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#### Abstract

The aim of this article is to provide a comprehensive assessment of the malefemale differentials in Spain in terms of labor force participation, working conditions and professional development in order to identify the major obstacles in achieving gender equality. Data were gathered from a wide range of national and international sources, and a comparative analysis with other Western European countries was carried out in order to put the Spanish case into a wider context. Despite the great progress that has been made in the last two decades, which has brought Spain on a par with other European countries, the gender gap is still large in a wide number of areas. These are, for the most part, reflected in the existing gender pay gap, as well as in working conditions involving temporality, undesired part-time work, and over-qualification. Furthermore, women are highly under-represented in positions of power and authority in both public and private organizations and there is a high level of occupational and sectorial segregation. The uneven distribution of tasks at the household level is one of the most important factors behind gender inequality in the labor market, one that is likely further hindering the participation of women in the labor market and contributing to widening the gender gap in many other dimensions. Potential gender policy measures to correct the aforementioned situation in Spain are also discussed.


## Resumen Ejecutivo

De los 22.8 millones de personas activas en España, más de 10.6 millones son mujeres. Las diferencias entre sus distintas formas de interactuar con el mercado de trabajo y aquellas de los restantes 12.2 millones de hombres son complejas, tanto por la variedad existente dentro de ambos colectivos como por las causas de dichas diferencias, que se enraízan en toda una maraña de factores demográficos, históricos, económicos y sociales. Este artículo busca crear una panorámica de las desigualdades de género en el mercado laboral español contextualizando las mismas mediante una comparación con una serie de países europeos.

En la primera sección, introducimos el debate de las diferencias de género en el mercado laboral mediante un breve análisis de la estructura demográfica de la población española y de las diferencias entre hombres y mujeres de acuerdo con distintas variables demográficas. Encontramos que debido a la tardía incorporación de la mujer al mercado de trabajo en comparación con otras economías occidentales, la edad media de las mujeres que trabajan es menor que en otros países de nuestro entorno.

Por otro lado, las mujeres en España tienen más años de educación formal que los hombres. En 2015 aproximadamente el $43 \%$ de las mujeres en el mercado de trabajo español habían terminado estudios universitarios frente a un $36 \%$ en el caso de los hombres. En todas las generaciones menores de 50 años encontramos que las mujeres tienen un nivel educativo mayor que los hombres, siendo las diferencias mayores en las cohortes de menor edad. Cuando observamos el porcentaje de alumnos que repiten curso, este es mayor para el caso masculino en todos aquellos cursos en los que es posible repetir en España.

En segundo lugar, examinamos en el mismo bloque, debido a su fuerte relación, los factores que afectan a la oferta de trabajo femenina en nuestro país y la balanza entre vida familiar y laboral. El aumento en la participación laboral femenina en España en los últimos 15 años ha sido el mayor de la UE-15, convergiendo desde muy por debajo de la media hasta valores cercanos a la misma, tanto en términos absolutos como en brecha de género en participación en el mercado de trabajo. Dicha velocidad de convergencia explica el actual salto generacional en las tasas de actividad femeninas por edad.

Paralelamente, el progreso en conciliación laboral ha sido muy inferior: España tiene una distribución de tareas domésticas por género sumamente desigual. Las mujeres dedican diariamente por encima de 2 horas más al día de media a tareas domésticas (incluyendo cuidado infantil) que los hombres. Casi el $70 \%$ de las horas dedicadas a trabajo doméstico no remunerado en España las realizaron mujeres. Es probable que la combinación entre altas tasas de participación y la fuerte segmentación en la realización de las tareas del hogar puede tener un efecto significativo sobre las tasas de fertilidad y otras brechas en el mercado de trabajo.

La desigualdad entre hombres y mujeres en el mercado de trabajo va más allá de la participación laboral. En la segunda sección analizamos las diferencias de género en distintas condiciones laborales (incluyendo, entre otros, desempleo, parcialidad, temporalidad, salarios, y sobrecualificación). A lo largo de los últimos 15 años, la tasa media de desempleo femenina
( $20 \%$ ) ha sido más de 6 puntos porcentuales superior que la masculina ( $14 \%$ ). Esta brecha se ha ido reduciendo paulatinamente, pero el efecto asimétrico de la crisis sobre el empleo masculino a través de la destrucción de puestos de trabajo relacionados con la construcción en la última crisis ha acelerado el proceso y, podemos esperar que dicha tendencia se revierta en los próximos años. Por otro lado, destacamos que, mientras que en España las tasas de parcialidad son inferiores a la media europea, las tasas de parcialidad no deseada son bastante elevadas, especialmente en el caso de las mujeres. Esto apunta a una importante carencia de puestos de trabajo a jornada parcial de calidad, con el resultante efecto añadido sobre la dificultad para compatibilizar trabajo y familia.

En el ámbito salarial, la brecha de género, tanto ajustada como sin ajustar, se puede situar en el entorno del $20 \%$. Las mujeres tienen de media un mayor nivel educativo, pero algo menos de experiencia laboral y ambos efectos parecen compensarse, haciendo que la brecha ajustada y la brecha sin ajustar sean similares. La tendencia de la brecha no ajustada desde los años 90 es decreciente debido a la mejoría relativa en el nivel educativo medio de las mujeres; pero es discutible que esta tendencia se encuentre también en la brecha ajustada. Finalmente, la segregación ocupacional en el mercado laboral español es significativa, pero se encuentra dentro de los estándares europeos. La concentración de mujeres en ocupaciones con salarios relativos bajos es muy probablemente un factor de relevancia a la hora de entender los diferenciales salariales existentes en un número importante de países europeos, incluyendo España.

En la tercera sección, pasamos a analizar el desarrollo profesional de las mujeres a través de su representación en distintas áreas, tanto del sector público como del sector privado. Existe una importante infrarrepresentación de mujeres en las instituciones públicas españolas, especialmente en las etapas más altas del servicio diplomático, el poder judicial y el gobierno regional y local. En general, la proporción de mujeres en instituciones públicas tiende a decrecer a medida que aumenta el nivel de autoridad. Este fenómeno es común a la mayoría de los grandes países europeos, encontrándose España aproximadamente en la media de los mismos. En el sector privado, encontramos que las mujeres ocupan sólo el $10 \%$ de las posiciones de mayor liderazgo de las empresas más grandes de España, así como alrededor del $17 \%$ de los asientos de sus consejos de administración; cifras inferiores a la media de los 8 países analizados con detalle (Francia, Alemania, Reino Unido, Italia, Alemania, Suecia, Bélgica, Holanda). Algunas de las explicaciones más habituales para la existencia de "techos de cristal" en España son la mala conciliación trabajo-familia, el fuerte desajuste entre cualificación educativa y puestos de trabajo entre las mujeres (sobrecualificación) y la existencia de "efectos red" y estereotipos de género.

Finalmente, analizamos las opciones de política de género existentes y llevamos a cabo una serie de recomendaciones, incluyendo la extensión de los servicios públicos de cuidado y educación infantil entre los niños de 0 a 3 años y la puesta en marcha de un sistema de bajas parentales compartido entre hombres y mujeres, con un número de días exclusivo para cada uno de ellos e incentivos económicos para promover el reparto equitativo de los días de baja. Por otro lado, se resaltan los beneficios de adoptar una política de flexibilización de las condiciones laborales en términos de jornada y lugar de trabajo. Por último, apoyándonos en el éxito del caso italiano, se recomienda el establecimiento gradual de cuotas de género de carácter temporal en consejos de administración, con un sistema transparente de plazos de implementación y sanciones por incumplimiento

## I. Introduction: Women in Spain

The adequate assessment of the various dimensions of gender differences in the workplace is paramount for the development of effectively targeted policies to combat inequality in the job market. Despite a large and growing literature on specific gaps in Spain, the present paper attempts to provide a wider perspective on gender differentials in the workplace by comparing the former with a set of European countries in order to identify the idiosyncrasies of the Spanish case. In the first section, the demographic and educational characteristics of women in Spain will be described, while in the second one female participation and workfamily balance will be analyzed. The following section will be devoted to the analysis of gender differences in terms of work conditions, including wages, temporality, part-time work, and over-qualification. The fourth section will focus on career development differences, the representation of women in top management positions and the existence of glass ceilings in Spain. Finally, several gender policy options will be reviewed in the last section.

Over 23.6 million women live in Spain, approximately 1.03 for each man. About $14 \%$ of these women are under 16 , and those over 65 constitute $21 \%$ of the population. Therefore, around 15.3 million women are within the working age. Labor force participation rate in Spain is currently at its highest for the foreseeable future: $66 \%$ of the population are within the working age, against the slightly over $50 \%$ forecasted for 2050 .

The sex ratio in Spain follows the natural curve, starting at 1.05 males per female at birth, then slowly decreasing until parity is reached at around age 50. From that point onwards, the ratio begins to fall more rapidly and by the age of 80 there are only approximately 0.7 males for each female. This reflects a higher female life expectancy (almost 86 years against 80 for males).

Figure 2 shows, however, that there are important deviations in the general pattern across countries in the 20-40 bracket, when heterogeneity across countries is greater due to immigration. In Spain, as reflected in Figure A-3 in the Appendix, the share of females born in a foreign country is larger than the corresponding share for males between the ages of 20 and 40 , which also corresponds to the age bracket when the proportion of individuals born in foreign countries is the largest.

With regard to household structure, approximately $30 \%$ of Spanish households in the 2011 Census follow the traditional family model of couples with children. The United States as well as most other large European countries have a lower share of couples with children (France, $25 \%$; UK, 22\%, Germany, 20\%). Meanwhile, the number of single-mother households and one-person households is low by European standards ( $4.5 \%$ and $23 \%$, respectively; against around $5 \%$ and $33 \%$ in most other countries), which highlights the existence of a relatively traditional family model in Spain (Table 1).


Figure 1. Population pyramid of Spain: year-by-year age and sex structure of Spain's population between the ages of 0 and 99 , in 2015. Source: Data from INE.


Figure 2. Ratio of Males to Females by age (number of men for each woman within specific age brackets). Source: Own Elaboration with data from Eurostat.

Distribution of Households by Type of Family (2011)

|  | Couples <br> with <br> children | Couples <br> without <br> children | Single- <br> mother <br> households | Single-father <br> households | Single- <br> person <br> households | Other <br> household <br> types |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Spain | 30.38 | 29.89 | 4.56 | 1.36 | 23.19 | 10.62 |
| Italy | 27.09 | 27.83 | 4.47 | 0.92 | 31.08 | 8.61 |
| Netherlands | 25.73 | 30.63 | 4.65 | 0.90 | 36.38 | 1.71 |
| France | 25.63 | 28.49 | 6.10 | 1.18 | 33.79 | 4.81 |
| Belgium | 24.80 | 28.39 | 6.33 | 1.39 | 34.06 | 5.03 |
| Sweden | 24.27 | 27.87 | 5.07 | 1.56 | 36.22 | 5.02 |
| UK | 22.39 | 28.38 | 7.54 | 1.00 | 30.58 | 10.12 |
| Germany | 20.57 | 31.15 | 4.72 | 0.77 | 37.27 | 5.52 |
| USA | 20.21 | 28.21 | 7.17 | 2.39 | 26.74 | 15.29 |

Table 1. Distribution of Households by Type of Family. Source: OECD Family Database. Statistics for the year 2011 from EU 2011 Population and Housing Census, and US Census Bureau

The preponderance and entrenchment of this model in Spanish society stands out when compared with other large Western European countries. Figure 3 shows the distribution of household structures within a range of them for the year 2013 (data source: Eurostat). In that year, approximately 3 out of 4 children in Spain were living in a household with two married parents, a figure only surpassed by Italy out of all the large Western European countries. By contrast, the share of children under the same living arrangements in Sweden and France was less than 60\%.


Figure 3. Distribution of children according to the type of household in which they live. Children between 0 and 17 years old. Source: Own Elaboration using data from the OECD Family Database.

We will now proceed to analyze the educational differences of the women and men populations. As evidenced in Figure A-2 in the Appendix, women with upper secondary education overcame men with the same level of education as early as 1998. Similarly, the proportion of females with tertiary studies surpassed that of males in 1997. Both gaps have continuously increased in the last 15 years. As of 2015, $67 \%$ ( $58 \%$ ) of women (men) aged $25-50$ in Spain have completed upper secondary education and $43 \%$ ( $36 \%$ ) of women (men) have attained a tertiary level of education. The Spanish educational system is characterized by a clear duality, with a high number of people not having completed high school (early leavers), but also a relatively large share of university graduates. Such duality is observed both for women and men.

Figure 4 shows the gender educational gaps in Spain by age group and by specific level of educational attainment. Individuals 45-55 years old show a relatively homogenous level of education, whereas men tend to be more educated across older cohorts. For all the generations under 45 years, women are more likely to complete tertiary studies and less likely to have only lower secondary education or less. The educational gap is increasing with age: for individuals 25-29 years old the share of women with completed tertiary studies is 13 percentage points higher than that of men, while the corresponding difference for individuals without upper secondary studies is -12 percentage points.


Figure 4. Percentage-point Female to Male differences in Educational Attainment by educational level and age group. Source: Own Elaboration using data from the Spanish Labor Force Survey.

As shown in Figure 6, the above pattern of gender educational gaps that is favorable to women and is negatively correlated with age is present in most European countries. One
exception is the case of Sweden, in which educational differences have practically stagnated: the share of Swedish women with tertiary studies is approximately 12 percentage points higher than for males (a number close to that for the youngest cohort of Spanish women). Despite this common pattern, generational differences in Spain are especially important: the differences in educational attainment between young Spanish men and women (favorable to females) are wider than the European average, and so are the differences favorable to men in the case of older generations. The educational boom of Spanish women has been significantly fast.

Figure 5 illustrates one of the potential factors behind the larger number of early leavers among males. The average percentage of male and female students that have to repeat a year of study has been reconstructed using data from the Spanish Ministry of Education. In every year from primary school to the baccalaureate the percentage of men that repeat is at least $30 \%$ higher than the percentage of women.

Finally, the existence of significant gender differences in the choice of field of specialization among those with tertiary studies must be highlighted. Women constitute over $70 \%$ of university graduates in areas such as health, education, and social services. By contrast, less than $30 \%$ of engineering or computer science graduates are women.

Overall, women of working age in Spain make up a smaller portion of the total female population than in other Western countries (which are relatively more aged) and tend to live in a relatively more traditional household setting than their European counterparts.


Figure 5. Share of students that repeated an academic year in Spain (2012-2013), by school year and gender. Source: Own elaboration using data from Spanish Ministry of Education and Culture.



Figure 6. Percentage-point female to male differences in educational attainment by age group, for individuals with upper secondary education (top) and completed tertiary education (bottom). Source: Own Elaboration using data from Eurostat.

## II. Female Labor Supply and Work-Family Balance

The increasing incorporation of women into the labor market has been one of the most significant transformations experienced in recent times by the Spanish economy, which rapidly transitioned from a traditional model based on the segregation of paid and unpaid tasks by gender towards a rather generalized dual income household model. In the last 30 years, the total active labor force has increased by 8.9 million people, of which over $70 \%$ are women. This means that the number of women working or actively looking for a job has multiplied by 2.5 since 1985 .

As shown in Figure 7, in 1985, only $35 \%$ of all Spanish women between the ages of 15 and 65 were working or looking for a job, compared to $64 \%$ in the United States. Meanwhile, around half of the female population in France and Germany were active participants in their country's labor market. The female participation rate in Spain is currently slightly above the EU-15 average (68\%), three percentage points below Germany, and two above France (Figure 8), after displaying a striking year-on-year growth of 1 percentage point for the best part of half a century. However, the example of Sweden shows there is still room for improvement. Sweden completed its transitional process in the incorporation of women to the labor market in the 1980s and has sustained female participation rates above $75 \%$ for over 30 years.


Figure 7. Participation of women aged 15 to 64 in the labor market in Western European countries and the US between 1960 and 2014. Source: Own Elaboration using data from the International Labor Organization (ILO), Labor Force Surveys, and the National Census. ${ }^{1}$


Figure 8. Participation rates of men and women 15-64 years old in Western Europe and the US in 2014. Source: OECD.

Spain's gender gap in participation has progressively narrowed as expected, due to the expansion in female activity rates. While Spain had a difference of 30 pp in 1995, only lower than Italy's in Western Europe, the figure now stands at 10.7 pp (percentage points). The trend in Spain is rather similar to Italy's up to 2001, a year in which the gender gap was wider in Spain than in Italy. However, from that year onwards, while Italy experienced a yearly average decrease of around half a percentage point, Spanish rates plummeted at twice that speed (Figure 9). In the last 15 years, Spain experienced one of the greatest decreases in gender inequality in terms of participation rates of the OECD. ${ }^{2,3}$

This rapid transition has led to a labor market in which age is highly correlated with increasing gender differences, ranging from around 5 pp for individuals between 25 and 34, to above 15 pp for those over 55 years. Central and Nordic European countries, in which the

[^0]incorporation of women has been much more gradual, do not exhibit such a clear pattern (Figure 10). The gender gaps in terms of activity are significantly lower than the European average for younger cohorts (born before 1975) in Spain, while older cohorts are only surpassed in labor market inequality by their Italian counterparts.

Once again, the Swedish case serves as example of a country that has successfully completed its transition towards a two-earner household model. In Sweden, the rate is rather constant across generations, and only a mild increase (from 4 pp to 7 pp ) is observed in the 25-44 age group. In this case, the increase is clearly associated with maternity since it subsequently disappears, so that the 45-49 and 25-29 age groups show roughly the same percentage point difference in activity rates). Most of the other European countries also exhibit this trend, but display a higher increase in inequality across the most fertile years for women that appears slightly masked by the overall diminishing gaps.


Figure 9. Evolution of the gender gap in participation (male to female) in percentage points for ages 15-64 in Western European countries between 1995 and 2014. Source: Own Elaboration with data from Eurostat.


Figure 10. Percentage-point male to female differences in participation in 2014, by age. Source: Own Elaboration with data from Eurostat.

The main factors behind the increase in female labor participation rates and the associated narrowing of gender gaps in participation rates are shared among most major developed economies, but the timing and speed are different across countries (Pissarides et al. 2005). Women participate more actively in the labor market due to changes in the dynamics of the participation patterns (changes in preferences, increasing opportunity costs not to participate) as well as changes in the characteristics of the population (higher educational attainment, reduced fertility, demographics). It must be noted that some external factors may simultaneously change the existing incentives to work of a given segment of the female population while also having an indirect long-term repercussion through their capacity to affect lifecycle decisions. For instance, rising demand for non-physical labor due to skilledbiased technological change increases the potential wages for skilled workers, therefore increasing the opportunity cost of staying at home for skilled women (short-term effect), while simultaneously increasing returns to education (long-term effect). The overall effect is that the average educational level of women is lifted (Card and Di Nardo, 2002). Consequently, it is important to differentiate between changes in participation due to compositional changes and those due to changes in preferences and/or restrictions.

Compositional and demographic factors affecting the female population are very important in order to understand changes in participation patterns in Spain. Arellano \& Bover (1995) describe the large impact that tertiary education attainment had over female participation rates in Spain between 1976 and 1991, although without any direct short-term effect. The study employed a GMM framework with instrumental variables. Furthermore, they find that the elasticity of fertility rates is significantly negative with respect to activity rates both in the long and in the short-run. Vlasbom and Schippers (2004) reach a similar conclusion, finding
that differences in education had a larger repercussion over the likelihood to participate in the labor market in Spain than in other European countries (between 1991 and 1999). However, they also described that the effect of having children is large but comparable to that found in other European countries. Finally, they concluded that while the effect of the former is decreasing in time as working becomes more widespread across all educational levels, the effect of the latter is stagnant or even increasing due to increased difficulties to balance work and family life.

The relationship between education and labor participation is complex, and the direction of the causality is uncertain. More highly educated women are more likely to participate in the labor market due to their higher potential salary (for example in Thévenon, 2013; Euwals et al., 2011; Goldin, 2006), but higher potential wages due to demand or supply factors in the labor market also increase the incentives to continue studying in the interest of accessing the wage premium associated with tertiary education. Furthermore, higher education tends to change social attitudes with respect to female participation, promoting more gender-neutral social norms (e.g. Fernández, 2007; Fortin, 2005).

Figure 11 shows the gender gaps in participation rates in Spain in 2014 according to age group and level of education. It can be clearly observed that the difference in participation rates is more pronounced the lower the educational attainment in all of the groups. Moreover, the gender gap among the share of the population without upper secondary education clearly narrows with age, showing that the cohort effect is very high in this group (from a 26.9 pp difference in participation rates among the 55-69 years group to a 12.1 pp difference among the $30-34$ years group; that is a $>50 \%$ decrease). For those with only upper secondary education, the cohort effect is still clearly present, but the magnitude is lower than for the prior group (from a 14.3 pp difference in participation rates among the 55-59 years group to a 7.7 pp difference among the $30-34$ years group). Finally, for individuals with completed tertiary studies, the gender gap does not increase with age as clearly. Instead, the curve adopts a U-shape; it goes up until reaching the 40-44 year bracket, after which it begins to go down. Such a U-shape pattern is found in the relationship between age and participation gaps for the overall population in countries with low levels of inequality in terms of participation rates (France, Sweden), and is clearly associated with maternity.


Figure 11. Percentage-point male to female differences in participation in Spain in 2014, by age and education. Source: Own Elaboration with data from Eurostat.

Therefore, the cohort effect in Spain, which causes a steady upwards relation between age and gender gaps, is dominant among individuals with lower levels of educational attainment, while the maternity effect is more important among the more educated. This fact seems to support the statement that increased female educational attainment is the main source of changes in female labor supply elasticity at earlier stages of development, whereas maternity decisions (and associated public policies affecting work-family balance) are more crucial in later stages (in line with Vlasbom and Schippers, 2004).

As shown in Figure 12, the gender gap in participation rates at tertiary education in 2014 in Spain was low ( 4.7 pp ) when compared with other European economies (such as France's 4.9 pp or Germany's 7.2 pp ). However, the equivalent gap for individuals without upper secondary education was much higher than in France or Germany ( 18.5 pp against 12.1 pp and 13 pp , respectively). Such differences across educational levels are likely to decrease since, as described above, cohort effects are stronger for those with lower educational attainment, although the overall gender gap situation among those with lower secondary education or less is still worrisome.


Figure 12. Percentage-point male to female differences in participation in Western European countries in 2014, by age and education. Source: Own Elaboration with data from Eurostat.

The link between the participation of women in the labor market, household responsibilities and fertility is better understood in terms of the classical framework developed by Becker (1965), which considers a household as a small plant that produces household goods using labor and intermediate goods. In this case, relative wages between men and women would determine how labor is divided between household production (domestic work) and external paid work. In order to reach a final allocation of tasks between the members of the family, a bargaining process is likely to take place (e.g. Browning and Chiappori, 1998), which would have different results according to the preferences and bargaining power of each one of the family members. Apart from wages, another factor that affects the decision-making power of women is their potential employability (Majlesi, 2016).

Some evidence of the results from this intra-household process of bargaining can be obtained from Time Use Surveys, which show the allocation of time throughout the day across different ranges of activities. Figure 13 plots data taken from the UNECE Time Survey Database on hours devoted to household activities by men and women from a range of European countries. The graph shows the overall trend across Europe and highlights Italy for comparison with Spain.


Figure 13. Relationship between the percentage gender gap in hours devoted to household activities and the percentage gender gap in participation for a group of European countries. ${ }^{4}$ Data from the Time Surveys include individuals aged 20 to 64, both active and inactive, and refer to calendar days. Source: Own Elaboration with data from UNECE Time Surveys Database and Eurostat.

The distribution between males and females of hours dedicated to household and domestic work clearly correlates negatively with the participation of women in the labor market. In Spain, both gaps have been drastically reduced between the years 2000 and 2010. The significant progress made is easily visualized when compared with the Italian case, whose situation in 2000 was similar to the one in Spain, but which has progressed at a much slower rate.

It is important to also note that the overall relationship found between both variables is such that the gap in the number of hours of household production activities closes at a slower pace than the gap in the participation rate. This means that women increase their participation in the labor market while still carrying out a significant share of household tasks, therefore virtually having a period of "double shift" (Hotschild 1989, Dominguez-Folgueras, 2015). Such burden of work is likely to have a strong impact on fertility due to the uneven sharing of childcare responsibilities.

[^1]Figure 14 shows the time distribution of activity in Italy, Spain, France, Netherlands and Sweden, using data from UNECE from different national time surveys. Only countries for which recent and comparable data are available are included.


Figure 14. Male to female differences in the use of time, by activity. Data in hours. Calculated for the calendar year (weekdays and weekends). Both active and inactive individuals aged 20-64. Own elaboration using data from the Spanish Time Usage Survey 2009-2010 (INE) and UNECE Time Survey Database. The following datasets are included: Italy (2008-2009), Spain (2009-2010), France (2009-2010), Netherlands (2011), Sweden (2010-2011).

In Spain, the difference between men and women in terms of hours of gainful work is relatively small by European standards (men only work an average of 1.4 hours more per day than women, which is slightly less than France). This is due to the fact that female activity rates are relatively high and part-time work is not as widespread as in other countries. In the Netherlands, the difference is larger due to the high rate of part-time employment among women (see Section III), while in Italy the difference is fairly high by European standards due to the lower participation of women in the labor market (see Figure 8).

By contrast, the distribution of domestic work in Spain is much more uneven by European standards: women spend an average 2.5 hours more per day carrying out domestic tasks (including childcare and care of other dependents). This figure is lower in all other countries, with the exception of Italy. The absolute number of additional hours devoted to domestic work by women is larger than the absolute number of additional hours devoted to gainful work by men, by approximately 1 hour. This extra hour is almost exactly the difference between the average number of hours of free time between men and women. In other words,
each day (on average) women will devote 1 more hour to household work while men get an extra hour of free time.


Figure 15. Gender distribution of domestic and household work, by task. Average share of the total amount of time devoted to each household activity. Calculated for the calendar year (weekdays and weekends), and including both active and inactive individuals. Source: Own elaboration with data from the Spanish Time Use Survey (2009-2010).

Figure 15 focuses on the male-female distribution of different domestic activities in Spain. Tasks are strongly segregated by gender: practically none of them are close to being evenly distributed (with the exception of shopping and services, which is shared 40-60 between men and women). Women carry out the vast majority of laundry and ironing activities (over 90\%), food preparation and dish washing (75\%) and upkeep (almost 75\%). Men are responsible for only $35 \%$ of the total amount of time devoted to childcare in Spain, with the significant effect such uneven distribution is likely to have on fertility rates in a country with high female labor force participation.

As noted before, men enjoy around one more hour of free time per day than women. To analyze this variable further, we plotted the distribution of free time by activity and gender, which is here shown as figure 16 . The average amount of time that women and men spend on activities such as reading, socializing, volunteering and other leisure activities is practically the same. By contrast, men spend an average of 17 minutes more per day watching TV or playing videogames, and around 20 minutes more per day on hobbies and games. Meanwhile, women spend around 14 minutes less per day exercising.


Figure 16. Daily free time by gender and activity. Average amount of time devoted to each activity. Calculated for the calendar year (weekdays and weekends), both active and inactive individuals. Source: Own elaboration with data from the Spanish Time Use Survey (2009-2010).

Gender gap in time-use patterns (2008-2011)
Employed individuals between the ages of 20 and 64


Figure 17. Male to female differences in the Use of Time, by Activity. Data in hours. Calculated for the calendar year (weekdays and weekends). Employed people aged 20-64. Own Elaboration using data from the Spanish Time Usage Survey 2009-2010 (INE) and UNECE Time Survey Database. The following datasets were used: Italy (2008-2009), Spain (2009-2010), France (2009-2010), Netherlands (2011), Sweden (2010-2011).

So far, the data from both employed and unemployed individuals have been pooled. If the data from employed individuals is analyzed separately the gaps observed remain, although they are narrower. Spanish men spend an average of 1.4 hours more at work and 2.5 hours less doing domestic work than their female counterparts. However, for employed individuals only, these figures are reduced to 1.1 hours more and 1.8 hours less, respectively (Figure 17).

Another important driving force behind the early surge in female labor participation is the decrease in the absolute number of household hours required per family. Several appliances such as refrigerators, washing machines, electric irons, and many others have dramatically increased the average productivity of one hour of unpaid household work. Coel-Pirani et al. (2010) estimate, using micro-level data from the US censuses of 1960 and 1970, that a significant part of the large increase in the participation of married women in the labor force is was due to the decreasing price tag on household durable goods. Similarly, Cavalcanti and Tavares's (2008) macroeconomic analysis reveals a clearly negative relationship between the price of home appliances in OECD countries and increased female labor participation.

These lines of enquiry point to the importance of the overall burden that household activities represent in the bargaining process over the distribution of tasks at the family level. A similar framework may be used in order to analyze the effect of fertility on gender gaps in terms of participation rates. Having children increases the number of required hours of household tasks, notably due to direct childcare activities. This increases the opportunity cost of working outside. Furthermore, childcare is labor-intensive and a task that is rather difficult to substitute or externalize, especially for children under the age of two.

The effect that having children has on female participation rates is highly dependent on the degree of segmentation by gender of childcare activities at the family level. García-Manglano et al. (2014) link fertility rates with gendered patterns of time use and demonstrate that developed countries with high fertility rates show more egalitarian time distributions and, therefore, have a low level of gender segmentation of household tasks. High fertility rates, gendered distribution of tasks, and high female participation rates are incompatible. Countries with gender-segmented time patterns that have rapidly advanced in terms of women activity have done so at the expense of their fertility rates plunging down well below replacement levels. It seems therefore that a certain degree of equality in the division of household tasks may be necessary in order to combine sustainable levels of fertility with high rates of female participation.

Figure 18 shows the employment status of Spanish heterosexual married couples between the ages of 25 and 49 with and without children. We can clearly see that having children has a very important effect on the employment status of women, but it does not seem to affect men. In couples without children, $61 \%$ of the women work full-time, $13 \%$ work part-time and $26 \%$ do not work. The percentage of women who do not work increases to $40 \%$ after having children, and part-time employment rates increase by approximately 4 percentage points.

It should also be noted that the age and number of children in couples with both parents in employment do not seem to have a significant impact on the gender gap. Associated cohort effects do affect the gender gap; for example, couples with older children are likely to be older, which implies that those women are probably more traditional and less educated. By contrast, the effect of childbirth on employment rates seems to be relatively consistent across all cohorts. Furthermore, the employment rate gap between women with children and those without children, as well as the lack of difference between women with children under the age of 6 and those with younger children, has been relatively stable over the last 25 years (see Figure A-11 in the Appendix).

Employment status of heterosexual couples in Spain, by age of the youngest


Figure 18. Employment status of men and women in heterosexual couples in which both members are between 25 and 49 years old. Couples are divided into those without any children, those with children over 6 and those with younger children. Source: Own Elaboration with data from UNECE Gender Database.

Figure 19 illustrates how the change in employment status between women with and without children in other European countries compares with the one observed in Spain. Note that only descriptive statistics were used to analyze the data and, therefore, the populations are not directly comparable; since Spain has a very low fertility rate, it is very likely that the characteristics of Spanish women are very different from those women in countries with higher rates). It is also noteworthy that the employment rate of women in Spain is lower than in most other countries, even for those without children, but this is likely due to high unemployment among both men and women (see Section III).

Overall, the percentage of women who stop working after having children in Spain (from $26 \%$ to $40 \%$ ) is not high by European standards (e.g. the drop is significantly larger in Germany: from $11 \%$ to $37 \%$ ). Sweden is a remarkable exception, with practically no negative effect on employment rates. Meanwhile, countries with higher labor market flexibility and/or low unemployment rates such as the Netherlands, Germany, or the United Kingdom
experience a significant upward shift in women's part-time employment rates with childbirth. The aforementioned patterns may be due to self-selection: countries in which balancing work and family life becomes difficult to achieve will develop lower fertility rates and only the couples who can "afford" to have children (in terms of time and income) will be likely to have them.

Employment status of women in heterosexual couples with no children (No
C.) vs. with children under the age of 6 (C. -6) (2013)

Couples in which both individuals are 25-49 years old


Figure 19. Employment status of women in heterosexual couples in which both members are 25-49 years old. Women are divided into those without children and those with children under the age of 6 . Source: Own Elaboration with data from UNECE Gender Database.

In a recent study, Dominguez-Folgueras (2015) assessed the impact of having children on the distribution of tasks at the family level in Spain, using data from time surveys and controlling for educational level, labor market activity, age, and other demographic factors. The author describes how having children has a significant effect on the time women devote to household tasks, and that the effect is noticeably stronger than on men. Furthermore, the results obtained in that study mirror the results shown in Figure 19 of this study: that both women with younger children and women with older children devote more time to domestic tasks than their childless counterparts. The author also described that childcare is largely accountable for this increase for the case women with young children, whereas women with older children see their share in other household tasks increased. These results suggest that childbearing and parenthood trigger the traditionalization of time patterns in Spanish society. Finally, the author pointed out that between 2002-2003 and 2009-2010 the impact of childbearing on these time patterns decreased.

Besides the time constraint factor in the process of dividing household tasks between men and women which determines female labor supply, wages are also an important aspect that affects women's participation in the labor market. Both the absolute value of a woman's wages and their relative value against her partner's are decisive. A high relative wage will lead to increased bargaining power within the household, whereas a high absolute wage will increase the opportunity cost of household production activities. The gender gaps in working conditions, including wages, will be analyzed in Section III.

There are many demand factors that drive absolute wages upwards. However, in the case of relative wages, technological progress and the increasing mechanization and automation of routine tasks has had an asymmetric negative impact on physical tasks, which has mitigated previously gender-biased labor demand conditions (in Black \& Spitz-Oener, 2010 and Beaudry \& Lewis, 2014; among others).

The structural transformation of advanced economies towards the services sector, or tertiarization, is closely linked to the aforementioned process of technological progress. Between 1995 and 2014, the service sector's share of total employment in Spain increased from $61 \%$ to $76 \%$. Out of the over 8 million new jobs in the service sector that were created during the expansive period between 1993 and 2008, $56 \%$ were taken by women (the absolute number of men employed in the service sector increased by $44 \%$, while the number of women increased by $112 \%$ ).

Service jobs tend to be more in line with the average preferences of women and offer comparative advantages (Goldin 2006, Rendall 2010). Ngai \& Petrongolo (2015) explain sectorial transformation and gender convergence using a model in which faster productivity growth in the goods sector leads to reallocation of labor in the services sector. This shift increases labor demand in that sector, in which women have comparative advantage. Note that no assumptions have to be made in terms of the existence of absolute advantages in any sector.

In Spain, both the activity rate of women and female shares in employment correlate positively with the tertiarization of employment in the country (Figure 20). However, the relationship between female activity rates and employment shares displays some countryspecific idiosyncrasies. Female employment levels refer to labor market outcomes, whereas activity rates are a proxy of willingness to work and will consequently be influenced by demand shocks only via increased potential wages. Note that the concave shape of both curves is caused by a ceiling effect as countries start to reach gender parity.

Two different trends can be observed for Spain since 1995. The inflection point between the two coincides with the onset of the structural transformation that started with the bursting of the real estate bubble in 2007-2008. Female labor activity rates up until approximately 2011 were increasing at a practically constant rate, but the process of tertiarization has been much slower than average due to the pumping of resources into the construction sector. After a
period of large job destruction in the construction sector that affected men asymmetrically, both the share of employed women and the share of service jobs in the overall economy increased drastically, while female activity rates continued to increase at the previous rate.


Figure 20. Relationship between female activity rate and share of services in total employment (I). Relationship between percentage of women in employment and share of services in total employment (II). Countries included: Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, United Kingdom. Period covered: 1995-2014. Source: Own Elaboration with data from Eurostat.

Since higher relative wages are likely to increase female participation, factors that have a direct impact on potential earnings, such as education, as previously discussed, and experience or seniority in a job will also influence female participation.

Smaller differences between men and women in terms of accumulated experience lead to decreasing non-adjusted gender differentials, such as overall gaps in participation rates because a higher potential wage leads to stronger attachment to the labor market. Figure 21 shows the narrowing of the gender gaps in tenure (at current job) in Spain between 2002 and 2015.


Figure 21. Percentage-point male to female differences in the distribution of workers according to the tenure at current job between 2002 and 2015. Individuals between 15 and 64 years old. Source: Own Elaboration with data from Spanish Labor Force Survey (EPA).

Furthermore, the weight of social norms and changing attitudes towards the participation of women in the labor market is also likely to be a deciding factor in the behavior of gender gaps in activity rates, especially in order to explain differences across countries. This issue will be analyzed in detail in Section V, using the European Values Survey.

Finally, several institutional dimensions have repercussions on female labor supply decisions, including flexibility of the labor market (e.g. availability of part-time jobs, wage compression), existence of a two-tier labor market that penalizes less attached workers, workfamily balance policies, and fiscal regulations for dual-earner families. More importantly, these elements of policy reinforce and interact with each other. For instance, provision of childcare services seems to be especially effective in combination with other measures supporting working mothers (Thévenon, 2013). Cipollone et al. (2014) consider that almost $25 \%$ of the actual increase in labor market participation for young women in the EU-15 is due to labor market institutions and family-oriented policies. Current policies to promote gender equality in several European countries will be discussed in Section VI.

## Box 1. Conclusions for Section II.

1. Female labor participation in Spain has increased at the fastest rate out of the EU-15 countries in the last 15 years. Currently, both the participation rate and the participation gap are very close to the European average.

The rapid convergence experienced has caused a strong generational gap in participation. Cohort effects will potentially cause this upward trend to slow down, but they will not halt it altogether.
2. The progress made in work-family reconciliation has been much slower. Spain has a highly uneven distribution of domestic tasks by European standards: women spend on average 2,5 hours per day more on domestic activities and have 1 hour less of free time per day than men.
3. The combination of high female participation rates and unbalanced share of household tasks (including childcare duties) is likely having a strong negative effect on fertility rates. Therefore, policy options aimed at improving workfamily balance could simultaneously resolve low fertility rates and the uneven distribution of domestic tasks.
4. Other factors such as the tertiarization of employment and higher educational attainment of women have likely had a large impact on activity rates in the past, but their potential future contribution to increased female participation seems relatively limited.

## III. Gender Differences in Working Conditions and Job Segregation

In this section, the specific characteristics of the jobs held by men and women in Spain will be discussed and compared with other European countries, including unemployment rates, irregular employment (part-time, casual and short-term work), over-qualification, and occupational segregation. These types of male-female differentials tend to be overlooked in the literature, despite being a significant source of gender inequality. Finally, differences in earnings will be covered, concentrating mostly on wage and pension gaps.

Spain has a labor market traditionally characterized by high average unemployment rates and large volatility associated with the use of casual and short-term contracts as cyclical adjustment tools. The average unemployment rate between 1995 and 2014 was $14 \%$ for men and $20 \%$ for women ${ }^{5}$, and they were the highest of the EU-15. The average gender gap in unemployment rates ( 6 pp ) was also the most unequal in the EU- 15 region, with the exception of Greece (see Figure A-14 in the Appendix). However, as Figure 22 shows, the gap narrowed by a steady 0.7 pp per year between 1995 and 2007. Countries with average unemployment rates under $8 \%$ for the same period, such as the United Kingdom, the Netherlands, Germany, and Sweden, exhibit very low or null unemployment gender gaps, whereas those with higher absolute rates, such as Spain, Italy, and to a less extent France and Belgium, have larger gaps, which suggests there is correlation between absolute unemployment levels and male-female differences in unemployment.


Figure 22. Percentage-point male-female differences in unemployment rates between 1995 and 2014. Individuals between 15 and 64 years. Source: Own Elaboration with data from Eurostat.

[^2]Between 2007 and 2010, the unemployment gap practically closed, mostly due to the strong impact of the crisis on the construction sector, in which over $90 \%$ of the people employed are men. As shown in Figure 23, the number of women in employment decreased by $11 \%$, but the number of men in employment plummeted by over $25 \%$. Figure A-15 in the Appendix illustrates how this uneven impact clearly coincides with the first stage of the Recession, which is associated with the real state bubble burst. In the same line, De la Rica \& RebolloSanz (2015) report an important decrease in the likelihood of finding a job for unemployed men throughout the crisis, while female exit rates from unemployment rates remain roughly constant.

Figure 24 shows the into- and out-of-employment flows for men and women in Spain from 2006 to 2015. Prior to the Great Recession, both job creation and job destruction rates are much higher for women than for men, indicating larger volatility and rotation. In 2008, destruction rates started to increase, but men's jobs were hit harder ( 3 pp more over total employment for men against 1 pp for women). Meanwhile, the job creation rate for women remained stable. The male job creation rate as a percentage of total employment increased slightly (due to the fall in the denominator), but when measured as a percentage of the stock of unemployed it shows a sharp decrease. According to De la Rica \& Rebollo-Sanz (2015), the decrease in exit rates from unemployment in the case of men is of around 15 pp .

Another significant change that appeared with the onset of the recession is the closing of the gender gap in job creation and job destruction rates. One of the determinants of these rates was the relatively high rate of employment inflows (as a percentage of total employment) due to the larger pool of unemployed men, which also explains the convergence in terms of aggregate unemployment rates. With the arrival of a new period of economic growth in the cycle the unemployment gender gap has started to widen again.

In general, the unemployment rates of men tend to be more sensitive to cyclical changes (Albanesi \& Sahin, 2013) due to their stronger presence in sectors that are relatively more pro-cyclical. Therefore, narrower unemployment gaps are to be expected throughout periods of contraction even when the recession does not hit male-dominated sectors harder. In the specific case of Spain, however, in the specific case of Spain, however, this is compounded by the pricking of the housing bubble. Predominantly male construction workers are less likely to find a job than unemployed workers in other sectors, leading to higher structural unemployment rates than prior to the crisis. This is the reason why unemployment gender differentials will increase slightly in the short term (as experienced in 2014 and 2015), but will remain below pre-recession levels.

Regardless of these kinds of changes associated to business cycles, the overall trend that emerges is a clear move towards the closing of gender gaps in unemployment across all countries over the last 15 years, which, as mentioned previously, seems to correlate with its absolute level. Azmat et al. (2006) show that the gender gaps described only emerged in the 1970s in many countries, and that they were not present before. The U-shaped trend of unemployment gaps in Spain is clearly visible in Figure A-13 in the Annex.

While the initial opening of the unemployment gap is likely to be due to increased female labor force participation, the decreasing trend since the 1990s is more puzzling. Azmat et al. (2006) evaluate several alternative hypotheses that may explain this difference, and concluded that neither differences in job search intensity nor those in welfare benefits are likely to be behind this trend.

Gender differences in certain labor force characteristics probably played a part in this shift. Cipollone et al. (2014) examine whether the composition of the female labor force is behind such differences in unemployment rates. After accounting for socio-economic variables (including education), the authors observed a remarkable and quickly shrinking gap in Spain since the 90 s. ${ }^{6}$ By contrast, the gender gap in unemployment in Italy is much narrower once compositional effects have been taken into account, according to the same study. Given the lower participation rates in Italy, the resulting trend may reflect self-selection: that in the Italian labor market, it is mostly women with relatively high qualifications who are active participants.

Employment throughout the 2008-2013 Crisis in Spain by sex


Figure 23. Employment levels by gender (indexed at 2008 Q2 $=100$ ). Shadowed areas correspond to recession periods as specified by the Spanish Business Cycle Dating Committee. Source: Own Elaboration with data from the Spanish Labor Force Survey.

[^3]

Figure 24. Flows into and out of employment, by gender. Source: Own Elaboration with micro-data from the Spanish Flows Labor Force Survey.

Figure 25 shows the unemployment gaps by educational level in different European countries in 2014. In Section I it was observed that gender differences in education are larger in Spain than in other European countries. Therefore, it is not surprising that the gender unemployment gaps within each educational level category are larger than the gap for the entire population, indicating the existence of large compositional effects. Note that the larger unemployment rate for those with lower and upper secondary education might be due to the concentration of men with this level of educational attainment previously attached to the construction sector.


Figure 25. Percentage-point male to female differences in unemployment rates, by educational attainment level. Source: Own Elaboration with data from Eurostat.

Type of contract is one of the major factors that determine job quality. Fixed-term contracts may be used as a screening device or as a testing platform in certain countries, since they can act as "stepping stones" towards full-time employment on an indefinite contract. In the case of Spain, however, temporary contracts have a significantly lower cost of redundancy and are used as an adjustment tool in the business cycle. This, leads to the creation of a two-tier labor market. In addition, low conversion rates imply that fixed-term workers tend to get trapped in temporary contracts. Consequently, the share of temporary contracts in newly created jobs is much higher than in the stock of employed individuals (see Güell and Petrongolo, 2003).


Figure 26. Temporality rates in Spain, by gender and broad age group. Source: Own Elaboration with micro-data from the Spanish Flows Labor Force Survey.

Despite the fact that between 2000 and 2014 the temporality rate for women in Spain fell by approximately 10 percentage points, it remains one of the highest of the OECD (Figure A18). There exist major differences in the fixed-term rates between individuals under 25 (only around $30 \%$ of the contracts are indefinite) and those between 25 and 55 (over $75 \%$ of the contracts are indefinite). In addition, Spain is also one of the countries in which having a temporary contract has the highest associated penalty, as measured by the large gap in per hour earnings (Boeri et al. 2005). However, when it comes to gender gaps, women are slightly more likely to have temporary contracts, although male-female differences are not pronounced by European standards (see Figure 27).

Gender gap in fixed-term employment
Individuals between 15 and 64 years


Figure 27. Male-Female gender gap in employment rates for fixed-term contracts. Source: Own Elaboration with data from Eurostat.

Another important difference in the working conditions of men and women is the higher propensity of the latter to have part-time contracts, which may be due to a personal preference for part-time work. Booth and Van Ours $(2009,2013)$ have described that women with children in Australia and the Netherlands tend to self-report higher job satisfaction when working part-time. In the case of the Netherlands, whose part-time rate is one of the highest in Europe, the authors found that the equilibrium number of desired working hours is about 32 hours per week for men, and 21 for women.

It is important to note, however, that the overall degree of job satisfaction with part-time jobs will depend greatly on whether the conditions are similar to those of full-time jobs. Part-time work coupled with high job satisfaction requires a flexible labor market and a large degree of intra-firm schedule flexibility. For the case of the United Kingdom, Manning and Petrongolo (2008) find that part-timers are more likely to carry out "menial" tasks than their full-time counterparts. The debate regarding gender differences in part-time rates is therefore closely linked to the level of quality of existing part-time jobs.

Part-time rates in Spain have slowly increased since the 1990s and early 2000s, picking up speed thereafter. This overall trend is particularly strong for young individuals. Almost half of all existing job positions filled by women between 15 and 24 years old in 2014 were parttime. By contrast, only one in three men within the same age group worked part-time. In both cases, the likelihood of having a part-time job has duplicated since 2005 (Figure 28). Finally,
other demographic groups show less salient increases in part-time employment rates (e.g. from $20 \%$ to $25 \%$ for women between 25 and 49 years).

From a comparative perspective, women in Spain are significantly less likely to have a parttime job than in other countries, despite their increase over the last decade (Figure 29). Furthermore, the gender gap in part-time employment rates is also quite low by European standards. In Spain, it has remained relatively stagnant over the past 15 years, and has decreased slightly in most other European countries, with the exception of Italy, which has experienced a 10-percentage-point increase in the female-male differences in part-time employment rates.


| - Male From 15 to 24 years | Male From 25 to 49 years |
| :--- | :--- |
| - Female From 15 to 24 years | $=$ Male From 50 to 64 years |
|  | $=$ Female From 50 to 64 years |

Figure 28. Spain part-time employment rates between 1995 and 2014, by gender and age. Source: Own Elaboration with data from the Spanish Labor Force Survey.

A very different picture emerges, however, when involuntary part-timers are analyzed separately. Involuntary part-timers is defined as individuals who self-report that they would prefer to have a full-time contract. Italy and Spain have relatively low overall part-time employment rates, but they also experience a rather high level of involuntary part-time status (approximately $8 \%$ of women employed and $3.5 \%$ of men employed have part-time contracts, but would prefer to work more hours). Such a high figure may be attributed to the absence of full-time work opportunities, since more than a third of the part-timers in Spain would like to increase their work hours. In the Netherlands, which has the highest female part-time employment rate of the European Union, less than $10 \%$ of the total number of parttime positions are filled by women (Figure 30).

Female part-time employment rate, by country Individuals between 15 and 64 years


Figure 29. Part-time employment rate in Western European countries for the years 2000, 2007, and 2014. Source: Eurostat.


Figure 30. Percentage-point Male-Female Differences in part-time employment Rates in Western European countries for the years 2000, 2007, and 2014. Source: Own Elaboration with data from Eurostat.

Undesired part-time employment rates in Spain have increased by more than $400 \%$ for both women and men in the last 15 years (Figure 32). Consequently, the gender gap in part-time employment has experienced an increase of about 3 pp (from 1 pp to 4 pp ), meaning that the ratio of female to male involuntary part-timers has remained relatively constant. More adverse cyclical conditions are probably the main cause behind this surge, even though the gender gap in the share of involuntary part-time contracts would be expected to have narrowed due to the recession, especially given the asymmetric effect of the crisis on maledominated sectors.

The overall trend in increased undesired part-time status both in absolute terms and as a gender gap is worrying. It also seems to point towards the lack of quality part-time jobs in Spain, possibly due to low labor market flexibility. This issue will be further analyzed in Section VI.


Figure 31. Share of individuals who are in part-time employment, but who would rather work more hours. Share out of the total number of individuals in employment divided by gender. Source: Own Elaboration with data from Eurostat.


Figure 32. Share of individuals in Spain who are in part-time employment, but would rather work more hours. Share out of the total number of individuals in employment, by gender (2000-2014). Source: Own Elaboration with data from Eurostat.

It should be noted that certain circumstances further exacerbate gender differences in shortterm, casual, and part-time employment. Maternity is strongly associated with higher parttime employment rates in Europe. As figure A-19 in the Appendix shows, the gender gap in part-time employment for individuals with children is significantly wider than for individuals without children. Interestingly, the gap also increases with the number of children in most European countries; however, in Spain, the only significant gap is associated with first-time motherhood, and there is not a clear difference between individuals with 1 child and those with 2 or more.

Similarly, there is a strong positive correlation between education and gender gaps in terms of temporality rates in Spain. While the incidence of fixed-term contracts decreases with education, the gender differences in temporary employment increase. This contradictory situation may be linked to the larger than usual degree of educational mismatch and overqualification among Spanish women (De la Rica et al., 2010).

Gender wage gaps are among the most widely studied topics in economic research on labor market differentials. Overall, there is a positive difference in the average wages of men and women in practically all developed countries, although there is a generally downward trend since the 1970s in most of them (Weichselbaumer \& Winter-Ember, 2005; Golin \& Lemieux, 2001). There are a large number of reasons that could explain the unadjusted gender gaps; that is, the mean overall wage gap between men and women according to variables such as level of educational attainment, educational choices, length of service and/or experience,
propensity towards part-time work, career interruptions, and preferences for jobs with nonmonetary perks (e.g. flexible conditions or family-friendly policies). ${ }^{7}$

Unadjusted gender wage gap


Figure 33. Unadjusted gender gap (Male-Female) in different European countries in 2007 and 2014. Source: Own Elaboration with data from Eurostat.

More exhaustive analyses usually correct for such variables, and have described how one of the most important factors driving gender wage gaps in many countries is occupational segregation in low wage occupations (Weichselbaumer \& Winter-Ember, 2005). Labor market institutions may play a major role in explaining cross-country idiosyncrasies: markets with overall strong collective bargaining frameworks are likely to have small gender wage differentials, as do those with high levels of wage compression (Dolado et al. 1996). Blau \& Kahn (2016) use PSID microdata to analyze the degree to which different factors can account for gender wage differentials in the US, reaching the conclusion that traditional human capital theories explain little about it, while occupational segregation, gender roles, and the division of labor remain important. Psychological attributes may also play a role, albeit a smaller one than the aforementioned factors.

It is also worth noting that the relationship between female labor force participation and gender differences is ambiguous. On the one hand, as labor participation increases, the women entering the labor market are more likely to be lower skilled on average because their opportunity cost of not working is lower. Therefore, increasing labor participation can have a negative effect on gender wage differentials. On the other hand, as Jones et al. (2015) point out, an important part of the increase in female labor participation of married women could actually be attributed to lower gender wage gaps.

[^4]The case of Spain tends to follow the general pattern of most industrialized countries. According to data from Eurostat obtained from the European Standards of Living Survey, the unadjusted gender gap in Spain is not high by European standards, and has increased slightly since 2007 (Figure 33). Christofides et al. (2013) analyzed unconditional gender gaps in Europe, and found that Italy and Spain have relatively low unconditional gender wage gaps in wage per hour when compared with countries such as the United Kingdom or Sweden. Using unconditional data, however, ignores the fact that the average characteristics of the female and male labor force differ greatly. Once the authors corrected for such differences using the Heckman-corrected Oaxaca-Ransom decomposition process, the gender gap in Spain became wider. This evidenced the higher average skill endowments of the female labor force, situating Spain almost on a par with Germany, above France and Italy, but below highearnings countries such as Sweden and the Netherlands (a logarithmic wage gap of approximately 0.18 .

Using harmonized data from the European Community Panel from 1995 to 2001, Arulampalam et al. (2007) show that the average raw gender wage gaps within the public sector are generally smaller than those within the private sector. In Spain, this difference is rather large: whereas gender wage gaps in the former are significantly higher that the European average, the latter are actually average-to-high by European standards (Figure 34).


Figure 34. Unadjusted gender wage gap (Male-Female) in the private sector across different European countries in 2007 and 2014. Source: Own Elaboration with data from Eurostat.

Figure A-20 in the Appendix summarizes the average hourly wage in purchasing power parity (PPP) for several European countries in 2010. Occupations with relatively high skill requirements in Spain tend to have a low gender wage gap by European standards (e.g. managers and professionals), especially when compared with countries such as Sweden or Germany. This may be due to the fact that wage dispersion in Spain is relatively small compared with other European countries. By contrast, gaps for those occupations with
relatively low average skill requirements, such as services and sales workers (or elementary occupations) are relatively high.

The evolution of the unadjusted gender wage gap in Spain shows a decreasing trend as the relative characteristics of women in the labor market improve, especially as more women achieve tertiary education, as noted by Gradín \& Del Río (2009) using data from the 1995 and 2002 waves of the Wage Structure Survey. ${ }^{8}$ However, they also found that the gaps that could not be explained by differences in characteristics associated to increased productivity (e.g. education, occupation) widened slightly during this period. In a more recent study, Guner et al. (2014) used the European Community Household Panel and the EU Statistics on Income and Living Conditions to assess the gender wage gap. They adjusted their data for characteristics (including educational level, experience, sector and occupations, among others) and self-selection (through a standard Heckman correction). They found that the gender wage gap is actually at around $20 \%$, not far from its 1994 value, and about 8 pp lower than in 2004. Overall, while the trend towards decreased unadjusted gender wage differentials is consistent across studies, wage gaps for men and women with similar characteristics do not seem to have followed the same trend as clearly.

The effect the crisis has had on gender wage gaps is still unclear, since the most up-to-date Wage Structure Survey was carried out in 2010, before the second recessive stage. According to Murillo-Huertas \& Simón (2014), between 2006 and 2010, the downward trend of the unadjusted wage gap was interrupted due to the asymmetric effect that the first stage of the recession had on men with relatively low educational attainment levels (mostly construction workers), which in turn increased the average skill endowment of the men employed. ${ }^{9}$

As Murillo-Huertas \& Simón (2014) note, the second recession is characterized by a more gender- and occupation-neutral destruction of employment, which means that the subsequent evolution of the gender wage gap is unclear. In addition, as previously noted in section II, there has been an added worker effect associated with the extraordinary length of the economic crisis. Previously inactive women, who are likely to have a relatively lower skill endowment, joined the active labor force, which may lead to widening of the gender gaps. Finally, as the authors indicate, the 2012 labor reform has had a variety of effects on the institutional framework of the Spanish labor market, especially in terms of increased flexibility in the definition of wages. The final effect of these changes on gender wage differentials remains unclear.

[^5]

Figure 35. Percentage of women in different occupations, as defined by the ISCO classification (Groups 1, 2, 3, 5 and 9). Source: Own Elaboration using data from the Spanish Labour Force Survey.

Gender distribution in Spain by economic sector in 2014 (\%)


Figure 36. Percentage of women in different economic sectors in Spain in 2014. Source: Own Elaboration using data from the Spanish Labour Force Survey.

Gender segregation in economic sectors, by occupation, within specific firms, and even within cells (occupations within a firm) is one of the major causes of the gender wage gap in Spain. Amuendo-Dorantes \& De la Rica (2006) show that segregation in Spain in 2002 was especially high at the establishment-occupation level (job cells). Whereas women tended to
work in female-dominated cells ( $70 \%$ females), men tended to work in male-dominated ones ( $10 \%$ females). These results are in line with Gupta \& Rothstein's (2005) findings for Denmark. Furthermore, they find that occupational segregation makes a large and growing contribution to the total gender wage gap, due to the larger concentration of women in cells with lower average relative wages.

Overall, the level of sectorial segregation in Spain is not high by European standards. Furthermore, female-dominated sectors, such as education or health and social work, as well as male-dominated sectors, such as agriculture, construction or manufacturing, across most Western European countries do not exhibit large cross-country differences in terms of gender segregation (see Figure A-20 in the Appendix). According to Campos-Soria \& RoperoGarcia (2016), segregation used to be relatively low in Spain by European standards. However, the accelerated process of incorporation of women to the labor market may partially explain the convergence observed more recently.

Women across Europe tend to be segregated into the same types of occupations, which include jobs in services and retail, elementary occupations ${ }^{10}$ and, to a lesser extent, professionals (Figure A-16 in the Appendix). Some idiosyncratic differences exist, such as the relatively low concentration of women in the services and retail sectors in Spain, by European standards, and the large concentration, comparatively speaking, of women in technical positions in Germany, or professionals and managers in Sweden. Nevertheless, there is a clear common trend.

Figure 35 shows the evolution of the gender distribution in a variety of occupations since the 1990s in Spain. Most occupations experience a clear increase in the share of women, as expected given the incorporation of women to the labor market; however, the trends followed differ according to the occupation. The proportion of female technicians and those in elementary occupations increases especially fast, and there is also a significant and steady increase in the number of women in professional and service-related occupations. The most worrying trend is the strikingly steady share of female managers (the level has remained stagnant at around $32 \%$ for over 20 years). Nevertheless, according to Guner et al. (2014), the overall degree of occupational segregation in Spain, as measured by the Duncan-Duncan dissimilarity index, has remained rather stable since the 1990s. This implies that more than one third of the female and male workers would have to swap occupations to have a perfectly equal distribution.

According to Campos-Soria \& Ropero-Garcia (2016), female predominance in industries with lower relative wages could account for approximately $30 \%$ of the gender wage difference: $14 \%$ segregation within establishment plus over $10 \%$ occupational segregation within establishment.

[^6]Pay packages that include perks on top of a base salary need to be broken down in order to understand where gender wage differentials are located and how they behave. Most notably, the gender gap in base salary is usually smaller than the average gender wage gap. According to Amuendo-Dorantes \& De la Rica (2006), a significant part of male-female wage differences in Spain is in fact due to wage complements: the authors state that in 2002 the gender gap in base wage was around $5 \%$, whereas the gap in wage complements ranged between $27 \%$ and $31 \%$. De la Rica et al. (2010) also report that gender performance-pay (PP) gaps are much larger than the average gender wage gaps, both adjusted and unadjusted.

## Overqualification among university graduates, by gender (2013)



Figure 37. Percentage of employed population with tertiary education that are overqualified for their current job. Source: Own Elaboration using data from the OECD (2015).

Share of population with tertiary education in elementary occupations, by gender (2014)


Figure 38. Percentage of men and women employed in elementary occupations with tertiary level education, as defined by the ISCO (Group 9). Source: Own Elaboration using data from the European Labour Force Survey.

A major factor determining job satisfaction in terms of wage and other conditions is the adequate matching of potential workers in terms of skills demanded and offered. Educational mismatch has important negative effects on wages: each year of additional education has lower returns if the worker is over- or under-qualified (e.g. Budría \& Moro-Egido, 2008, for the Spanish case). Figure 37 shows, using data from the 2015 OECD Report on Immigration Integration, that over-qualification in Spain is very high compared with other European countries. Almost $40 \%$ of women with university studies work in occupations that are not in accordance with their educational level, against around $20 \%$ in countries such as France and Germany.

Figure 38 focuses exclusively on one of the most dramatic types of over-qualification: university graduates employed in elementary occupations. Once again, Spain has a much higher proportion of over-qualified people: around $4 \%$ of women with tertiary studies are employed in such types of occupations, against $2.5 \%$ of men. The difference between men and women in Spain is one of the highest in Europe, and both figures are, by far, the highest among the large European countries.

Salinas-Jiménez et al. (2013) found that fewer than $50 \%$ of their sample of workers in Spain were matched to a job position adequate to their educational attainment. They also found that women are more penalized than men by educational mismatch: they have higher penalties for under-education and smaller additional earnings for years of surplus education (education beyond the adequate match). As in prior studies (e.g. De la Rica et al. 2008), they found that differences in the characteristics of the labor force do not explain the gender wage gaps, and that women and men actually exhibit different returns to individuals' characteristics.

## Box 2. Conclusions for Section III.

1. High unemployment is the largest dysfunction of the Spanish labor market. The average unemployment rate between 1995 and 2014 was $14 \%$ for men and $20 \%$ for women. These are the highest rates in the EU-15. The average gender gap in unemployment rates is also the highest.
2. Job creation and destruction rates were much higher for women than for men before the Great Recession, but they have converged since, leading to shrinking gender unemployment rate differentials and lower relative instability for female job trajectories. Such a phenomenon can be at least partially attributed to the biased effect of the Recession on male employment. As the period of expansion in the cycle continues, the trend is expected to revert, and unemployment gender gaps are set to increase.
3. Part-time employment rates in Spain are relatively low by European standards, but undesired part-time status is very high, which suggests the lack of quality part-time jobs. This may hinder female labor market participation and complicate family-work balance.
4. Both unadjusted and adjusted gender wage gaps in Spain can be situated at around $20 \%$. Women in the labor force have a higher average level of educational attainment, whereas men have more experience; both effects seem to compensate each other. While unadjusted wage gaps since the 1990s have been shrinking due to the large share of women with tertiary studies joining the labor force, the trend of the adjusted gap is not unambiguously decreasing. The effects of the second half of the Recession and the 2012 Labor Reform are still unclear and further research is required.
5. Occupational segregation in Spain is large, but within European standards. The concentration of women in occupations and cells with relatively lower wages is likely to be a major component behind existing wage differentials in Europe.
6. The Spanish labor market has a major problem of educational mismatch, with a very significant part of the labor force being over-qualified for their current job. Over-qualification in Spain asymmetrically affects women.

## IV. Women's Professional Development and Glass Ceilings

After analyzing female labor force participation and inequality within static work conditions, this section will assess the existing gender inequality in terms of professional development. Women tend to be underrepresented in positions of authority in the labor market across different sectors and occupations in practically all developed countries (Yaish \& Stier, 2009). While major underrepresentation can in itself be thought of as a social or democratic deficit,, the most dramatic case of inequality in professional development is found when individuals with a priori similar productivity-defining characteristics as the rest of their group are less likely to earn as much and/or fill the same positions of authority. Rickne \& Folke (2014) define a glass ceiling as the existence of discriminatory practices against a given collective that increase in severity the higher the authority of the position, as well as over time in an individual's career.

Apart from the inherent unfairness of the existence of glass ceilings, the associated marginalization of certain collectives or minorities has important costs for society as a whole. By drawing on an excessively narrow pool of talent, the allocation of positions of authority is carried out inefficiently, leaving out of the subset of the "potentially selectable" individuals that could be a better match for some of those job positions. In this case, both positive discrimination towards other individuals (due to, for instance, better trust networks) and outright discriminatory practices pose an additional efficiency cost to the employer-employee matching process.

There are other advantages that could be derived from the presence of more women in positions of authority. Women are likely to display different cognitive abilities due to differences in their acquired experience, as well as having different sets of values. For instance, Adam \& Funk (2012) report that female directors tend to value interdependence, benevolence, and tolerance more than their male counterparts. They are more likely to have a diverse set of non-work related interests and philanthropic activities (Groysberg \& Bell, 2013). Furthermore, as analyzed in Loyd et al. (2013), diverse groups outperform more homogeneous groups due to their tendency to engage in deeper discussions.

A final reason for the inclusion of women in positions of authority is that there might be a positive correlation between the number of men in positions of authority, the size of the gender wage gap (Cohen \& Huffman, 2007) and reduced chances of promotion for women (Cohen et al., 1998). Meanwhile, Matsa \& Miller (2011) suggest that a higher number of women on corporate boards seems to increase the share of women in top management positions, which could in turn lead to lower gender segregation in the middle management layers. Bell (2005) used data from the Standard and Poors ExecuComp database to show that female executives in women-led firms earn $10-20 \%$ more than comparable executive women in men-led firms, and are more likely to be among the 5 highest paid executives in those firms. This line of research points to the existence of positive top-to-bottom effects in gender inequality within organizations linked to the presence of female leaders.

Share of men and women in top positions at public institutions in Spain (2014)


Figure 39. Gender distribution of top positions in public institutions in Spain in 2014. Source: Own Elaboration using data from INE, Instituto de la Mujer and UNECE Gender Database.


Figure 40. Evolution of the share of women in top positions in certain top-of-career (SENIOR?) occupations in Spain between 2004 and 2014. Source: Own Elaboration using data from INE, Instituto de la Mujer and UNECE Gender Database.

Women are clearly underrepresented in all major Spanish institutions, as evidenced in Figure 39. In 2014 , women occupied only $36 \%$ of seats in parliament and made up $22 \%$ of the board of the central bank; they headed $31 \%$ of the ministries and $16 \%$ of the regional governments. Moreover, only 12-13\% of ambassadors and Supreme Court judges were women.

Despite these rather low values, women have increased their share of top executive positions over the last decade. The share of women in top civil servant positions (as measured by the UNECE Gender Database) has increased approximately by $1 \%$ per year in the last decade (Figure 40), while the overall share of female civil servants has stayed constant at around $52 \%$ (Instituto de la Mujer). Meanwhile, the number of women in top management positions in IBEX-35 companies has doubled, as has the share of first-class prosecutors who are women. The number of female ambassadors has increased tenfold.

It should also be acknowledged that most European countries share the problem of female under-representation in positions of power at public institutions. Sweden (and, to a lesser extent, France and the Netherlands) has a higher than average female representation, while Italy and the UK have a below average one. Spain, Belgium and Germany, with their idiosyncrasies, can be considered as being somewhere in-between.

The number of women senior ministers in the 2011 to 2015 Popular government was below the European average. By contrast, the previous socialist government scored significantly above this average (Figure 41). The share of parliamentary seats occupied by women has been higher in Spain than in France, Italy or the United Kingdom for the entire last decade, and has been steadily increasing at a constant rate of around $1 \%$ per year, regardless of the legislature (Figure 42).

The share of women in regional assemblies has also risen steadily; it is currently very close to parity, and high by European standards ( $45 \%$, Figure 43). The figure for female heads of local governments is notably lower in most countries. In this case, Spain is slightly above the mean, with a $17 \%$ share of female mayors (Figure 44). With regard to the number of judges and central bank board members, Spain is around the average (Figures A-24 and A-26 in the Appendix). Finally, the share of female ambassadors in Spain is lower than average; but, as noted before, striking progress in this regard has been made in the last decade (Figure A-25 in the Appendix).


Figure 41. Evolution of the share of female senior ministers in national governments in selected European countries (2003-2015). Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database.

Share of women in national parliamentes (both houses) in Europe,


Figure 42. Evolution of the share of women in national parliaments in selected European countries (2003-2015). Upper and lower houses are included. Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database.


Figure 43. Evolution of the share of women in regional assemblies in selected European countries (2003-2015). Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database.


Figure 44. Share of female mayors in different European countries in April 2015. Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database.

The problem of under-representation in top positions in public institutions can also be seen from the perspective of the evolution of female representation at different stages in a given professional career. Figure 45 shows the share of women in a variety of local and regional political positions of responsibility in Spain. Overall, the proportion of female city councilors has always been higher than that of mayors or presidents of a provincial or regional government. Most interestingly, such a difference in representation has been constant throughout the last 20 years; although the representation of women in all authority positions has increased, it has not increased more in higher positions than it has in lower positions. Currently, approximately $35 \%$ of city councilors are female, against less than $20 \%$ female mayors.

Share of women in local and regional governments in Spain (1995-2014)


Figure 45. Share of Women in different Local and Regional Government Positions in Spain (19952014). Source: Own Elaboration using data from INE and Instituto de la Mujer.

Similarly, only $5 \%$ of senior officers in the Spanish army in 2014 were women, while the rest of the positions had a female share of $17 \%$ (A-27). In addition, there are many more women in the common corps of the army than in the ground, naval, or air forces (A-28).

In the education sector, a similar pattern emerges across university teachers, in which women accounted for around $40 \%$ of tenured professors, but only $20 \%$ of full professors and $8 \%$ of university chancellors (Figure A-29 in the Appendix).

It can certainly be argued that the reason why many women have not acquired the long tenure required for these positions is the fast and relatively recent incorporation of women to the Spanish labor market. This is a valid argument and, thus, an increase in female representation in Spain is to be expected in the medium-term as a result of this accretion effect.

The legal sector also shows hierarchical differences in female participation. Figure 46 summarizes the data from 2006, 2010 and 2014 on the percentage of women prosecutors and judges in Spain at different levels of seniority, covering a period of 8 years in total. As it can be observed, while the share of women in low-level prosecutor positions is around $70 \%$, the share in mid-level positions drops to around $50-60 \%$, and that of top-level ones further decreases to approximately $20 \%$. The figures for women judges are slightly lower than for female prosecutors, but the dynamics are the same. It must be noted that there was practically no adjustment in the share of women in the highest positions throughout the 8 years. In view of the large proportion of women in mid-career, a sharper increase in the share of women in top-level positions is to be expected.


Figure 46. Share of Women prosecutors and judges in entry-level, mid-career and top-level positions (2006, 2010, 2014). Source: Own Elaboration using data from Instituto de la Mujer.

The gender gap in positions of authority is probably even larger in the private sector. Women occupied about $10 \%$ of top management positions in the IBEX-35 companies in April 2015, and only $3 \%$ of the companies were headed by a female CEO. The number of women in top management positions is low in comparison with other countries, such as Sweden (one women for every 3 men ) or the United Kingdom (15\%), but are in line with Germany and the Netherlands. In 2009 in the US, approximately $6 \%$ of the top 5 executives and around $11 \%$ of
members of the board of directors of publicly traded firms were women, according to Matsa \& Miller (2011)

The number of women board members at the largest listed companies in Spain has increased from around $3 \%$ in 2003 to $17 \%$ in 2015, but this figure is quite low by current European standards: around $23-26 \%$ in Italy, Germany, the Netherlands and Belgium, and higher in Sweden (29\%) and France (33\%).


Figure 47. Share of women in top management and CEO positions in different European countries in April 2015. Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database.

Spain has made great progress in increasing the number of women employers in its labor market, which is a commendable achievement. In 1987, there were 8.4 men for every woman with employees under their supervision; by 2015, the figure had dropped to 2.3 (Figure A-32 in the Appendix). Approximately $30 \%$ of employers are women, a figure above Germany, France, Italy, and the United Kingdom (Figure A-30). However, since the average firm size in Spain is smaller than in other countries, this figure, while showing the enormous progress women have made within the Spanish labor market, should be interpreted with caution.

Abendroth et al. (2013) used data from the 2004-2005 wave of the European Social Survey to analyze gender gaps in supervisory activities across European countries, and they found that cross-national differences in these gaps cannot be explained by gender segregation in education, human capital composition, or leave arrangements. Nevertheless, they found that part-time employment availability is correlated with the size of the gender gap in authority.


Figure 48. Share of women in the corporate boards of the largest listed companies in different European countries (2003-2015). Source: Own Elaboration using data from the European Commission Gender Balance in Decision Making Positions Database..

There is a large and growing literature dedicated to the study of gender glass ceilings across the pay scale. Albrecht et al.'s (2003) analysis of gender wage differentials in Sweden showed how in 1998 the wage gender gap increased in the upper tail of the distribution. Arumpalam et al. (2007) extended this analysis to several other European countries using 1995-2001 data from the European Community Household Panel, and found evidence of increasing male-female wage differentials at the top of the wage distribution in the UK, France, Germany, Belgium, and the Netherlands. Christofides et al. (2013) further analyzed the existence of glass ceilings in Europe employing data from the EU-SILC of 2007. They confirmed the existence of larger wage gaps at the top of the distribution. They also found a strong positive correlation between the existence of adequate work-family conciliation patterns and that of glass ceilings, especially at the top of the distribution.

Guvenen et al. (2014) used Social Security Administration data for the United States from 1981 to 2012 to analyze gender earnings gaps for top earners. They describe a significantly increasing gap across the distribution: in 2012, women only held $11 \%$ of the earnings of the top $1 \%$, while holding $41 \%$ of the earnings of the remaining $99 \%$ if the population. In 1981, however, females held less than $3 \%$ of the total earnings of the top $1 \%$. The evolution has been practically linear.

In Spain, De la Rica et al. (2008) have studied the existence of glass ceilings using quantile regressions. Interestingly, they find that there are increasing gender wage gaps in the wage distribution for highly educated workers, while the gap decreases for less-educated individuals. In their opinion, statistical discrimination due to historically low participation of less-educated women leads to high relative wages at the beginning of their professional career, but such effect disappears as gaps increase with tenure. Finally, the traditional glassceiling hypothesis still holds for highly educated individuals

Figure 49 maps the male-female hourly wage gap in Spain in 2010 by occupations for the first-decile (i.e the $10 \%$ of workers with lower wages), the mean, and the tenth decile of the wage distribution. The gender wage gap is larger in the tenth-decile group than for the mean group in most occupations, with the exception of professionals, whose gap is especially large at the beginning of the wage distribution, and managers, who show a consistently wide gender gap across the entire distribution without significant differences. For most occupations, with the exception of managers, the wage gap is also larger in the mean than in the first decile. Finally, this preliminary analysis also reveals that the gender wage gap widens across the wage distribution for each individual occupation group

## Gender Hourly Wage Gap in Spain, by occupation and earnings decile

(2010)


Figure 49. Male-female wage differences by occupation, for the first and the tenth decile of hourly earnings, and the mean hourly earnings. Source: Own Elaboration using data from UNECE and the Four-Yearly Wage Structure Survey.

Although clearly important, it must be stressed that underrepresentation in positions of authority and power, as well as higher gender wage gaps across the distribution are not the
only types of glass ceilings. Marginalization in positions of authority, that is, relegating women to less prestigious roles, to positions with fewer real policy responsibilities, or to areas of lower impact can raise substantial issues that are also quite difficult to quantify. This phenomenon is likely to affect individuals in positions within prominent institutions, such as heads of Ministries and members of parliament.

Heather et al. (2005) studied the marginalization of women in legislative power by analyzing a scarce political resource: committee assignments, which provide resources required for reelection and act as an important veto gate for legislation. They found that women are underrepresented in some of the most important policy areas: legislative, economics and foreign affairs committees. By contrast, they are overrepresented in women's and social issues committees. Kerevel \& Atkeson (2014) describe that in Mexico men and women in the legislative tasks have equal ability to pass bills something that they attribute to a seniorityneutral environment.

Another form of gender discrimination in the labor market that is to a certain extent related to the above takes place when men and women have to follow a different selection process in order to get a job. Lawless and Fox (2005) find that politically eligible women with the same objective qualifications in the US are less likely to consider themselves as qualified for office. Furthermore, Anzi \& Berry (2011) have found evidence that different criteria are used to elect congresswomen and congressmen. Moreover, it seems that the former outperform the latter in congressional district federal spending.

Glass ceilings and why they exist have been the focus of a variety of studies with different approaches. One of the most recurrent arguments is associated with motherhood and workfamily balance. Due to the existence of gender specific ways to deal with family and career demands, women tend to have, on average, less experience and, in positions of authority, high turnover rates are especially costly (Bygreen \& Gahler, 2012). According to Miller (2009) women's and men's average earnings at the beginning of their professional career are similar, but the wage curve flattens for women following motherhood. Longer career interruptions are likely to reduce female relative experience levels. According to this argument, the maternity toll will be higher in those occupations in which human capital is more valued. In line with this hypothesis, Miller (2009) found evidence that the flattening wage effect is especially large for college-educated women and those in professional and managerial occupations. On a related note, Landers (1996) showed that in certain firms, such as large law firms, the organizational structure leads, other things equal, to the promotion of those employees with the greatest propensity to work long hours, which leads to the underrepresentation of those less willing to work that many hours (the authors argue this could be the case for women).

These kinds of gender gaps are also present among top-performers in the labor market. Bertrand et al. (2010) analyzed male-female differences in earnings across MBA graduates from one of the world's top business schools. Among recent MBA graduates the gender gap in earnings is not significant; however, it widens with time. Nine years after graduation,
around $13 \%$ of the women do not work, compared with only $1 \%$ of the men. The main factors behind these differentials are career interruptions and cross-gender differences in the number of hours worked. The authors hypothesized that MBA mothers seem to actively choose jobs that are more family-friendly, thereby prioritizing childcare over career tracks with longer hours but greater advancement possibilities.

Another line of enquiry that has been pursued focuses on the principle of "homophily" in interpersonal relationships which states that most people tend to associate and bond with other individuals similar to themselves. Personal networks are likely to be homogeneous in terms of certain sociodemographic characteristics, including gender. Sex segregation at the establishment, cell and occupational level leads to highly homophilous relationships in terms of gender. At the upper management layer, the findings seem to be especially consistent (McPherson et al. 2001). Athey et al. (2000) argue that in some organizations mentoring networks tend to develop around homogeneous individuals, which causes the formation of a de facto glass ceiling, whereby minorities are increasingly less represented as we move up the authority ladder due to the lack of mentoring opportunities.

Burt (1998) argued that the mechanisms through which such networks have value is via the creation of social capital. In imperfect hiring and promoting markets, there is a certain degree of disconnection between individuals, which can be thought of as holes in the structure. Some people develop stronger connections with others, building trust and support networks. Since the matching process gets locked to sub-optimal exchanges due to informational asymmetry, the position of an individual in the structure becomes an asset by itself.

Other arguments that explain the existence of glass ceilings are based on the existence of social norms that promote defined "gender identities", whereby one's sense of self is influenced to a certain extent by external behavioral prescriptions concerning gender. Akerlof \& Kranton (2000) and Fortin (2005) consider that phenomena such as occupational segregation, risk attitudes and family models may be deeply related to the existence of stereotypes regarding the roles men and women should have according to their gender.

Using data from the European Values Survey wave of 2008-2010, the present study shows that the countries in which smaller gaps exist in terms of gender inequality in the labor market tend to be the ones in which gender roles are more fairly distributed inside the family. In Sweden, over $90 \%$ of the individuals surveyed agreed with the statement "fathers are wellsuited to look after their children". By contrast, only around $70 \%$ agreed with it in Italy. Spain tends to be around the European average for most of the questions in the EVS regarding gender inequality, but there are large differences across generations (Figure 50).

Figure 51 shows the percentage of people who responded positively (agree or strongly agree) to the previous statement. The populations have been divided into two age groups: over 50 and under 50 years-old. A total of $87 \%$ of people under 50 in the Spanish sample agreed with the statement, which puts Spain above other countries such as the Netherlands or Germany. By contrast, only $69 \%$ of people over 50 agreed with it, which was the lowest value out of the

8 countries analyzed. López-Zafra \& Garcia Retamero have also found that gender stereotypes in Spain have changed rapidly over the last 20 years, providing evidence that large sociopolitical changes in the country have modified individual perceptions of traditional female-male roles.

Level of agreement with the following statement:
"Fathers are well-suited to look after their children"
Source: European Values Survey (2008-2010)


Figure 50. Responses to the following statement: "Fathers are well suited to look after their children;" by country Source: Own Elaboration from the 2008-2010 wave of the European Values Survey.

Percentage of People that Agree or Strongly Agree with the Statement:
"Fathers are well-suited to look after their children"; by age


Figure 51. Percentage of people that agree or strongly agree with the statement: "Fathers are well suited to look after their children;" by country Source: Own Elaboration from the 2008-2010 wave of the European Values Survey.

Finally, a last reason for the existing glass ceilings stems from relatively well-documented psychological differences between men and women. Men are less risk-averse than women (Croson and Gneezy, 2009), tend to be overconfident in their own capacities (Beyer and Bowden, 1997), and are more competitive than their female counterparts (Niederle and Vesterlund, 2007). Bertrand (2010) has carried out an in-depth survey of the literature regarding gender differences in psychological attributes and gender identity. Blau \& Kahn (2016) conclude that such differences can probably explain a statistically significant but relatively small part of the existing gaps in the labor market.

## Box 3. Conclusions for Section IV.

1. There is chronic under-representation of women in Spanish public institutions, especially in the top layers of the diplomatic service, the judicial power, and the regional and local branches of government. More prominent figures in public institutions, such as heads of ministries and members of the parliament, tend to be relatively more evenly distributed. As evidenced, the share of women in public institutions tends to decrease as the authority level of the occupation increases.
2. Despite the large extent of such a phenomenon, it is necessary to acknowledge that it is present in most of the European countries analyzed. Spain is currently within the European average for under-representation of women in public institutions.
3. The problem extends to the private sector, where women occupy only about $10 \%$ of top management positions and $17 \%$ of seats in the boards of the largest listed companies in Spain. These figures are below the average the average of the 8 countries analyzed.
4. There is evidence of an increasing "glass ceiling" effect (increasing gender gap across the wage distribution) within the last few years in Spain. The 2014 wave of the Wage Structure Survey will be determinant to establish whether such a trend continues.
5. Several factors may account for the existence of glass ceilings in Spain, including poor work-family balance, larger educational mismatch for women, occupational and cell level segregation, network effects, and role stereotypes.

## V. Gender Inequality Policies

According to the previous analysis, two main types of gender policies can be proposed: those that target improved family-work life balance, and those with the main objective of palliating the under-representation of women in positions of authority.

Policies of the first kind have a wide effect over several areas through their capacity to reduce the segregation of paid and unpaid work and, as a result, they improve relative female labor participation. Reducing professional life interruptions among women contributes towards closing the gaps in working conditions such as wage, temporality and job stability. Such an improvement may be due to the direct increase in overall professional experience. It may also happen as a result of the more indirect effects of increased attachment to the labor market, such as more specific training. In terms of work-family balance, Spain is a laggard by European standards, with high inequality in the division of domestic tasks (see Section 2). Furthermore, fertility is rather low compared to other advanced economies. Both of these facts point to the potentially significant effect that policies targeted towards work-life balance may have on both fertility rates and gender gaps.

The second set of policies constitutes an objective in its own right (the increase in the share of women in authority positions), but they also have positive repercussions beyond those mentioned above. Different studies have linked the rise of women in top management positions with related increases in the share of female middle managers. This top-to-bottom effect is likely due to the breaking up of contact networks between individuals of the same gender, and may also have positive consequences on existing sectorial and occupational segregation. In Spain, women are heavily underrepresented in public institutions, but the figures are still close to the average in most Western European countries. By contrast, the situation in the private sector, measured as the share of women in boards of directors and top management positions, seems to be slightly behind in relative terms.

There is a variety options to consider regarding policies that promote work-family balance, among which childcare, the parental leave system, and labor market flexibility policies must be emphasized.

The use of formal childcare services in Spain for children between 3 and 5 years old has practically not increased according to existing statistics on the use of such services (around $94 \%$ of children are in childcare, a relatively high figure in comparison with countries such as Germany). The intensity of use of such services, however, is low by European standards, since only around $39 \%$ are in formal childcare on a full-time basis (more than 30 hours per week). This figure is only lower in countries with higher part time job rates and a larger level of labor flexibility, such as the Netherlands and the UK. In other countries with more directly comparable labor markets the percentage is higher, such as in France (46\%), Italy (69\%), or Belgium (77\%). Furthermore, the intensity of full-time use has decreased from $41 \%$ in 2005
to $39 \%$ in 2013, and it is probably due to the reduction in disposable income caused by the economic crisis.

There is a greater heterogeneity in the use of formal childcare services for children under 3 years old. Sweden clearly leads its use in Europe: it is the only country where over $50 \%$ of children under 3 years old receive such services. In addition, their use of full-time childcare services for this age range is also the highest in Europe (34\%). Spain is around the European average, both in terms of share of use and intensity.


Formal childcare of children between 3 and compulsory school age by duration ( $\%$ of the population in each age group), 2013

Formal childcare of chidren under the age of 3 by duration ( $\%$ of the population in each group), 2013

Figure 52. Share of children in formal childcare in 2013: (a) children less than 3 years old; (b) children between 3 years and compulsory school age; by duration (full-time childcare and part-time childcare Source: Own Elaboration using data from Eurostat.

The evidence available on the increase in coverage of such services through subsidies or free provision is almost invariably very positive. Esping and Andersen (2006) described that in Sweden a $10 \%$ reduction in childcare costs led to a $3 \%$ increase in female participation and a
$0.5 \%$ rise in fertility rates. This evidence is especially interesting given the already relatively high level of female participation and fertility rates in Northern Europe, which implies that the effect could be even more significant in other European countries with larger work-family balance problems.

In Spain, the use of informal childcare services (e.g. provided by informal networks or family members, such as grandparents) is relatively high in terms of its intensity when compared with other Western European countries: an average of almost 30 hours per week for children between 0 and 2 years-old who receive at least 1 hour per week of informal childcare services. This phenomenon is probably due to the relative lack of state provision for such services, which points towards a likely high repercussion of the extension of the use of such services among children between 0 and 3 years old.


Figure 53. Average number of hours of informal childcare per country for children who receive at least 1 hour of informal childcare services per week, by country and age of the children (2013). Source: Own elaboration with data from Eurostat.

Suarez (2013) describes, using data from the Spanish Survey of Quality Working Life, that certain job characteristics are notably related with choice of childcare in Spain. A higher income and the mother's educational attainment are clearly positively correlated with the likelihood to seek childcare services. Furthermore, mothers with shift-based jobs are less likely to opt for paid childcare, which means policies that induce greater work flexibility are likely to affect childcare decisions and, therefore, further reinforce their positive work-family effects.

Finally, a growing number of studies on child education between birth and 3 years of age point towards its potentially strong effect on future cognitive development. Barnett (1992) concluded that compensatory preschool education leads to important improvements in the
cognitive ability of children, with the expected improvements in various socioeconomic outcomes, including employment. Heckman et al. (2010) estimate that, even taking into account randomization errors, the HighScope Perry Preschool Program to foster preschooling in the USA had annual social rates of return of around 7-10\%. Brilli et al. (2016) show that a $1 \%$ increase in the coverage of childcare services in such ages increases their results in language tests by $0.85 \%$ of a standard deviation, especially in regions where coverage of these services is below average. Furthermore, as Del Boca (2015) argues, the benefits obtained from increased socialization, which may be very hard to measure, may also be significant.

Despite the aforementioned large benefit for inequality gaps, fertility rates, and the cognitive development of children, public expenditure in childcare and pre-school education in Spain is very low compared to other countries in its environment (around $0.6 \%$ of GDP, or around half of France's or the United Kingdom's budgets). In 2011, only Italy and Germany spent a similar share of their budgets on childcare and pre-school education. Italy has substantial gender inequality and very low levels of female participation, and Germany has one of the lower fertility rates in Europe. However, in 2013, it passed a new law that guarantees access to a daytime childcare facility to all children between 1 and 3 years old. Furthermore, it should also be noted that tax breaks for families within Germany are among the largest according to OECD numbers (OECD Doing Better for Families, 2011).

Public expenditure on childcare and pre-school education (\% of GDP),


Figure 54. Public expenditure on childcare and pre-school education as a percentage of national GDP for the year 2011. Source: Own elaboration with data from Eurostat.

Leave policies for childbirth and parenting are also important for mitigating work-family dilemmas. Maternity and paternity leaves refer exclusively to the mother and the father, respectively, and they are usually associated with the birth of the child. Parental leaves apply to both the father and the mother, either as an individual right or as a number of days for the entire family which may be transferred from the father to the mother and vice versa. Tables 3,

4, and 5 analyze the maternity, paternity, and parental leave systems in 8 Western European countries.

Belgium, France, Italy, and Spain have similar leave systems. In these countries, the length of the maternity leave ranges between 15 and 20 weeks and women receive remuneration of around $80-100 \%$ of prior earnings up to a ceiling, with the exception of Italy, where women receive around $80 \%$ of prior earnings with no stipulated ceiling. The current parental leave laws in these countries also provide for a paternity leave between 3 days (Italy) and 2 weeks in length (rest of the countries), with remuneration conditions similar to those for mothers. The regional case of Cataluña is notable because it allows the partner to take up to one month of paternity leave.

Parental leave rights exist alongside those associated with childbirth. They are individual, non-transferable rights, and they vary in length and remuneration depending on the country. In Spain, a parental leave can last up to 3 years, but the job post is only guaranteed for one year. These leaves are currently unpaid in most Comunidades Autónomas. In France, there exists a complement to pay for childcare services (PreParé), the amount of which varies according to the income level and the number of children. However, this leave can only be taken if the child is under 3 years of age. In Italy, the leave may last up to 6 months and it has a remuneration equal to $30 \%$ of prior earnings if the leave is taken before the child turns six. Finally, in Belgium, each parent can take up to 4 months, during which time they will receive around 700 euro per month.

The leave system in the United Kingdom is similar, but a minimum length of service is required in order to be entitled to parental leave. Entitlement to Statutory Maternity Pay and Leave is also restricted, with payment linked to length of service at the current job.

The Netherlands opt for a model similar to the one that was previously described for other countries for its paternity and maternity leave schemes; however, it emphasizes part-time work as its main strategy to balance family and work. A non-transferable individual parental leave may be taken for a number of hours equivalent to 26 times the number of hours in a week that the worker was doing prior to the birth of the child, but such a leave must be taken part-time. If an individual were working full-time, they would be entitled to work for up to 1 year part-time, with all the conditions maintained. Such a model has important advantages, derived from the stronger labor market attachment that it builds but it requires high flexibility in the labor market and the existence of a large stock of part-time jobs with good conditions. Nevertheless, it should be noted that the country has the highest part-time employment rate in Europe and, therefore, the stigma associated with having a part-time job (lower likelihood of promotion, worse work conditions) is lower than in other countries.

|  | Lengt $\mathbf{h}$ | Payment | Flexibility in Use and Take-Up | Eligibility |
| :---: | :---: | :---: | :---: | :---: |
| Belgium | $\begin{gathered} 15 \\ \text { weeks } \end{gathered}$ | Employees1 ${ }^{\text {st }}$ month 82\%, 75\% the remaining weeks. Ceiling of €133 per day | Can be delayed until 1 week before birth | All employees. Women receiving unemployment benefits and selfempl. have different conditions. |
| France | $\begin{gathered} 16 \\ \text { weeks } \end{gathered}$ | 100\% of earnings, ceiling of €3170 per month | 2 weeks before birth, rest before or after | All salaried and self-employed |
| Germany | $\begin{gathered} 14 \\ \text { weeks } \end{gathered}$ | 100\% of earnings, no ceiling | 6 weeks before, 8 weeks after (no flexibility) | Salaried and unemployed. Selfemployed have no benefits. |
| Italy | $\begin{gathered} 20 \\ \text { weeks } \end{gathered}$ | 80\% of earnings, no ceiling | Either 4 before and 16 after or 8 before and 12 after | All salaried and self-employed. |
| Netherlands | $\begin{gathered} 16 \\ \text { weeks } \end{gathered}$ | 100\% of earnings Ceiling of $€ 191$ per day | Can be started between 4-6 weeks before | All employees. Self-employed have 16 weeks at maximum of $100 \%$ of minimum wage. |
| Spain | $\begin{gathered} 16 \\ \text { weeks } \end{gathered}$ | $100 \%$ of earnings Ceiling of $€ 3606$ per month | Start date can vary, must be before delivery. Can be taken part-time | All employed women. To qualify for paid leave, need to be making SS contributions. |
| Sweden | $2$ <br> weeks | 77.6\% of earnings in the preceding 240 days | 2 weeks before or after maternity | All salaried and self-employed |
| United <br> Kingdom | 54 weeks | Weeks 1-6: 90\% of average earnings. Weeks 7-41: 90\% average gross weekly earnings or flat rate of €194/week (whichever is lower). Weeks 4254: Unpaid. | Can start at any point from 11 weeks before week when baby is due. | All employees: Ordinary Maternity Leave and Additional Maternity Leave. The Statutory Maternity Pay has special requirements. |

Table 3. Maternity Leave Policies in selected European countries as of April 2015 (Belgium, France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom). Source: Own Elaboration with information and data from the Leave Network Country Report Papers.

|  | Length | Payment | Flexibility in Use and TakeUp | Eligibility |
| :---: | :---: | :---: | :---: | :---: |
| Belgium | 10 working days, 3 days mandatory | $100 \%$ of earnings 3 day, $82 \%$ remaining days, ceiling of €109.2 per day | Can be taken during the first 4 months | All employees |
| France | 2 weeks | 100\% earnings, ceiling of $€ 3170$ per month | Can be taken during the first 4 months | All salaried and selfemployed workers |
| Germany | No statutory entitlement |  |  |  |
| Italy | 1 day of compulsory leave, 2 additional days if mother agrees to transfer from maternity entitlement | 100\% of earnings | Can be taken during the first 5 months | All employees |
| Netherlands | 2 days after birth | 100\% of earnings | Can be taken during the first four weeks | All employees |
| Spain | 2 weeks, total: 2 calendar days birth leave, plus 13 calendar days paternity leave* | $100 \%$ of earnings up to €3606 per month | Birth leave: at the moment of birth <br> Paternity leave: immediately after maternity leave | All employees |
| Sweden | 10 days | 77.6\% of earnings | Can be taken during the 2 months after birth | All employees |
| United <br> Kingdom | 2 weeks | Flat rate of $€ 194$ or $90 \%$ of gross weekly earnings (whichever is lower) | Must be taken during the first 56 days after birth | Must have worked continuously for 26 weeks and be employed at the moment of birth |

Table 4. Paternity Leave Policies in selected European countries as of April 2015 (Belgium, France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom). Source: Own Elaboration with information and data from the Leave Network Country Report Papers.

|  |  <br> Length | Payment | Flexibility in Use and Take-Up | Eligibility |
| :---: | :---: | :---: | :---: | :---: |
| Belgiu <br> m | Four months per parent. <br> Individual Entitlement | Net €707 per month | Can be taken full-time, part-time or 1 <br> day/week. Can be taken <br> simultaneously | All employees with at least 1 |
| year's seniority. |  |  |  |  |

Table 5. Parental Leave Policies in selected European countries as of April 2015 (Belgium, France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom). Source: Own Elaboration with information and data from the Leave Network Country Report Papers.

The German model is based on its parental leave, complemented with a maternity leave scheme of 14 weeks paid at $100 \%$ of prior earnings. Note that there is no specific paternity leave. The parental leave is an individual non-transferable right and may be taken at any moment until the children is 3 years old. It is only paid for a total of 12 months per birth. Remuneration depends on the level of income, with an average replacement rate of around $67 \%$. The ceiling is $€ 1800$ per month and $€ 300$ are given to individuals with no prior income. The paid leave scheme lasts for 12 months, but this includes the 2 months of "maternity" leave, so it is de facto a 10-month leave. One of the most interesting aspects of this model is that if both parents take at least 2 months of leave, the paid scheme is extended to 14 months.

Sweden has the most differentiated model of leave policies, with a strong emphasis on worklife balance through parental family-level transferable leaves. There are specific maternity and paternity leaves, but they are short ( 2 weeks and 10 days, respectively). Parental leave lasts for 480 paid days per birth to be divided between the father and the mother, of which 390 days are paid at ( $77.6 \%$ of prior earnings) and the additional 90 days are paid at a flat rate of $€ 20$ per day. Both maternity and paternity leaves are also paid at $77.6 \%$ of prior earnings. Of the 480 days, 60 are for the mother and 90 for the father in a use-it-or-lose-it basis. The rest of the days are divided proportionally by default, but parents may choose a different proportion. This model, which emphasizes the involvement of the father in childcare, has had a significant impact: around $92 \%$ of parents use the parental leave system and, while in 1989 fathers only accounted for around $7 \%$ of users, the number has increased to the current $25 \%$. In addition, the share of couples that share the leave evenly ( $40-60$ or closer) increased to over $12.5 \%$ in 2010. Finally, the Swedish system includes economic incentives to families that divide the parental leave evenly, providing an extra $5 €$ per day throughout the 360 remaining days after each parent has used 2 months of leave.

Promoting a more even use of parental leave between men and women helps to diminish the stereotype that associates birth and childcare with asymmetrically larger career interruptions for women. Therefore, the most effective policies to reduce gender inequality at the family level through the leave system schemes will be those that favor a more even division of the leaves, which currently implies increasing the number of fathers that take leaves, and the number of days that they take. In this line, certain aspects of the Swedish and German models are especially interesting. For example, they provide specific economic incentives (an additional 2 months of paid leave in Germany; additional remuneration for each day of "even" leave in Sweden).

It seems clear that without specific economic incentives, these policies are unlikely to be effective. For instance, a policy that provides for additional days or other types of noneconomic incentives would probably have a rather small impact in redistributing the uptake of the leave by gender. The low incidence of unpaid parental leave supports this reasoning. Therefore, it may be assumed that a system of shorter but better paid leaves that fosters the engagement of fathers would be more likely to have positive consequences on gender inequality. Joseph et al. (2013) argue in favor of such a system, noticing that short parental
leave has fewer negative effects than a longer one, but that specific incentives must exist so that fathers take it; otherwise, their uptake is rather low.

Specific remuneration in parental leave schemes has been introduced by several autonomous communities in Spain (Navarra, 2000; Castilla y León, 2001; País Vasco and Castilla La Mancha, 2002; La Rioja, 2003; Baleares and Murcia, 2008) but they have been eliminated (Baleares, 2010; Murcia, 2011; Castilla y León and Castilla La Mancha, 2012; Navarra; 2013) o limited in scope and remuneration (País Vasco and La Rioja, 2014). The restoration of the system of paid parental leave schemes, even with relatively small economic benefits, along with its introduction in those regions in which it was never present, will likely trigger a significant reduction of the wide gender gaps in the division of household tasks (especially, but not exclusively, in childcare tasks) if it includes specific economic incentives for the even division of the leave across genders.

The introduction of a small number of mandatory days (around 2-days) could also help increase the uptake of leaves by fathers. This policy follows current policies for maternity leave in most of the countries analyzed, which have a varying mandatory period of around 2 weeks.

Escot et al. (2013) analyzed the effect of the introduction of the 13-day paternity leave in Spain. This policy was supposed to be a stepping stone towards a month-long paternity leave (as it already existed in Cataluña). They concluded that the gap in parental leave use has decreased as a result, despite the fact that the figure is still quite low. Overall, fathers' parental leave use increased from $6 \%$ to $11 \%$ with the introduction of this policy. Similar increases have been seen in other countries with the introduction of daddy's days, such as in Sweden, Norway or Germany (Hegewisch \& Gornick, 2011).

Parental leaves are likely to lead fathers to increase the amount of time they dedicate to childcare, even long after the leave period has ended. In Sweden, Almqvist \& Duvander (2014) describe that when fathers take longer leaves, parents tend to share both household tasks and childcare tasks more equitably. In Germany, Schober (2014) finds that the 2007 parental leave scheme reform increased the amount of male parental childcare, with no shortterm effect over other domestic tasks. Nevertheless, they do not dismiss potential long-term effects since such deeply rooted social norms are usually difficult to change.

Other policies that may help improve the division of domestic tasks within households are based on increasing the flexibility of work arrangements. These kinds of measures may be divided according to their nature: number of hours worked (e.g. part-time arrangements), workplace (e.g. teleworking), work schedule (e.g. intensive week policies and other flexible schedule arrangements) and work continuity (e.g. leave policies). The aforementioned may be carried out in different ways, through national policies that regulate flexible labor arrangements nationally, or via fostering sectorial, regional or in-company agreements.

Employees by Flexibility of their Work Schedule (2010)
Individuals between 15 and 65 years old


- Flexitime/working time banking
- Determines own work schedule (no formal boundaries)

Daily number of hours fixed, but some flexibility within the day
$\square$ Fixed start and end of a working day or varying working time as decided by the employer
Figure 55. Share of employees by flexibility of their work schedule, in 2010. Source: Own elaboration with data from Eurostat, special LFS "Flexibility of working time" module.

The 2011 OECD Doing Better for Families report ranked Spain as one of the countries with the lowest level of flexibility according to the proportion of firms offering flexible arrangements, only above Italy and Greece. The share of firms in Spain that allow trading in hours of work for days of leave is especially low in Spain. In countries such as Sweden or Finland, this figure exceeds $50 \%$. Germany, France, the United Kingdom, Netherlands and Belgium range between $30 \%$ and $40 \%$. Finally, less than $20 \%$ of firms in Spain, Greece and Italy offer such a deal.

Figure 55 illustrates how around $90 \%$ of employees in Spain have a fixed start and end of the working day, or have varying working hours that are, however, fixed by the employer. This figure is higher than in the majority of the other countries analyzed. In Sweden, the figure is below $60 \%$, whereas in France, Italy, and Germany it is under $70 \%$. Furthermore, countries such as Belgium and the Netherlands, with relatively low schedule flexibility, have larger part-time work rates and other types of state policies regulating flexible work arrangements.

Apart from these kinds of policies agreed upon within each individual company, there are several interesting policies at the national level that have the objective of promoting flexible work. One of the most remarkable ones is Belgium's Time Credit System, which allows for 1 whole year of leave throughout the entire working life of an individual. It may be divided extremely flexibly, but it is only paid if it is taken in order to take care of children under 8 years old, to carry out palliative care, look after a seriously ill relative, or for training
purposes. Remuneration depends on age, civil status, and number of years worked, and the maximum payment is $€ 641$ per month.

Another interesting example is the Netherlands' Working Hours Adjustment Act, under which all employees that have been working for at least 1 year without interruption with their current employer have the right to increase or decrease their working hours. The employer may only reject such an arrangement if the company can demonstrate that its business interests would be strongly harmed by the change. Finally, this law does not apply to companies with fewer than 10 employees.

As discussed above, certain policies are targeted towards increasing female representation in positions of high authority. These policies usually consist on the establishment of gender quotas for specific job posts. These are usually parliamentary chambers or management boards of listed companies and public institutions.

The traditional arguments in favor of quotas include the objective of representation thresholds itself (especially relevant for the inclusiveness of political institutions) such as Holzer and Neumark (2006), breaking homophilic networks (trend to relate with people with similar sociodemographic characteristics, including gender), the capacity to profit from a wider set of competences and values which tend to be asymmetrically distributed across genders (risk, competition and philanthropic attitudes) and the capacity of policies that increase female representation to impact on the levels of representation in lower levels of management or administration ("top-to-bottom" or "waterfall" effects). Furthermore, quotas can be seen as a means to increase the overall efficiency of a system riddled by the continued use of only a small share of the available pool of talent due to the existence of networks among a given group of individuals, or by abidance to stereotyped views of other collectives that favor self-promotion among themselves.

Gender quotas have attracted a lot of attention in recent years. Norway was the first country to introduce gender quotas on boards of directors in 2004. Since then, several countries have followed suit, among which are Italy, France and Germany. Conde-Ruiz et al. (2016) argue that introducing an a priori policy induces positive discrimination and may, in fact, also increase productivity and the overall welfare of the system.

Many empirical studies show that gender quotas have shifted employment to women, but the magnitudes of these shifts are not necessarily large (see Leonard, 1990, and papers reviewed in Holzer and Neumark, 2006). Recent studies have proved that quotas are effective in increasing women's opportunities to reach top positions, which leads to more equality between men and women both across company boards (Kogut et al., 2014, for US; Engelstad and Teigen, 2012, for Norway; Profeta et al., 2014, for Italy) and candidate lists of political parties (De Paola et al., 2010).

With regard to the establishment of quotas in the private sector, the Spanish Equality Act of 2007 recommended the increase of women on management boards, but it did not establish
specific quotas or a system of sanctions. As evidenced in Section IV, Spain's progress on this front has been sluggish by European standards, which suggests that introducing a law of promotion of employment is ineffective if it does not establish clear and specific promotion channels, timeframes, and sanctions.

Italy provides a remarkable example of a more effective way to increase female representation on boards. The Law 120/2011 of August of 2011 imposed a gender quota of $20 \%$ on the management boards of listed and state-owned companies to be reached by 2012 and which had to increase incrementally up to a quota of $33 \%$ by 2015 . The law also established a series of sanctions against non-compliance with fines that range from $€ 100,000$ to $€ 1,000,000$. However, these fines are transitory since the law expires in 2022 ( after three full legislative periods).

The results of this Italian initiative are highly promising. In 2011, the situation was much worse than in Spain with women occupying less than $6 \%$ of seats at management boards. In under 3 years, the figure increased to $23 \%$. Furthermore, the average educational level of the new management boards has increased for both women and men, and the average age has decreased.

The temporary nature of this law was designed to break the status quo in which authority positions are predominantly occupied by men. The quotas are no longer required once the status quo has been broken and the associated masculine mentoring and contact networks have been dismantled so that a more even power distribution is reached.

Besides the example of Italy, Germany recently passed the "Law for the Egalitarian Participation of Men and Women in Leadership Positions in the Private and Public Sectors" in May of 2015, which establishes a minimum threshold of $30 \%$ of women (and men) in seats at the supervisory boards of the largest German firms.

In view of the above theoretical background, the positive empirical evidence from Italy's reform, and the currently low number of women in management boards of listed companies in Spain (around $15 \%$ ), the introduction of a gender equality policy based on the Italian Law 120/2011 would be positive for Spain. Such a scheme would establish a system of quotas to be introduced gradually but which would have a fixed duration. It would also establish a table of deadlines and include clear and enforceable sanctions for non-compliance.

## Box 4. Policy Recommendations

1. Extending the length of education and childcare services provided by the state to children between 0 and 3 years old would have an overall positive effect. In particular, it can bring about potentially large social return, contribute to the closing of gender gaps, and increase fertility rates.
2. The optimal parental leave system seems to consist of relatively short paid parental leave shared among family members, with a number of use-it-or-lose it days and some economic incentives to foster fathers' parental leave use (e.g. increase the number of paid days). This measure would likely increase paternal leave uptake, which would in turn increase fathers' involvement in childcare and domestic tasks in the long-term.
3. Alternatively, increasing the number of days of paternity leave to 1 month (as originally planned) can work as a second-best option, but it should be thought of as a stepping stone towards the prior policy, A slightly controversial but noteworthy policy option would be to enforce a small number of mandatory days of paternity leave (2-3 days).
4. Flexible work arrangements in Spain are notably scarce, which should be corrected through the combination of nationwide flexibilization policies and the fostering of regional, sectorial and in-company agreements.
5. Following Italy's success story and in view of the likely associated benefits that breaking existing mentoring networks can have on increasing representation, as well as its waterfall effect, we consider that the gradual introduction of temporary quotas with clear and enforceable sanctions and deadlines would contribute positively towards increasing equality and efficiency within our labor market.

## Appendix

Population structure in Spain, by age and sex (1995)


Population Structure in Spain, by age and sex (1975)


Figures A-1. Population pyramid of Spain: year-by-year age and sex structure of Spain's population between the ages of 0 and 99, in 1995 (top) and 1975 (bottom). Source: INE.

Share of individuals aged 25-50 in Spain that have completed at least upper secondary education (1980-2014)


Share of individuals aged 25-50 in Spain that have completed tertiary


Figures A-2. Share of people with completed upper secondary education (top) and tertiary education (bottom) by sex, from 1980 to 2014. Source: Spanish Labor Force Survey.


Figures A-3. Share of Spain's population in 2015 born in a foreign country, by age and sex. Source: Own Elaboration with data from INE.

## Sex ratio (female/male) in students enrolled in Spain in 2013, by

 educational level and age

Figures A-4. Number of Women for each man enrolled at different educational levels, according to the age of the person enrolled. Source: Own Elaboration using data from Eurostat.


Figures A-5. Self-assessed level of interest in reading on a scale of 0 to 10. Source: Own Elaboration using data from the Spanish Ministry of Education and Culture.

Share of Women among University Graduates, by area of studies (2013)


Figure A-6. Share of women graduates in 2013, by broad area of studies and country. Source: Own elaboration using data from Eurostat.


Figure A-7. Variation (\%) in the labor participation rate of women between 15 and 64 years in OECD countries. Source: OECD.


Figure A-8. Percentage-point male-female employment gaps by type of family situation in adults between 25 and 49 years old. Source: Own Elaboration with data from Eurostat (ELFS).


Figure A-9. Employment gaps (\%) in adults between 25 and 49 years old. Source: Own Elaboration with data from Eurostat (ELFS).


Figure A-10. Distribution of time use by gender in Spain. Calculated for the calendar year (weekdays and weekends). Individuals aged 20-64, both active and inactive. Source: Own Elaboration using data from the Spanish Time Use Survey 2009-2010.

Share of women working full-time in heterosexual couples (25-49) by number of children in Spain (1990-2013)


Share of men working full-time in heterosexual couples (25-49) by number of children in Spain (1990-2013)


Figure A-11. Share of women (top) and men (bottom) working full-time and who are in a heterosexual relationship with both members between 25 and 49 years old, by gender and number of children. Source: Own Elaboration using data from UNECE Gender Statistics Database.


Figure A-12. Percentage-point Male-Female gaps in unemployment rates in Spain (1977-2015). Source: Own Elaboration using data from the Spanish Labor Force Survey


Figure A-13. Percentage-point male-female gaps in unemployment rates, by educational attainment level and age. Source: Own Elaboration using data from the Spanish Labor Force Survey

## Average Female-Male Unemployment Rate Differentials in EU-15 Countries (1995-2015) - Individuals Between 15 and 64 years



Figure A-14. Percentage-point average male-female gaps in unemployment rates between 1995 and 2014 in the EU-15. Source: Own Elaboration using data from Eurostat.

Million People


Figure A-15. Employed individuals 15 to 64 years old by sex and economic sector; 2008 Q2 and 2015 Q2. Source: Own Elaboration using data from the Spanish Labor Force Survey.


Figure A-16. Percentage-point male-female differences in unemployment rates in Western European countries by age. Source: Own Elaboration with data from Eurostat.

## Unemployment Rates Gap by Educational Attainment in Spain



Figure A-17. Percentage-point male-female differences in unemployment rates in Spain by educational attainment. Source: Own Elaboration with data from the Spanish Labor Force Survey.

Temporality Rates of women


Figure A-18. Fixed-term employment rates of women in Western Europe countries. Source: Own Elaboration with data from Eurostat.

Gender gap in Part-time employment, according to the number of children. Individuals between 15 and 64 years old
Source: Own Elaboration with data from Eurostat


Figure A-19. Percentage-point Female-Male Differences in Part-time employment Rates, according to the number of children. Source: Own Elaboration with data from Eurostat.

Hourly wage gap (male-female) by occupation in Europe in 2010 (I)


Hourly wage gap (male-female) by occupation in Europe in 2010 (II)

-Spain Italy $\longrightarrow$ Netherlands $\longrightarrow$ Sweden United Kingdom

Figures A-20. Hourly wage gap by occupation in different European countries in 2010. Adjusted for purchasing power parity differences. Source: Own Elaboration with data from UNECE and the FourYearly Structure of Earnings Survey

Share of women employed by economic sector in Europe (2014) - Individuals between 15 and 64 years.


Figures A-21. Share of women who are in employment in different European countries, by economic sector. Source: Own Elaboration with data from Eurostat.

Share of men and women by occupation in Spain (2014)
Individuals between 15 and 64 years


Figure A-22. Percentage of women in different occupations in Spain in 2014. Source: Own Elaboration using data from the Spanish Labour Force Survey.

Share of women by occupation in Europe (2014)
Individuals between 15 and 64 years old


Figure A-23. Percentage of women in different occupations in Europe in 2014. Source: Own Elaboration using data from Eurostat.

## Share of women judges in Europe (2000-2013)



Figure A-24. Percentage of female judges (2000-2013). Source: Own Elaboration using data from Eurostat.

Share of women ambassadors


Figure A-25. Percentage of female ambassadors (2003 vs 2013). Source: Own Elaboration using data from UNECE Gender Database.


Figure A-26. Percentage of female members of central banks' boards (2003 vs 2013). Source: Own Elaboration using data from UNECE Gender Database and Instituto de la Mujer.

Share of women in the army, by rank (2002-2013)


Figure A-27. Percentage of women in the army by rank (2002-2013). Source: Own Elaboration using data from Instituto de la Mujer.


Figure A-28. Percentage of women in the army, by division (2002-2013). Source: Own Elaboration using data from Instituto de la Mujer.


Figure A-29. Percentage of women part of the teaching staff at Spanish universities, by position (2004 vs 2013). Source: Own Elaboration using data from Spanish Ministry of Education and Culture and INE


Figure A-30. Evolution of the percentage of female employers (1987-2013). Source: Own Elaboration using data from Eurostat \& OECD.


Figure A-31. Evolution of the percentage women who are self-employed in a range of Western European countries (1987-2013). Source: Own Elaboration using data from Eurostat \& OECD.

Ratio of male to female employment by professional status (1986-2015)


Figure A-32. Male-Female Ratio of Employers, Autonomous Workers and Employees (1987-2013). Source: Own Elaboration using data from Eurostat \& OECD.


Figure A-33. Share of women in high-technology and knowledge-intensive sectors (2000-2013). Source: Own Elaboration using data from Eurostat.

Share of employees in high-tech or knowledge-intensive sectors by sex (\% of


Figure A-34. Share of employees in high-technology and knowledge-intensive sectors, by sex (2013). Source: Own Elaboration using data from Eurostat.

## Sex differences in crime committed in Spain in 2014, by type of crime



Figure A-35. Distribution of the crimes committed, by sex of the offender (2014). Source: Own Elaboration using data from the Spanish Ministry of the Interior.

Formal childcare of children between 3 years and compulsory school age, byduration (\% of the population in each age group), 2005


Formal childcare of children under under the age of 3 by duration ( $\%$ of the population in each age group), 2005


Figure A-36. Share of children in formal childcare in 2005: (a) children less than 3 years old; (b) children between 3 years and compulsory school age; by duration (full-time childcare and part-time childcare Source: Own Elaboration using data from Eurostat.

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[^0]:    ${ }^{1}$ National Census Data are used up to the following years: Belgium (1983), France (1982), Germany (1975), Italy (1977), Netherlands (1979), Spain (1977), Sweden (1982), United Kingdom (1983) and United States (1980). Data for Germany prior to 1990 refers exclusively to the FRG.
    ${ }^{2}$ See Figure A-1 in the Appendix.
    ${ }^{3}$ The case of the USA deserves special attention. There has been a clear downward trend in female labor supply in recent years, which Blau \& Kahn (2013) attribute to relatively slow advancement in the promotion of policies designed to promote female labor participation. They also note, however, that the proportion of females working full-time in the US is still high compared with most European countries. According to the authors: "Family-life balance policies may increase the participation of less-career oriented women but may also encourage women that would have otherwise had a stronger labor force participation to take part-time jobs or lower-level positions".

[^1]:    ${ }^{4}$ The graph uses information from the following time surveys: Austria (2008); Belgium (2000, 2005); Bulgaria (2000, 2010); Estonia (2000, 2010); Finland (2000, 2010); France (2000, 2010); Germany (2000); Italy (2000, 2008); Latvia (2000); Lithuania (2000); Netherlands (1995, 2000, 2005), Norway (2000; 2010); Poland (2000); Portugal (2000); Spain (2000, 2010); Sweden (2000, 2010); Switzerland (2000, 2007, 2010); United Kingdom (2000; 2005).

[^2]:    ${ }^{5}$ Source: Spanish Labor Force Survey.

[^3]:    ${ }^{6}$ Gender gaps in unemployment rates were very large at all educational levels during the 1990s and the trend is similar regardless of the educational attainment (see Figure A-17 in the Appendix).

[^4]:    ${ }^{7}$ For a classical and more in-depth analysis of potential causes, see Blau \& Kahn 2003.

[^5]:    ${ }^{8}$ Amuendo-Dorantes and De La Rica (2006) reached a similar conclusion, in a study that also employed data from the Wage Structure Survey.
    ${ }^{9}$ During the 1990-1994 crisis, the gender wage gaps appeared to narrow. This was due to the resilience the services sector displayed in that recession, and the relatively low gender gap in that sector (Aláez \& Ullíbarri 2001).

[^6]:    10 Elementary occupations consist of simple and routine tasks which mainly require the use of hand-held tools and often some physical effort.

