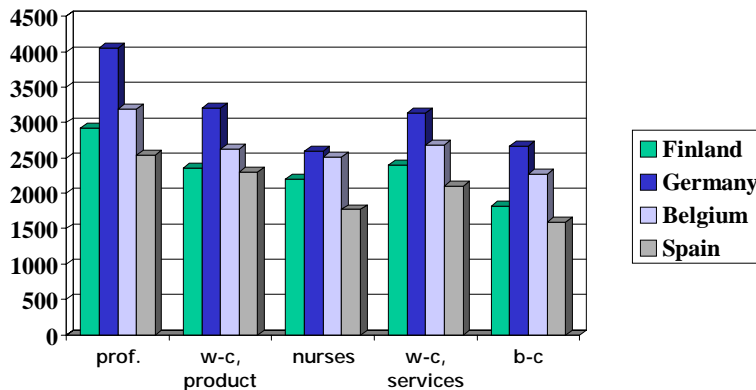


## Monthly gross wages/salaries by occupation in some EU-countries



N=55 493 in euros (Woliweb data)

**Prof= managerial and professional tasks**

**w-c, product= white-collar workers in manufacturing**

**nurses**

**w-c, services = white-collar workers in services (nurses excluded)**

**b-c= blue-collar workers.**

**Kimmo Kevätsalo 2006-04-30**

### **WOLIWEB national report106 of Finland: some preliminary results**

#### **Introduction**

Palkkalaskuri is the Finnish name of the Finnish Woliweb-sites. This report is based on the Finnish data of 31.12.2005. There are 4705 observations.

My aim is to present a preliminary description of the data and findings of the report using cross-tabulation according to the most generally used background variables: gender, age, education, socio-economic position, industry, occupation etc.

#### **Skewness**

I begin with the representativeness (skewness) of the data. As an estimator I mainly use the latest statistics from Statistic Finland, and sometimes surveys that represent the Finnish employees or the whole labour force well enough (e.g. Lehto-Sutela 2003; Pyöriä-Melin-Blom 2005).

The division of respondents according to sex in Palkkalaskuri is skew. There are more women (60 %) than men (40 %). In the year 2004 sex division in the Finnish labour force was 50-50.

Age structure is also skew. In table 1 one can notice that respondents are clearly younger than the whole working population. The difference seems to diminish slowly with the increasing number of observations.

**Table1**

**Employee age structure in 2003 (Statistical Yearbook 2005) and in Palkkalaskuri data 2005 , for Full-time employees**

Age classification	Statistic Finland	Palkkalaskuri dataset October -05	Palkkalaskuri dataset December -05
15-29	22,8	31,2	29,3
30-39	23,7	35	35,1
40-49	26,8	21,1	22,3
50-64	26,5	12	13,3

The third dimension of the skewness is educational structure. As one might quite well expect the educational level of those who have answered the Palkkalaskuri questionnaire is not representative in relation to all Finnish employees.

**Table2**

**Employee educational structure in 2003 (Statistical Yearbook 2005) and in Palkkalaskuri data 2005 , for Full-time employees**

Educational structure	Statistic Finland, 2003	Dataset October -05	Dataset December -05
Only basic education	22,2	5,2	5,0
Upper secondary education	44,6	38,9	37,6
Tertiary education	33,2	55,9	57,3

The skewness has slightly deteriorated where the number of respondents has increased from October to December in 2005. Perhaps this is only a temporary change but it may be typical for Internet surveys at the moment when Internet literacy is not yet a basic civic competence.

### **Skewness of wages and salaries**

In 2003 there were 1 394 000 employees (658 000 women and 736 100 men) who had a full-time job during 12 months. The annual mean wages and salaries for men were 34 789 euros and for women 26 775 euros ( 78 % of men's wages and salaries). The median for men was 30 623 euros and for women 24 472 euros (80 % of men's median).

When evaluating the differences between the official statistics and the Palkkalaskuri data, we have to bear in mind that 1) the official statistics are two years older than Palkkalaskuri data, 2) they include the holiday wages/salaries and holiday bonuses (approximately 15 % ). I assume that pay rises have been 4 % a year. Taking into consideration the assumption of 4 + 4 % pay rises I get from the official statistics the evaluated average monthly wage/salary for full time employees in 2005 about 2566 Euros (2835 for men and 2279 for women, a woman's Euro is 80 cents of a man's Euro).

The Palkkalaskuri questionnaire + assumed 15 % bonuses give 2585 euros as an average pay for both genders, 2400 euros for women and 2847 euros for men (a woman's Euro is 84 cents of a man's Euro). There is a difference of 19 Euros between the results of these two data concerning average wages/salaries. We may state that even now when we have only 4705 observations the figures are quite close to each other at this most general level.

With a detailed analysis of observations one can notice that there presumably are "wrong" answers. There are such high and low wages/salaries in some occupations that they cannot be real. Quite probably they reflect mostly spelling errors (e.g. too many or too few figures written accidentally). Misunderstandings of a question are possible too. A respondent may have given his/her annual wage/salary when the question in fact referred to monthly earnings. For one reason or another some respondents may have intentionally written too high or too low wage/salary. Most of these sources of error can be checked if there are enough resources available. For a preliminary analysis I have removed all probably wrong answers which I noticed when glancing over the data. Moreover I have defined that only monthly gross wages/salaries between 0 – 15 000 euros are accepted.

### **Pay discrimination by gender in relation to factual pay gap**

When comparing monthly wages/salaries by sector only gross wages/salaries are included, not the various bonuses.

The results are presented in table 3.

**Table 3**

**Average earnings by employer sector and gender in 2003 (Statistical Yearbook 2005) and in Palkkalaskuri data 2005 , for Full-time employees**

<b>Employer sector</b>	<b>Monthly earnings Statistics Finland</b>		<b>Women % of men</b>	<b>Monthly earnings Palkkalaskuri</b>		<b>Women % of men</b>
	Men	Women		Men	Women	
<b>Private</b>	2608	2127	82	2425	2073	85
<b>Public</b>	2821	2301	81	2402	2000	82
<b>Total</b>	2797	2227	80	2476	2089	84

As mentioned earlier the pay discrimination is greater in annual than in monthly wages/salaries. The Palkkalaskuri data shows the pay gap to be smaller than Statistics Finland data. Some explanations for this may be comprised in the skewness of the data; e.g. the age, education and gender structures. At present I do not have the resources to make a deeper analysis into effects of these background variables. From many studies we know for example that pay discrimination depends on age: old employees have greater gender pay differences than younger employees .

The pay gap according to those occupations which are reasonably represented in the Palkkalaskuri data is the following:

**Table 4**

**Average earnings by occupation and gender in official statistics 2003 and in Palkkalaskuri data 2005 , for Full-time employees**

Employer sector	Monthly earnings Statistics Finland		Women % of men	Monthly earnings Palkkalaskuri		Women % of men
	Men	Women		Men	Women	
Legislators, senior officials and managers	4 482	3320	74	4034	3271	81
Professionals	3 367	2747	73	3058	2569	84
Technicians and associate professionals	2781	2175	78	2710	2214	82
Clerks	2144	1920	90	2213	1935	87
Service workers and shop and market sales workers	2086	1741	83	1915	1697	89
Craft and related trades workers	2229	1863	84	1712	1583	92
Plant and machine operators and assemblers	1951	1608	82	1786	1613	90

Taking into consideration the above mentioned reservations concerning the skewness of the Palkkalaskuri data we can see that there is more skewness according to occupations at the most general level of occupation classification. In the Palkkalaskuri data the pay gaps are smaller than in the official data. Among high status employees an explanation may be trade union membership.

### Trade union membership and wages/salaries

Palkkalaskuri gives an opportunity to compare pay gap between trade union members and non-members. Some earlier Finnish surveys have collected information about pay and trade union membership, but none has been used for systematic analysis of these two variables. I start this analysis with our existing data. We get only preliminary results because the data is skew also by this variable. In the Palkkalaskuri data December 2005 there are 91 % trade union members. More representative sources show the union density to be 70-71 % (Ylöstalo 2004; Böckerman- Uusitalo 2005). One explanation for skewness is that the beginning of Palkkalaskuri was organised together with the two largest central federations<sup>1</sup>.

**Table 5**

**Average earnings by trade union membership and gender in Palkkalaskuri data 2005 , full-time employees, euros/month**

	Women	Men	Total
<b>Trade union members</b>	2066	2353	2179
<b>Non-members</b>	2456	2939	2704
<b>N</b>	<b>1980</b>	<b>1359</b>	<b>4041</b>

<sup>1</sup> The Central Organisation of Finnish Trade Unions SAK and The Finnish Confederation of Salaried Employees STTK



<b>None</b>	26	19	24	23	27	26	23	1010
<b>1</b>	16	15	14	18	16	15	11	659
<b>2</b>	13	15	13	14	11	12	12	555
<b>3</b>	11	13	10	14	9	11	13	507
<b>4</b>	8	11	13	10	10	11	9	459
<b>5 or more</b>	26	27	26	21	27	25	32	1022
<b>Total</b>	100	100	100	100	100	100	100	
N	1126	597	238	1043	340	530	315	4212

There are quite clear differences between industries in stability of employment relationships. The least stable industries are trade and private sector dominated services like financial and business services. In the other end of this dimension are public sector services and surprisingly also manufacturing and construction. Surprisingly the construction industry seems not to have any deviation from manufacturing. It is possible that the explanation is the small number of respondents from construction industry.

**Table 9**  
**Changes of employer by socio-economic status in Palkkalaskuri data 2005**

<i>Changes of employer</i>	<i>Socio-economic status</i>					
	<b>Blue-collar</b>	<b>White-collar, low-level</b>	<b>White-collar, high-level</b>	<b>Civil servants</b>	<b>Total</b>	N ( 325 or 9 % not classified by socio-economic status)
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
<b>None</b>	21	22	23	24	23	739
<b>1</b>	16	17	15	21	16	529
<b>2</b>	14	13	14	14	13	436
<b>3</b>	12	12	14	8	12	386
<b>4</b>	12	12	11	12	11	308
<b>5 or more</b>	25	24	9	21	25	389
<b>Total</b>	100	100	100	100	100	
N	1048	966	721	218		3246

Employer changes are less common within high-level white-collar workers than within other socio-economic categories. Counting only full-time employees does not change the results in a noteworthy way.

Being mobile is as common among low-level white-collar workers as blue-collar workers according to this dataset . If this turns out to be a stable feature when the dataset enlarges, it may be interpreted as a remarkable change among employees. There may be “wrong” answers in the sense that some manual workers within trade and service sectors interpret themselves as white collar workers (e.g. salespersons within retail business and department stores). This is naturally possible to check by statistically analysing which industry the low level white collar workers belong to.

As for correlation between trade union membership and work histories, it is possible to examine these only at general level because the amount of non-members is so small. Trade union members change employer more often than non-members but the explanation may be a background variable such as sector or industry.

**Table 10**  
**Changes of employer by trade union membership in Palkkalaskuri data 2005**

<i>Changes of employer</i>	<b>Trade union membership</b>		
	<b>Non-members</b>	<b>Members</b>	<b>Total</b>
<b>None</b>	27	24	25
<b>1</b>	14	16	16
<b>2</b>	13	13	13
<b>3</b>	14	11	12
<b>4</b>	9	11	11
<b>5 or more</b>	23	25	23
<b>Total</b>	100	100	100
N	323	3240	3563

### **Qualifications, competences**

There are a lot of definitions about qualifications and competences depending on different theories (e.g Gudmundsson 1998). In fact our dataset does not give information about the formal qualifications of the jobs. We know basic formal education. We also know how much additional education our respondents have got paid for either by their employer or by themselves. Moreover we have employees' opinions about their abilities to manage job requirements.

For the purposes of this report I define qualification as conditions that one's employer has decided an employee has to fulfil according to: 1) required examination and 2) learning time for managing one's tasks. This condition has been asked in our questionnaire using a question: What is the required training time to settle in a particular job for a person who has taken a required examination.

**Table 11**  
**Time needed to settle in one's job by socio-economic status in Palkkalaskuri data 2005**

<i>Time needed to settle in one's job after a required examination</i>	<i>Socio-economic status</i>					
	<b>Blue-collar</b>	<b>White-collar, low-level</b>	<b>White-collar, high-level</b>	<b>Civil servants</b>	<b>Total</b>	<b>N ( 260 or 8 % not classified by socio-economic status)</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
<b>No training</b>	2	1	1	2	2	57
<b>1-2 days</b>	9	4	1	1	5	143
<b>3-6 days</b>	9	6	2	3	6	185
<b>1-4 weeks</b>	20	15	9	8	15	456

<b>1-3 months</b>	18	24	17	16	15	595
<b>3-6 months</b>	12	17	18	11	15	455
<b>½-1 vuotta</b>	12	15	19	25	16	474
<b>More than a year</b>	19	18	33	34	23	694
<b>Total</b>	100	100	100	100	100	
N	996	928	673	202		3059

Over a half (58 %) of employees claim that learning to manage their job takes less than half a year for a person who has had the required education. There is a clear connection between one's socio-economic position and time needed to settle in a job: 70 % of blue collar workers, but only 48 % in professional and managerial tasks answer that necessary time is less than 6 months.

On the other hand, I operationalise competence here as a match between qualification requirements and abilities which an employee thinks he/she really has. There are several questions which measure this aspect in our questionnaire. One is "Does your educational level match your job level?"

**Table 12**  
**Matching of job level and education level in Palkkalaskuri data 2005**

<i>Matching of education and job levels</i>	<i>Educational level</i>				
	<b>Basic education</b> %	<b>Third level education</b> %	<b>Low level university examination</b> %	<b>High level university examination (MA, BA or more)</b> %	<b>Total</b> %
<b>Yes</b>	83	74	71	75	73
<b>Too highly qualified</b>	8	7	5	2	5
<b>Too under-qualified</b>	9	20	25	23	21
<b>Total</b>	100	100	100	100	100
N	216	1187	1298	497	3198

The result is surprising when compared with some Finnish research results (e.g. Kevätsalo 1999 and Kevätsalo, Ekström & Eteläaho 2001). For example what does a person with university examination mean when she/he answers that her/his education level is too low? To answer this question we need extra analysis but unfortunately the necessary data is not available at present.

### **Collective bargaining**

The coverage of collective bargaining in Finland has 3 levels. The most important one is the binding agreements made by national employer and employee organisations. These organisations make more than 200 national agreements, of which about 130 are defined "binding" by a national

committee. There are also company and workplace agreements which mainly cannot be worse for employees than national collective agreements. Moreover there are agreements made by central federations of employers and employees.

For laymen the system cannot be very well known in detail, but they have some image about their position in this system. Our questionnaire endeavours to examine this using e.g. the question “Are you yourself covered by a collective agreement? Almost 90 % of all employees answer “yes”. The interesting feature in our dataset is that best covered employee group seems to be low level white-collar workers. Expected and understandable is the result that professionals are not as well covered by collective agreement as other employee groups. The employers do not even accept agreements for several professional groups within private sector. The technology industries within the private sector are the most important ones which have a collective agreement also for professionals even though it is quite “light” compared with collective agreements of e.g. blue-collar workers.

**Table 13**  
**Collective agreement coverage in Palkkalaskuri data 2005**

<i>Collective agreement</i>	<i>Socio-economic status</i>				
	<b>Blue-collar</b>	<b>White-collar, low-level</b>	<b>White-collar, high-level</b>	<b>Civil servants</b>	<b>Total</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Yes</b>	86	9	17	10	12
<b>No</b>	14	91	83	90	88
<b>Total</b>	100	100	100	100	100
N	937	896	721	218	2910

### **Collective agreement attitudes**

In this report I present only one cross-tabulation concerning attitudes about collective agreement: the correlation of attitudes and collective agreement coverage. The result is: 11 % of those covered by collective agreement do not think that this is important. I continue further with the analysis by examining which are the attitudes of those who are not covered by collective agreement. In many respects the result gives a remarkable signal: one quarter of all those who are not covered by CA think that CAs are not important. 37 % of high status white collar workers (managerial and professional) have an attitude that CA is not important.

**Table 14**  
**Attitudes about collective agreement (CA) among those who are not covered by CA in Palkkalaskuri data 2005**

	<i>Socio-economic status</i>
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<i>Attitude</i>	<b>Blue-collar</b>	<b>White-collar, low-status %</b>	<b>White-collar, high-status %</b>	<b>Total %</b>
<b>Important</b>	81	78	63	74
<b>Not important</b>	19	22	37	26
<b>Total</b>	100	100	100	100
N	113	71	90	308 (some employee groups missing)

### **Perceptions of job insecurity in relation to dismissals and reorganisations at the workplace**

In our questionnaire there are several questions measuring on the one hand dismissals and reorganisations, on the other hand mapping insecurity anticipations. In this report I describe the data in one cross-tabulation: as an explanatory variable there are announced redundancies. This explains the variation in the variable concerning worries about job security. The correlation is not quite clear and needs extra analysis. Among those in whose workplace redundancies have occurred there is quite a definite attitude about job insecurity. However even in these work organisations there are around one third who are not worried. Perhaps either they belong to the core workforce, or perhaps they do not mind this situation. The prospective analysis will tell us more.

**Table 16**

**Attitude about job security resulting from announced redundancies in Palkkalaskuri data 2005**

<i>Opinion about the statement "I am worried about job security"</i>	<b>Announced redundancies</b>		
	<b>No</b>	<b>Yes</b>	<b>Total</b>
<b>Fully agree</b>	18	36	23
<b>2</b>	14	16	21
<b>3</b>	14	13	14
<b>4</b>	23	16	15
<b>Totally disagree</b>	27	15	23
<b>Do not know</b>	5	3	4
<b>Total</b>	100	100	100
N	2441	10180	3459

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