## Gender pay gap in Europe

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August 31, 2022

## Abstract

Based on a sample of 36 European countries and the period 2011-2020, we found that the gender pay gap has decreased over the last decade. The overall pay gap in industry, construction and services decreased from 15.60% in 2011 to 11.24% in 2020. The largest pay gap in 2011 and 2020 was observed in financial and insurance activities (30.6% and 27.7%, respectively), wholesale and retail trade (21.5% and 19%), and manufacturing and information and communication (20% and 17%, and 19% and 18.9%, respectively), and the lowest in construction and transportation and storage (-1.43% and 3.57% in 2020).

An analysis of employment by aggregate economic sectors (27 European/OECD countries and the period 2011-2019) shows that 83.17% of women (panel mean) were employed in the services sector (the same for men is 59.9%). As the overall service sector has lower TFP growth and labour productivity (compared to industry), assuming that productivity growth and wages are linked, this may partially explain the wage gap. Data for 2018 shows that the average wages in services were lower than total's average. 33% of men were employed in the industry while only 12% of women, which under the assumption of higher productivity in industry sector and higher average wages, may explain the gender pay gap.

The analysis of the educational outcomes shows that number of females with tertiary and master degrees surpasses the same for males, but employed females with tertiary education earn on average less than males by 22.45%, which is higher that wage gap of female employees with lower level of education. Statistics shows that 14% of women with tertiary education graduated from STEM programs, while 34.2% of all STEM program graduates were female. As STEM graduates are among the highest earning categories, this may partially explain the pay gap. The female share in senior and middle management is 32.6% which additionally contributes to pay differences.

We found that gender pay gap in Europe may partially be explained by the economic activity in which women are employed, but also by the program in which they obtained their tertiary degree.

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