers' rights in the EU
March 2012 - Jan Cremers and Martin Bulla
- 117 Forthcoming: An individual level perspective on the concept of flexicurity
Antonio Firinu
- 116 Comparative study of labour relations in African countries
December 2011 - Rüya Gökhan Koçer and Susan Hayter
- 115 More flexibility for more innovation?
December 2011 - Eva Wachsen and Knut Blind
- 114 De loonkloof tussen mannen en vrouwen. Een review van het onderzoek in Nederland
December 2011 - Kea G. Tijdens en Maarten van Klaveren
- 113 European social dialogue as multi-level governance. Towards more autonomy and new dependencies
September 2011 - Paul Marginson and Maarten Keune
- 112 Flexicurity: a new impulse for social dialogue in Europe?
September 2011 - Maarten Keune
- 11-111 Health workforce remuneration. Comparing wage levels, ranking and dispersion of 16 occupational groups in 20 countries
August 2011 - Kea Tijdens and Daniel H. de Vries
- 11-110 Over- and underqualification of migrant workers. Evidence from WageIndicator survey data
July 2011 - Kea Tijdens and Maarten van Klaveren
- 11-109 Employees' experiences of the impact of the economic crisis in 2009 and 2010
July 2011 - Kea Tijdens, Maarten van Klaveren, Reinhard Bispinck, Heiner Dribbusch and Fikret Öz
- 11-108 A deeper insight into the ethnic make-up of school cohorts: Diversity and school achievement
January 2011 - Virginia Maestri
- 11-107 Codebook and explanatory note on the EurOccupations dataset about the job content of 150 occupations
January 2011 - Kea Tijdens, Esther de Ruijter and Judith de Ruijter
- 10-106 The Future of Employment Relations: Goodbye 'Flexicurity' – Welcome Back Transitional Labour Markets?
2010 - Günther Schmid
- 11-105 Forthcoming:
This time is different?! The depth of the Financial Crisis and its effects in the Netherlands.
Wiemer Salverda

- 11-104 Forthcoming:
Integrate to integrate. Explaining institutional change in the public employment service - the one shop office
Marieke Beentjes, Jelle Visser and Marloes de Graaf-Zijl
- 11-103 Separate, joint or integrated? Active labour market policy for unemployed on social assistance and unemployment benefits
2011 - Lucy Kok, Caroline Berden and Marloes de Graaf-Zijl
- 10-102 Codebook and explanatory note on the WageIndicator dataset a worldwide, continuous, multilingual web-survey on work and wages with paper supplements
2010 - Kea Tijdens, Sanne van Zijl, Melanie Hughie-Williams, Maarten van Klaveren, Stephanie Steinmetz
- 10-101 Uitkeringsgebruik van Migranten
2010 - Aslan Zorlu, Joop Hartog and Marieke Beentjes
- 10-100 Low wages in the retail industry in the Netherlands. RSF project Future of work in Europe / Low-wage Employment: Opportunity in the Workplace in Europe and the USA
2010 - Maarten van Klaveren
- 10-99 Pension fund governance. The intergenerational conflict over risk and contributions
2010 - David Hollanders
- 10-98 The greying of the median voter. Aging and the politics of the welfare state in OECD countries
2010 - David Hollanders and Ferry Koster
- 10-97 An overview of women's work and employment in Zimbabwe
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-96 An overview of women's work and employment in Belarus
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-95 Uitzenden in tijden van crisis
2010 - Marloes de Graaf-Zijl and Emma Folmer
- 10-94 An overview of women's work and employment in Ukraine
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-93 An overview of women's work and employment in Kazakhstan
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-92 An overview of women's work and employment in Azerbaijan
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-91 An overview of women's work and employment in Indonesia
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 10-90 An overview of women's work and employment in India
Decisions for Life Country Report
2010 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos

- 10-89 Coordination of national social security in the EU – Rules applicable in multiple cross border situations
2010 - Jan Cremers
- 10-88 Geïntegreerde dienstverlening in de keten van Werk en Inkomen
2010 - Marloes de Graaf-Zijl, Marieke Beentjes, Eline van Braak
- 10-87 Emigration and labour shortages. An opportunity for trade unions in new member states?
2010 - Monika Ewa Kaminska and Marta Kahancová
- 10-86 Measuring occupations in web-surveys. The WISCO database of occupations
2010 - Kea Tijdens
- 09-85 Multinationals versus domestic firms: Wages, working hours and industrial relations
2009 - Kea Tijdens and Maarten van Klaveren
- 09-84 Working time flexibility components of companies in Europe
2009 - Heejung Chung and Kea Tijdens
- 09-83 An overview of women's work and employment in Brazil
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-82 An overview of women's work and employment in Malawi
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-81 An overview of women's work and employment in Botswana
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-80 An overview of women's work and employment in Zambia
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-79 An overview of women's work and employment in South Africa
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-78 An overview of women's work and employment in Angola
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-77 An overview of women's work and employment in Mozambique
Decisions for Life Country Report
2009 - Maarten van Klaveren, Kea Tijdens, Melanie Hughie-Williams and Nuria Ramos
- 09-76 Comparing different weighting procedures for volunteer web surveys. Lessons to be learned from German and Dutch Wage indicator data
2009 - Stephanie Steinmetz, Kea Tijdens and Pablo de Pedraza
- 09-75 Welfare reform in the UK, the Netherlands, and Finland. Change within the limits of path dependence.
2009 - Minna van Gerven
- 09-74 Flexibility and security: an asymmetrical relationship? The uncertain relevance of flexicurity policies for segmented labour markets and residual welfare regimes
2009 - Aliko Mouriki (guest at AIAS from October 2008 - March 2009)

- 09-73 [Education, inequality, and active citizenship tensions in a differentiated schooling system](#)
2009 - Herman van de Werfhorst
- 09-72 [An analysis of firm support for active labor market policies in Denmark, Germany, and the Netherlands](#)
2009 - Moira Nelson
- 08-71 [The Dutch minimum wage radical reduction shifts main focus to part-time jobs](#)
2008 - Wiemer Salverda
- 08-70 [Parallele innovatie als een vorm van beleidsleren: Het voorbeeld van de keten van werk en inkomen](#)
2008 - Marc van der Meer, Bert Roes
- 08-69 [Balancing roles - bridging the divide between HRM, employee participation and learning in the Dutch knowledge economy](#)
2008 - Marc van der Meer, Wout Buitelaar
- 08-68 [From policy to practice: Assessing sectoral flexicurity in the Netherlands](#)
October 2008 - Hesther Houwing / Trudie Schils
- 08-67 [The first part-time economy in the world. Does it work?](#)
Republication August 2008 - Jelle Visser
- 08-66 [Gender equality in the Netherlands: an example of Europeanisation of social law and policy](#)
May 2008 - Nuria E.Ramos-Martin
- 07-65 [Activating social policy and the preventive approach for the unemployed in the Netherlands](#)
January 2008 - Minna van Gerven
- 07-64 [Struggling for a proper job: Recent immigrants in the Netherlands](#)
January 2008 - Aslan Zorlu
- 07-63 [Marktwerking en arbeidsvoorwaarden – de casus van het openbaar vervoer, de energiebedrijven en de thuiszorg](#)
July 2007 - Marc van der Meer, Marian Schaapman & Monique Aerts
- 07-62 [Vocational education and active citizenship behaviour in cross-national perspective](#)
November 2007 - Herman G. van der Werfhorst
- 07-61 [The state in industrial relations: The politics of the minimum wage in Turkey and the USA](#)
November 2007 - Ruĵa Gökhan Koçer & Jelle Visser
- 07-60 [Sample bias, weights and efficiency of weights in a continuous web voluntary survey](#)
September 2007 - Pablo de Pedraza, Kea Tjildens & Rafael Muñoz de Bustillo
- 07-59 [Globalization and working time: Work-Place hours and flexibility in Germany](#)
October 2007 - Brian Burgoon & Damian Raess
- 07-58 [Determinants of subjective job insecurity in 5 European countries](#)
August 2007 - Rafael Muñoz de Bustillo & Pablo de Pedraza
- 07-57 [Does it matter who takes responsibility?](#)
May 2007 - Paul de Beer & Trudie Schils
- 07-56 [Employment protection in dutch collective labour agreements](#)
April 2007 - Trudie Schils

- 07-54 [Temporary agency work in the Netherlands](#)
February 2007 - Kea Tijdens, Maarten van Klaveren, Hester Houwing, Marc van der Meer & Marieke van Essen
- 07-53 [Distribution of responsibility for social security and labour market policy](#)
Country report: Belgium
January 2007 - Johan de Deken
- 07-52 [Distribution of responsibility for social security and labour market policy](#)
Country report: Germany
January 2007 - Bernard Ebbinghaus & Werner Eichhorst
- 07-51 [Distribution of responsibility for social security and labour market policy](#)
Country report: Denmark
January 2007 - Per Kongshøj Madsen
- 07-50 [Distribution of responsibility for social security and labour market policy](#)
Country report: The United Kingdom
January 2007 - Jochen Clasen
- 07-49 [Distribution of responsibility for social security and labour market policy](#)
Country report: The Netherlands
January 2007 - Trudie Schils
- 06-48 [Population ageing in the Netherlands: demographic and financial arguments for a balanced approach](#)
January 2007 - Wiemer Salverda
- 06-47 [The effects of social and political openness on the welfare state in 18 OECD countries, 1970-2000](#)
January 2007 - Ferry Koster
- 06-46 [Low pay incidence and mobility in the Netherlands - Exploring the role of personal, job and employer characteristics](#)
October 2006 - Maite Blázquez Cuesta & Wiemer Salverda
- 06-45 [Diversity in work: The heterogeneity of women's labour market participation patterns](#)
September 2006 - Mara Yerkes
- 06-44 [Early retirement patterns in Germany, the Netherlands and the United Kingdom](#)
October 2006 - Trudie Schils
- 06-43 [Women's working preferences in the Netherlands, Germany and the UK](#)
August 2006 - Mara Yerkes
- 05-42 [Wage bargaining institutions in Europe: a happy marriage or preparing for divorce?](#)
December 2005 - Jelle Visser
- 05-41 [The work-family balance on the union's agenda](#)
December 2005 - Kilian Schreuder
- 05-40 [Boxing and dancing: Dutch trade union and works council experiences revisited](#)
November 2005 - Maarten van Klaveren & Wim Sprenger
- 05-39 [Analysing employment practices in western european multinationals: coordination, industrial relations and employment flexibility in Poland](#)
October 2005 - Marta Kahancova & Marc van der Meer

- 05-38 [Income distribution in the Netherlands in the 20th century: long-run developments and cyclical properties](#)
September 2005 - Emiel Afman
- 05-37 [Search, mismatch and unemployment](#)
July 2005 - Maite Blazques & Marcel Jansen
- 05-36 [Women's preferences or delineated policies? The development of part-time work in the Netherlands, Germany and the United Kingdom](#)
July 2005 - Mara Yerkes & Jelle Visser
- 05-35 [Vissen in een vreemde vijver: Het werven van verpleegkundigen en verzorgenden in het buitenland](#)
May 2005 - Judith Roosblad
- 05-34 [Female part-time employment in the Netherlands and Spain: an analysis of the reasons for taking a part-time job and of the major sectors in which these jobs are performed](#)
May 2005 - Elena Sirvent Garcia del Valle
- 05-33 [Een functie met inhoud 2004 - Een enquête naar de taakhoud van secretaresses 2004, 2000, 1994](#)
April 2005 - Kea Tijdens
- 04-32 [Tax evasive behavior and gender in a transition country](#)
November 2004 - Klarita Gërxhani
- 04-31 [How many hours do you usually work? An analysis of the working hours questions in 17 large-scale surveys in 7 countries](#)
November 2004 - Kea Tijdens
- 04-30 [Why do people work overtime hours? Paid and unpaid overtime working in the Netherlands](#)
August 2004 - Kea Tijdens
- 04-29 [Overcoming marginalisation? Gender and ethnic segregation in the Dutch construction, health, IT and printing industries](#)
July 2004 - Marc van der Meer
- 04-28 [The work-family balance in collective agreements. More female employees, more provisions?](#)
July 2004 - Killian Schreuder
- 04-27 [Female income, the ego effect and the divorce decision: evidence from micro data](#)
March 2004 - Randy Kesselring (Professor of Economics at Arkansas State University, USA) was guest at AIAS in April and May 2003
- 04-26 [Economische effecten van Immigratie – Ontwikkeling van een Databestand en eerste analyses](#)
Januari 2004 - Joop Hartog & Aslan Zorlu
- 03-25 [Wage Indicator – Dataset Loonwijzer](#)
Januari 2004 - Kea Tijdens
- 03-24 [Codeboek DUCADAM dataset](#)
December 2003 - Killian Schreuder & Kea Tijdens
- 03-23 [Household consumption and savings around the time of births and the role of education](#)
December 2003 - Adriaan S. Kalwij
- 03-22 [A panel data analysis of the effects of wages, standard hours and unionisation on paid overtime work in Britain](#)
October 2003 - Adriaan S. Kalwij

- 03-21 *A two-step first-difference estimator for a panel data tobit model*
December 2003 - Adriaan S. Kalwij
- 03-20 *Individuals' unemployment durations over the business cycle*
June 2003 - Adriaan Kalwei
- 03-19 *Een onderzoek naar CAO-afspraken op basis van de FNV cao-databank en de AWWN-database*
December 2003 - Kea Tijdens & Maarten van Klaveren
- 03-18 *Permanent and transitory wage inequality of British men, 1975-2001: Year, age and cohort effects*
October 2003 - Adriaan S. Kalwij & Rob Alessie
- 03-17 *Working women's choices for domestic help*
October 2003 - Kea Tijdens, Tanja van der Lippe & Esther de Ruijter
- 03-16 *De invloed van de Wet arbeid en zorg op verlofregelingen in CAO's*
October 2003 - Marieke van Essen
- 03-15 *Flexibility and social protection*
August 2003 - Ton Wilthagen
- 03-14 *Top incomes in the Netherlands and the United Kingdom over the Twentieth Century*
September 2003 - A.B. Atkinson & dr. W. Salverda
- 03-13 *Tax evasion in Albania: An institutional vacuum*
April 2003 - Klarita Gërxhani
- 03-12 *Politico-economic institutions and the informal sector in Albania*
May 2003 - Klarita Gërxhani
- 03-11 *Tax evasion and the source of income: An experimental study in Albania and the Netherlands*
May 2003 - Klarita Gërxhani
- 03-10 *Chances and limitations of "benchmarking" in the reform of welfare state structures - the case of pension policy*
May 2003 - Martin Schludi
- 03-09 *Dealing with the "flexibility-security-nexus: Institutions, strategies, opportunities and barriers*
May 2003 - Ton Wilthagen & Frank Tros
- 03-08 *Tax evasion in transition: Outcome of an institutional clash - Testing Feige's conjecture*
March 2003 - Klarita Gërxhani
- 03-07 *Teleworking policies of organisations- The Dutch experience*
February 2003 - Kea Tijdens & Maarten van Klaveren
- 03-06 *Flexible work - Arrangements and the quality of life*
February 2003 - Cees Nierop
- 01-05 *Employer's and employees' preferences for working time reduction and working time differentiation – A study of the 36 hours working week in the Dutch banking industry*
2001 - Kea Tijdens
- 01-04 *Pattern persistence in european trade union density*
October 2001 - Danielle Checchi & Jelle Visser
- 01-03 *Negotiated flexibility in working time and labour market transitions – The case of the Netherlands*
2001 - Jelle Visser

- 01-02 Substitution or segregation: Explaining the gender composition in Dutch manufacturing industry
1899 – 1998
June 2001 - Maarten van Klaveren & Kea Tijdens
- 00-01 The first part-time economy in the world. Does it work?
2000 - Jelle Visser

AIAS Working Paper Series

The AIAS working paper series consists of several publications of AIAS staff and AIAS guests on a wide variety of subjects in the fields of labour economics, sociology of work, labour law, and health and safety.

ISSN online 2213-4980

ISSN print 1570-3185

Information about AIAS

AIAS is an institute for multidisciplinary research and teaching at the University of Amsterdam. Founded in 1998, it brings together the University's expertise in labour studies from the Faculties of Law, Social and Behavioural Sciences, Economics and Business, and Medicine.

AIAS research focuses on the analysis of labour markets, social security and governance. It combines various disciplinary approaches along three perspectives: Societal regulations & coordination of markets, Individual transactions in markets and Societal and individual effects. Some of our research programmes are:

- GINI Growing Inequalities' Impacts
- Equalsoc network of Excellence (Economic Changes, Quality of Life and Social Cohesion)
- Solidarity in the 21st Century
- AMCIS Amsterdam Centre for Inequality Studies
- Flex Work Research Centre
- WageIndicator

AIAS offers various forms of education:

- The course cycle '*Arbeidsvraagstukken en Beleid*' consisting of four courses (in Dutch):
 - A. *HRM in Beeld*
 - B. *Arbeidsmarktontwikkeling*
 - C. *Ongelijkheid & Solidariteit*
 - D. *Trends in Arbeidsverbanden*
- Various in-company courses
- Together with the Graduate School of Social Sciences and the Faculty of Social and Behavioural Sciences, AIAS organizes the Master in Comparative Organisation Labour Studies
- PhD Laboratory, which aims at providing a stimulating and structured environment for the support of external PhD students, specifically teaching staff of the University of Applied Sciences.



Amsterdam Institute for Advanced labour Studies

University of Amsterdam

Plantage Muidergracht 12 ● 1018 TV Amsterdam ● The Netherlands

Tel +31 20 525 4199 ● Fax +31 20 525 4301

aias@uva.nl ● www.uva-aias.net