Wage growth among young college graduates in Europe: is there a gender gap?*

Rocío Sánchez-Mangas [†]   Virginia Sánchez-Marcos[‡]

February 28, 2018

Abstract

In this paper we use the Flexible Professional in the Knowledge Society (REFLEX) data set to learn about early career dynamics of the gender wage gap among college graduates in several European countries. First, we document an overall wage difference between men and women of 8 log points at the entrance to the labour market with substantial heterogeneity in size across countries. Second, although there is a substantial increase of 4 log points in the gender wage gap over the five-year period of analysis, the increase is smaller after differences in the graduates' field of education, economic sector and occupation are taken into account. Finally, we find that there is a significant gender gap of 0.7 percentage points in the annual wage growth after the *first job*. This gap is mostly accounted for by gender differences in the degree of labour market attachment and hours worked in the *first job* after graduation, which are closely related to having children. Our results in this respect are in line with previous findings in the related literature.

JEL Codes: J16, J24, J31

Keywords: gender gap, wage growth, field of education, human capital

[†]Universidad Autónoma de Madrid
[‡]Universidad de Cantabria

1 Introduction

In this paper we use the Flexible Professional in the Knowledge Society (REFLEX) data set to learn about the dynamics of the gender wage gap among college graduates over the five-year period after their entrance to the labour market in several European countries. Focusing on early career is important for two reasons. First, as shown in Murphy and Welch (1990), two thirds of the lifetime wage growth is accumulated during the first ten years of the working career. Second, as reported in Goldin (2014) for the case of the US, wage differences between men and women are observed to increase up to about the age of 40. Empirical evidence of an increasing gender gap after some years in the labour market is also found in Manning and Swaffield (2008) for the UK, Goldin (2014), Goldin et al. (2017) and Erosa et al. (2016) for the case of the US, Betrand et al. (2010) for the case of MBA graduates from a top US business school or in Azmat and Ferrer (2017) for the case of associate lawyers in the US. In line with this literature, we find the gender wage gap being higher five years after graduation than at the entrance to the labour market in most of the countries we analyse. However, whereas the evidence in some of these papers points towards a negligible initial gender wage gap, we find that there is a considerable amount of heterogeneity in this respect across European countries.

There are several theories that have been suggested to explain the evolution of gender differences in wages over a worker's life-cycle. First, the human capital theory pioneered by Mincer (1974) and Becker (1993) has clear implications for the gender pay gap as shown, for instance, in Mincer and Polachek (1974) or Mincer and Ofek (1982) and more recently in Manning and Swaffield (2008), Betrand et al. (2010), Gicheva (2013) and Erosa et al. (2016), among others. If women are less attached to the labour market than men, which may be reflected in more frequent labour market interruptions or in a smaller number of hours worked, they accumulate less labour market experience, which erodes their future wages. Focusing on college workers in the US, Gicheva (2013) finds that wage growth increases with working hours when hours are high.[1] For the case of the UK, Manning and Swaffield (2008) find that the human capital hypothesis can account for about half of the gender pay gap that emerges ten years after joining the labour market. Second, according to Topel and Ward (1992), job mobility is responsible for one third of the wage growth in the first ten years after labour market entry among US men. Several papers have found that either women are more constrained than men in their opportunities to change jobs[2] or the returns to job mobility are different for men and women,[3] widening the gender wage gap over the life-cycle. Finally, it could be the case that women self-select into jobs with lower average wage growth, which offer, however, other non-pecuniary

---

[1]In particular, between 14% and 48% of the gender difference in wage growth could be accounted for depending on the size of the labour supply gap. The importance of hours worked to determine wage growth is consistent with findings in Bertrand et al. (2010).

[2]See for instance Fitzenberger and Kunze (2005) for the case of Germany, Barth et al. (2017) for the case of the US and Manning (2003) for the case of the UK.

[3]See for instance Loprest (1992), Del Bono and Vuri (2011) for the case of Italy, Hospido (2009) for the case of Spain, Napari (2009) for the case of Finland and Reshid (2016) for the case of Sweden.

amenities. This is related to Fortin (2008) who finds that gender differences in non-cognitive factors such as the importance of money/work and the importance of people/family have a significant role in accounting for the gender wage gap among young adults in the mid-eighties in the United States.[4] There is evidence of other interesting self-selection patterns that help to account for the gender wage gap as for instance found by Card et al. (2016), Adda et al. (2017) and Erosa et al. (2017). Card et al. (2016) find evidence that women are less likely to work at firms that pay higher premiums to either gender, with sorting effects explaining about one-fifth of the cross-sectional gender wage gap in Portugal. Adda et al. (2017) find evidence for Germany that occupational choices based on expectations of future fertility have a substantial effect on women's future wages. Finally, Erosa et al. (2017) find that in the presence of gender asymmetry in the time devoted to home production, women are more likely to self-select into occupations that do not reward longer hours.

To the best of our knowledge this is the first paper to explore the role of these theories in order to account for the evolution of the gender wage gap among young college graduates in Europe. Importantly, our data set contains retrospective information of the individuals that allows us to study, among other things, the importance of *true* (instead of *potential*) labor market experience (both at the extensive and intensive margin) during early career for observed wage growth. We can also analyse the role played by the choice of the field of education that is made before entrance to the labor market, the role of individual preferences for different job characteristics and the importance of changes in occupation during early career. We find that differences in the field of education between men and women account for about one-quarter of the gender gap in wage growth in the pooled sample. The impact of gender differences in preferences is only slightly smaller. In contrast, we do not find evidence of gender differences in changes in occupation from the *first* to the *current job* playing a significant role. We also find that after we control by differences in hours worked in the *first job* and number of months employed since graduation the gender gap is negligible. Therefore we investigate the impact of the presence of children on the main driven force of differences in wage growth, the degree of labor market attachment. We find that a substantial fraction of the gender gap in hours worked in the *first job* and in the number of months employed since graduation is related to the presence of children. This is consistent with findings in Bertrand et al. (2010) and Azmat and Ferrer (2017) for specific groups of college graduates in the US and with Angelov et al. (2016) for the case of Sweden. However, our analysis supports that the effect of children may go beyond and above its direct impact on labor market attachment. In particular, women's stronger preference for jobs offering better *chances to balance family and work*, even if they are childless, has a negative impact on women's wage growth relative to men. As argued in Adda et al. (2017), expectations of future fertility may explain self-selection of

---

[4]Related to this, Zafar (2013) finds that gender differences in college major choice is determined to a large extent by the preferences regarding the workplace, with males caring more about the pecuniary outcomes and females about the non-pecuniary outcomes. Evidence in Daymonti and Andrisani (1984) is also consistent with this.

women into certain occupations, a process that may start well *before* child arrival. This contributes to gender inequality, that, of course, may be exacerbated by gender differences in occupation dynamics *after* child arrival that are found, for instance, in Kleven et al. (2018) based on event study around birth for the case of Denmark.

The paper is organized as follows. In Section 2 we describe the data set used for the analysis. In Section 3 we document gender wage differences among college graduates at the entrance to the labour market. Section 4 documents gender differences in wages at the time they are interviewed and explores the determinants of the gender gap in the annual wage growth. Finally, in Section 5 we present our conclusions.

2   Data

We use the Flexible Professional in the Knowledge Society (REFLEX) data set that collects the results of a survey on graduates from ISCED 5A who are interviewed approximately five years after their graduation in the year 1999/2000. The project covered 14 countries, all of them developed and most of them in Europe: Austria, Belgium (only Flanders), Finland, France, Germany, Italy, the Netherlands, Norway, Spain, the UK, the Czech Republic, Portugal, Estonia and Japan. For our analysis we select countries that belong to the EU-15 together with Norway because of its similar level of development. The database is representative of the sampled cohort across countries and it is rich in variables describing the type of education and skills acquired by the individuals and their mapping into occupation choices and skills.

We restrict our sample to individuals younger than 35 who are interviewed between three and seven years after graduation. Furthermore, since our main focus is to explore gender differences in the wage growth from the *first job* after graduation to the job individuals have when they are interviewed, *current job*, we restrict our sample to those individuals for whom the time span is shorter than eight years (the resulting average time span is around five years).[5] Finally, we drop observations when the wage is below 1/5 of the median wage or 5 times above the median wage in each country, which represents less than 4% of the sample.

In principle, non-random selection of men and women into tertiary education and/or into the labor market may bias the results of our analysis. However, according to the OECD (2012), the fraction of qualifications awarded to women in tertiary-type A and advanced research programs in 2000 was 0.55, with some variation across countries. The lowest rate is found in Germany with 0.45 and the highest in Portugal with 0.65. Regarding the labor market, the overall employment rate at the time of the interview is high in our sample, with 92% of the individuals working. Although there is some variation across countries, there is a small gap of 5 percentage points between men and women.[6] Given these

---

[5]We want to exclude those who already have a career.

[6]The largest gap of 12 percentage points is found in Finland, followed by Portugal and Austria with 7, Italy, the

3

facts, we believe that sample selection bias would not affect the analysis that we carry out in the following sections.

3 The gender wage gap in the *first job*

We start by providing a descriptive analysis of the gender wage gap in the *first job* after graduation. In the first column of Table 1 we report raw gender differences in wages for the full sample and for the different countries. We find that the overall wage difference between men and women is 8 log points, but there are other interesting facts. First, in the first job there is substantial heterogeneity in the raw gender wage gap among college graduates across the sample of European countries that we consider. It varies from 18 log points in Germany, 14 in Norway, 13 in Austria, 12 in Finland, 6 log points in Spain and Belgium, 5 log points in the Netherlands and to a non significant gap in the case of Portugal, Italy and the UK. The analysis by Manning and Swaffield (2008) for the UK is consistent with this finding. Therefore, the absence of a gender wage gap at the entrance to the labour market is not a general phenomenon.

Of course, initial gender differences in wages may be related to self-selection of individuals into different fields of education, economic sectors and/or occupations. In Tables 2, 3 and 4 we report these differences for the overall sample. According to the data set, we consider a classification of 8 categories in the field of education. In Table 2 we show that the fraction of men and women in each field of education presents a substantial gap with a higher percentage of women being graduates in the fields of Education, Humanities and Arts, about 27% of them in contrast to 10% of men. There are also more women in the Health and Welfare sector, 19% of women graduated in those fields, in contrast to 7% of men. The fraction of women who graduated in Social Science and Business or Services is quite similar to that of men. However, only 17% of women graduated in Science, Maths and Engineering and Manufacturing, whereas the figure is 46% in the case of men. The segregation of men and women in the different education fields is a general phenomena across countries.[7]

The underlying reasons for the differences in the field of education between men and women may be related to different competitive advantages, to differences in preferences or to different beliefs. Zafar

---

UK, Norway, Spain and Germany with between 3 and 6, France, the Netherlands and Belgium with a gap below 2 percentage points.

[7]Regarding Education, Humanities and Arts, the presence of women is higher in all countries. The difference ranges from around 15 percentage points in Spain, Italy and Netherlands to around 24 in the UK. The presence of men who have graduated in Science and Maths or in Engineering and Manufacturing is around 40 percentage points higher than that of women in Finland. In Austria, Germany, Belgium, Norway, Portugal and Spain, the difference is around 30 percentage points. The figure in Italy, France and the Netherlands is around 25 percentage points. In the UK the difference is less pronounced, but still very high, 21 percentage points. Regarding graduates in the Health and Welfare sector, where there are more women than men in all countries, the largest difference corresponds to Finland and Norway, around 25 percentage points and the Netherlands with 20 percentage points. However, in France and the UK the difference is less than 5 percentage points. In Social Science and Business or Services, the presence of women is lower than that of men in some countries (the Netherlands and Norway, with a difference of around 12 percentage points), but in most cases the figures are quite similar or the presence of women is higher. The most important differences, of around 8 to 9 percentage points where women are more present than men, are found in Portugal, Spain, Austria and Belgium.

Table 1: Female Coefficient of Log Wage Regression, *First Job*

	Raw	Educ	Educ Sect, Occ
All	-0.0806	-0.0687	-0.0631
sd	0.0077	0.0085	0.0085
pv	0.0000	0.0000	0.0000
N	11455	11387	11158
Portugal	-0.0006	-0.0712	-0.0502
sd	0.0507	0.0494	0.0477
pv	0.9908	0.1504	0.2930
N	349	345	345
Spain	-0.0625	-0.0582	-0.0676
sd	0.0208	0.0219	0.0220
pv	0.0027	0.0080	0.0021
N	2226	2202	2090
Italy	-0.0049	-0.0162	-0.0320
sd	0.0357	0.0395	0.0398
pv	0.8914	0.6812	0.4216
N	870	859	831
France	-0.1039	-0.0759	-0.0662
sd	0.0306	0.0327	0.0310
pv	0.0007	0.0206	0.0331
N	869	854	837
Austria	-0.1305	-0.1082	-0.0878
sd	0.0287	0.0316	0.0316
pv	0.0000	0.0007	0.0056
N	765	765	761
Germany	-0.1773	-0.1134	-0.0948
sd	0.0332	0.0353	0.0364
pv	0.0000	0.0014	0.0094
N	854	849	815
Netherlands	-0.0478	-0.0383	-0.0371
sd	0.0146	0.0158	0.0159
pv	0.0011	0.0153	0.0194
N	1856	1856	1851
Belgium	-0.0606	-0.0605	-0.0535
sd	0.0224	0.0253	0.0249
pv	0.0068	0.0172	0.0319
N	944	936	932
UK	-0.0415	-0.0328	-0.0274
sd	0.0308	0.0336	0.0325
pv	0.1776	0.3295	0.3996
N	727	726	714
Norway	-0.1390	-0.1077	-0.1026
sd	0.0157	0.0194	0.0191
pv	0.0000	0.0000	0.0000
N	1089	1089	1083
Finland	-0.1196	-0.0895	-0.0717
sd	0.0234	0.0272	0.0257
pv	0.0000	0.0011	0.0054
N	906	906	899

Table 2: Distribution across fields of education

	Female	Male
Education	12.53	3.74
Humanities and Arts	14.28	6.43
Social Science and Business	32.38	31.48
Science and Maths	9.39	15.78
Engineering, Manufacturing	7.29	29.55
Agriculture and Veterinary	2.14	3.09
Health and Welfare	19.45	7.46
Services	2.55	2.48

(2013) offers a deep discussion of the literature related to this and estimates a choice model of college major with uncertainty (among others, about realizations of outcomes related to the choice of major) using data on subjective expectations from 161 Northwestern University sophomores. He finds that the most important factors in the choice of major are *enjoying course-work*, *enjoying work at potential jobs*, and *gaining the approval of parents*. Although males and females have similar preferences while in college, they differ in their preferences regarding the workplace. Non-pecuniary outcomes explain the choices in half of the cases for males, and, in more than three-quarters of the cases for females.

As a result of the differences in distribution across fields of education, we can expect substantial segregation in economic sectors and occupations. In Table 3, based on a classification of 14 economic sectors, it can be observed that there is a higher presence of women working in Health and Social Services, with 22% of them in this category, in contrast with 8% of men. There are also more women present in the Education sector, 22% as opposed to 14% of men. However, Manufacturing is dominated by men, 17% of them are working in this sector, in contrast with 9% of women. The same happens in the Real Estate and Renting sector, 26% of men and only 17% of women work in this sector. For the rest of the sectors, the differences are less pronounced.[8]

Regarding occupations, we show in Table 4 that gender differences are smaller. This is based on a classification of occupations in 10 categories. We find that the fraction of women working as clerks is 11%, almost twice the fraction of men. For the rest of the occupations, the differences are smaller, but there are more men in professional occupations.[9]

---

[8]Although this segregation is present in all countries, there are some variations. For example, the differences in Health and Social Services (a higher presence of women in all countries) range from less than 10 percentage points in Portugal, Spain, France, Germany and the UK to more than 20 percentage points in Norway and Finland. In the Education sector, the differences are more pronounced in Germany and Portugal (16 and 12 percentage points, respectively) and less pronounced in Belgium, Norway and Finland (around 5 or less percentage points). The presence of men in Manufacturing is higher in all countries, the difference being between 10 and 15 percentage points in Belgium, Austria, Germany and Finland, while in the UK the difference is very low. In the Real Estate and Renting Sector, dominated by men in all countries, the most remarkable difference can be appreciated in Norway (14 percentage points).

[9]Again, we find heterogeneity across countries. For example, regarding Professionals, the segregation is less evident in Spain, France and Germany, with a difference below 5 percentage points between men and women. However, in Norway and Finland that difference is higher than 20 percentage points, with a higher presence of men. The differences are less remarkable regarding Clerks.

Table 3: Distribution across economic sectors

	Female	Male
Agriculture, hunting, fishing, mining and forestry	1.32	2.45
Manufacturing	8.62	16.77
Construction, electricity and water supply	1.59	5.08
Wholesale and retail trade	4.99	4.26
Hotels and restaurants	1.54	1.10
Transport, storage and communication	3.66	5.50
Financial intermediation	4.55	6.57
Real estate, renting and business administration	17.15	26.36
Public administration and defense	6.79	6.69
Education	21.68	13.88
Health and social services	21.59	8.00
Other community, social and personal services	5.87	3.21
Activities of private households for own use	0.33	0.02
Extraterritorial organizations	0.33	0.12

Table 4: Distribution across occupations

	Female	Male
Armed forces	0.09	0.50
Legislators, senior officials and managers	4.43	6.12
Professionals	49.03	57.67
Technicians and associate professionals	29.63	25.14
Clerks	10.90	6.60
Service workers and shop and market salers	3.83	1.67
Skilled agricultural and fishery workers	0.15	0.20
Craft and related trade workers	0.33	0.56
Plant and machine operators and assemblers	0.21	0.40
Elementary occupations	1.39	1.15

In order to assess the importance of education and labour market segregation for the initial gender differences in wages, in the second column of Table 1 we report the gender wage gap after we control by field of education. In the third column we report the estimated gender wage gap once we control for fields of education, economic sector and occupation.[10] There are several aspects to highlight. First, in the overall sample, the gap goes down slightly from 8 to 7 log points after we control by field of education. The largest reduction of the gender gap is found in Germany with 7 log points, followed by Norway and Finland with 3 log points. In France and Austria the reduction is smaller, about 2 log points. In Spain and the Netherlands it is around 1 log point and in Belgium it is negligible. Therefore, women self-selecting into fields of education plays a modest role in accounting for gender differences in wages in the *first job*. Second, the inclusion of the economic sector and occupation as additional controls reduces the *first job* wage gap by less that 1 log point in the overall sample. In Austria, Finland and Germany, controlling for sector and occupation reduces the gap by 2 additional log points. In the rest of the countries, the reduction is even smaller. All in all, self-selection into the field of education, economic sector and occupation account for about 25% of the initial raw gender gap.

Finally, it is worth mentioning that once we control by differences in the characteristics of the population (in terms of education, sector and occupation), differences in the size of the gender wage gap across countries are modest. The fact that we focus on college graduates at their early career, who present high labor market attachment, helps to attenuate the differences across countries that are found in the overall population.[11]

4   The evolution of gender differences

In this section we start by documenting the gender wage gap in the *current job* to compare it with the gap in the *first job* in order to provide a first look at the evolution of gender differences. Then we document a significant gender gap in wage growth and explore its driving forces in order to shed light on the plausibility of the different theories that were discussed in the Introduction.

4.1   The gender wage gap in the *current job*

In Table 5 we report gender differences in wages in the *current job*, where we find a raw gender wage gap of 12 log points in the overall sample. Therefore, the wage gap in the *current job* is about 4 log points higher than in the *first job*. As observed, the gap substantially increased for most countries. In Portugal, Italy and the UK, where the raw gap was not significant at the entrance to the labour market,

---

[10]We use the same classification in 8 education fields, 14 economic sectors and 10 occupations used in Tables 2, 3 and 4, respectively. The results in Table 1 (columns 2 and 3) are robust if we consider a higher level of disaggregation with 29, 14 and 35 categories respectively. However, because of the limited number of observations in some of the groups, we decide to use a classification with fewer categories.

[11]See Blau and Kahn (2003) and Olivetti and Petrongolo (2008).

it becomes significant in the *current job*, reaching 14, 11 and 7 log points, respectively. Regarding the rest of the countries, the highest increase is observed in France with a 9 log point increase and in Finland, where it increases by 6 log points. In the Netherlands, Norway and Spain the increase is between 2 and 4 log points. In Germany and Belgium the gap decreases slightly. Once we control by field of education, the overall gap in the *current job* is of 10 log points and if we also control by economic sector and occupation it goes down to 8 log points. All countries present a significant *adjusted* gender wage gap in the *current job*, with the only exceptions being Belgium and the UK, where the inclusion of these controls makes it negligible.

All in all there is a highly substantial increase of 4 log points in the raw gender wage gap over the five years period. However, the increase is more moderate, 2 log points, after we control by field of education, economic sector and occupation. The fact that the *adjusted* gender wage gap increases by less than the raw gap holds for each of the countries in our sample, except in France, where the increase in the raw and the adjusted gender gap are very similar. This suggests that, at least to some extent, either women tend to reallocate towards low-paid jobs after labour market entrance or that women self-select, at their entrance to the labour market, into jobs with lower expected wage growth. We further explore this possibility in the following section.

4.2   The gender wage growth gap

The increase in gender differences in wages that we documented above obviously reflects gender differences in early-career wage growth, which is our focus here. For this purpose we calculate the real log wage variation between the current job and the first job adjusted by the time elapsed between them.[12] The average annual wage growth between the *current job* and the *first job* in our sample is 6.5% and the raw gender gap of this average annual growth is 0.7 percentage points. Our aim is to disentangle the driving forces behind these differences.

Therefore, we consider different specifications of a regression model for the overall sample with wage growth as the dependent variable. We include several sets of control variables that could potentially account for the gender gap. The first set of controls includes field of education, economic sector and occupation in the *first job*. If women self-select into jobs with lower average wage growth we should expect that including these controls would reduce the gender gap in wage growth. Second, we would like to test the possibility that accumulated human capital through *learning-by-doing* during the period of analysis accounts for gender differences in wage growth. In order to do so, we include the number of hours worked in the *first job* and the number of months employed since graduation as control variables. A third hypothesis is that job mobility helps to account for the gender gap in wage growth. To test this possibility we include two different variables: the number of employers

---

[12]We use the Harmonised Index of Consumer Prices for each country provided by Eurostat to generate price-adjusted wages for the *current job*.

Table 5: Female Coefficient of Log Wage Regression, *Current Job*

	Raw	Educ	Educ Sect, Occ
ALL	-0.1187	-0.0961	-0.0814
sd	0.0070	0.0078	0.0077
pv	0.0000	0.0000	0.0000
N	10970	10903	10531
Portugal	-0.1444	-0.1695	-0.1423
sd	0.0567	0.0619	0.0563
pv	0.0114	0.0066	0.0120
N	302	299	299
Spain	-0.1040	-0.0884	-0.0776
sd	0.0188	0.0203	0.0194
pv	0.0000	0.0000	0.0001
N	2130	2108	2022
Italy	-0.1077	-0.0892	-0.0828
sd	0.0291	0.0341	0.0330
pv	0.0002	0.0091	0.0124
N	869	858	847
France	-0.1937	-0.1730	-0.1648
sd	0.0288	0.0306	0.0300
pv	0.0000	0.0000	0.0000
N	815	800	779
Austria	-0.1786	-0.1331	-0.0952
sd	0.0250	0.0271	0.0273
pv	0.0000	0.0000	0.0005
N	679	679	667
Germany	-0.1554	-0.1272	-0.0990
sd	0.0261	0.0290	0.0303
pv	0.0000	0.0000	0.0012
N	805	800	735
Netherlands	-0.0676	-0.0402	-0.0304
sd	0.0126	0.0134	0.0142
pv	0.0000	0.0027	0.0325
N	1820	1820	1689
Belgium	-0.0421	-0.0360	-0.0274
sd	0.0201	0.0217	0.0215
pv	0.0365	0.0980	0.2028
N	952	942	925
UK	-0.0714	-0.0525	-0.0322
sd	0.0331	0.0354	0.0358
pv	0.0312	0.1387	0.3675
N	686	685	674
Norway	-0.1700	-0.1130	-0.0991
sd	0.0177	0.0195	0.0202
pv	0.0000	0.0000	0.0000
N	1110	1110	1104
Finland	-0.1814	-0.1238	-0.0978
sd	0.0240	0.0293	0.0265
pv	0.0000	0.0000	0.0002
N	802	802	790

the individual reports since the entrance to the labour market and a dummy variable that takes on the value 1 if the occupation changed from the *first* to the *current job*. Note, however, that job changes may be related to job to job transitions decided by the individual, which are likely to be positively correlated with wage growth, but they may also be due to the individual being dismissed from a previous job, most probably having a negative effect on wage growth. Unfortunately, we do not have information on the reasons for job mobility to further explore this issue. As a separate set of controls we include other variables that may be important to account for individual wage growth: the number of months since graduation, a dummy variable that takes on the value 1 if the individual has additional studies, the number of years of the study programme and, finally, the ratio of the effective number of years to complete college relative to the official number of years (this may be an indicator of unobserved heterogeneity in ability). Finally, we include a set of variables that measure the type of job aspects that the individual values more, which may capture unobserved heterogeneity in preferences. In particular, we are interested in how important *high earnings*, *career prospects* and *chance to combine family and work tasks* are for the individual.[13] As in Fortin (2008) we focus on non-cognitive factors where there are important gender differences associated with differential gender roles.[14] Interestingly, gender differences in preferences for *chance to combine family and work tasks* emerge not only among parents, but also among childless individuals. The fraction of childless women who consider this job aspect to be important is 74%, whereas the fraction among childless men is 64% (among parents the figures are 94% and 82% respectively).

The estimation results are reported in Table 6. As shown in the first column, the gender gap in annual wage growth is about 0.7 percentage points when we only include country dummies as regressors. Controlling by field of education, economic sector and occupation of the *first job* reduces the gap (second and third columns), but a 0.4 percentage point gap remains. The implication is then that self-selection of women into fields of education and specific jobs cannot account for whole gender differences in the annual wage growth. However, as shown in the fourth column, including as regressors variables related to the degree of labour market attachment after graduation has a strong effect on the observed gap, which becomes insignificant. Both the number of months employed since graduation and the number of hours worked in the *first job* have a significant positive effect on the wage growth. Our findings are consistent with the results in Manning and Swaffield (2008), Betrand et al. (2010), Azmat and Ferrer (2017) and Erosa et al. (2016). In the fifth column we consider the effect of job mobility on wage growth. The number of different jobs the individual had is not significant, however having a different occupation from the *first job* has a positive effect on wage growth.[15] In spite of

---

[13]See in Tables 8 and 9 and in Table 12 in the Appendix the average values of all the control variables for males and females.

[14]As shown in Table 12 in the Appendix, the fraction of women reporting that *chance to combine family and work tasks* is important for them is higher than that of men. However, men report a higher preference than women for *high earnings* and *career prospects*.

[15]This is consistent with Belley et al. (2015).

this, the inclusion of mobility related variables leaves the raw gap almost unchanged, but we have to be cautious in interpreting this result because of the limitations of our measure of mobility that we explained above. Next, we find that accounting for differences in the time elapsed since graduation, the length of the study programme, having additional studies after graduation and differences in the speed of completion of the study program have little effect on the gap in wage growth (sixth column). The only significant variable in this set of controls is the number of years of the study programme, which could be associated with higher skills. In the seventh column, we explore the role of variables capturing preferences for different job characteristics. We find that having individual preference for jobs offering *career prospects* and *high earnings* has a positive effect on wage growth, whereas having preferences for jobs offering better *chances to balance family and work* has a negative although non significant effect on wage growth. According to our estimates, gender differences in preferences account for about 20% of the gender gap in wage growth. This is in line with Fortin (2008) who finds a modest effect of these variables to account for the gender wage gap.

Finally, in the last column we report the estimation results for a specification including all the controls considered. Overall, the estimated sign and magnitude of the coefficients of the control variables is similar to those reported in the previous columns (with the only exception of the indicators of additional studies and preference for *career prospects*) and the coefficient on the female dummy is substantially smaller than in the first column and insignificant.

The regression analysis with the pooled sample of countries is interesting and yields higher precision of the estimates, but we turn now to the analysis at country level in order to provide a disaggregated picture of this issue. In Table 7 we show the female coefficient of the wage growth regression under the same alternative specifications that we considered above and we also report the standard deviation of the coefficient, the p-value of the significance test and the number of observations in each case. There are several remarkable facts. First, the raw gap in wage growth is significant in Portugal, Finland and the UK at the 10% level, and it is significant at the 15% in Spain, Italy, the Netherlands and Norway, but insignificant in the other countries. The gap is 2 percentage points in Portugal, approximately 1.6 in the UK, 1.5 in Italy, 1.3 in Finland, 0.9 in Spain, about 0.6 in the Netherlands and 0.5 in Norway. Second, in all these countries, the gender gap in wage growth becomes insignificant after certain controls are introduced such as the education field, economic sector and occupation (with the exception of France) or by human capital variables.[16] The regression introducing the mobility controls delivers a gap of similar size to the one in the first column but that it is significant at 15% only in five out of eleven countries (Portugal, France, the Netherlands, the UK and Finland). Considering education and ability-related variables as controls, leads to a gap that is only significant at 15%, with a similar size to the one in the first column, in Portugal, the Netherlands and the UK. Regarding

---

[16]Interestingly, in the case of Germany and Belgium the coefficient on the female dummy is significant but positive in the regression with human capital variables controls.

variables that capture differences in preferences, they leave the gap significant at 15% in Portugal, Spain, the UK and Finland. Therefore, in contrast to the pooled sample, there are several countries in which the gap becomes insignificant with any of the set of controls we use. However, only in the case of human capital controls is the reduction in the size of the coefficient of the female dummy found to be substantial. We think it is important to note this since the precision of the estimates is much lower in the regressions at country level than in the pooled sample due to the smaller number of observations.

Finally, for those countries with a significant raw gender gap at 15%, the difference in wage growth against women is insignificant after the full set of controls are included in the regression analysis.

Table 6: Annual Wage Growth Regression (percentage points)

	Raw	Educ	Educ, Sect,Occ	HumCap	Mobility	Add.Ed. Abil.	Values	All
Female	-0.679***	-0.498**	-0.422*	0.103	-0.706***	-0.582***	-0.540***	-0.018
	(0.198)	(0.218)	(0.219)	(0.196)	(0.198)	(0.199)	(0.202)	(0.216)
Weekly hrs (fj)				0.239***				0.227***
				(0.0156)				(0.0166)
Months empl.				0.0327***				0.0431***
				(0.0106)				(0.0110)
Numb. jobs					0.0248			0.0851
					(0.0566)			(0.0529)
Change occ.					0.900***			1.292***
					(0.234)			(0.258)
Mths. since grad.						0.0305		0.00417
						(0.0256)		(0.0253)
Add. studies						0.214		0.560***
						(0.209)		(0.206)
Yrs prog.						0.984***		0.795***
						(0.105)		(0.121)
Yrs compl. ratio						0.0845		-0.0770
						(0.316)		(0.313)
Pref. family							-0.177	-0.0160
							(0.220)	(0.216)
Pref. earn.							0.539**	0.401*
							(0.222)	(0.215)
Pref. career							0.858***	0.319
							(0.228)	(0.221)
Const.	3.955***	2.025***	5.506***	-6.844***	3.757***	-2.271	2.841***	-12.29***
	(0.542)	(0.606)	(1.979)	(1.023)	(0.554)	(2.096)	(0.602)	(3.121)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Field ed. dummies	No	Yes	Yes	No	No	No	No	Yes
Sector dummies	No	No	Yes	No	No	No	No	Yes
Occ. dummies	No	No	Yes	No	No	No	No	Yes
N=7556								
Adj. R^2	0.032	0.042	0.053	0.092	0.034	0.041	0.035	0.112

Robust standard errors in parentheses

*, **, ***: significant at 0.10, 0.05 and 0.01, respectively

4.3 Differences in labour market attachment

In the previous section we showed that the degree of labour market attachment is important to account for the gender gap in wage growth. We now explore the factors driving gender differences in terms of number of months employed since graduation and number of weekly hours worked in the *first job*.

As we argued above, differences in labour supply between men and women may result in differences in human capital since *learning-by-doing* may be of particular importance in the early career. In our sample, the female employment rate is 90%, five percentage points below the male employment rate, which is a statistically significant difference. As a result of this, gender differences arise in the average number of months employed since graduation. As shown in Table 8 there is a sizeable gender gap of seven months in Portugal, five months in Finland, four months in Germany and three months in France. The gap is moderate (about two months) in Spain, Italy and Austria and negligible in Belgium, the UK, Norway and the Netherlands.

In addition to gender differences in the extensive margin of labour supply, we report in Table 9 statistically significant differences in the intensive margin, i.e. the number of weekly hours worked in the *first job*. There is less heterogeneity in the size of the gap across countries than in the case of the number of months employed since graduation. In most of the countries studied, women work around three hours per week less than men. The gap is substantially higher in Germany, with a five hour gap, and smaller in Finland, where it is below two hours.

To better understand these differences, in Table 10 we report the estimation results of a regression of the number of months employed after graduation on several controls. As reported in the first column, the raw gender gap is about two months. The gap is reduced to one month after we introduce several controls such as the field of education, the number of months in internships, the number of months of work experience related to the studies, the years of the program, the ratio between the years to complete the program and the number of official years and an indicator of additional studies (second column). In the last column, where we also include demographic variables, we show that the gap is smaller (half a month) in the case of childless individuals than in the case of those with children (more than two months). Similarly, in Table 11 we estimate the same regression models with the number of weekly hours worked in the *first job* as the dependent variable. We observe a three hours raw gap against women that is reduced to about one hour if the field of education, sector and occupation and other variables related to education are included as controls. The inclusion of demographic variables such as age and the presence of children reveals that the gender gap is around one hour among childless individuals, whereas it increases up to three hours among those with children.

All in all, the presence of children plays an important role in the degree of labour market attachment in early career, in line with what is found, among others, in Bertrand et al. (2010). However, because our sample consists of young graduates, only about 21% of women have already become mothers at

Table 7: Female Coefficient of Annual Wage Growth Regression (percentage points)

	Raw	Educ	Educ, Sect,Occ	HumCap	Mobility	Add.Ed. Abil.	Values	All
ALL	-0.679	-0.498	-0.422	0.103	-0.706	-0.582	-0.540	-0.018
sd	0.198	0.218	0.219	0.196	0.198	0.199	0.202	0.216
pv	0.001	0.022	0.054	0.599	0.000	0.003	0.007	0.934
N=7556								
Portugal	-2.041	-1.056	-0.576	-0.976	-1.791	-1.881	-1.779	0.439
sd	1.189	1.354	1.327	1.197	1.193	1.165	1.220	1.306
pv	0.087	0.436	0.665	0.416	0.135	0.108	0.146	0.737
N =224								
Spain	-0.856	-0.625	-0.522	-0.023	-0.822	-0.743	-0.869	-0.055
sd	0.586	0.625	0.618	0.571	0.590	0.584	0.589	0.591
pv	0.144	0.317	0.398	0.968	0.164	0.204	0.141	0.926
N=1349								
Italy	-1.520	-0.913	-0.591	-0.618	-1.421	-1.086	-1.190	0.161
sd	1.006	1.117	1.160	1.016	1.009	1.036	1.081	1.218
pv	0.131	0.414	0.610	0.543	0.160	0.295	0.272	0.895
N=541								
France	-1.185	-1.414	-1.748	-0.638	-1.285	-1.158	-0.851	-1.621
sd	0.861	0.960	0.972	0.830	0.847	0.917	0.891	1.010
pv	0.169	0.141	0.073	0.443	0.130	0.208	0.340	0.110
N=375								
Austria	-0.449	-0.405	-0.454	0.702	-0.477	-0.525	-0.332	-0.026
sd	0.785	0.884	0.908	0.769	0.797	0.797	0.799	0.882
pv	0.567	0.647	0.617	0.362	0.550	0.510	0.678	0.977
N=518								
Germany	0.420	-0.405	-0.385	1.720	0.524	-0.026	0.236	0.998
sd	0.795	0.822	0.873	0.802	0.785	0.742	0.821	0.824
pv	0.597	0.623	0.660	0.032	0.505	0.972	0.774	0.226
N=582								
Netherl.	-0.605	-0.152	-0.212	0.015	-0.596	-0.566	-0.296	0.272
sd	0.371	0.398	0.405	0.367	0.371	0.371	0.382	0.400
pv	0.103	0.702	0.600	0.967	0.108	0.127	0.438	0.497
N=1393								
Belgium	0.603	0.528	0.777	1.420	0.619	0.459	0.879	1.242
sd	0.605	0.661	0.651	0.581	0.604	0.602	0.620	0.658
pv	0.319	0.424	0.233	0.015	0.306	0.446	0.157	0.060
N=642								
UK	-1.601	-1.205	-1.253	-0.931	-1.559	-1.860	-1.398	-0.795
sd	0.754	0.861	0.863	0.748	0.760	0.757	0.780	0.895
pv	0.034	0.162	0.147	0.214	0.041	0.014	0.074	0.375
N=482								
Norway	-0.488	0.009	-0.066	-0.153	-0.467	-0.290	-0.363	0.070
sd	0.335	0.403	0.416	0.334	0.347	0.364	0.332	0.413
pv	0.146	0.982	0.873	0.647	0.179	0.425	0.275	0.866
N=888								
Finland	-1.262	-0.606	0.008	-0.709	-1.256	-0.844	-1.129	0.651
sd	0.631	0.730	0.743	0.597	0.618	0.650	0.637	0.720
pv	0.046	0.407	0.991	0.235	0.043	0.195	0.077	0.366
N=562								

Table 8: Number of months employed since graduation

	Female	Male	p-value[a]
All	54.99	56.96	0.000
Portugal	62.75	69.42	0.000
Spain	51.92	54.35	0.001
Italy	53.37	55.01	0.094
France	52.02	54.86	0.013
Austria	54.43	56.19	0.027
Germany	53.89	57.68	0.000
Netherlands	56.42	56.91	0.304
Belgium	56.62	56.90	0.637
UK	53.30	54.34	0.231
Norway	62.22	62.80	0.363
Finland	49.54	54.59	0.000

[a] Mean difference test.

Table 9: Weekly hours worked in the *first job*

	Female	Male	p-value[a]
All	35.42	38.35	0.000
Portugal	32.95	36.34	0.003
Spain	36.06	39.34	0.000
Italy	35.64	38.83	0.000
France	33.27	35.58	0.008
Austria	34.30	37.72	0.000
Germany	32.09	37.21	0.000
Netherlands	35.57	38.55	0.000
Belgium	36.27	39.24	0.000
UK	37.38	39.78	0.000
Norway	36.28	38.45	0.000
Finland	35.35	37.15	0.000

[a] Mean difference test.

Table 10: Number of Months Employed

Female	-1.893***	-1.193***	-0.544*
	(0.235)	(0.250)	(0.279)
Mths. internships		0.0272	0.0293
		(0.0273)	(0.0273)
Mths. work exp. study rel.		0.0493***	0.0433***
		(0.00820)	(0.00830)
Years program		0.312**	-0.120
		(0.144)	(0.154)
Years complet. ratio		1.278***	0.433
		(0.365)	(0.396)
Add. studies		-1.942***	-1.989***
		(0.261)	(0.261)
Kids			1.367***
			(0.407)
Kids*Female			-1.977***
			(0.575)
Age			8.937***
			(1.396)
Age sq.			-0.139***
			(0.0229)
Const.	66.16***	63.64***	-75.89***
	(0.991)	(1.318)	(21.23)
Country dummies	Yes	Yes	Yes
Field ed dummies	No	Yes	Yes
N	7556	7421	7399
Adj. R^2	0.108	0.128	0.137

Robust standard errors in parentheses

*, **, ***: significant at 0.10, 0.05 and 0.01, respectively

the time of the interview. Although as shown in Adda et al. (2017), expectations about future fertility may have an effect on occupational choices and labour supply at all ages, it is reasonable to expect an increase in the gender gap as more women move into maternity. In fact, for the case of the US, where women tend to have their first child earlier than in Europe, Goldin (2014) estimates a larger increase in the gender wage gap (of 21.4 percentage points from ages 25-29 to ages 40-44) than the one we found.

Table 11: Weekly Hours Worked *First Job*

Female	-3.011***	-1.362***	-1.261***
	(0.199)	(0.201)	(0.209)
Mths. internships		0.0429*	0.0422*
		(0.0233)	(0.0236)
Mths. work exp. study rel.		0.0220***	0.0217***
		(0.00645)	(0.00678)
Years program		0.822***	0.763***
		(0.128)	(0.136)
Years complet. ratio		0.781**	0.671**
		(0.306)	(0.319)
Kids(fj)			0.249
			(0.691)
Kids(fj)*Female			-2.148**
			(0.988)
Age			2.450**
			(1.136)
Age sq.			-0.0392**
			(0.0187)
Const.	36.08***	41.88***	4.095
	(0.596)	(3.463)	(17.59)
Country dummies	Yes	Yes	Yes
Field ed. dummies	No	Yes	Yes
Sector dummies	No	Yes	Yes
Occ. dummies	No	Yes	Yes
N	7556	7421	7284
Adj. R^2	0.043	0.168	0.170

Robust standard errors in parentheses

*, **, ***: significant at 0.10, 0.05 and 0.01, respectively

5   Conclusions

In this paper we have focused on the early career dynamics of the gender wage gap among college graduates in several European countries using the Flexible Professional in the Knowledge Society (REFLEX) data set. We have analyzed the role of the different theories that have been proposed in the relevant literature to account for the evolution of gender differences in wages over the lifetime.

We have documented that there is an overall wage difference between men and women of 8 log points at the entrance to the labour market and that the gap goes up to 12 log points five years later. Interestingly, the increase in the gap is substantially smaller after introducing several controls such as the field of education, economic sector and occupation, going from 6 to 8 log wage points. This seems to suggest that some women reallocate into low-paid jobs after labour market entrance. Another possibility would be that women self-select, when joining the labour market, into jobs with lower wage growth. However, our analysis does reveal that this cannot be the only reason since there remains a significant gender gap in wage growth after variables such as the field of education, economic sector and occupation are introduced as controls in the pooled sample of countries.

During the early career there is a gender gap in annual wage growth of 0.7 percentage points that we found is mostly accounted for by gender differences in the degree of labour market attachment after graduation. Differences in labour market attachment are measured as differences in weekly hours worked in the *first job* and in the number of months employed since graduation. Therefore, our analysis supports that differences in human capital accumulation is an important driving force in the differences in early-career wage growth between men and women, in line with what has been found in the previous literature. Finally, we show that it is important to take into account the presence of children to account for differences regarding this aspect. Considering that our sample is composed of young graduates and only a small fraction of women had become mothers at the time of the interview, it is expected that the gap will continue to grow as more women make that choice.

We have found some heterogeneity across countries. In some of them the gender gap is negligible at the entrance to the labour market while in others it is above 10 log points. However, after five years, there is a substantial gap in all the countries considered. There are also some differences in the importance of the forces explaining the gap. Nevertheless, the main role played by human capital related factors in accounting for the gender gap in wage growth is a fairly general phenomenon.

References

Adda, J., C. Dustmann and K. Stevens (2017), The Career Cost of Children, Journal of Political Economy 125, pp. 293-337.

Nikolay Angelov, Per Johansson, and Erica Lindahl (2016), Parenthood and the Gender Gap in Pay, Journal of Labor Economics 34 (3): 545-579.

Azmat, G. and R. Ferrer (2017), Gender Gaps in Performance: Evidence from Young Lawyers. Journal of Political Economy, 125 (5): 1306-1355.

Barth, E., S.P. Kerr and C. Olivetti (2017), The Dynamics of Gender Earnings Differentials: Evidence from establishment Data. IZA DP No. 10974

Becker, G. (1993), Human Capital: a Theoretical and Empirical Analysis, with Special Reference to Education, 3rd ed, Chicago: University of Chicago Press.

Belley,P., N. Havet and G. Lacroix (2015), Wage Growth and Job Mobility in the Early Career: Testing a Statistical Discrimination Model of the Gender Wage Gap, in S.W. Polachek, K. Tatsiramos, K.F. Zimmermann (ed) Gender in the Labor Market (Research in Labor Economics, Volume 42) Emerald Group Publish-ing Limited, 231-260

Bertrand, M., Goldin, C., Katz, L. F. (2010), Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors, American Economic Journal: Applied Economics, 228-255.

Blau, F.D. and L.M. Kahn (2003), Understanding International Differences in the Gender Pay Gap, Journal of Labor Economics 21 (1): 106-144.

Card, D., Cardoso, A.R. and P. Kline (2016), Bargaining, Sorting, and the Gender Wage Gap: Quantifying the Impact of Firms on the Relative Pay of Women, Quarterly Journal of Economics, 131(2), 633-686.

Del Bono, E. and D. Vuri (2011), Job mobility and the gender wage gap in Italy. Labor Economics, 18 (1), pp. 130-142

Daymonti, Thomas N. and Paul J. Andrisani (1984), Job Preferences, College Major, and the Gender Gap in Earnings, Journal of Human Resources, 19(3), 408-428.

Erosa, A. Fuster, L. and D. Restuccia, D. (2016), A quantitative theory of the gender gap in wages, European Economic Review, 85, 165-187.

Erosa, A., L. Fuster, G. Kambourov and R. Rogerson (2017), Hours, Occupations, and Gender Differences in Labor Market Outcomes. NBER Working Paper No. 23636.

Fitzenberger, B. and A. Kunze (2005). Vocational Training and Gender: Wages and Occupational Mobility among Young Workers. Oxford Review Economic Policy 21 (3), 392-415

Fortin, N.M. (2008). The Gender Wage Gap among Young Adults in the United States. The Journal of Human Resources 43 (4), pp. 884-918.

Gicheva, D. (2013), Working Long Hours and Early Career Outcomes in the High-End Labor Market. Journal of Labor Economics, 31 (4), pp. 785-824.

Goldin, C. (2014), A Grand Gender Convergence: Its Last Chapter, American Economic Review, 104(4), pp.1091-1119.

Goldin, C., S.P. Kerr, C. Olivetti and E. Barth (2017), The Expanding Gender Earnings Gap: Evidence from the LEHD-2000 Census. American Economic Review: Papers and Proceedings 107(5), pp. 110–114.

Hospido, L. (2009), Gender differences in wage growth and job mobility of young workers in Spain. Investigaciones Económicas, XXXIII (1),pp. 5-37.

Kleven, H., C. Landais and J.E. Sgaard (2018), Children and gender inequality: evidence form Denmark, NBER Working Paper 24219.

Loprest, P. (1992), Gender Differences in Wage Growth and Job Mobility. The American Economic Review: Papers and Proceedings, 82 (2).

Manning, A. (2003). Monopsony in Motion: Imperfect Competition in Labor Markets, Princeton: Princeton University Press.

Manning, A. and J. Swaffield (2008), The gender gap in early-career wage growth. The Economic Journal, 118, pp. 983-1024

Mincer, J. (1974), Schooling, Experience and Earnings, New York: National Bureau of Economic Research.

Mincer, J. and Ofek, H. (1982). Interrupted work careers: depreciation and restoration of human capital, Journal of Human Resources, vol. 17, pp. 3–24.

Mincer, J. and Polachek, S. (1974). Family investments in human capital: earnings of women, Journal of Political Economy, vol. 82, pp. S76–108.

Murphy, K. M. and F.Welch (1990), Empirical age-earnings profiles. Journal of Labor Economics 8, pp. 202-229.

Napari, S. (2009), Gender differences in early-career wage growth. Labor Economics 16, pp. 140148

OECD (2012), Education at a Glance 2012.

Olivetti, C. and B. Petrongolo (2008), Unequal Pay or Unequal Employment? A CrossCountry Analysis of Gender Gaps. Journal of Labor Economics, 26(4), pp. 621-654.

Reshid, A.A. (2017), The Gender Gap in Early Career Wage Growth: The role of children, job and occupational mobility. Institute for Evaluation of Labor Market and Education Policy 2017:5.

Topel, R. H. and Ward, M. P. (1992). Job mobility and the careers of young men, Quarterly Journal of Economics, vol. 107, pp. 439–79.

Zafar, Basit (2013), College major choice and the gender gap, Journal of Human Resources, 48(3), 545-595.

Appendix

Table 12: Gender Gaps

	Numb jobs	Change occ	Mths since grad	Add studies	Years program	Years com. rat.	Pref family	Pref earn	Pref career
All									
female	2.53	0.29	63.68	0.39	4.03	1.16	0.78	0.62	0.66
male	2.26	0.26	63.74	0.33	4.19	1.22	0.68	0.69	0.73
Portugal									
female	2.70	0.16	75.89	0.37	3.74	1.18	0.79	0.79	0.84
male	2.20	0.18	75.82	0.28	3.70	1.31	0.76	0.87	0.82
Spain									
female	3.22	0.29	66.25	0.52	4.24	1.09	0.91	0.80	0.91
male	2.78	0.32	66.39	0.52	4.32	1.23	0.88	0.77	0.90
Italy									
female	2.58	0.17	63.79	0.22	4.71	1.24	0.86	0.76	0.65
male	2.27	0.14	64.19	0.17	4.73	1.42	0.76	0.79	0.81
France									
female	2.08	0.28	62.02	0.14	4.07	0.96	0.88	0.59	0.63
male	2.09	0.25	62.84	0.16	4.52	1.04	0.79	0.71	0.71
Austria									
female	2.50	0.09	62.25	0.44	4.94	1.29	0.71	0.63	0.62
male	2.16	0.07	62.83	0.42	4.89	1.30	0.63	0.68	0.68
Germany									
female	1.95	0.18	62.59	0.25	4.83	1.11	0.74	0.55	0.40
male	1.99	0.14	62.68	0.27	4.75	1.14	0.53	0.63	0.56
Netherlands									
female	2.39	0.30	60.71	0.35	3.43	1.32	0.71	0.43	0.60
male	2.21	0.31	60.96	0.34	3.46	1.40	0.60	0.60	0.75
Belgium									
female	2.12	0.25	62.45	0.50	4.15	1.15	0.83	0.55	0.58
male	1.97	0.24	62.56	0.44	4.11	1.13	0.71	0.67	0.72
UK									
female	2.87	0.42	61.33	0.38	3.08	1.14	0.41	0.59	0.82
male	2.46	0.40	62.14	0.28	3.10	1.08	0.28	0.72	0.89
Norway									
female	2.24	0.56	69.53	0.40	3.93	1.10	0.79	0.56	0.51
male	2.15	0.38	69.09	0.26	4.43	1.04	0.72	0.64	0.59
Finland									
female	2.30	0.25	56.50	0.35	4.01	1.09	0.84	0.64	0.55
male	2.30	0.25	57.45	0.23	4.08	1.20	0.83	0.73	0.64