The Evolution of Gender Wage Gaps in the EU (2005-2011)

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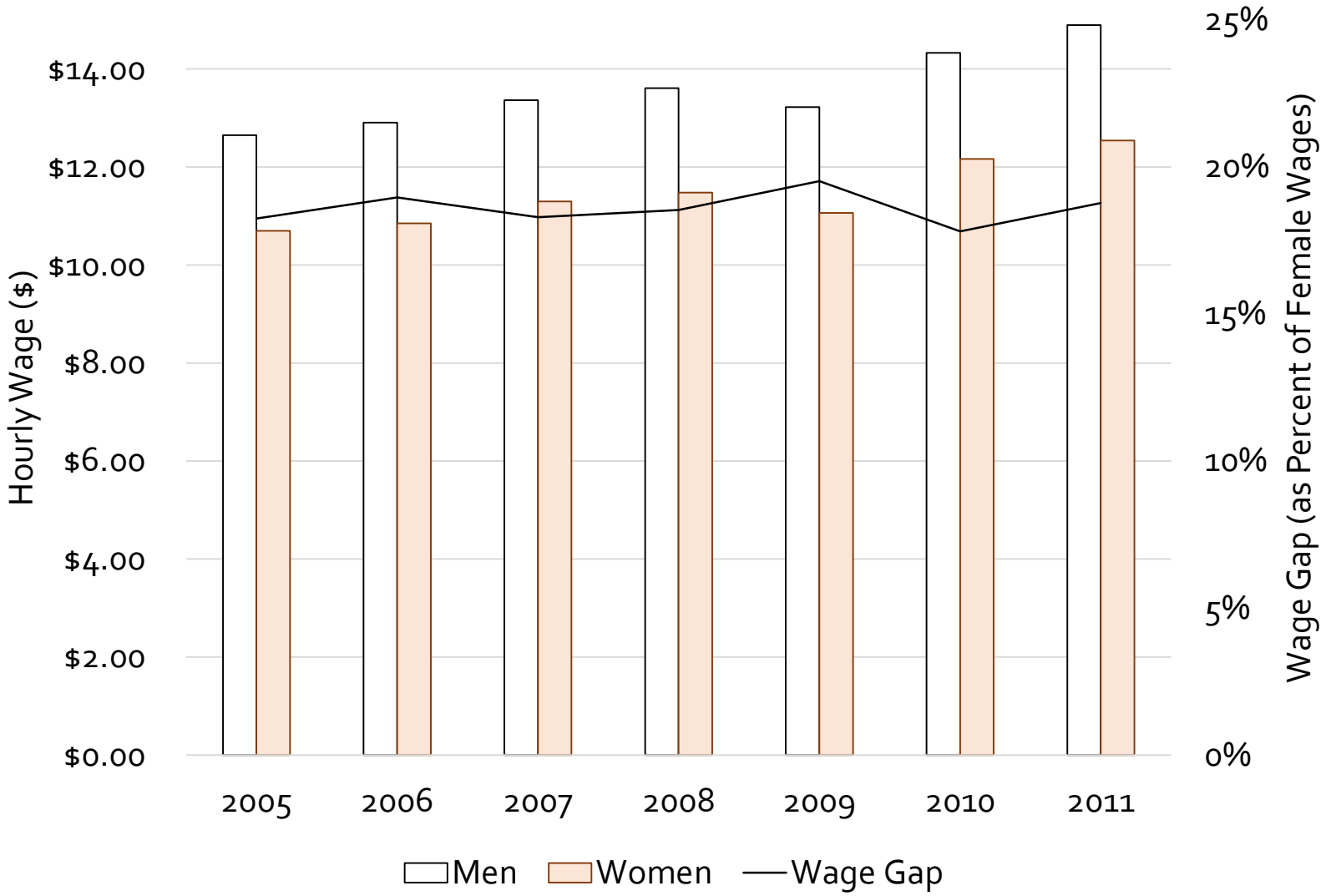
About and Motivation

- This paper examines relative wages and the gender wage gap in 28 EU countries over the period 2005-2011. Gender wage gaps are decomposed into unexplained, common characteristics, and characteristics that were unique to either males or females.
- The European Commission is active in working to reduce the gender wage gap. Their "Strategy for equality between women and men (2010-2015)" promotes equal pay and equality in senior positions.
- Closing the gender pay gap is also part of the Europe 2020 Strategy to create jobs.

Hourly Wages and Wage Gaps in the EU-28

The gender wage gap in the EU (28 selected countries) has been relatively stable over the period 2005 to 2011, between 18 and 19 percent. On average, real hourly wages have been increasing for both men and women, excluding a decline in 2009 right after the financial crisis. In 2009, the gender wage gap was the highest, 19.5 percent.

Notes: Author's calculations. Values in Euros, 2008 PPP values. Source: EU-SILC



Literature

- On average, women are more educated than men so it is not the case that women do not have access to education or sufficient skills, but they may face obstacles in the labor market.
  - Using 2007 data on 26 European countries, Christofides, Polycarpou, and Vrachimis (2013) find evidence of higher gender wage gaps at the high end of the wage distribution suggesting the presence of a glass ceiling.
  - Arulampalam, Booth, and Bryan (2007) also find evidence of a glass ceiling using 1995-2001 data.
- To explain the gender wage gap, wage differences are decomposed following Ñopo's (2008) nonparametric matching decomposition. Results for EU-28 countries are compared to Atal, Ñopo, and Winder's (2009) study of the gender wage gap in the Latin American and Caribbean (LAC) region, which also uses Ñopo's method.

Methodology:

Ñopo's (2008) nonparametric matching decomposition

- Incorporates matching techniques and allows for the ability to understand the distribution of unexplained gender wage differentials.
- Ñopo's procedure offers several advantages compared to the widely used Blinder-Oaxaca decomposition (Blinder, 1973; Oaxaca, 1973).
  - Decomposition is nonparametric and does not assume linearity.
  - Matching on observed variables are done exactly rather than utilizing propensity score matching or nearest neighbor techniques.
  - Decomposes components of the gap that are under the support of common characteristic profiles between men and women, and uncommon supports.
- D=observed gender wage gap
  1. DO= unexplained gender gap
  2. DM= differences due to male-specific characteristics
  3. DF= differences due to female-specific characteristics
  4. DX=differences in the distribution of observable profiles that exist among both females and males

Data

- EU-SILC for 28 countries in the European Union (EU-28)
- 2005-2011 that has been harmonized for and extracted from the World Bank micro data portal.
- Full data from 2005 to 2011 is available for 21 countries.
- Individuals 16-65 years of age and with positive hourly employee earnings.
- The largest countries are Germany, France, Italy, and the United Kingdom.
- The long time series allows for a detailed assessment of gender wage gap trends during the years leading up to and following the financial crisis.

Findings

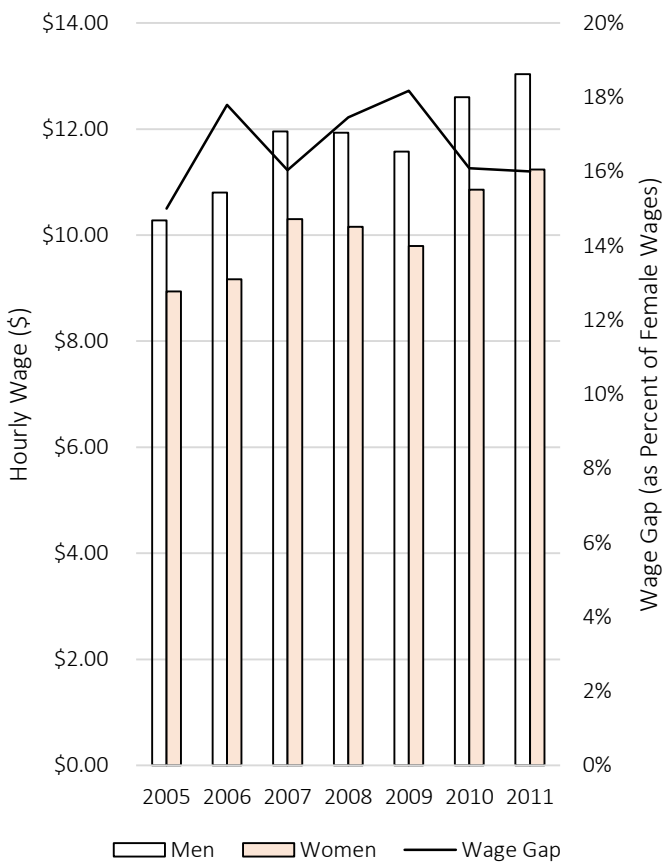
Gender Wage Decomposition near the Financial Crisis (28 countries)

2007						
	Age	+ Education	+ Experience	+ Occupation	+Employment Type	+Time Worked
D	18.29%	18.29%	18.29%	18.29%	18.29%	18.29%
Do	22.35%	23.81%	23.86%	21.26%	21.43%	17.46%
DM	-0.03%	-0.15%	-0.26%	-2.49%	-3.07%	-2.14%
DF	0.00%	0.03%	0.06%	1.30%	1.79%	-0.62%
DX	-4.03%	-5.40%	-5.36%	-1.79%	-1.87%	3.58%
% CS Males	99.96%	99.75%	99.52%	82.11%	80.15%	74.99%
% CS Females	100.00%	99.93%	99.86%	92.20%	90.89%	73.35%
2009						
	Age	+ Education	+ Experience	+ Occupation	+Employment Type	+Time Worked
D	19.51%	19.51%	19.51%	19.51%	19.51%	19.51%
Do	21.24%	22.76%	22.85%	20.49%	20.59%	18.42%
DM	-0.03%	-0.04%	-0.11%	-2.60%	-3.14%	-2.57%
DF	0.00%	0.03%	0.05%	1.36%	1.90%	0.68%
DX	-1.69%	-3.25%	-3.27%	0.26%	0.16%	2.98%
percM	99.95%	99.75%	99.57%	82.17%	80.11%	74.78%
percF	100.00%	99.94%	99.85%	91.58%	90.23%	71.88%

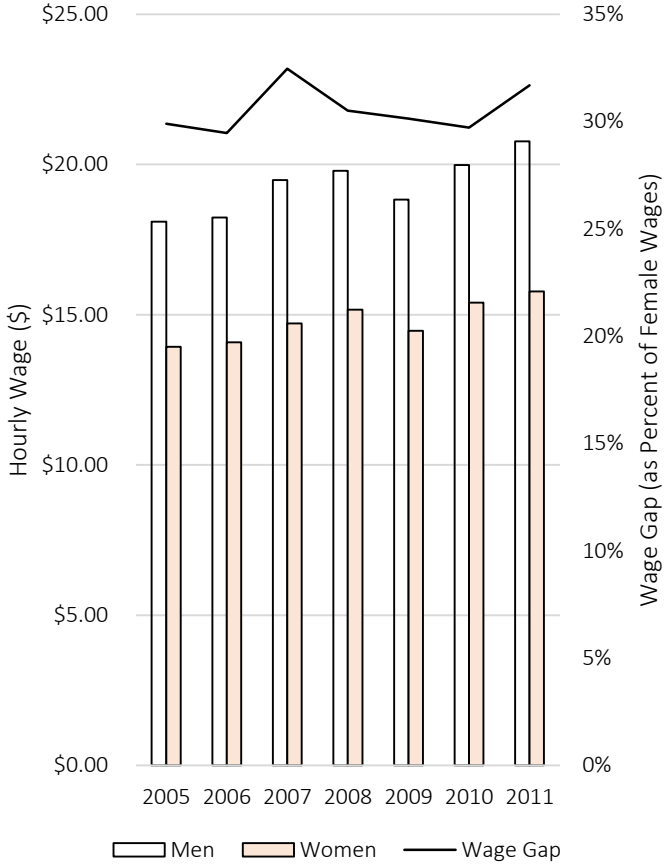
The gender wage gap is larger among the more educated and more experienced. (1)

This implies that in the EU-28, the gender wage gap is not a problem of poverty or access to opportunities, but one of equity.

Secondary School



Tertiary



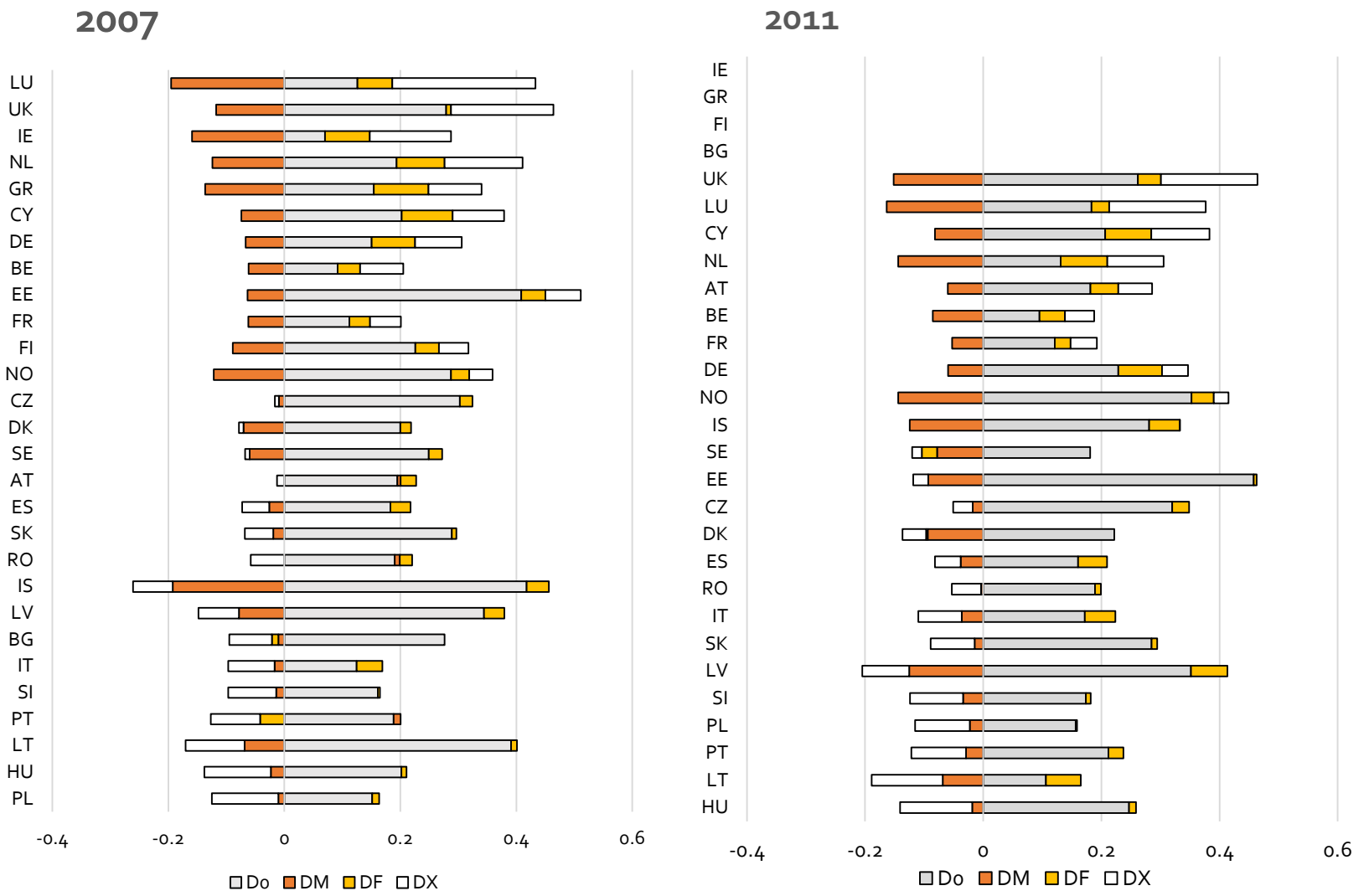
The gender wage gap is larger among the more educated and more experienced. (2)

This implies that in the EU-28, the gender wage gap is not a problem of poverty or access to opportunities, but one of equity.

Secondary School

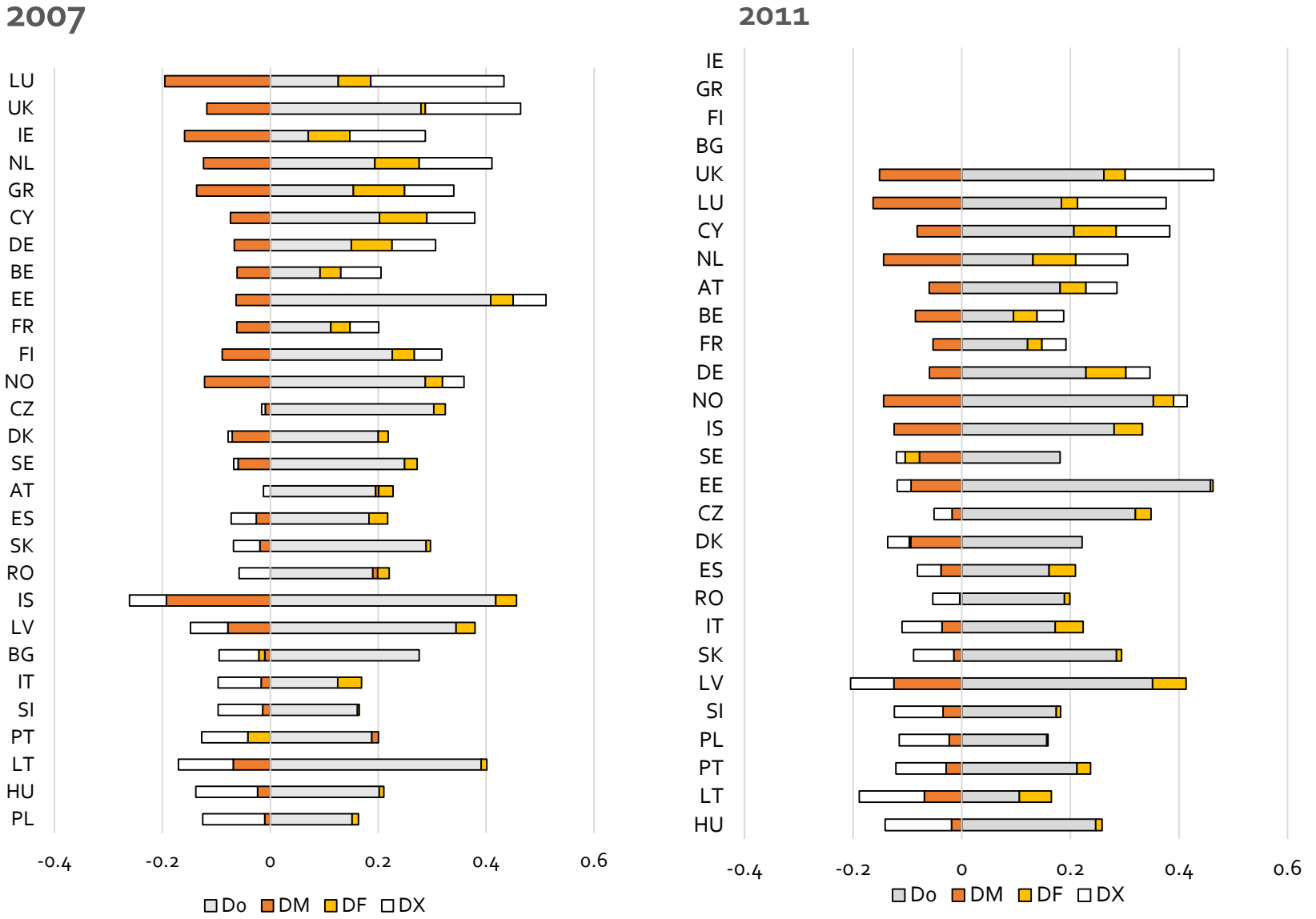
Tertiary

The distribution of observed characteristics (Do) explain a ***positive*** portion of the gender wage gap



Notes: Sorted by DX, Matched on country age edlev exper occupation1 emptype and timeworked

In the EU-28, and similarly in LAC, the largest component of the gender wage gap is **unexplained**, and gaps due to non-overlapping female and male profiles are small.



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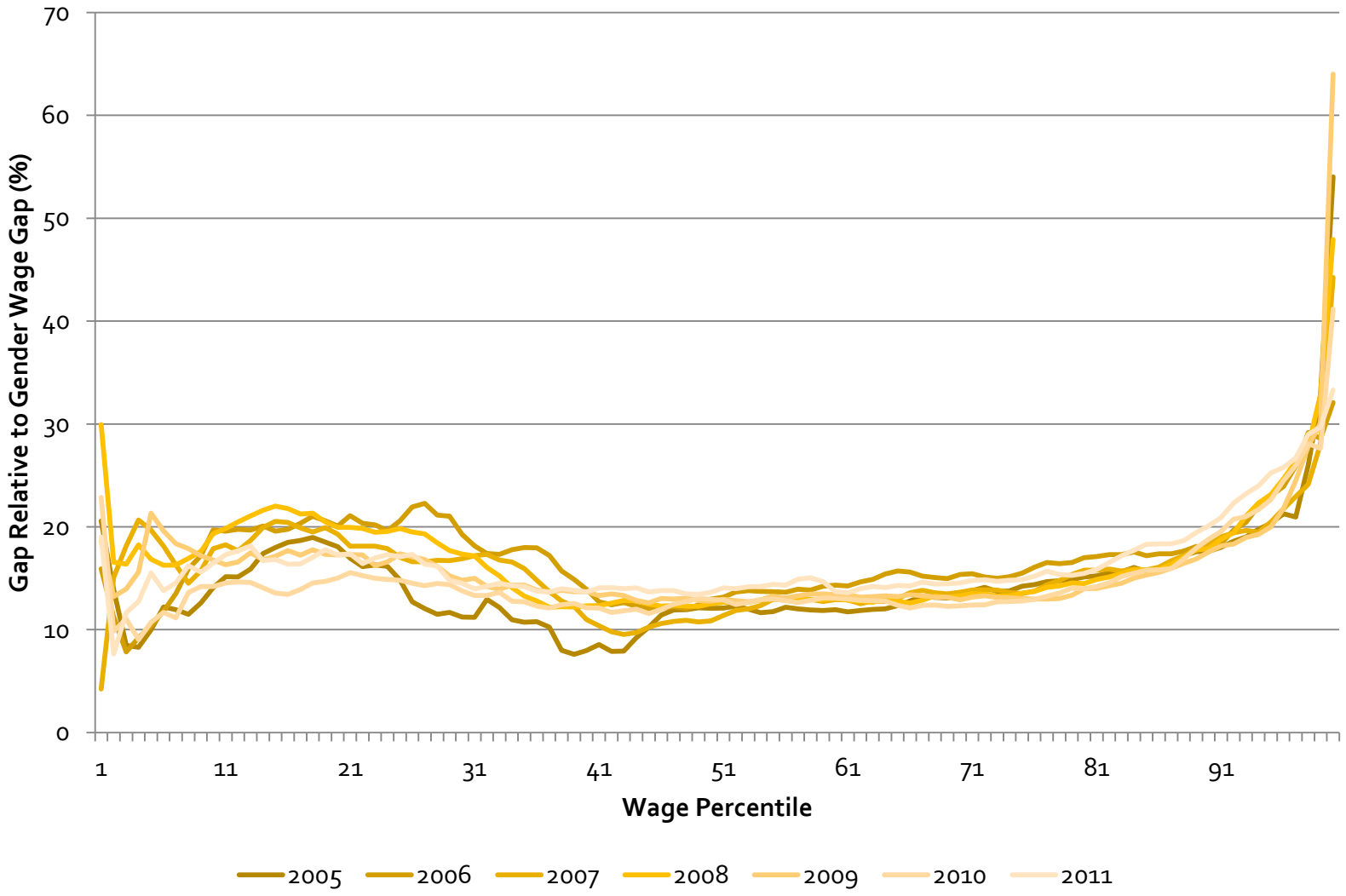
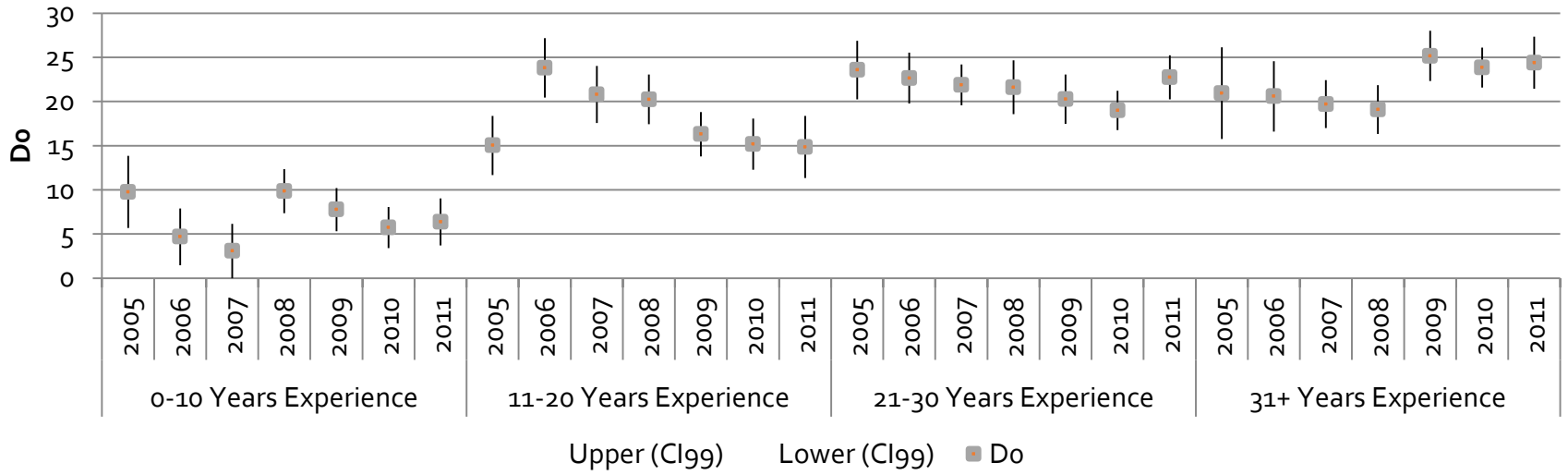
In contrast to LAC, the unexplained gender wage gap is the highest in the EU-28 at the top of the wage distribution.

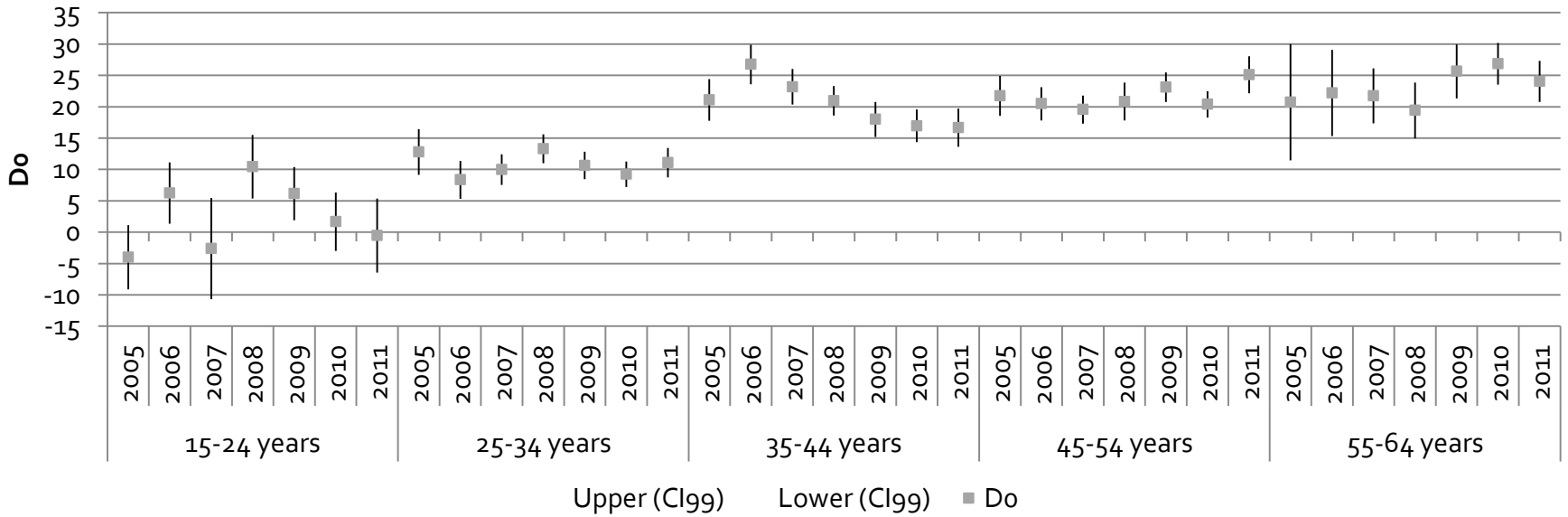
In LAC, higher unexplained gaps are seen in the low tail of the wage distribution.



In recent years, the EU-28 unexplained wage gap is higher among the more experienced and older workers.

This can be related to skills mismatch and a tighter labor market following the financial crisis. However, across education groups, the levels of unexplained gaps are similar. This can also be related to a glass ceiling and unequal opportunities at higher levels.





Next Steps

- Explaining cross-country variation in the gender wage gap.
- The trend of the gender wage gap in the context of aging. Gender wage gaps increase with age, especially the unexplained component.
- Women are primary caregivers and as the population ages, will more women stay home to care for family members?
- Most of the countries in the EU are expected to age, and quickly, what does this mean for gender equity in the future?

ThankYou

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