Gender Wage Gap within talents: a cross-countries analysis

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Research Topics

- Explore the labour market outcome, i.e. wage, of talents defined as highly skilled (at least tertiary education) persons aged from 25 to 40 years
- We consider the wage gap between talents and non-talents
- Within talents, we explore the gender wage gap
- We investigate these issues in Italy, Germany Spain, France and the UK over time providing descriptive statistics
- Focus on IT vs UK (2018) and IT vs DE (2018-2022)

	M	F	Total	M-F
EU-27	36,5%	47,6%	42%	-11,1%
DE	34,4%	39,1%	36,7%	-4,7%
FR	46,6%	54,0%	50%	-7,4%
IT	23,1%	35,5%	29,2%	-12,4%
ES	43,7%	56,8%	50%	-13,1%

Population aged 25-34 with tertiary education level by sex

Facts

Positive impact of talents employment on

- Economic growth
- Innovation

Especially in countries characterized by highly ageing population and low fertility rates

Increase in women's share of talents' mobility also towards male dominated sectors

- Highly skilled women (talents) migration flow increased significantly in the last decades (Özden *et al.*, 2011; Gonzales Enriques & Triandafyllidou, 2016) also towards male-dominated sectors (Bolzani et al., 2021);
- Higher attention towards high skilled young women is driven by ethical (Gupta & Bapuji, 2024) and efficiency concerns as gender inequalities in the labour market still persist (EIGE, 2025, Eurostat, 2025);
- Highly educated women's skills are still underused and underevaluated in the labour market and society as a whole;
- However, high skilled women migrants are more likely to experience losses in their mobility path than young men talents: negative impact on their well-being due to relatively higher experiences of unemployment, deskilling and career downturns (de Araju, 2023).

Data

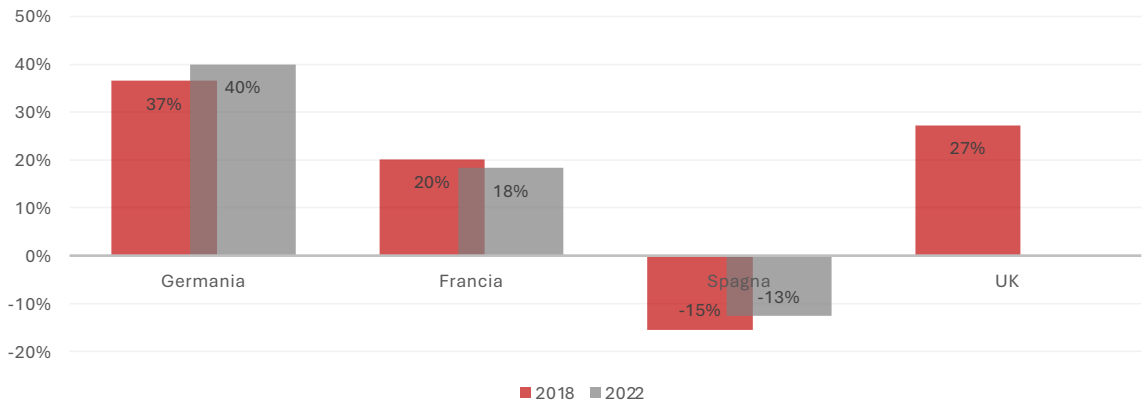
- We use data from the European Union Statistics and Income and Living Conditions (EU-SILC) survey.
- Cross sectional version for Italy, Germany, France, Spain, and the UK.
- Years explored: 2008-2022.
- Sample: employed (employee) young people aged from 25 to 40 years (talents and non-talents).

Gross hourly wages by country & year

Gross hourly wage	IT				DE				FR				ES				UK
	2008	2012	2018	2022	2008	2012	2018	2022	2008	2012	2018	2022	2008	2012	2018	2022	2018
Talents	14.47	14.05	12.93	14.37	20.38	18.32	17.78	23.88		15.79	15.61	17.59			11.11	11.48	17.78
Talents F	14.63	13.25	12.28	12.65	18.21	15.72	15.42	21.56		15.1	14.97	16.82			11.06	11.37	16.48
Talents M	14.24	15.18	13.86	16.93	22.33	20.53	19.7	25.81		16.62	16.34	18.54			11.17	11.63	18.72
Non talents	11.37	10.93	10.10	9.87	13.58	12.78	12.9	15.7		12.17	11.77	13.51			6.94	7.19	12.8

Table A1 - Gross hourly wage by country and year
Source: Authors' calculations from 2008, 2012, 2018 and 2022 EU SILC data.

Talents’ wage Gap Italy vs Germany, France, Spain, UK - 2018-2022



Choice of Countries

- Germany is one of the main countries of destination of Italian talents, i.e. it was the first country attracting young graduated in 2022.
- UK before the COVID-19/Brexit, was the first country of destination for the Italian talents

Raw wage gaps talent/non-talent and within talents (by gender) 2018
IT vs UK

gross hourly wage	IT	UK	gap (UK-IT)/UK	gap (M-F/F)		gap talents vs non talents
Talents	12.93	17.78	27%	11%	IT	22%
Talents F	12.28	16.48	25%	14%	UK	28%
Talents M	13.86	18.72	26%			
Non-talents	10.10	12.8	21%			

gross hourly wage	IT	DE	gap (DE-IT)/DE	gap (M-F/F)		gap talents vs non talents
Talents	12.93	20.38	37%	11%	IT	22%
Talents F	12.28	18.21	33%	23%	DE	33%
Talents M	13.86	22.33	38%			
Non-talents	10.10	13.58	26%			

Source: Authors' calculations from 2018 EU SILC data.

Raw wage gaps talent/non-talent and within talents (by gender) 2018
IT vs DE

Raw wage gaps talent/non-talent and within talents (by gender) 2022 IT vs DE

gross hourly wage	IT	DE	gap (DE-IT)/DE	gap (M-F/F)		gap talents vs non talents
Talents	14.37	23.88	40%	25%	IT	31%
Talents F	12.65	21.56	41%	20%	DE	34%
Talents M	16.93	25.81	34%			
Non-talents	9.87	15.7	37%			

Source: Authors' calculations from 2022 EU SILC data.

Gross hourly wage equations

Covariates

- individual (gender, age, age squared)
- household characteristics (number of children of different age range (0–3 and 4–15)
- Region and degree of urbanization
- Job characteristics tasks of the occupation (apical and supervisory), occupation, sector of economic activity, part-time job, temporary contract.

	2018
difference	0.285***
	(0.028)
explained	0.035
	(0.026)
unexplained	0.272***
	(0.031)

Source: Authors' calculations from 2018 EU SILC data.

The gap in wages for talents employed in UK and in Italy – 2018

The gender wage gap within talents employed in UK and in Italy – 2018

Gender Wage Gap	UK	IT
Difference	0.151***	0.0818
	(0.0213)	(0.0509)
Explained	0.0607***	0.0592**
	(0.0127)	(0.0284)
Unexplained	0.0906***	0.0225
	(0.0218)	(0.0481)

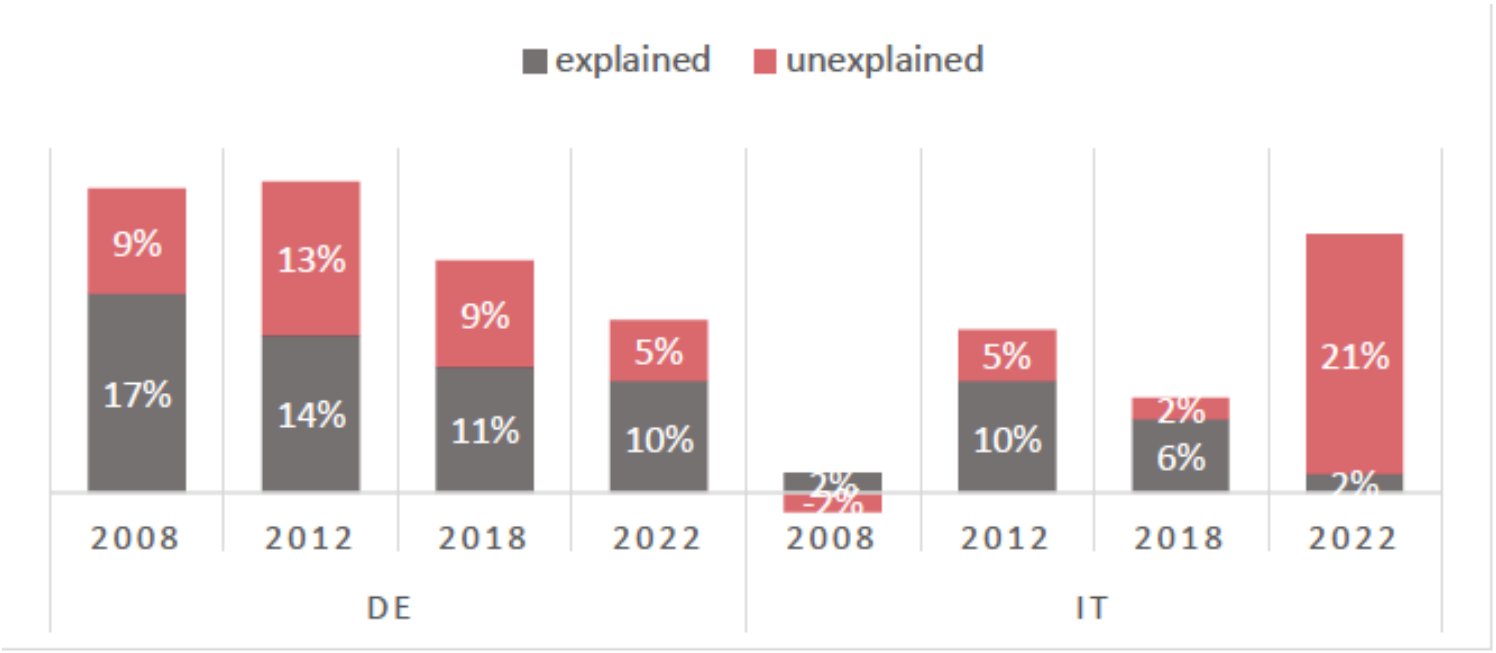
Source: Authors' calculations from 2018 EU SILC data.

The gap in wages for talents employed in Italy and in Germany

	IT DE Talent wage gap			
	2008	2012	2018	2022
difference	0.171***	0.262***	0.479***	0.544***
	(0.0266)	(0.0311)	(0.0317)	(0.0299)
explained	-0.00688	0.00777	0.0193	0.0971***
	(0.0181)	(0.0170)	(0.0158)	(0.0199)
unexplained	0.178***	0.254***	0.460***	0.447***
	(0.0234)	(0.0291)	(0.0293)	(0.0278)

Source: Authors' calculations from 2008, 2012, 2018 and 2022 EU SILC data.

The gender wage gap for talents employed in DE and in Italy



Source: Authors' calculations from 2008, 2012, 2018 and 2022 EU SILC data.

Dimensions of quality of work more evaluated by Italian Graduates

- Acquisition of a better professionality through job
- Job stability
- Career opportunities
- Opportunity of earning a living, independence or autonomy in work
- flexibility in working hours and leisure time availability

Type of jobs for talents IT vs DE

- Higher % of Permanent jobs in DE
- Lower % of Temporary jobs in DE
- Higher % of PT for women in DE
- Higher % of talents in apical position in DE

Wage gap between Italian and German talents. Observed factors from descriptive statistics and the estimated models

- Better career perspectives for talents in Germany
- Higher % of precarious work for talents in Italy
- Positive and significant impact of seniority only for German talents

Gender wage gap within talents. Germany vs Italy

The explained part increased its weight in Germany

The unexplained part dominates in the decomposition of the gender wage gap in Italy

Factors affecting the gender wage gap within talents. Germany vs Italy

- More generous family policies in Germany with the objective of encouraging mothers' employment & improve work-life balance
- Implementation of policies to reduce the gender gap at the disadvantage of women in the access to apical position more effective in Germany

Gender wage gap within talents. Germany vs Italy
Observed factors from the estimated models

- Higher impact of seniority for women in Germany while the impact of seniority is not significant for women and significant and positive for men in Italy
- Positive impact of having a supervisory role for men and women in Germany (with a higher positive impact for women) and no impact of being in a supervisory role for women and a positive impact for men in Italy

Further investigation from the mean wages to the whole distribution: Germany vs Italy

- Sample: highly talented youth (hereafter talents) defined as highly skilled (holding a Bachelor or higher degree) persons aged from 25 to 40
- Data: EU SILC 2012-2022
- Countries (Italy vs Germany)
- Model: Unconditional quantile regressions (Firpo et al., 2009) and OB decomposition

Methodology - Unconditional quantile regressions

- allows to go beyond the mean in the estimation of explanatory association.
- provides a more flexible approach by estimating relationships at various quantiles of the distribution, offering robustness in the presence of outliers and heteroscedasticity.

Methodology - Unconditional quantile regressions

- Unlike the conditional quantile regressions approach, the UQR estimates the effects of covariates on the entire distribution of the outcome variable without relying on specific covariate distributions.
- Particularly valuable in the context of heterogeneity—where different subgroups or segments of a population may respond differently to covariates, providing a more comprehensive view of treatment effects by capturing heterogeneity across different parts of the distribution

Methodology - Unconditional quantile regressions

Covariates include:

- gender,
- age (and age square),
- number of children of different age ranges ([0, 3] and [4, 15],
- type of occupation [apical and supervisory, ISCO-88 classification]
- type of contract, such as part-time or full-time and temporary or permanent employment,
- sector of economic activity (NACE level 1)
- degree of urbanization.

Focus on the 10th, 50th and 90th quantile

Gender wage gap within talents.
Germany vs Italy over the wage distribution
Main results

Italy [sticky floor effect] is characterized in 2022 by a higher gender wage gap at the 10th percentiles (0.32) than at the other percentiles of the gender pay gap (0.17 at the top percentile)

In Germany there is no evidence of the sticky floor effect with a higher gender pay gap at the bottom of the wage distribution

Further developments

- Explore other young talents' labour market conditions in other countries characterized by different welfare state and gender equality achievements
- Explore differences by subgroups [25/34 – 35/40]
- Dynamics of the wage gap related to changes in the labour market conditions and norms affecting wages and labour supply

Thank for your attention!

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