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Inequality in Spain: 2005–2021

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Banco de España

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1. Executive summary

The objective of this study is to describe the evolution of inequality in individual earnings and household income in Spain over the past two decades, with a specific focus on gender and educational disparities. There have been substantial changes in the composition of the supply of workers since the transition to democracy in 1977, two of the most important being the massive entry of women into the labour force and the increase in the educational level of the population. Spanish households have also seen a change in structure during this period. First, marriage rates and the number of children have been declining since the 1980s, although part of the decline in marriages has been compensated by a higher rate of cohabitation. Second, for couples, it has become more common for both partners to be working. Since the 2008 crisis, the probability of living in a household in which no one works has increased, especially among those with low levels of education.

The Spanish labour market suffers from structural problems that accentuate fluctuations in inequality. Unemployment is typically high and very sensitive to the business cycle. The Great Recession of 2008 marked a turning point that in Spain extended into 2014. The presence of a dual labour market and a rigid wage determination system resulted in adjustments being made at the employment level, primarily affecting temporary workers, rather than through adjustments in wages. The recovery since then has been progressive, except for the interruption due to the COVID-19 pandemic in 2020. The economic impact of the COVID-19 crisis was reversed quickly since 2020 thanks to the rapid implementation of a programme of welfare benefits and the recovery in employment. The demographic groups most affected by both crises in terms of labour market outcomes were immigrants, youths, the poorly educated and non-working households. Males in some sectors such as construction were particularly affected by the financial crisis, while the COVID-19 crisis impacted females and workers in the so-called social industries. Finally, the disposable income of the poorest (often non-working) households is increasingly further away from the rest, becoming more dependent on public transfers.

Inequality in Spain is highly countercyclical. The Gini index of full-time hourly wages declined until the 2008 crisis, from 0.31 in 1995 to 0.26 in 2010. Since then, it has remained fairly stable (0.27 in 2018). Women initially had much lower hourly wage inequality, but in 2018 it reached the same level as male inequality. Earnings inequality had been increasing since the mid-2000s and peaked at the end of the Great Recession. Since 2014 there has been a decline, except for the COVID-19 surge. The Gini stood at 0.41 in 2021, having reached 0.44 in 2014. The 90:10 and 50:10 ratios were respectively above 10.5 and 4 in 2021, having respectively reached 17 and 7 at their peak. Household income inequality has followed individual earnings inequality. The Gini index of disposable household income was decreasing up until 2007, increasing from 2008 until peaking in 2013 at 0.35, to decrease again afterwards. In 2014, the 90:10 ratio nearly reached 6.9, falling to 5 in 2021. In summary, all these indicators started to fall gradually from 2014 until the outbreak of COVID-19 when they increased. However, they again show a downward path from 2021 onwards due to the recovery of economic activity and employment, but they are still at the pre-pandemic levels which were higher than before the financial crisis (see Banco de España, 2022).

Lastly, we document the role of the Spanish welfare system in the evolution of these inequality measures. At the worst moment of the Great Recession, in 2014, the bottom quartile received 85% of its income via welfare benefits, whereas the top quartile received 25%. Although the level of tax progressivity is still relatively low in Spain, it increased during the period, similarly to Austria, Finland, Germany, Ireland and the Netherlands. In 2006, all households paid between 25% and 35% in direct taxes. In 2021, the richest quartile paid 45% and the poorest 21%. Once benefits and taxes are considered, household disposable income is around 85% of gross income. In 2021, the poorest quartile had a disposable income amounting to 89.5% of gross income, while for the richest quartile, this figure was 75.9%.

2. Institutional background

Provisions of the welfare state

Collective agreements set wage floors for firms in a particular sector.[1] Today around 80% of Spanish workers are covered by these agreements. This high coverage rate explains the low percentage of trade union membership, at just over 10% (OECD, 2021). Collective agreements restrict the ability of firms to vary wages in times of economic downturn, and may contribute to inflationary episodes through indexation of salaries and to increasing the incidence of temporary contracts as fixed-term workers are less affected by them (Estrada, Izquierdo and Lacuesta, 2009; Izquierdo, Moral and Urtasun, 2003). At the same time, however, collective bargaining may reduce wage inequality (Ramos, Sanromá and Simón, 2022).

Another important institution for wage setting is the minimum wage. It was abruptly increased from €735 per month in 2018 to €1,050 in 2022, after years of stagnation in real terms. Approximately 10% of the Spanish workforce has benefited from this increase, although there have been job losses for the groups directly impacted (Barceló et al., 2021).[2] The implications of changes in the minimum wage for earnings inequality are somewhat unclear: on the one hand, the wage distribution is compressed by the wage increase at the bottom; on the other, the composition of those still employed changes due to the already mentioned employment losses at the bottom. Autor, Manning and Smith (2016) found that, for the US, increases in the minimum wage reduce inequality in the lower part of the distribution, but less so than in previous literature. In the case of Spain, Bonhomme and Hospido (2017) show that the timing of decreases and increases in the real minimum wage is unable to explain the patterns of total and lower-tail inequality documented until 2010.

Next, we describe two mechanisms for income support after job losses. First, unemployment benefits provide income support to the newly unemployed. The amount of benefit depends on the amount of social security contributions the individual has accumulated while working. Additionally, there is a subsidy when the benefit is exhausted. This regulation has changed according to the state of the public finances. After the Great Recession, in 2015, a new reform increased the benefit for the long-term unemployed, but it never went back to the generosity of the 1980s system. Currently, the amount during the first 180 days of unemployment is 70% of the social security contributions. After that, it goes down to 60%. The system awards increases in the benefit if the unemployed person has dependent children. Moreover, its duration can be extended up to a maximum of 2 years. After that, an assistance subsidy replaces the unemployment benefit. This is aimed at long-term unemployed individuals, and stands at €480 a month (Real Decreto Legislativo 625/1985; Real Decreto Legislativo 8/2015).

Second, severance payments are intended to discourage firms from unjustified dismissal and to compensate workers if that happens. This compensation is currently at 20 days' salary per year worked. For temporary contracts, the compensation lies between 8 and 12 days' salary per year worked (Real Decreto-ley 1/2023). Historically, Spain has had fairly high severance payments (for permanent workers) by international comparison (Estrada, Izquierdo and Lacuesta, 2009), although these have been declining over the years since the 2008 crisis (INE, 2023). The difference by type of contract lowers the cost of temporary contracts (Andrés et al., 2009), which have been particularly prevalent in Spain relative to other countries in Europe up until the labour reform of 2021 (Rodríguez-Rodríguez and Izquierdo, 2022). The high protection against

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[1] Sectoral agreements can be made at the local, provincial, regional or national level, most of them being at the provincial level, the most inefficient one (Izquierdo, Moral and Urtasun, 2003). Collective agreements can also be negotiated at the firm level. Since the 2012 labour reform, the signing of collective agreements at the company level has increased, but they are still very limited (Cruz-Villalón, 2013).

[2] Barceló et al. (2021) estimate that for each percentage point increase in the minimum wage there is a loss of between 0.3 and 0.5 percentage points in employment for the group of workers directly affected by the increase.

unemployment for permanent workers, but not for temporary ones, encourages adjustment to the economic cycle through employment (mostly destroying temporary contracts), not through reductions in wages or working hours (more rigid). Summing up, a dual labour market delivers higher earnings inequality than otherwise: higher wage inequality, but – most importantly – more turnover (fewer days worked).[3]

Aside from labour market institutions, the Spanish welfare system that provides healthcare, education, and benefits covering parenthood, sickness, permanent disability, retirement and survival (such as orphanhood and widowhood), may directly impact income inequality. Overall, the taxes and benefits of the Spanish welfare system used to redistribute less than their European counterparts (Cantó, 2013).[4] More recently, social care policies, active employment policies and minimum income schemes have gained weight (Balbona and Guillén, 2021). In 2020 Spain introduced a national minimum income scheme, so-called the *Ingreso Mínimo Vital* (IMV). Prior to the introduction of the IMV, the minimum income system in Spain was made up of 19 different regional schemes assessed as having limited poverty alleviation capacity because of limited generosity, restrictive eligibility criteria and low take-up (Arriba and Moreno, 2005; AIReF, 2019; European Commission, 2019). The IMV is a household-level measure available to Spanish residents above 23 years old with low income and wealth. Bilbao-Goyoaga (2023) shows that during the initial 1½ years of implementation, the policy had no statistically significant effect on households' material conditions (poverty rate and mean income). However, after 2½ years, it did considerably improve how households perceive the evolution of their finances.[5]

Sickness benefits cover individuals temporarily unable to work if they have been working at least 180 days in the last 5 years. Eligibility for benefits can last up to 1 year, and can only be extended for an additional 180 days if certified by a doctor. The first 4 days are not paid. From the fourth to the twentieth, the amount is 60% of the contribution base. Thereafter it is 75%.

Regarding parenthood, both parents have a minimum of 16 weeks' paid maternity/paternity leave. There is also the possibility of extending the number of weeks and the amount depending on the risk of pregnancy, large family status, adoption, difficulty in breastfeeding due to the nature of the job, and other factors (European Commission, 2022). Other child support benefits are scarce and usually provided as tax credits, making them a regressive measure.

The legal retirement age in Spain currently fluctuates between 65 and 67, depending on the number of years of work experience. There is great pressure to increase the age due to the combined facts of (1) having one of the highest life expectancies in the world, (2) an expected increase in the number of pensioners when the Spanish baby boom generation (born between the 1950s and 1970s) retires, and (3) low activity and occupation rates (de Cos, 2021; de Cos, Jimeno Serrano and Ramos, 2017). In addition, at close to 80% the pension replacement rate is one of the highest in advanced countries (Doménech, 2014).

Within the social benefits, the reduced presence of social housing is notable. In contrast to neighbouring countries, social housing is mainly for purchase, not for rent. This is in line with the

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[3] García-Louzao, Hospido and Ruggieri (2023) show that young workers with fixed-term contracts have 16 percentage points less wage growth after 15 years than peers with open-ended contracts. García-Pérez, Marinescu and Vall-Castello (2019) find that the liberalisation of the regulation of fixed-term contracts in 1984 reduced the number of days worked (by 4.9%) and earnings (by 9.8%) over the first 10 years in the labour market.

[4] The Spanish personal income tax has a low redistributive capacity (Verbist and Figari, 2014). In fact, much of the reduction in inequality from gross to net incomes is thanks to the pension and transfers system (around 80%) and the remaining 20% due to the tax system (Moliné, 2016). Other pending aspects are the regressivity of tax credits, which tend to benefit high incomes, and the low top tax rates in some autonomous communities (García-Miralles, Guner and Ramos, 2019).

[5] Still, there are high expectations regarding the recent implementation of the IMV, which could reach up to 52% of households living in poverty. However, so far it has only reached 40% of potential beneficiaries, with a non-take-up rate of 57% (AIReF, 2022; Banco de España, 2022).

Spanish tendency to own houses rather than rent them, resulting in one of the highest home ownership rates in Europe. There are other housing benefits, aimed at covering part of the rent for families in social exclusion, but these types of measures vary a lot between regions and municipalities (Pareja-Eastaway and Sánchez-Martínez, 2017).

During the COVID-19 pandemic, one of the most notable economic policy measures was the implementation of furlough schemes by firms together with the suspension of activity in the case of the self-employed. Such measures were still in force in 2021 and helped significantly to mitigate the increase in unemployment (see Banco de España, 2021).

Provision of public services

The Spanish education system has a decentralised management and administration model. The autonomous communities enjoy a high degree of management autonomy, being entitled to approve their own annual budget and to decide on the distribution of their resources and on the school curriculum. Most of the investment in education is public, representing an 87% of the total spending on education in 2019 in primary, secondary and post-secondary non-tertiary studies, and a 65% in tertiary education (Eurydice, 2023). Private expenditure comes mainly from household spending: 12% in primary, secondary and post-secondary non-tertiary studies, and 30% in tertiary education. Since 1990, education is mandatory until the age of 16. Before 1990, the mandatory age was 14. After compulsory education, students can choose to take two extra years (*bachillerato*) to gain access to university or various post-secondary non-tertiary studies. University degrees typically last a minimum of 4 years. Early childhood education and care is the first stage of the Spanish education system and applies to children aged 0–5 years. Participation is voluntary. In Spain, aside from public and private education, there also exist publicly funded private schools. In the 2020–21 academic year, 13,896 schools were teaching primary education in the whole country, of which 74% were public schools, 22% were publicly funded private schools and 4% were private schools.

Health in Spain is a non-contributory benefit financed through taxes (Government of Spain, 2023). The Spanish Constitution of 1978 establishes the right of all citizens to effective healthcare protection and equal, efficient healthcare assistance of the highest possible quality. Given its universal nature and solidarity, the system must guarantee equal access to services for all citizens.[6]

In implementation of the mandates contained in the Spanish Constitution, the transfer of powers over public health and the provision of healthcare under the social security system to the regional governments commenced in 1979.

On 25 April 1986, the Spanish Parliament passed the General Health Act, which regulates all actions to enforce the exercise of the constitutional right to health protection. To this end, the law creates a national health system with universal coverage of a predominantly public nature charged to the State Budget, comprising the health services of both the General State Administration and the regional governments. The health service of each autonomous region covers all its public medical centres and services, acting as a management body for all public

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[6] In Spain, healthcare is guaranteed to individuals who are covered by the system. Foreign nationals not authorised or registered as residents in Spain receive emergency medical attention for serious illnesses or accidents (whatever the cause) until discharge. Female foreign nationals also receive pregnancy, delivery and postpartum care. Foreign nationals under the age of 18 receive healthcare under the same conditions as Spanish citizens. The public health system has no set waiting periods or any other requirements to access its services, which are comparable with those of most European countries.

healthcare in the region. Each health service depends, in turn, on the health department of the regional government (Regional Health Department), which draws up guidelines and regulations on financing, planning and public health in the region.

The basic services covered consist of preventive, diagnostic, therapeutic, rehabilitation and health maintenance and promotion activities. The primary care level covers general medicine and paediatrics, programmes for disease prevention, health promotion, health education and rehabilitation. Specialist care includes all medical and surgical specialties. There is also a 24-hour care mechanism for emergency healthcare and medical emergencies. Healthcare is free at the point of use.

The public system provides supplementary services, as well as pharmaceutical, orthopaedic, and prosthetic services, non-urgent healthcare transportation and diet therapy treatments. The pharmaceutical service of the national health system covers most medicinal products authorised in Spain, along with certain medical devices, all of which are funded by the public healthcare system. Users are participants in the spending on pharmaceutical products dispensed at pharmacists through medical prescriptions issued by the national health system, whereby they pay a percentage of the price of the products. This percentage is established according to income, whether an active worker or a pensioner, with a reduced contribution for first-choice products for chronic and serious illnesses. Generally, the contribution percentage stands at 60% for those with an income of over €100,000, with a maximum limit for pensioners of €61.75 per month.

Tax system

The tax structure in Spain is largely decentralised to the autonomous communities, provinces, and municipalities, giving them the ability to alter brackets, rates, tax credits, exemptions, etc. In terms of the total tax revenue, 40% is collected by the central government, 35% by the social security system, 15% by the regional governments and less than 10% by local authorities. These figures have been fairly stable since the 2008 crisis (European Commission, 2023). In 2019 the tax-to-GDP ratio was 35% in Spain, compared to 41% for the euro area. In 2021 the ratio in Spain increased to 38% (Eurostat, 2022), of which around half is accounted for by labour taxes, a quarter by consumption taxes, a fifth by corporate and capital taxes, and the remainder by other special taxes (Agencia Tributaria, 2023).

Income tax (IRPF) allows for both individual and joint taxation. In practice, joint taxation is more beneficial than individual only for families with one source of income, or with dependent children. Importantly, IRPF is less progressivity than other personal income taxes in advanced economies. One-third of taxpayers do not pay personal tax, thanks to deductions, tax credits and exemptions, although the bulk of these reductions in the effective tax rates are enjoyed by the top quintile (García-Miralles, Guner and Ramos, 2019).

Value-added tax in Spain, as in the rest of the advanced economies, is not characterised by progressivity, even though Spain is one of few countries with a super-reduced bracket for essential items (Anghel et al., 2018; Bover et al., 2017).

Due to decentralisation, taxes such as wealth tax, inheritance and transfer taxes are managed by the autonomous communities. Other taxes, such as personal income tax and vehicle registration taxes, are not collected by them, but at least they have regulatory capacity. Finally, the revenue from these taxes, except for corporate income tax, is partially or totally allocated to autonomous communities (Peñas, 2019).

3. Notes on measurement

Data sources:

This report combines several surveys, namely, the Labour Force Survey (EPA, by its Spanish acronym), the Wage Structure Survey (EES), the Life Conditions Survey (ECV) and the Survey of Household Finances (EFF). The EPA is the main source for employment and education statistics. However, it does not contain information on hourly wages or earnings. Given this limitation, we also use data from the EES for hourly wages, the ECV for individual earnings and both the ECV and the EFF for household income. All monetary quantities are expressed in 2020 euros.

- The EPA is available every year since 1976.

- The EES is available in 1995, 2002, 2006, 2010, 2014, and 2018, and contains detailed information on hourly wages for employees in firms with at least 10 workers and at a given point of the year. In addition, to ensure comparability across survey years, some sectors not included in the first waves are excluded from our analysis throughout the period.[7] To scale up the information to annual wages, however, the EES assumes that individuals work the full year. This assumption tends to overestimate earnings for individuals at the bottom of the distribution and, consequently, underestimate inequality. This is the main reason why, for annual earnings, we focus instead on the figures obtained from the ECV.

- The ECV is available annually from 2004 to 2022 (our period of analysis covers from 2004 for household income and from 2006 for individual earnings). The reference year for annual earnings and income is the year prior to the survey. Contrary to the EES, the ECV contains both employed and self-employed workers, does not exclude any sector or type of firm and reflects total annual labour income without any adjustment to reflect full-time equivalent.

- The EFF is available in years 2002, 2005, 2008, 2011, 2014, 2017 and 2020. It provides direct information on the investment and financing conditions and decisions of Spanish households, as well as their wealth situation. As with the ECV, the EFF reference year for annual earnings and income is the year prior to the survey.

Unit of analysis and sample:

- To draw the distributions of incomes/earnings/wages, only individuals with positive incomes are included. We consider all the percentiles but, to avoid noise due to very high incomes/earnings/wages, we winsorise the top percentile.

- In most of the figures (unless stated in the notes), the sample analysed is individuals between 25 and 60 years old.

- We include full-time students.

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[7] These sectors are: agriculture, hunting and forestry; fishing; public administration, social security and defence; domestic service and home production; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Definitions:

- **Employment rate**: the fraction of the population that is employed according to employment status (rather than, say, having non-zero earnings).

- **Hours of work**: usual/typical paid hours worked per week, including paid overtime. Excludes self-employed workers.

- **Hourly wages**: hourly gross wage is calculated by dividing the gross monthly wage by the total number of hours worked in a week (the reference is a week in the month of October), multiplied by 4.35, plus the number of extra hours worked in that month. The monthly wage includes: the base salary, payments for extra hours, extraordinary payments, and the total of salary supplements. Wages are expressed in 2020 euros.

- **Annual wages**: the annual gross wages include the total gross earnings, payments in kind and extraordinary earnings (extraordinary payments, participation in benefits, incentives, bonuses, and other variable payments). Importantly, to annualise wages, the Structure of Earnings Survey assumes that the individual works 12 months a year.

  - Most figures include employee taxes but **not** employer taxes, pension contributions or other contributions (e.g., health insurance). A few figures explicitly compare trends in gross wages with and without employer taxes.

  - Earnings are expressed in 2020 euros.

  - The reference period is the survey year.

  - When using the EES, the self-employed are not included. We include them when using the ECV.

- **Earnings**:

  - For employees, individual gross earnings include the monetary component of the compensation of employees in cash payable by an employer to an employee. This includes the value of any social contributions and income taxes payable by an employee or by the employer on behalf of the employee to social insurance schemes or tax authorities.

  - Self-employment income is defined as the income received, during the income reference period, by individuals, for themselves or in respect of their family members, from their current or former involvement in self-employed work. Self-employed work covers those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is part of profits). The self-employed make the operational decisions affecting the enterprise or delegate such decisions while retaining responsibility for the welfare of the enterprise (in this context 'enterprise' includes one-person operations). Remuneration from hobbies is regarded as self-employment.

  - A self-employed individual is an individual who has more income from self-employment than from employment each year.

  - If an employee has multiple jobs, earnings from all jobs are summed together.

  - The reference period is the previous natural year.

  - Individual earnings are expressed in 2020 euros.

- **Disposable household income (household equivalised income after deducting taxes and adding benefits and tax credits)**

  - Disposable household income: gross household earnings minus income tax, property taxes and compulsory social security contributions of employees, self-employed and unemployed (if applicable), employers and inter-household transfers paid. It includes the income taxes paid during the income reference period, the tax adjustments/repayments/receipts received or paid during the income reference period and the social insurance contributions paid during the income reference period.

  - Gross household income is computed as the sum for all household members of gross personal income components (total cash and non-cash income), gross employee cash or near cash income, company car, gross cash benefits or losses from self-employment (including royalties), pensions received from individual private plans (other than those covered by the European system of integrated social protection statistics, ESSPROS), unemployment, old age, survivors' sickness and disability benefits, education-related allowances; plus gross income components at household level, imputed rent, income from rental of a property or land, family- or child-related allowances, social exclusion not elsewhere classified, housing allowances, regular inter-household cash transfers received, interests, dividends, profit from capital investments in unincorporated business and income received by people aged under 16 .

  - Incomes are equivalised using the modified OECD equivalence scale, normalised to a single individual.

  - The reference period for the income variable is the previous natural year. For example, for the 2020 wave of either the ECV or the EFF, the reference period and the year in the figures is 2019.

  - Incomes are expressed in 2020 euros.

For more details on variable definitions, see Table 1 in Appendix A1.

Splits:

- **Sex**: female, male

- **Education**: we split education into three groups, based on the International Standard Classification of Education (ISCED):

ISCED
ISCED 0–2 (**less than high school**)
ISCED 3–5 (**high school and post-secondary non-**)
ISCED 6–8 (**tertiary**)

- **Household type**: Single without dependent children; single with dependent children; couples without dependent children; couples with dependent children; adult child; other. Parents of adult children are included in the 'other' category. A dependent child is a child aged 0–15 or 16–19 and in full-time education, living with parents.

4. Individual employment and earnings

This section looks at trends in individual employment and earnings. With respect to earnings, we first examine the evolution of individual hourly wages and hours worked, subsequently consolidating these dimensions into annual earnings. When looking at employment and earnings, we use data for employees and the self-employed. When considering hours worked and hourly wages, on the other hand, we focus only on the employees.

4.1   Trends in employment (employees and the self-employed)

The Spanish labour market has witnessed important compositional changes in recent decades. Two of the more relevant have been the massive entry of women into the labour force and the increase in the educational level of the population. The female employment rate increased dramatically over this period, from 27.7% in 1977 to 69.3% in 2022 (Figure 1). The gender gap in employment get reduced from 69.2% in 1977 to 14.3% in 2022. Most of the increase occurred for females aged 25–60.

Figure 1. Employment rates by age and sex, over time
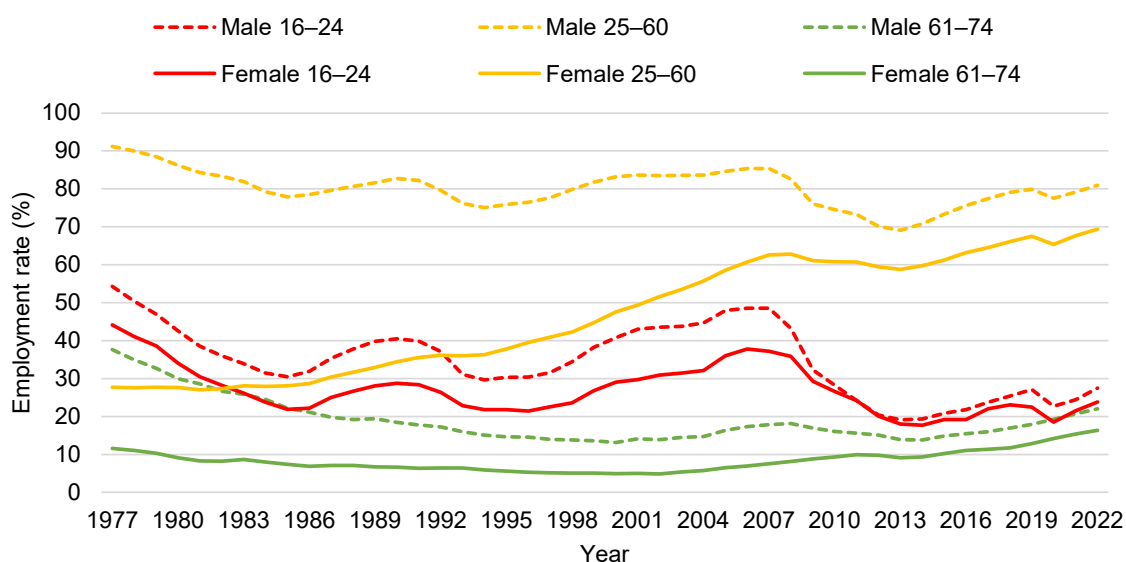
Source: Spanish labour force survey (INE) 1977–2022.
Note: Sample is individuals aged 16–74.

Despite the impressive catch-up process among the younger cohorts of women, there are still substantial gender gaps in employment rates (Figure 2).

Figure 2. Employment rates over life cycle by sex, selected years

Female

Male
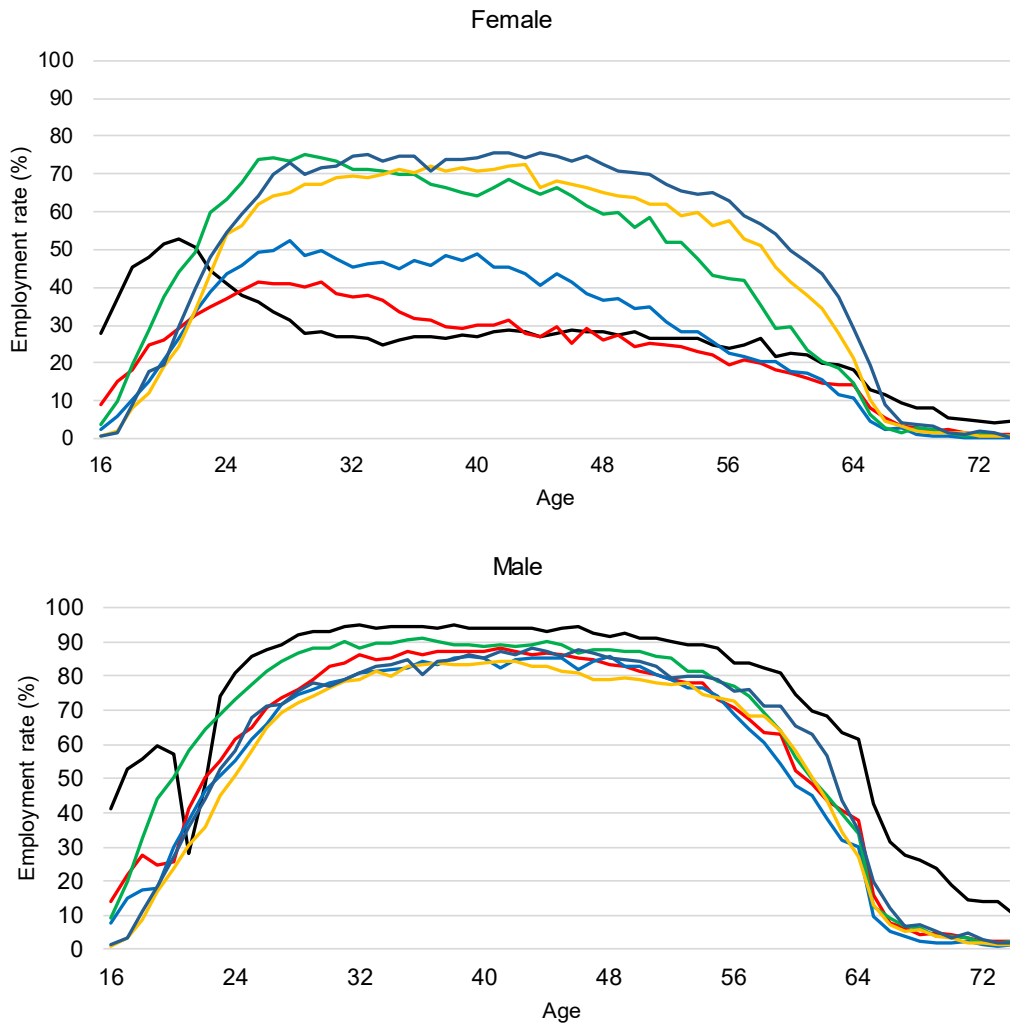
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 16–74.

Regarding education, in 1977 Spain was a country where 91% of the working population had only completed primary education or less (Figure 3), whereas the remaining 9% were equally spread among those with secondary education (4.7%) and those with tertiary education (4.7%). By 2022, in contrast, 34.3% of the population had at most primary education, 36.5% secondary education, and 29.2% tertiary education. The speed of advancement has been faster for women than for men, considering that the former started from a lower starting point than the latter (Figure 4).

Figure 3. Educational attainment over time
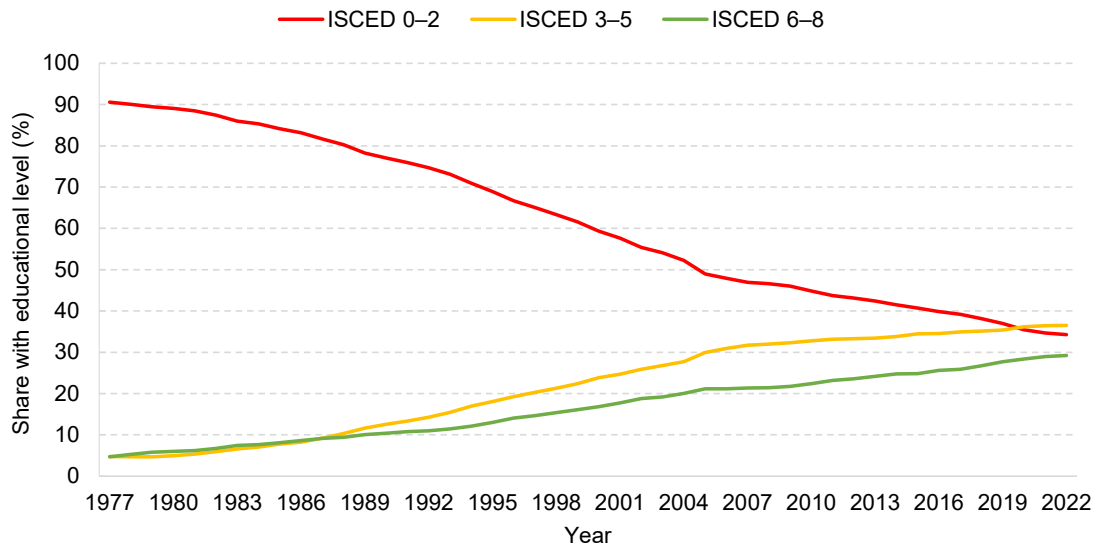
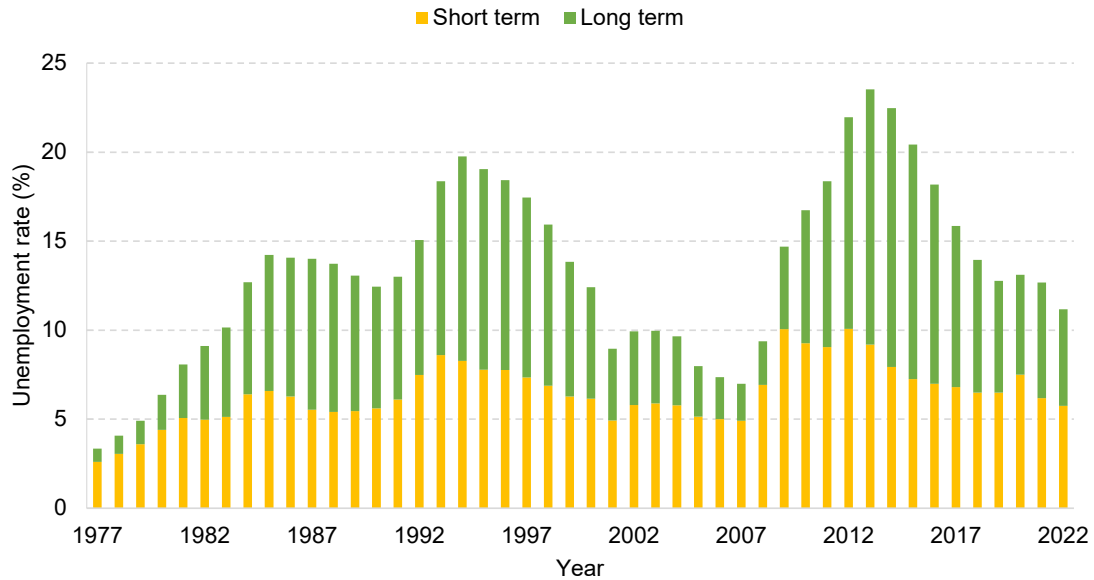*Source*: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60 who have completed full-time education.

Figure 4. Educational attainment by sex, over time
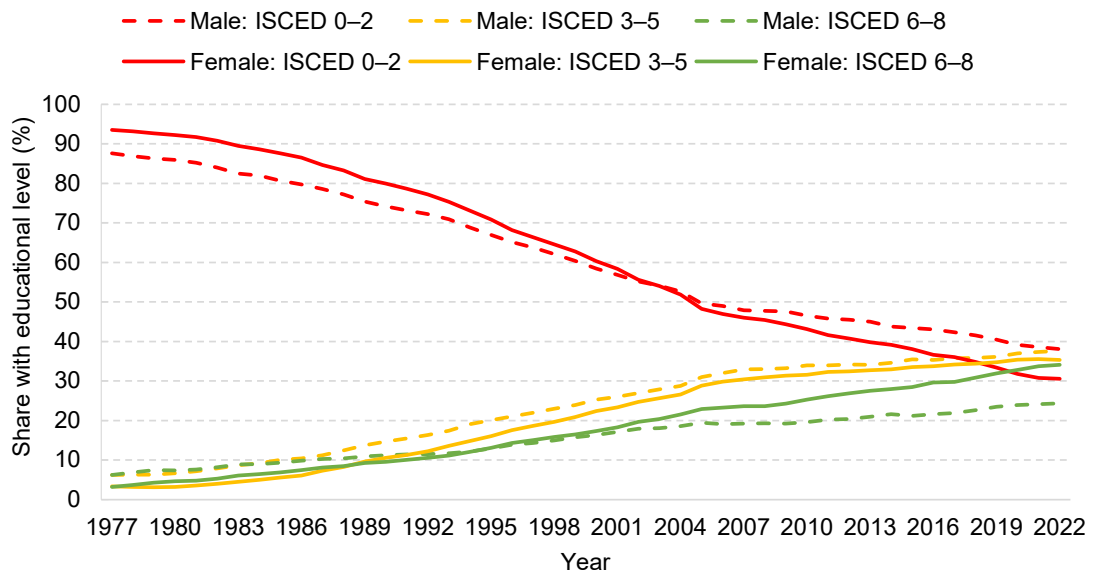
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60 who have completed full-time education.

Except for the 2008 crisis, when college education acted as partial insurance against unemployment, employment differences across education groups remained stable over time (Figure 5).

Figure 5. Employment rates by education, over time
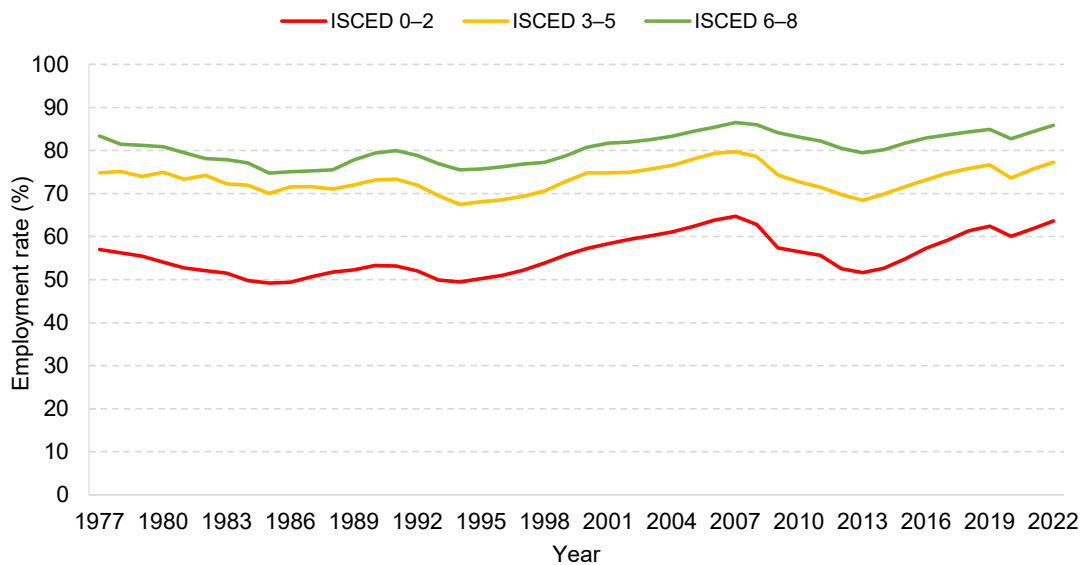
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60 who have completed full-time education.

Although educational attainment has advanced more rapidly for women, females still have systematically lower employment rates than males at every education level (Figure 6). For instance, in 2022, the employment rate of tertiary-educated males was 89%, versus 84% for females. The gender gap was larger among those with secondary education (83.5% for men versus 71% for women) and is largest among those with at most primary education (73% versus 52%). Over time, gender gaps were generally decreasing until 2013, but since 2014 the trend has halted. A possible explanation for that stagnation is that employment of women with children is still low compared to men, due to the inability of social policies (such as paternity leave, tax incentives or family policies) to fully overcome traditional gender roles (Osuna, 2018; Hupkau and Ruiz-Valenzuela, 2022).

Figure 6. Employment rates by sex and education, over time
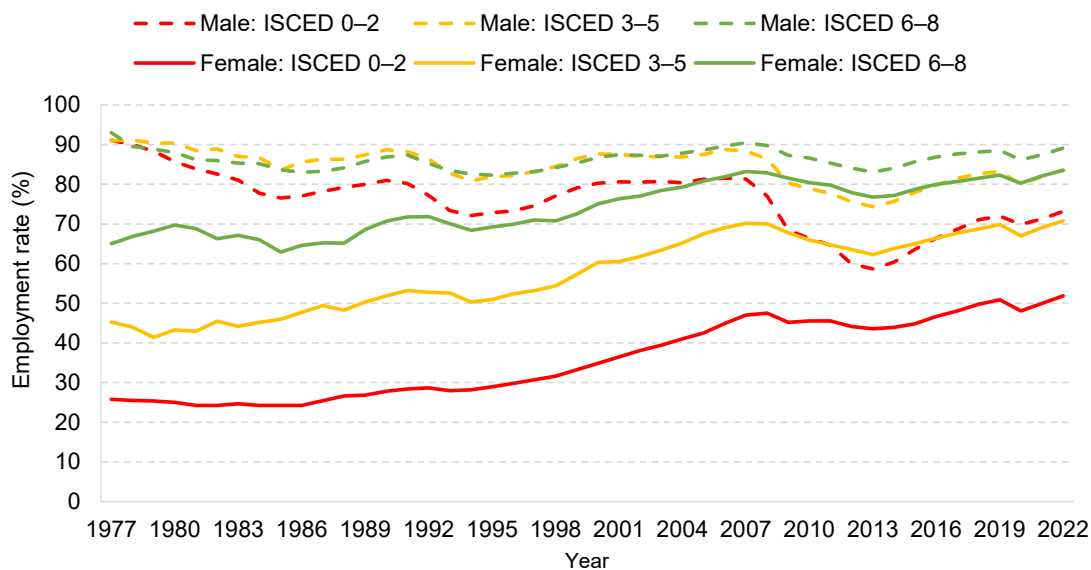
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60 who have completed full-time education.

The Spanish labour market is characterised by two salient features relative to other advanced economies: the structurally high level of unemployment and its marked cyclicality (Dolado, Felgueroso and Jimeno, 2021). Unemployment has been on average 13.3% over the 1977–2022 period, reaching peaks as high as 19.8% in 1994 and 23.5% in 2013. Also, except for the 2001–08 period, long-term unemployment usually represents half of the total unemployment (Figure 7).

Figure 7. Unemployment rate by duration of unemployment over time

Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60. Unemployment rate is calculated as the fraction of labour force aged 25–60, split between short-term (less than 1 year) and long-term (1 year or more) duration of unemployment.

4.2   Trends in hourly wages (employees only)

The median real hourly wage in Spain barely changed from €9.8 in 1995 to €9.9 in 2018 (Figure 8). Over the period, males had a median hourly wage of €10.8 versus €8.5 for females. This gender gap widened slightly: women's median hourly wage represented 78% of men's in 1995 and 83% in 2018.

Figure 8. Median real hourly wage among employees, overall and by sex, over time
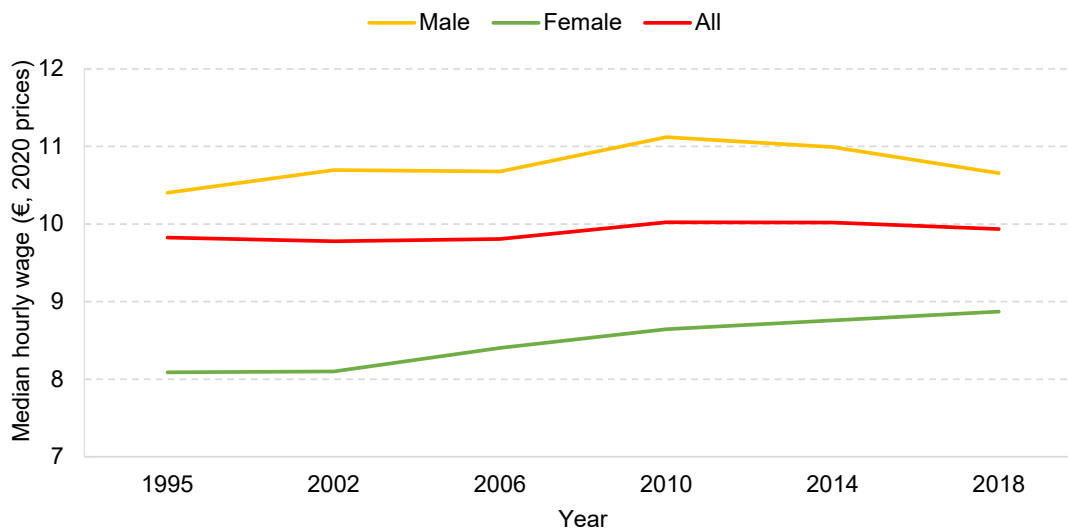
Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors e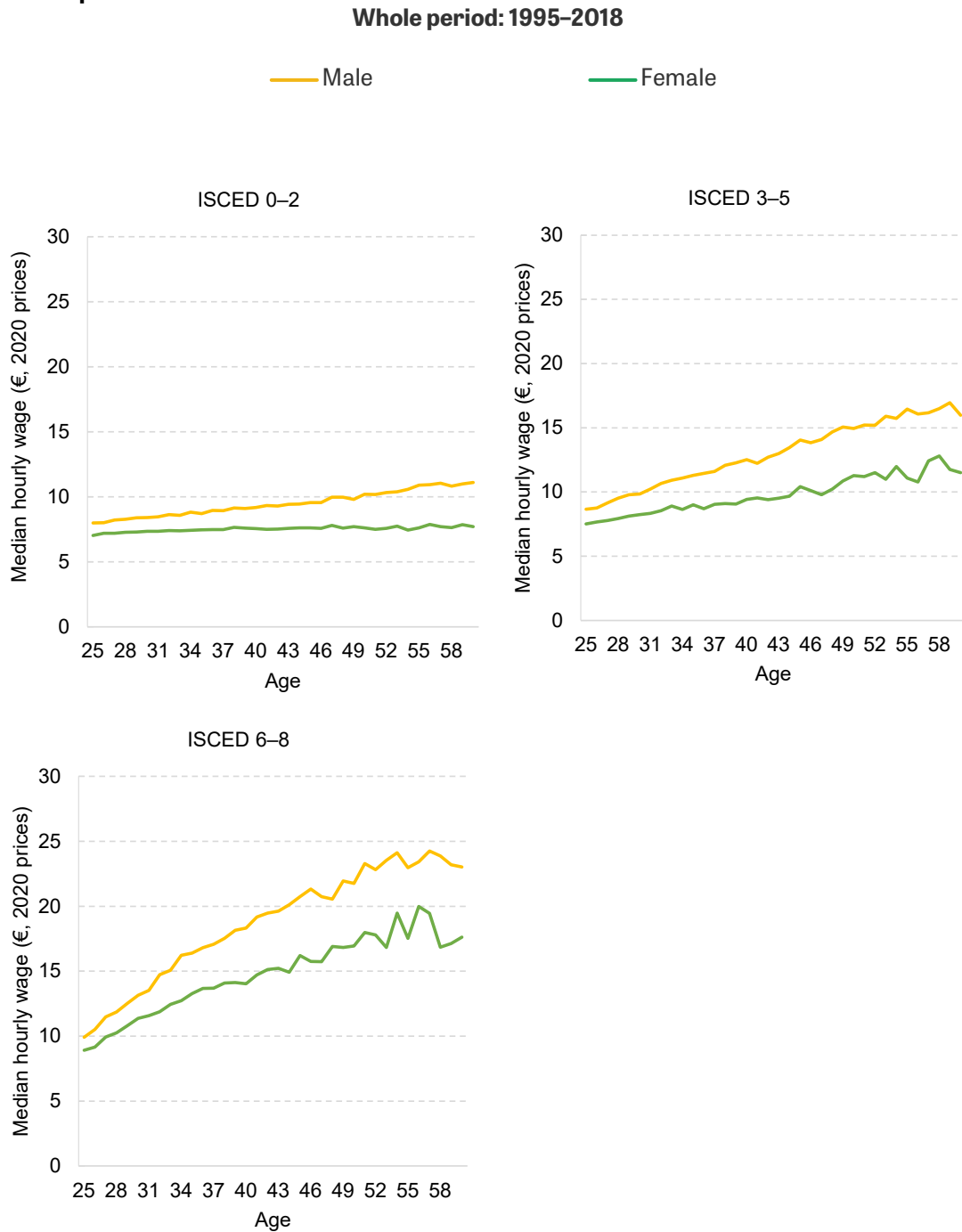xcluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Wages are in 2020 prices.

By level of education, we see that, between 1995 and 2018, the median real hourly wage diminished for males with secondary and tertiary education, but remained quite stable for those with primary education; whereas for females, median real hourly wages increased except for those with secondary education (Figure 9). For both males and females, the college premium (i.e., the ratio of the median hourly wages of the most highly educated relative to the least) diminished over the period, but particularly so from 1995 to 2006.

Figure 9. Median real hourly wage among employees, by sex and education, over time
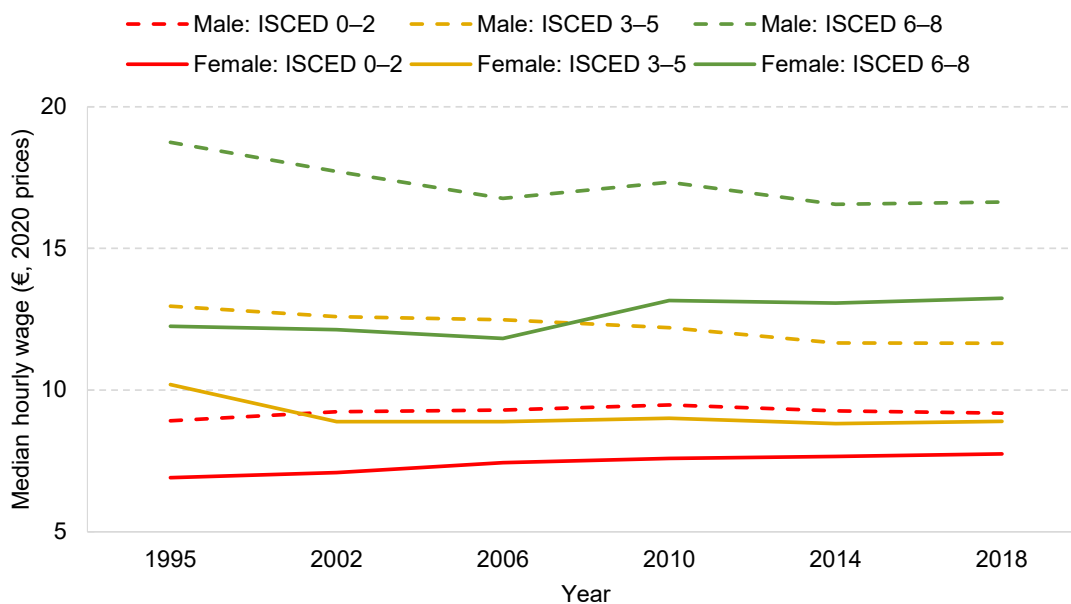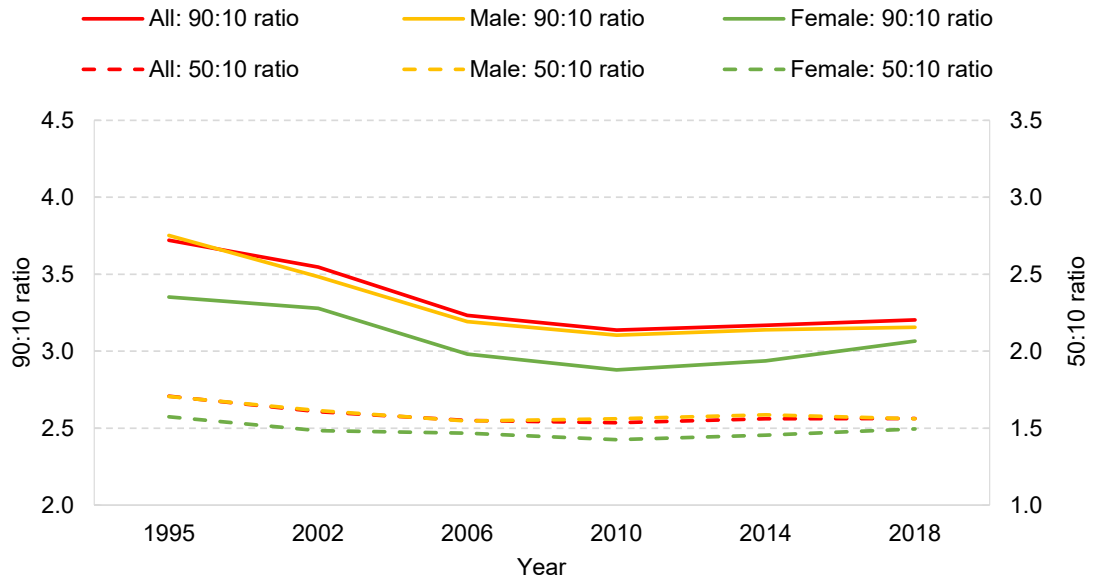

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public

administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Wages are in 2020 prices.

Males have steeper curves across education levels: gender differences in hourly wages expand as age increases (Figure 10).

Figure 10. Median real hourly wage among employees over life cycle, by sex and education, selected periods

Whole period: 1995–2018

ISCED 0–2

ISCED 3–5

ISCED 6–8

Subperiods: 1995–2006 and 2010–18
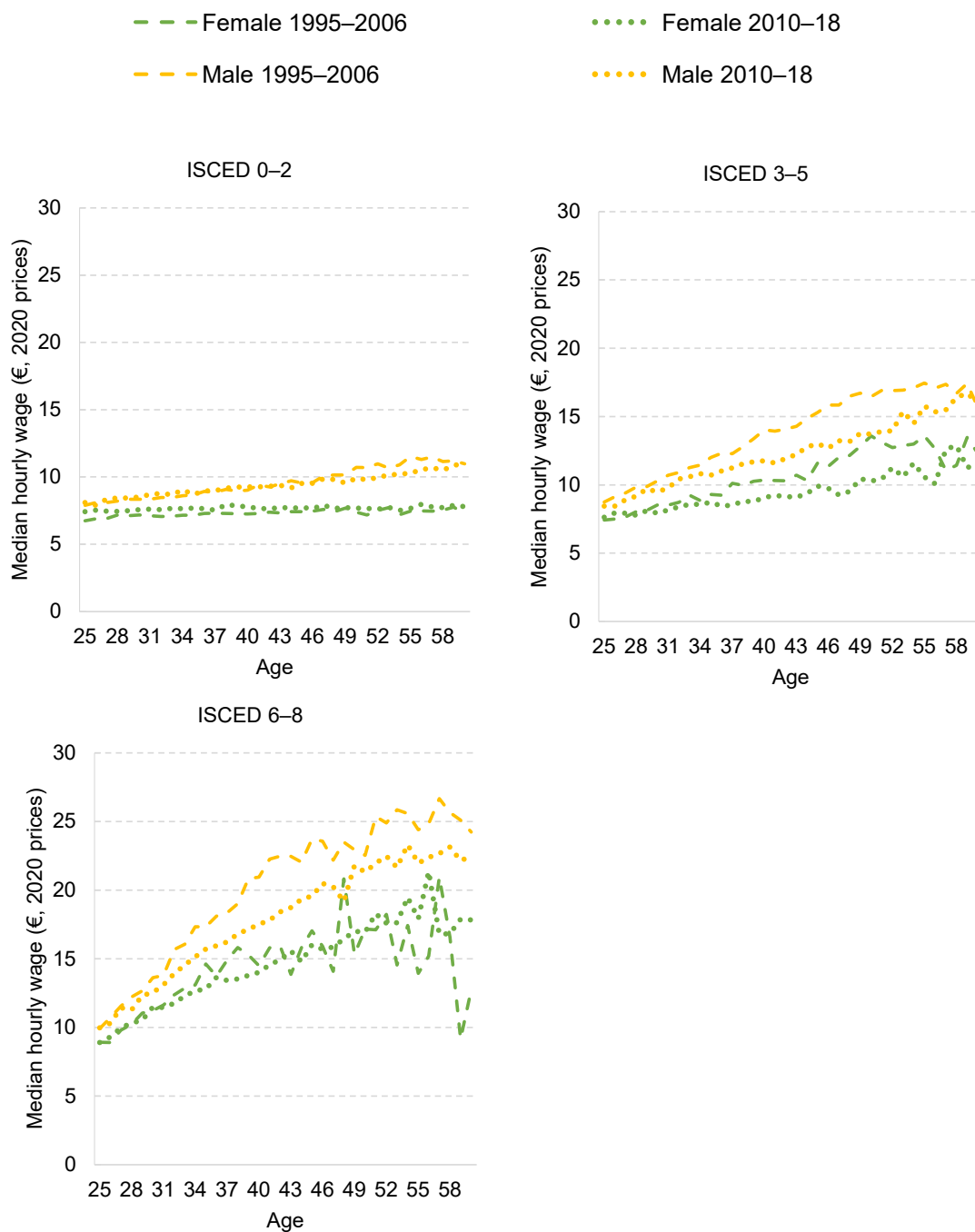
Legend:
- Female 1995–2006 (dashed green)
- Female 2010–18 (dotted green)
- Male 1995–2006 (dashed yellow)
- Male 2010–18 (dotted yellow)

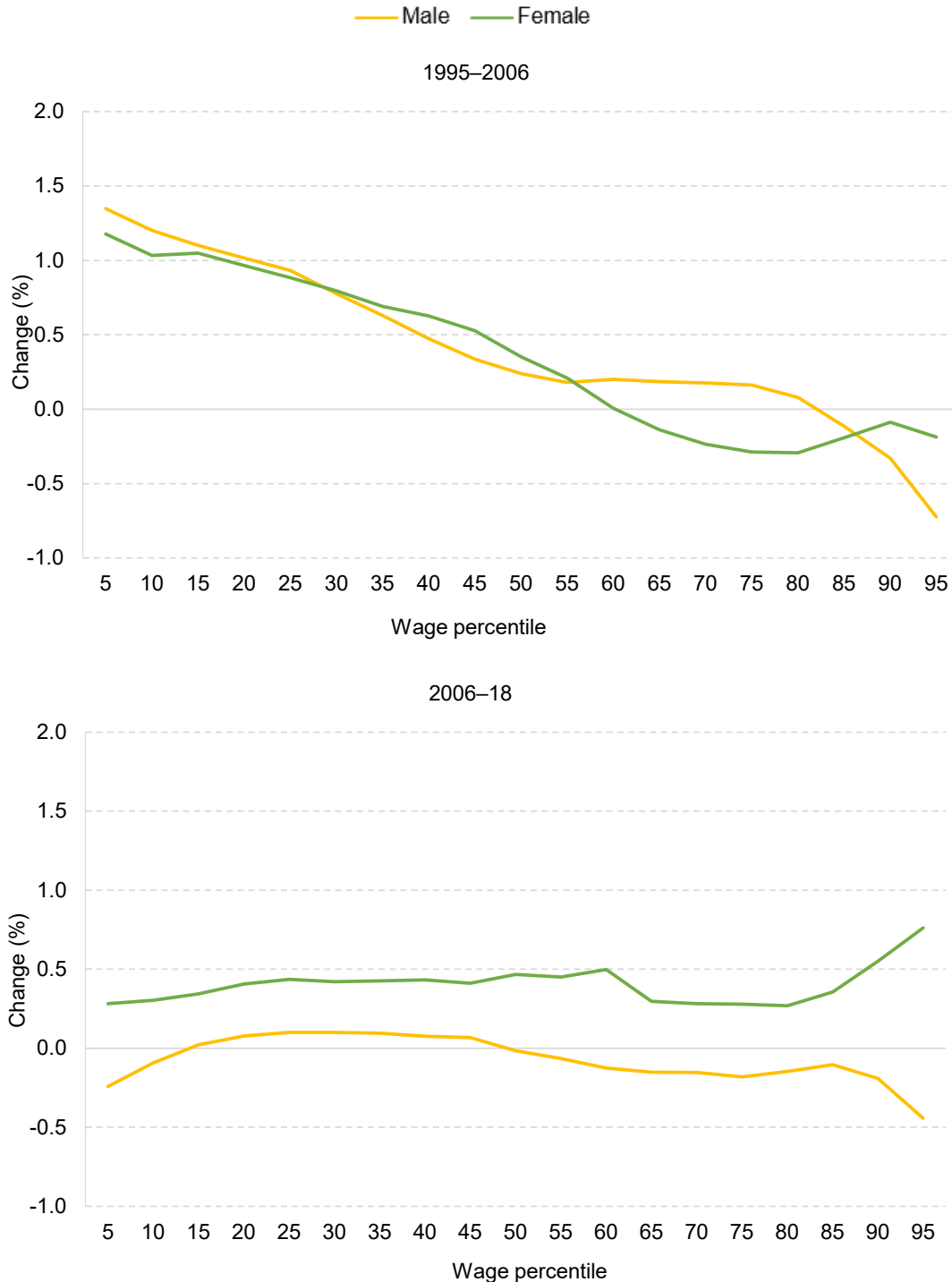ISCED 0–2

ISCED 3–5

ISCED 6–8

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Wages are in 2020 prices.

Overall wage inequality measured by the Gini coefficient fell from 0.29 in 1995 to 0.26 in 2006, and then remained stable or slightly increasing (Figure 11). The same pattern is observed both for males and females, although it is stronger for the former. Two factors explain this evolution. During the expansion, employment increased substantially while, at the same time, Spain

experienced a decrease in the college premium among those working (Pijoan-Mas and Sánchez-Marcos, 2010). During the Great Recession, the required adjustments were made in terms of reducing the number of people working and less so in terms of the wages of those who remained employed (Bonhomme and Hospido, 2017).

Figure 11. Gini coefficient of hourly wages among employees, overall and by sex, over time
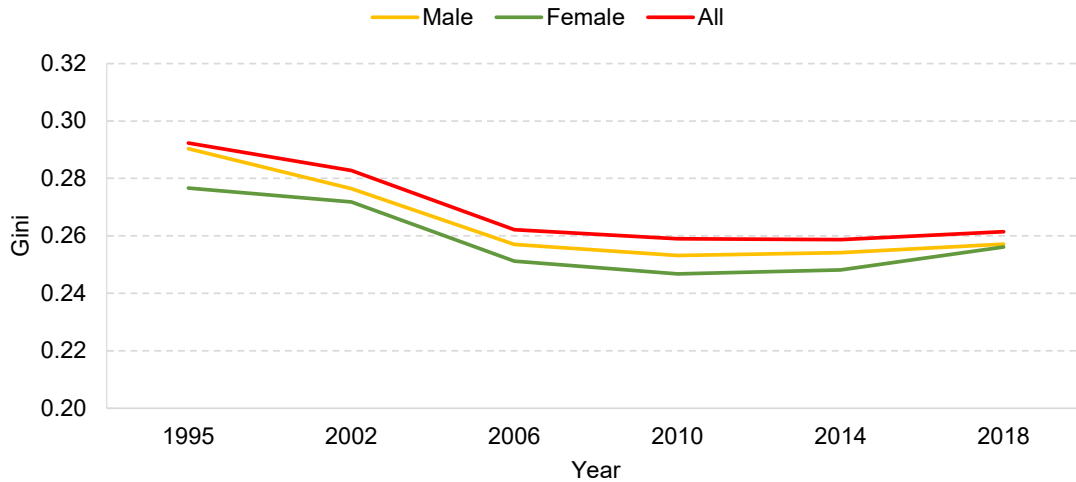
Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. The top and bottom 1% of the gender-specific hourly wage distribution are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60.

We get similar qualitative results when using percentile ratios instead of the Gini index (Figure 12). In 1995, individuals at the 90th percentile earned 3.7 times as much as those at the 10th percentile. This ratio fell to 3.1 in 2010 and rose to 3.2 in 2018. The 50:10 ratio also decreased, but more modestly (from 1.7 in 1995 to 1.5 in 2010 and to 1.6 in 2018).

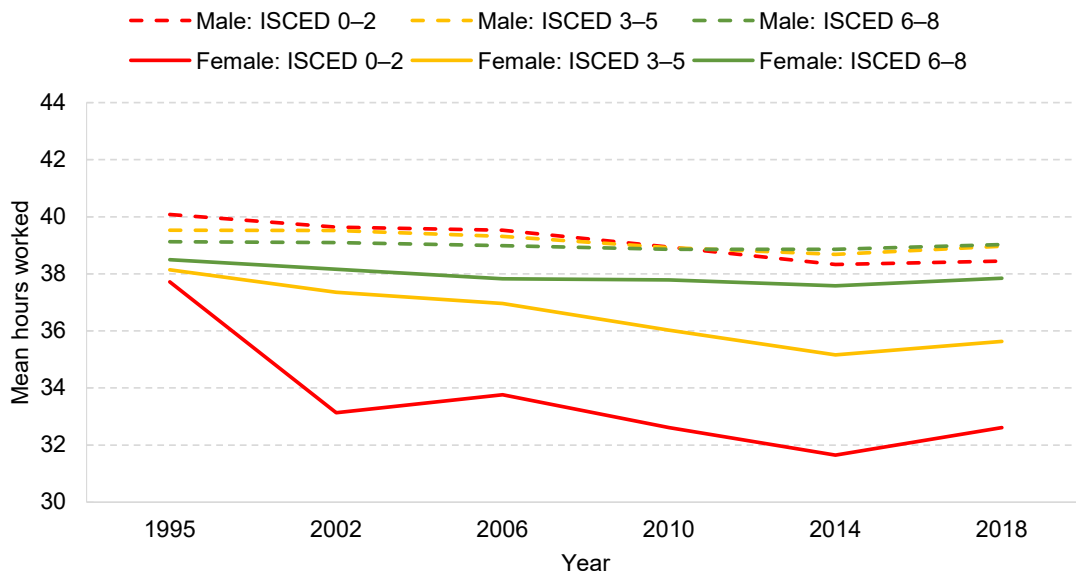**Figure 12. 90:10 and 50:10 ratios of hourly wages among employees, overall and by sex, over time**

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60.

The decrease in inequality between 1995 and 2006 was associated to higher wage increases at the bottom of the distribution (Figure 13). After 2006, only women enjoyed wage increases, especially at the top.

Figure 13. Annualised growth in hourly wages among employees by wage percentile, by sex, selected periods

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

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Note: Sample is employees aged 25–60. Figure 47 in Appendix A2 shows results for those aged 25–74. Wages are in 2020 prices.

4.3   Trends in hours worked (employees only)

In Spain there has been a decline in hours worked per week from 39.4 hours in 1995 to 36.8 in 2014 (Figure 14). Working hours recovered slightly in 2018 (rising to 37.1 hours). The biggest fall has occurred among women.

Figure 14. Mean hours worked among employees, overall and by sex, over time
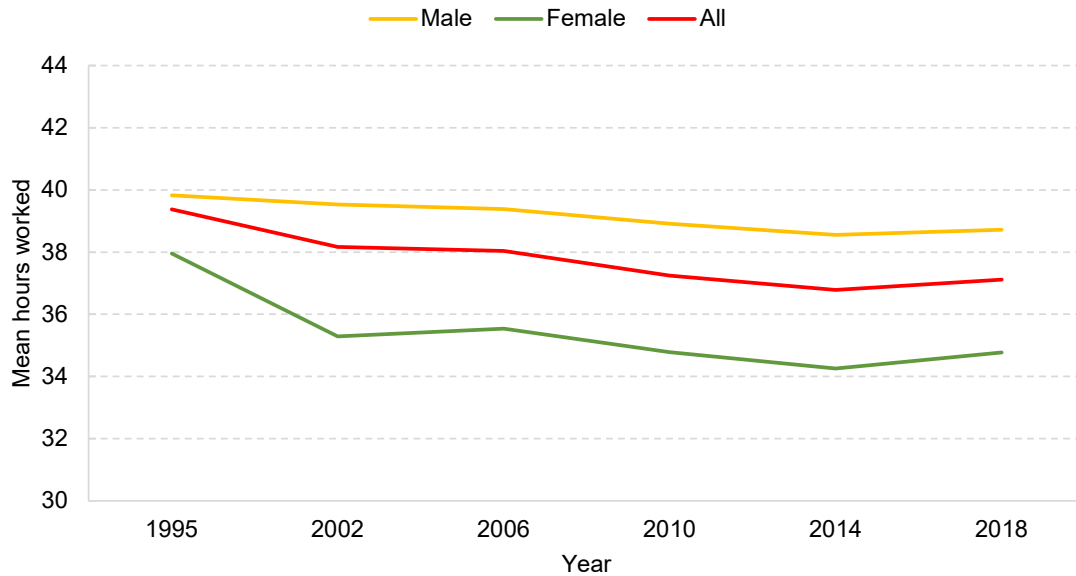
Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Hours include paid (but not unpaid) overtime and have been top-coded to 97 hours per week.

All males, regardless of their education level, work on average a similar number of hours per week (39 hours). Only those males with at most primary education significantly reduced their working hours from 40.1 in 1995 to 38.4 in 2018 (Figure 15). For females, in contrast, differences in working hours are substantial across education groups as well as the reductions over time. On average, females with at most primary education worked 33.6 hours per week, those with secondary education 36.5 hours, and those with tertiary education 37.9 hours. From 1995 to 2018, working time among employed women decreased by 5 hours for primary-educated, by 2.5 hours for secondary-educated, and by 0.6 hours for tertiary-educated women. Importantly, females with low hourly wages saw the biggest reduction in hours worked (Figure 16). These two facts combined reinforce the positive correlation between education and earnings. Additionally, given the increase in employment for females over these years, it seems that new working women entered with shorter working hours.

Figure 15. Mean hours worked among employees, by sex and education, over time

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Hours include paid (but not unpaid) overtime and have been top-coded to 97 hours per week.

Figure 16. Annualised growth in mean hours worked among employees by hourly wage percentile, by sex, selected periods

Male   Female

1995–2006

2006–18

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Figure 48 in Appendix A2 shows results for those aged 25–74. Hours include paid (but not unpaid) overtime and have been top-coded to 97 hours per week.

4.4 Inequality in individual wages among those in work (employees and the self-employed)

In this section, we use the Life Conditions Survey (ECV). Compared to the EES used in the previous sections, the ECV adds data on employees in firms with fewer than 10 workers, earnings of the self-employed, and individuals working only part of the year. Appendix A3 replicates these figures for employees only, using both the EES and the ECV. The take-away message from that comparison is that when using ECV, the level of earnings inequality increases considerably and variations over time get amplified.

As a result of stagnated hourly wages, decreased working hours and less stable working histories, median real annual earnings have also declined over the period (Figure 17). Median annual earnings were €18,200 in 2005, decreased to €15,300 in 2014, and increased again to €17,700 in 2021, failing to recover to levels before the Great Recession. The evolution by gender has been quite parallel. Women's median earnings represented 70% of men's median earnings in 2005, and by 2021 the gap was 76%.

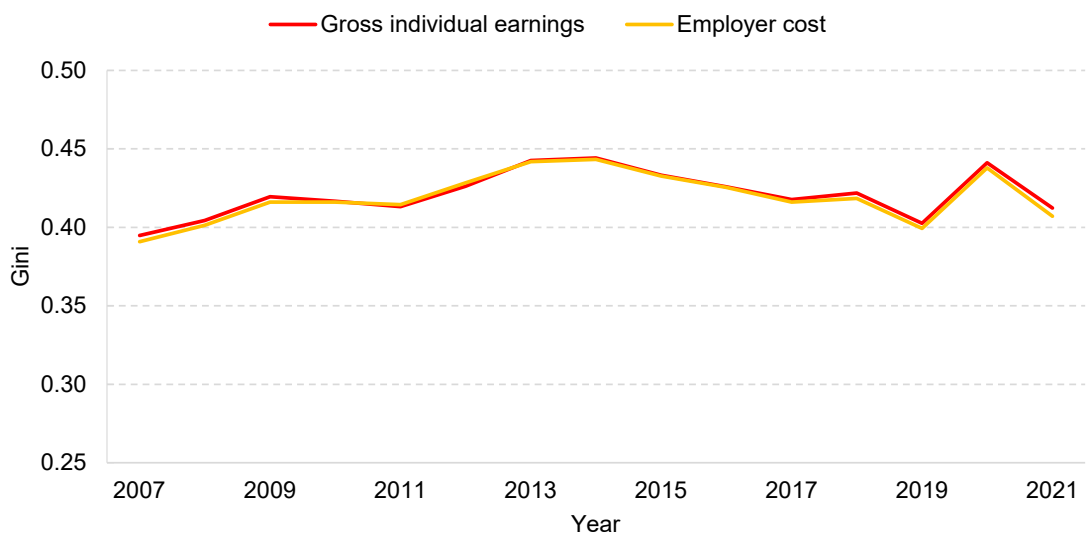**Figure 17. Median real gross individual earnings, overall and by sex, over time**
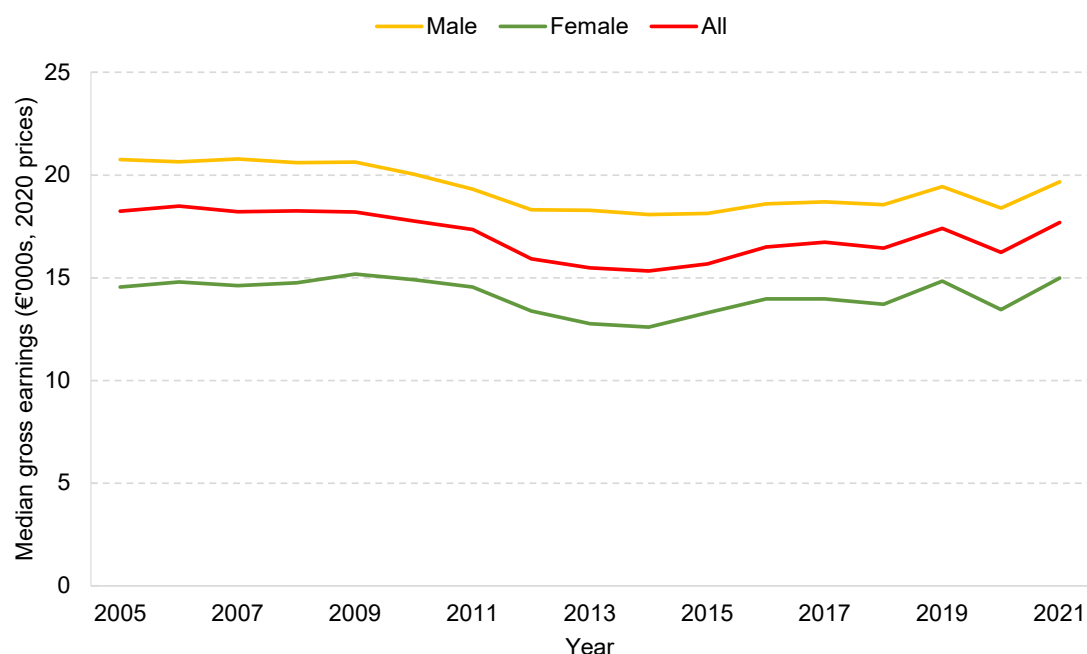
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 51 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 58 in the Structure of Earnings Survey. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

Disaggregating by education, we uncover some noticeable differences (Figure 18). In terms of annual earnings, the college premium increased from 2005 to 2021, for both males and females. In 2005 the highest-educated men (women) earned 1.5 (1.4) times as much as the least-educated men (women), while in 2021 the highest-educated men (women) earned 2.0 (1.9) times as much as the least-educated men (women). Indeed, most of the increase occurred between 2005 and 2014, when the premium reached 2.3 for both men and women.

Figure 18. Median real gross individual earnings, by sex and education, over time
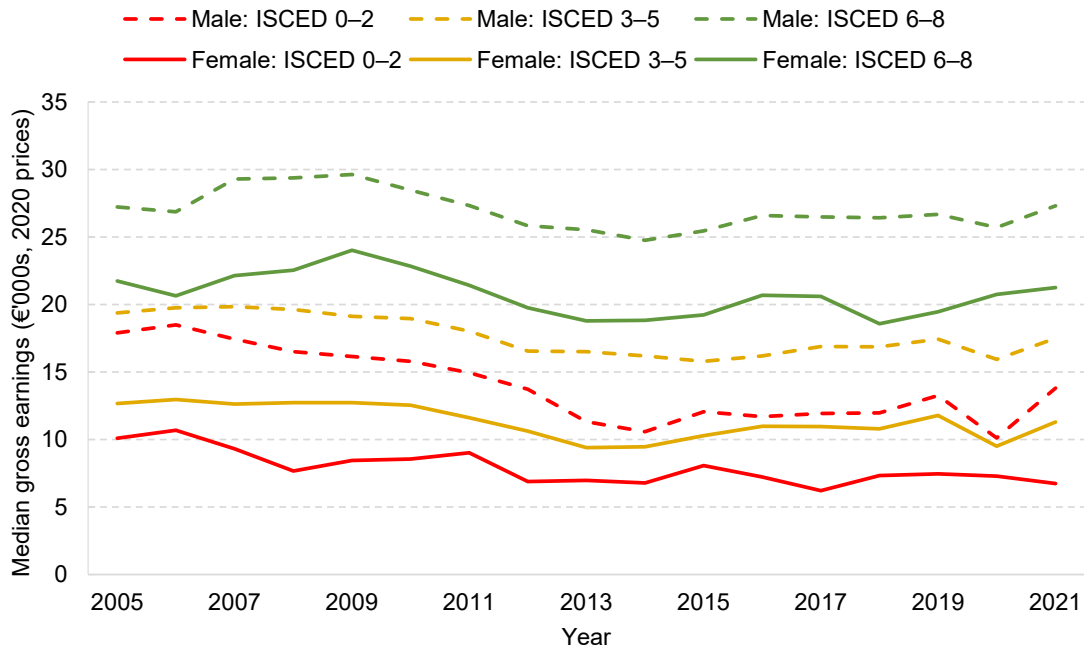
Legend:
- Male: ISCED 0–2 (red dashed)
- Male: ISCED 3–5 (yellow dashed)
- Male: ISCED 6–8 (green dashed)
- Female: ISCED 0–2 (red solid)
- Female: ISCED 3–5 (yellow solid)
- Female: ISCED 6–8 (green solid)

Y-axis: Median gross earnings (€'000s, 2020 prices)
X-axis: Year

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 52 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 59 in the Structure of Earnings Survey. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

The Gini coefficient of annual earnings went from 0.34 in 2005 to 0.41 in 2021 (Figure 19). Two subperiods stand out in the graph: until 2014 inequality increased almost continuously, while we see a reduction after that, except for the COVID episode of 2020 that implied a temporary surge in this measure. Importantly, contrary to what happens with hourly wages, inequality in annual earnings is higher for females than males. This comes from the previous observation that men have very similar working hours, whereas women have huge disparities in working hours depending on the level of education and hourly wages. The evolution of the Gini coefficient for gross individual earnings is indistinguishable from that of the total employer cost (Figure 20).

Figure 19. Gini coefficient of gross individual earnings, overall and by sex, over time
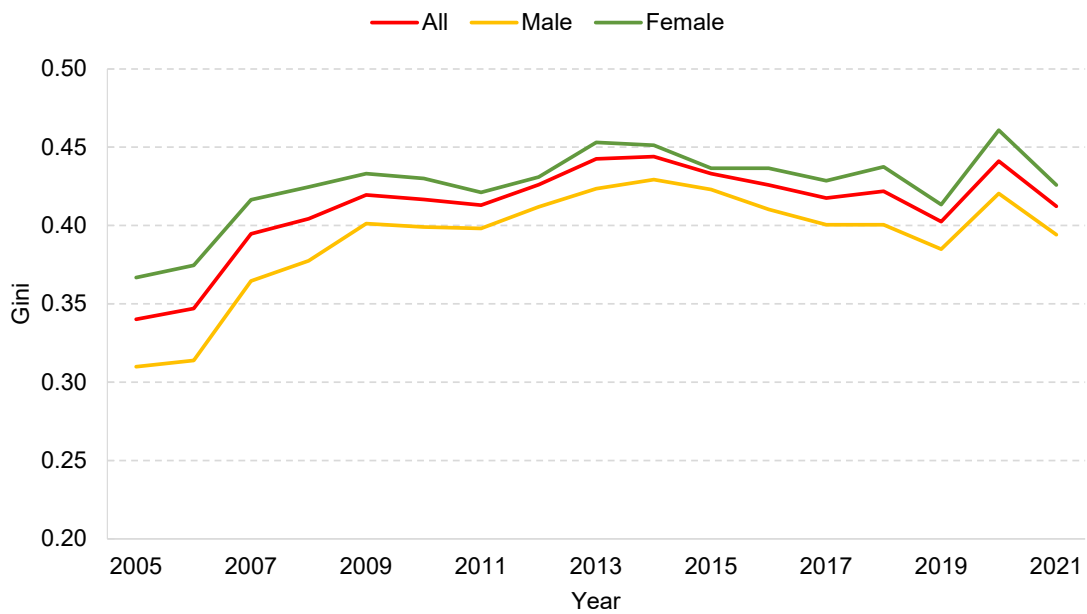
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 49 in Appendix A2 shows results for employees and the self-employed aged 25–74. Figure 53 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 60 in the Structure of Earnings Survey. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.
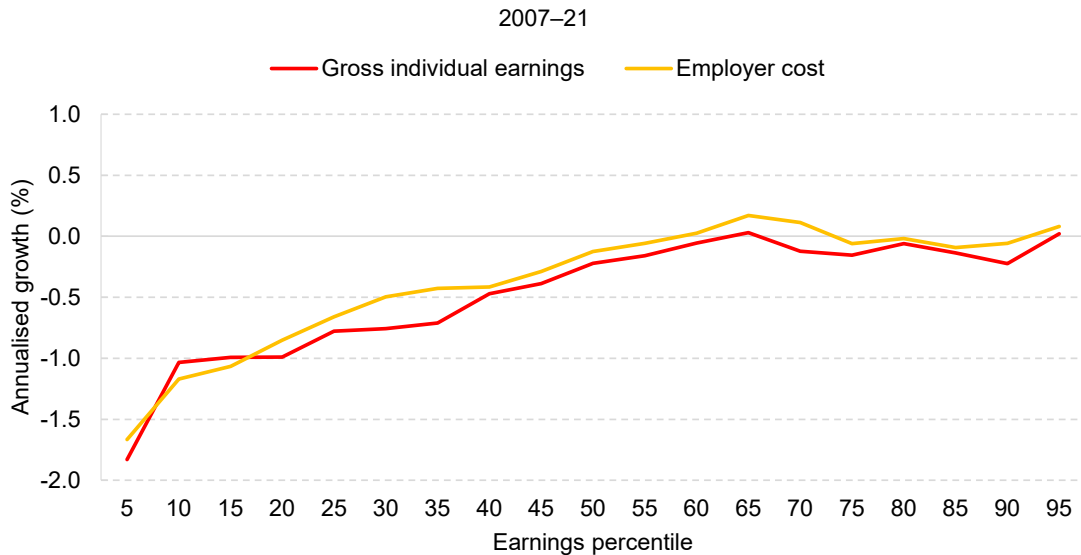
Figure 20. Gini coefficient of gross individual earnings and total employer cost, over time
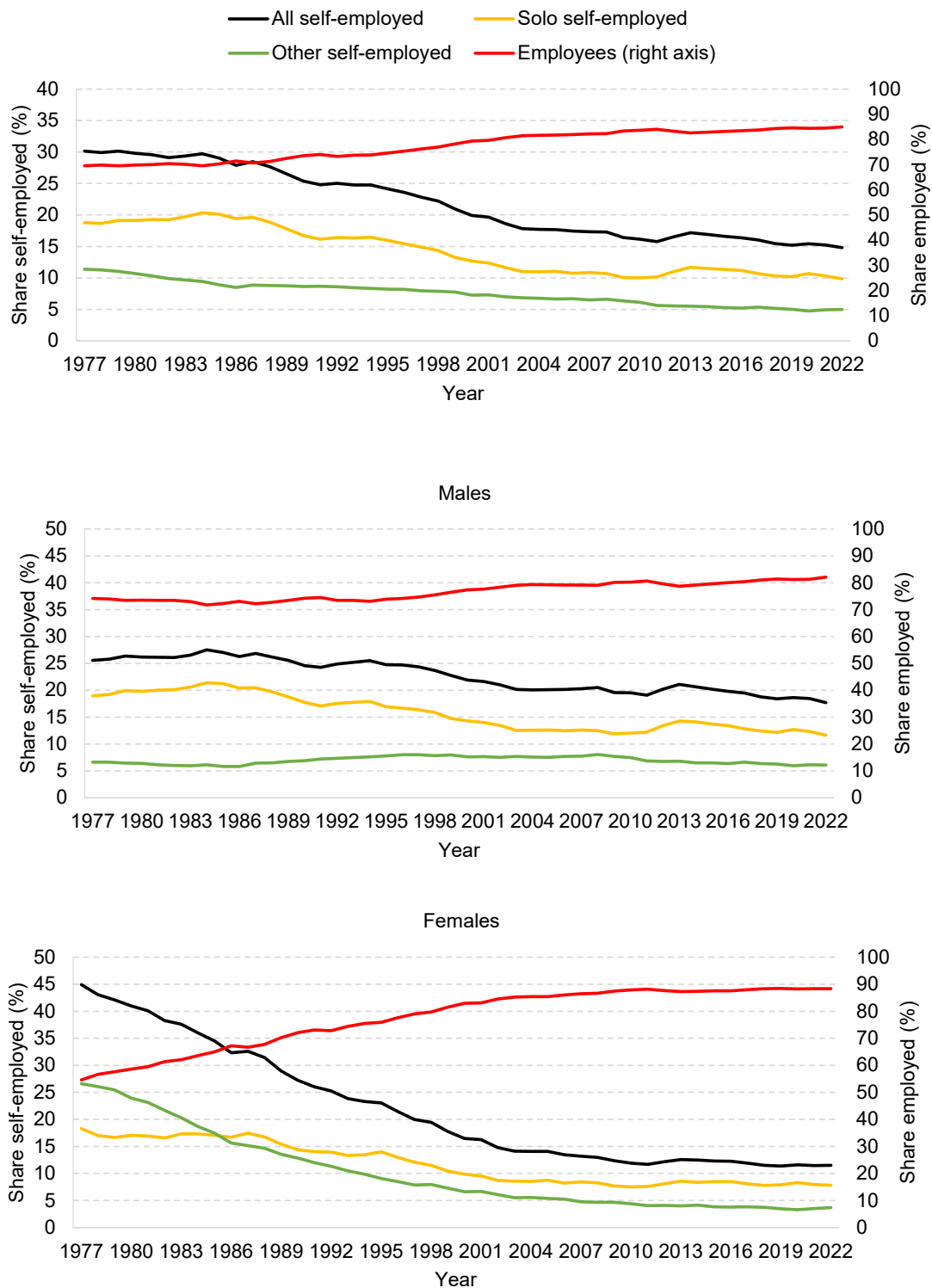
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 54 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 61 in the Structure of Earnings Survey. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

The evolution of inequality in terms of percentile ratios documents similar patterns to the Gini (Figure 21). Between 2005 and 2014, the 90:10 ratio almost tripled (from 6 to 17), while the 50:10 ratio more than doubled (from 2.8 to 6.7).[8] After 2014 we observe a decrease except during the COVID-19 pandemic. For the period 2005–13, annualised growth in gross earnings was negative at the bottom and practically zero at the top, while between 2014 and 2021, the biggest increases happened at the bottom of the distribution (Figure 22). Again changes in gross earnings and total employer costs hardly differ (Figure 23).

Figure 21. 90:10 and 50:10 ratios of gross individual earnings, overall and by sex, over time

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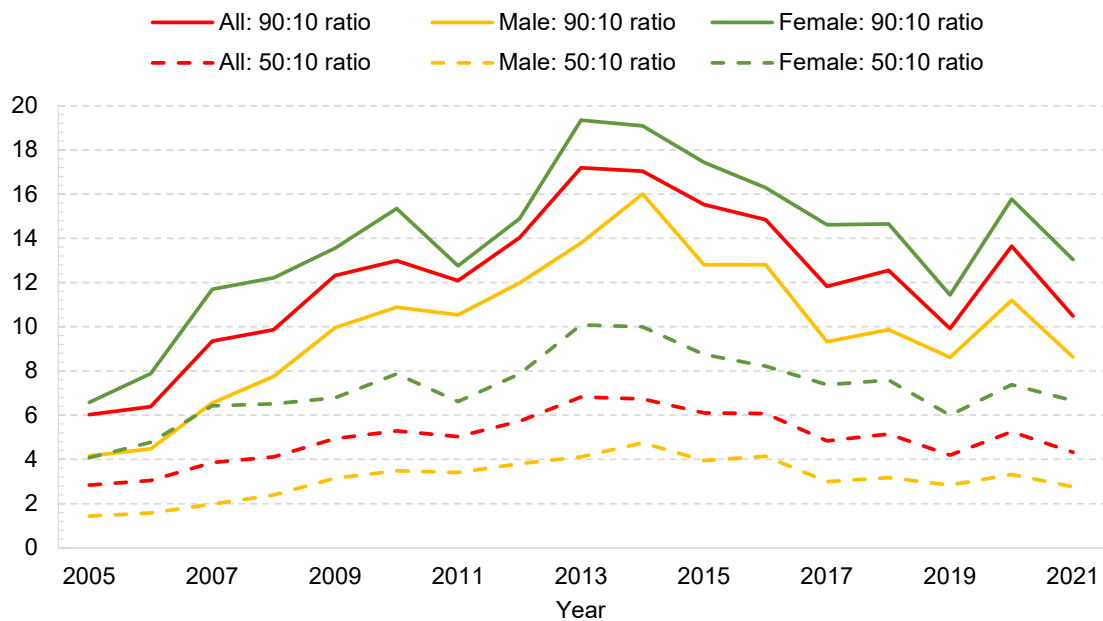
[8] Using the numbers obtained from the EES yields a Gini and values for the percentile ratios substantially below those obtained with the ECV. These differences in levels emphasise the importance of accounting for unstable working histories when explaining the evolution of wage and earnings inequality in Spain. The cyclicality and temporality of the Spanish labour market, accounted for in the ECV but not considered in the EES, shift inequality upwards. In any case, even if the database we choose alters the level of inequality, the overall evolution does not differ much. Also, results obtained using administrative records from the Social Security Administration data display a similar evolution (Arellano et al., 2022).

Note: Sample is employees and self-employed aged 25–60. Figure 55 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 62 in the Structure of Earnings Survey. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

Figure 22. Annualised growth in gross earnings by earnings percentile, overall and sex, selected periods
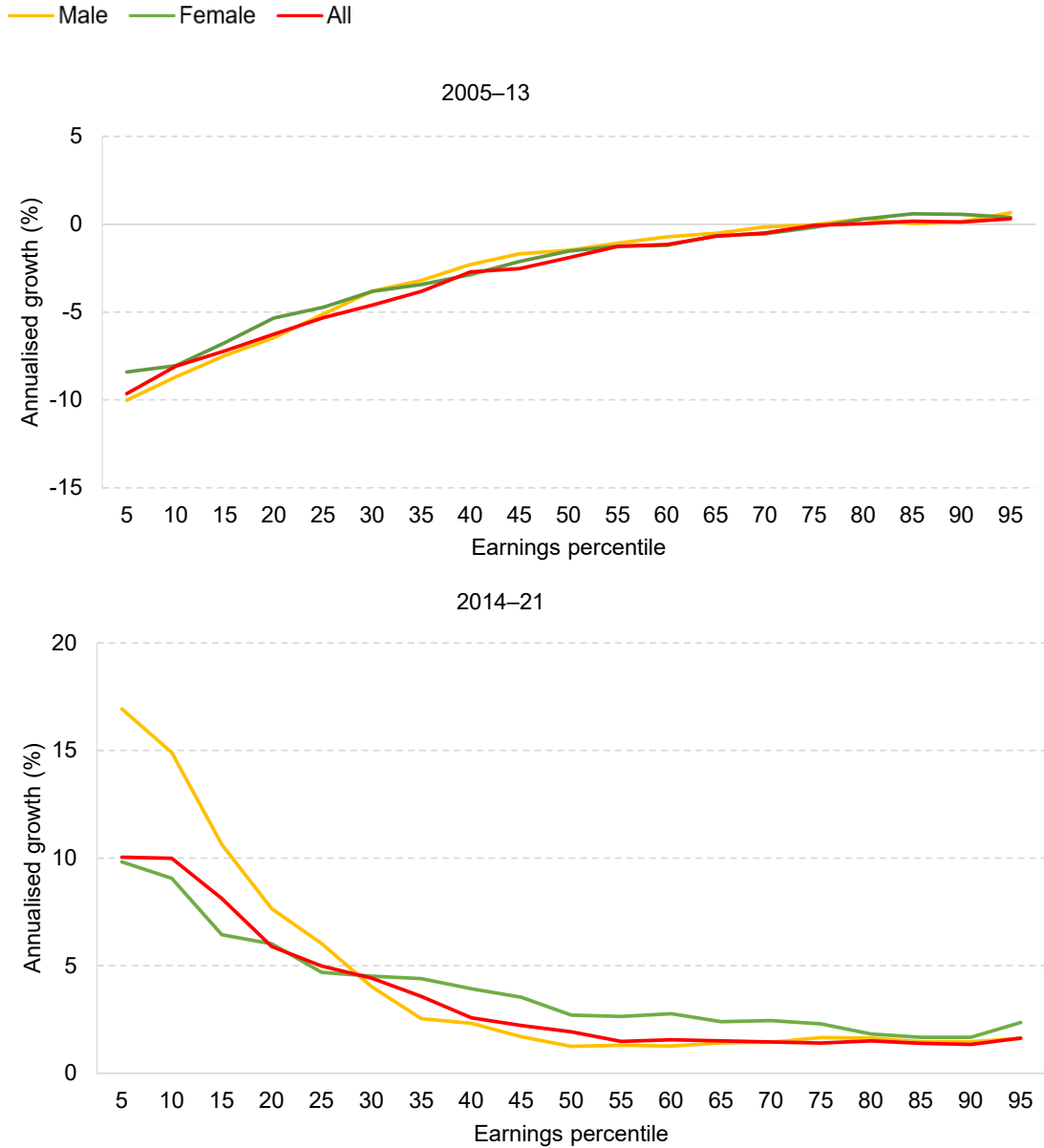
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 50 in Appendix A2 shows results for employees and the self-employed aged 25–74. Figure 56 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 63 in the Structure of Earnings Survey. Individuals with zero or less earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

Figure 23. Annualised growth in gross earnings and employer cost by earnings percentile

2007–21

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees and self-employed aged 25–60. Figure 57 in Appendix A3 shows results for employees only in the Spanish Life Conditions Survey and Figure 64 in the Structure of Earnings Survey. Individuals with zero or less earnings are excluded. Earnings refer to 1 year before the reference year of the sample. A self-employed individual is an individual who has more income from self-employment than from salaries each year.

4.5 Self-employment

The share of self-employed has decreased from 30% to 15% in four decades (Figure 24), due to very significant falls among females, in particular those with low levels of education (Figure 25). In general, the share of self-employed individuals seems pretty stable along the income distribution except for some peaks at the upper end. During the last decade, rates of self-employment have been higher among those with low earnings (Figure 26).

Figure 24. Share of employees and self-employed workers, over time

Source: Spanish labour force survey (INE) 1977–2022.

Note: Individuals aged 25–60 years of age. 'Solo self-employed' are self-employed without employees, 'other self-employed' includes self-employed with employees and family workers. Workers are defined as self-employed if they declare self-employment as their main labour market status.

Figure 25. Share of self-employed by sex and education, over time
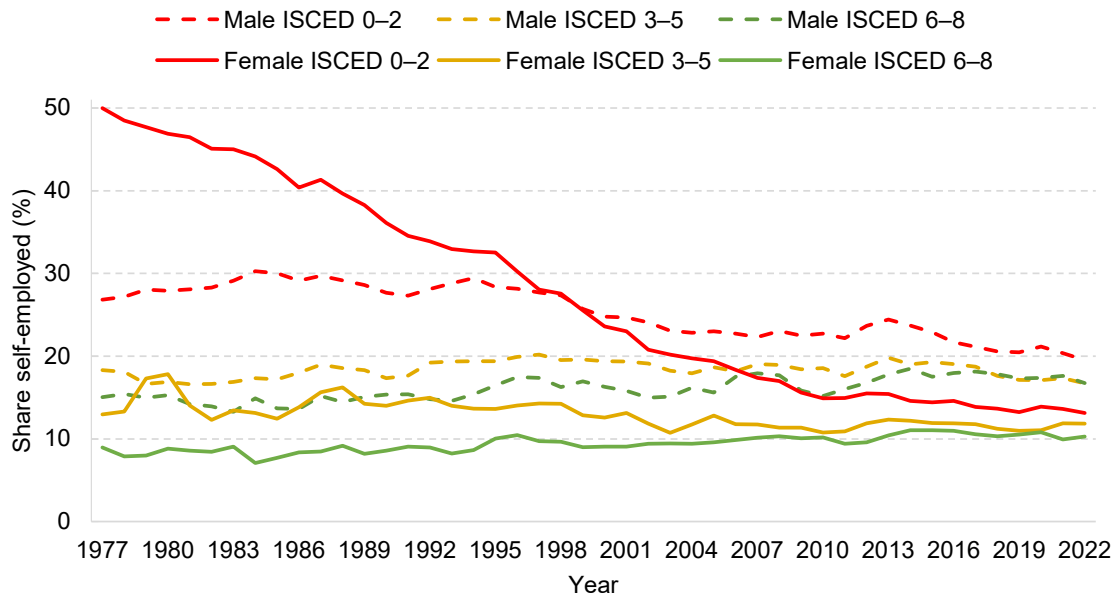
Source: Spanish labour force survey (INE) 1977–2022.

Note: Individuals aged 25–60 years of age.

Figure 26. Share self-employed by percentile of individual earnings, selected years
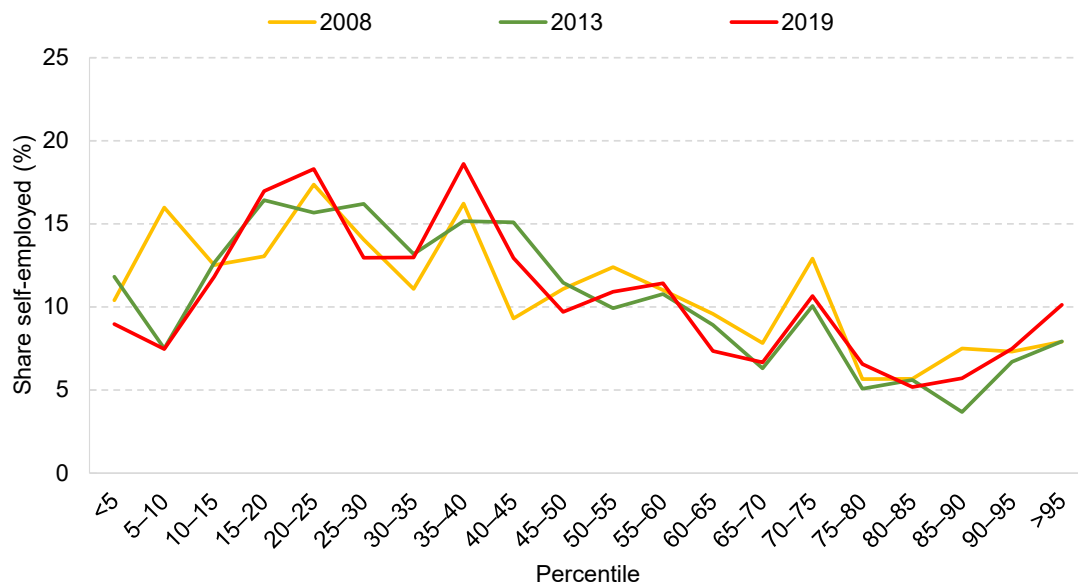
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60 years of age. Workers are defined as self-employed if they declare self-employment as their main labour market status. Earnings refer to 1 year before the reference year of the sample. Five-year smoothing has been applied: 2007 corresponds to 2005–09 and so on.

5. Labour market institutions

5.1   Minimum wage and unions

One important institution for wage setting is the minimum wage (Figure 27). It was abruptly increased from €735 per month in 2018 to €1,050 in 2022, after years of stagnation in real terms. Approximately 10% of the Spanish workforce has benefited from this increase, although there have been job losses for the groups directly impacted (Barceló et al., 2021).[9] The implications of changes in the minimum wage for earnings inequality are somewhat unclear: on the one hand, the wage distribution is compressed by the wage increase at the bottom; on the other, the composition of those still employed changes due to the already mentioned employment losses at the bottom.

Figure 27. Bite of the minimum wage, over time
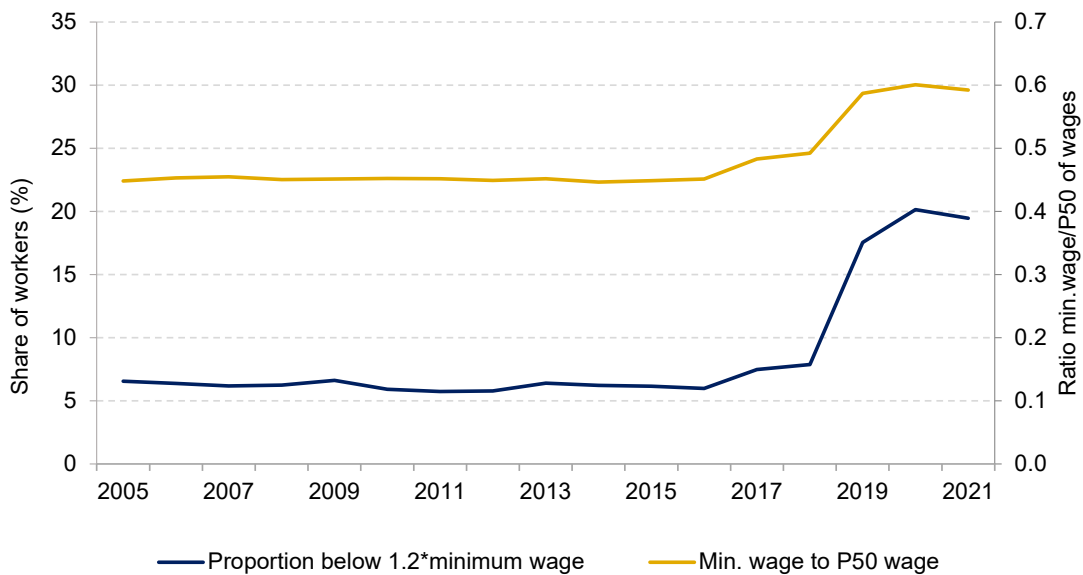
Source: MCVL (Social Security Administration), 2005–21.

Note: Individuals aged 25–60. Self-employed are excluded. The minimum wage is the minimum contribution base of each year. Numbers are weighted by the total number of working days in a year.

In Spain, around 80% of workers are covered by collective agreements (Figure 28). This high coverage rate explains the low percentage of trade union membership, at just over 10% (OECD, 2021).

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[9] Barceló et al. (2021) estimate that for each percentage point increase in the minimum wage there is a loss of between 0.3 and 0.5 percentage points in employment for the group of workers directly affected by the increase.

Figure 28. Union density and fraction of workers covered by collective bargaining agreements, over time
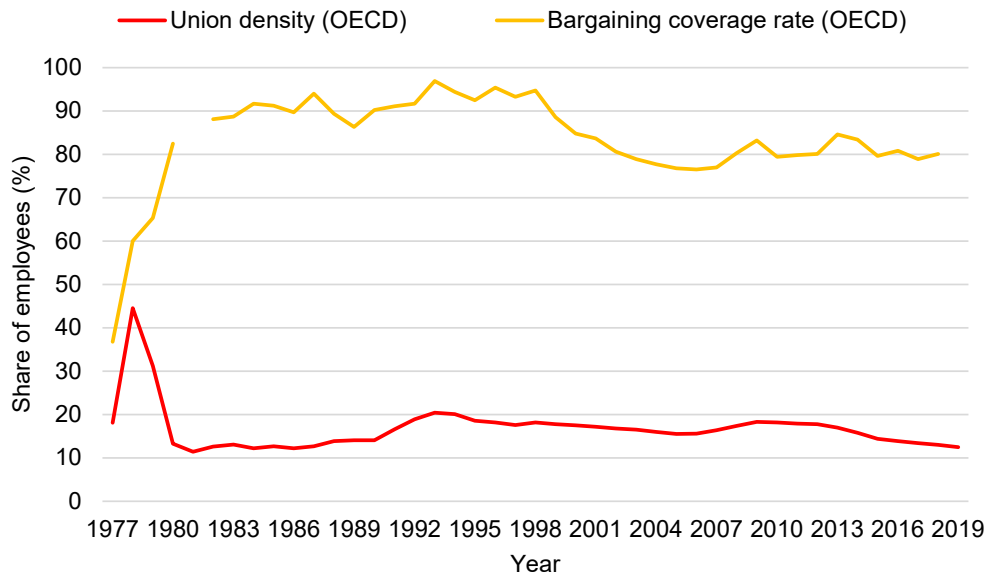
Source: OECD/AIAS ICTWSS database.

Note: The sample for the OECD series is all employees.

5.2   Social insurance

Figure 29 represents how much of the gross income comes from welfare state benefits. In 2014, the bottom quartile of the income distribution received 72% of income via benefits,[10] whereas the top quartile received 19%. Over the whole period, only the poorest quartile has seen an increase in their dependence on public benefits, probably resulting from a reduction in the denominator. The rest have recovered their pre-2008 crisis levels.

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[10] Of all the countries in the Deaton Review, only Italy's and Greece's bottom quartiles reach such a high dependency from the state.

Figure 29. Benefits as a proportion of the sum of gross income and employee social security contributions, across the quartiles of the disposable income distribution, over time
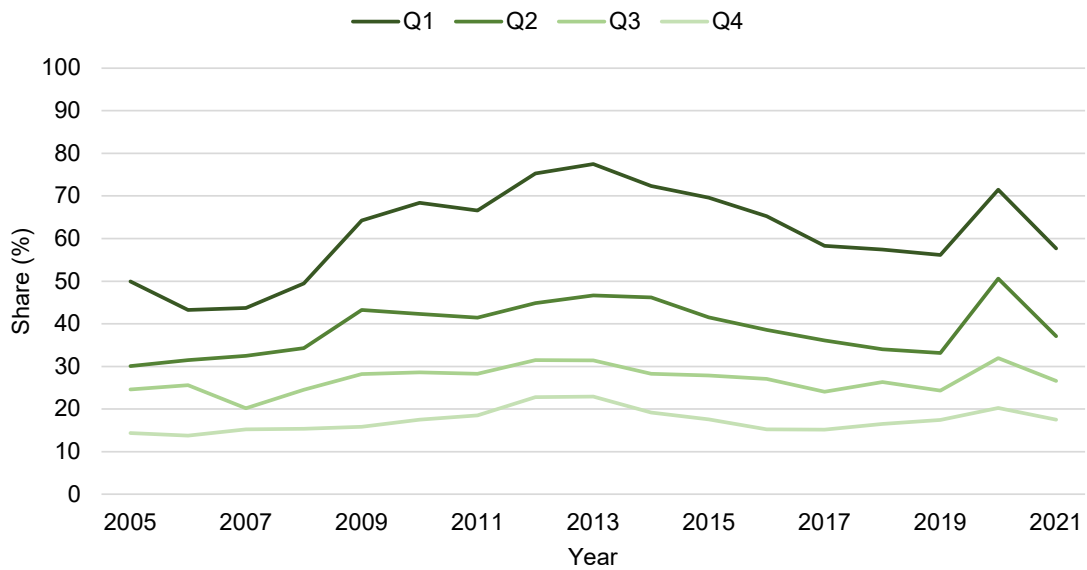
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. Individuals with zero or negative earnings are excluded. Benefits include unemployment, old-age, survivor, sickness and disability benefits, education, family, children and housing allowances, and other social exclusion benefits not elsewhere classified. For more details and a comparison with the Spanish Survey of Household Finances, see Table 1 in Appendix A1.

Figure 30 shows that, during this period, tax progressivity increased. If in 2005 all quartiles of household income paid between 25% and 33% in direct taxes,[11] from 2007 onwards the gap increased. In 2021 the richest quartile paid 45% and the poorest 21%. This upward trend in progressivity can be also observed in countries such as Austria, Finland, Germany, Ireland and the Netherlands.

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[11] The direct taxes considered here are personal income tax (IRPF) and property tax.

Figure 30. Direct taxes, including employee SSCs, as a proportion of the sum of gross income and employee social security contributions, across the quartiles of the disposable income distribution, over time
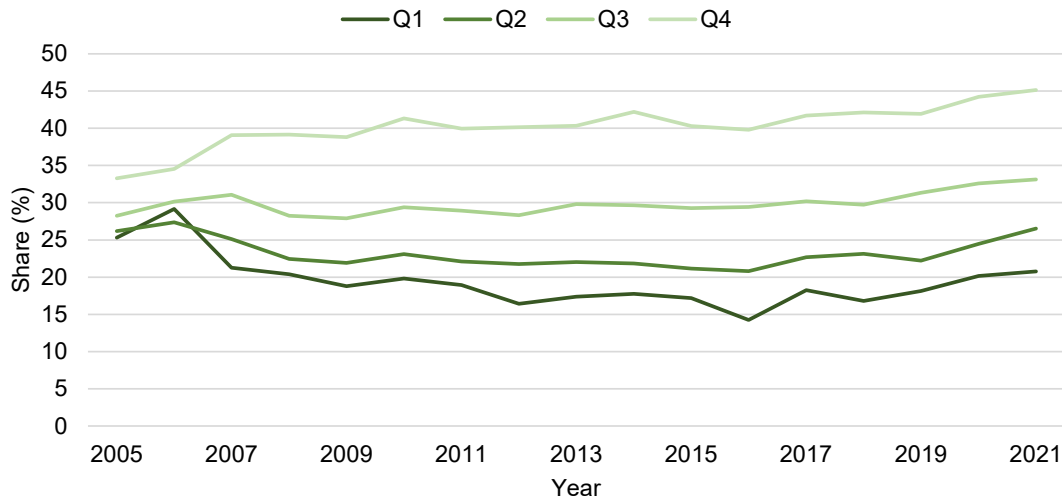
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. Individuals with zero or negative earnings are excluded. Direct taxes are income and wealth taxes. In the Spanish case it is not possible to separate employees' social security contributions from labour income.

Once both benefits and taxes are considered (Figure 31), household disposable income is around 85% of gross income. In 2021, by quartiles, we see that those in the poorest quartile have a disposable income that represents 90% of gross income. Over time, there has been some increase in the gap between quartiles because of the above-mentioned rise in tax progressivity, especially since 2019. This has affected mainly the richest quartile, which has gone from 82.3% in 2005 to 75.9% in 2021. Adding employer social security contributions to the denominator pushes the shares down and reduces the inequality across quartiles (Figure 32). These figures are high, compared with other Deaton Review countries.

Figure 31. Disposable income as a proportion of the sum of gross income and employee social security contributions, across the quartiles of the disposable income distribution, over time
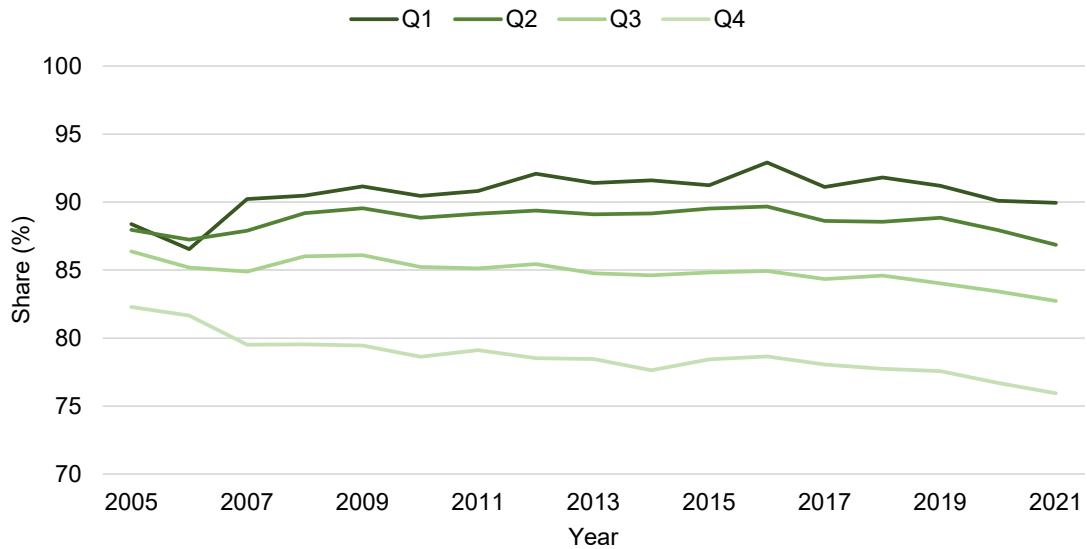
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. Individuals with zero or negative are excluded. In the Spanish case it is not possible to separate employees' social security contributions from labour income.

Figure 32. Disposable income as a proportion of the sum of gross income, employee social security contributions and employer social security contributions
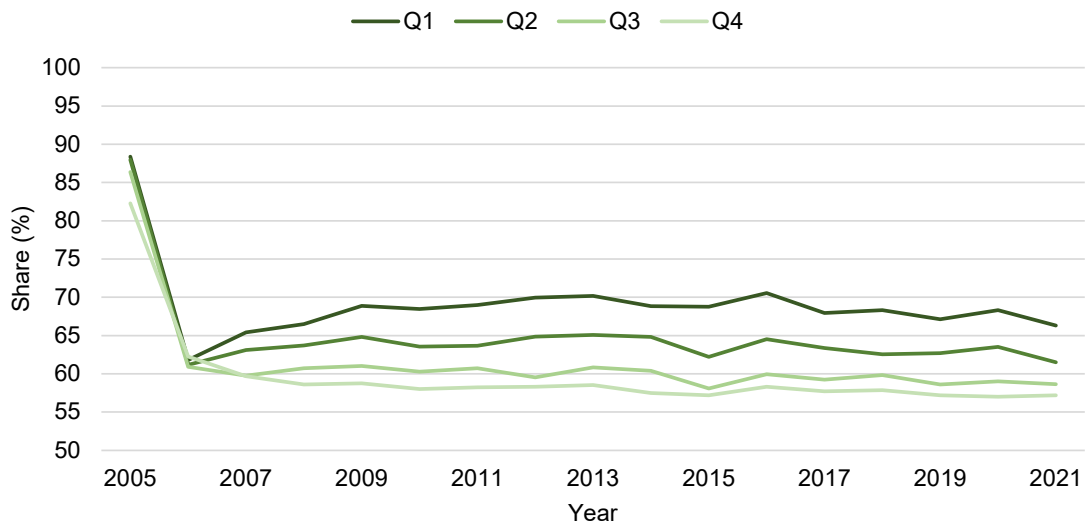
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. Individuals with zero or negative earnings are excluded. In the Spanish case it is not possible to separate employees' social security contributions from labour income.

6. Household incomes

6.1   Trends in household composition

The first salient fact about the composition of Spanish households is the reduction in marriages, partly compensated by an increase in cohabitation. If we take cohabitation and marriages together, the share of individuals married/cohabiting has decreased from 83% of the population in 1977 to 66% in 2021 (Figure 33). The number of couples living together has decayed more significantly for the least educated group,[12] implying a rise in assortative matching in Spain over the past four decades.

The second fact is that, as women's labour force participation has increased, the likelihood of having dual earner couples versus single earner is also now higher (Figure 34). However, for couples where both partners work, the positive correlation between partners' earnings has remain pretty similar across years, as shown in Figure 35.

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[12] In 1999, there is a change in the definition (when the data start measuring cohabitation of unmarried couples). But no significant discontinuity is created as the share of people cohabiting but not married in 1999 is very low. As shown in Figure 65 in Appendix 4, cohabitation (without marriage) rises after 1999 and formal marriage rates fall.

Figure 33. Share married/cohabiting, overall and by education, over time
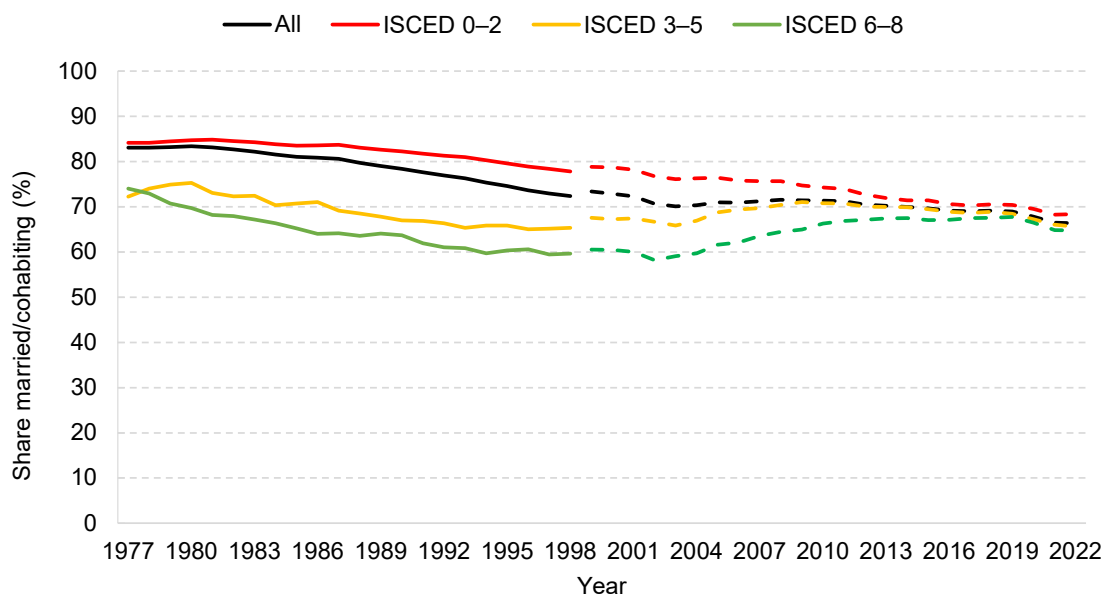
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60 who have completed full-time education. Data before 1999 do not include cohabiting couples (solid lines). From 1999 onwards, they include cohabiting couples (dashed lines). Figure 65 in Appendix A4 shows results separating marriage and cohabitation.

Figure 34. Share married/cohabiting and share with working partner, by sex and individual gross earnings percentile, selected years

Figure 35. Mean gross earnings percentile of partner/spouse by individual's gross earnings percentile, selected years
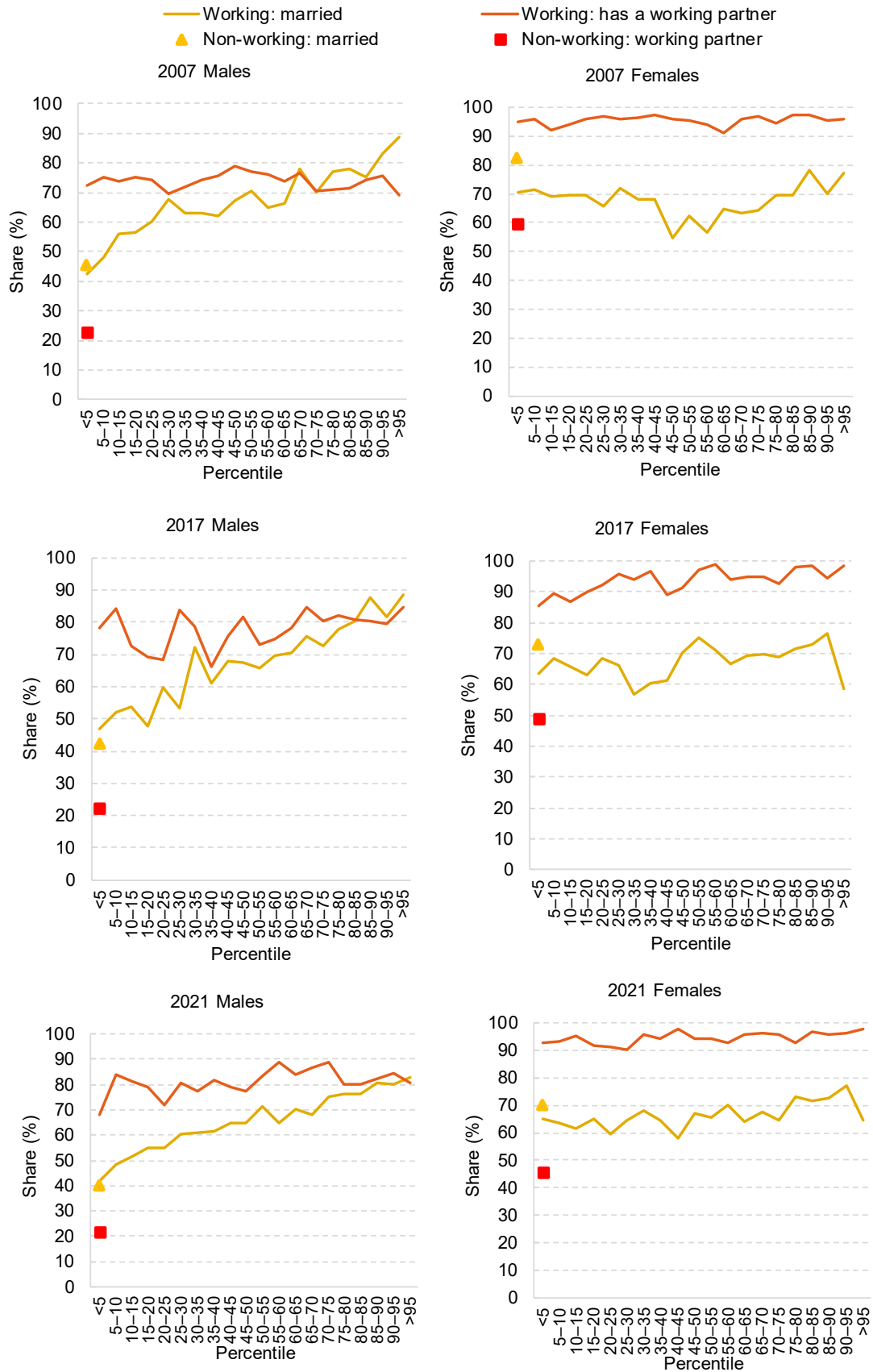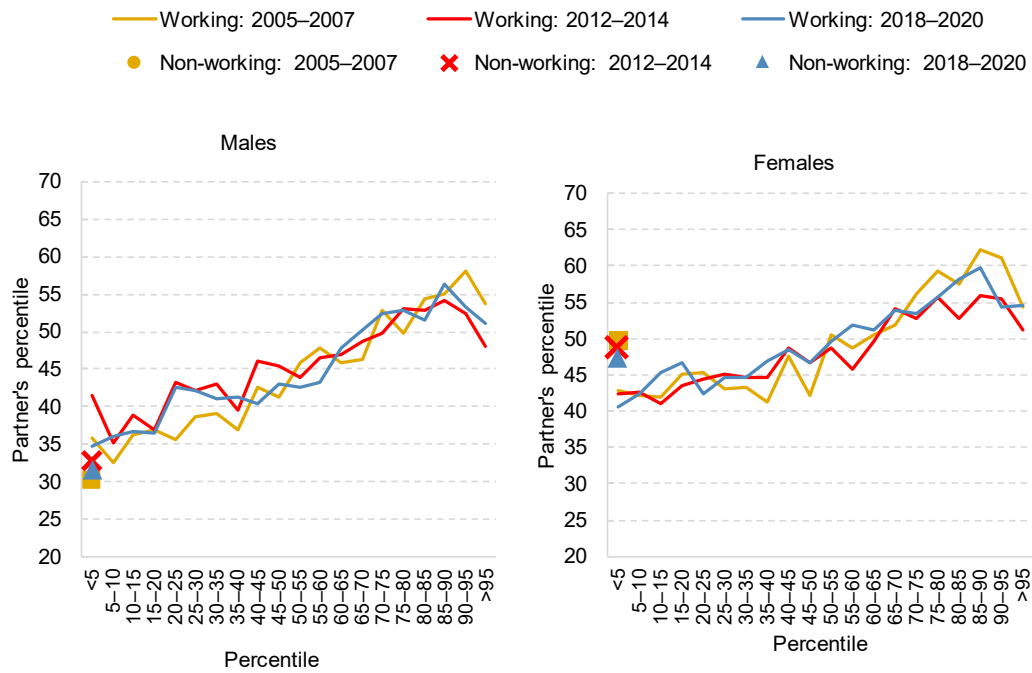
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. Married/cohabitating also includes civil partnerships. Earnings refer to 1 year before the reference year of the sample. Mean earnings of partners are plotted as five-point moving averages across the earnings distribution.

Figure 36 shows three main changes in the 'typology' of Spanish households: first, a significant decrease in the share of couples with children (from 42% in 1988 to 30% in 2022); second, a substantial increase in the share of single households without children (from 3.5% in 2000 to 14% in 2022); and, third, a sizeable number of households (over 20%) composed of parents and adult children. For this latter group, there exists a noticeable gradient by education of the parents with important consequences for inequality: when parents have lower education this category represents a third of the total number of households, while when parents have tertiary education it represents 16%. Lower-educated females and males are more likely to be classified as 'other', meaning that they often live with adult children (Figure 37).

Figure 36. Share of individuals by position in the household, over time
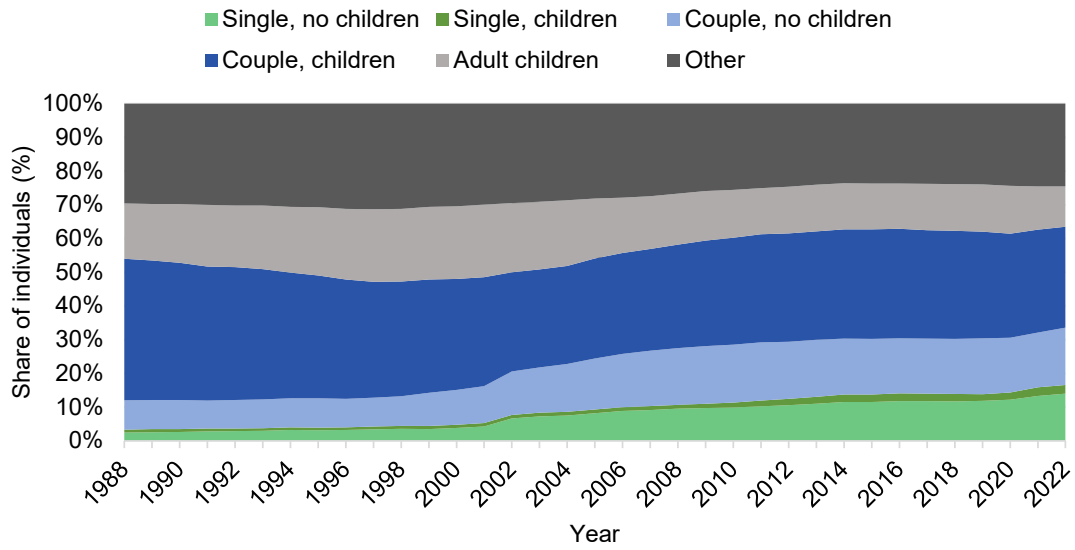
Source: Spanish labour force survey (INE) 1988–2022.

Note: Sample is individuals aged 25–60. Data on cohabiting only available since 1999.

Figure 37. Share of individuals by position in the household, by sex and education, over time
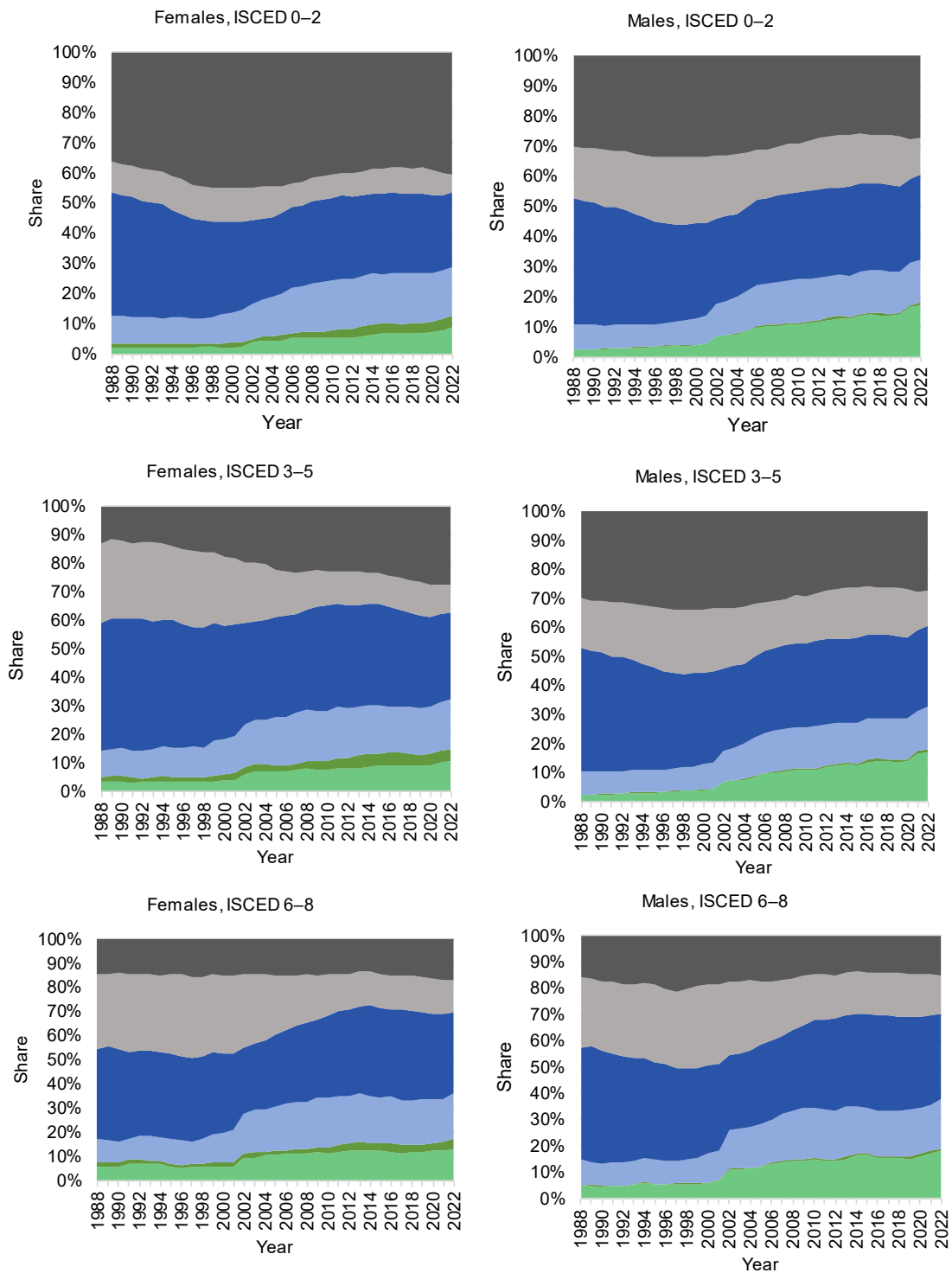
Females, ISCED 0–2

Males, ISCED 0–2

Females, ISCED 3–5

Males, ISCED 3–5

Females, ISCED 6–8

Males, ISCED 6–8

Source: Spanish labour force survey (INE) 1988-2022.

Note: Sample is individuals aged 25–60. Data on cohabiting only available since 1999.

6.2 Earnings and incomes among working households

Since the 2008 crisis, the probability of living in a household in which at least one adult works has decreased substantially among those with low levels of education (Figure 38).

Figure 38. Share of individuals in a working household, overall and by education, over time
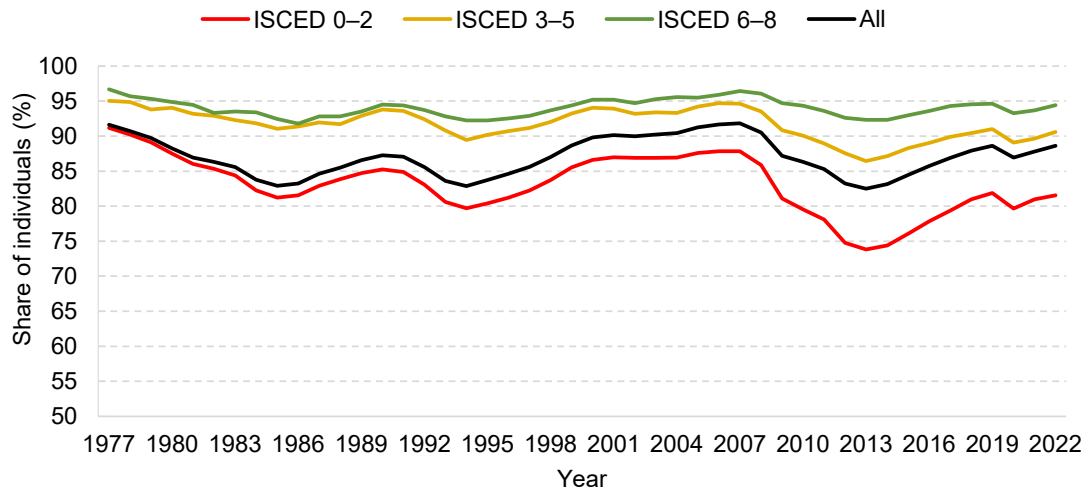
Source: Spanish labour force survey (INE) 1977–2022.

Note: Sample is individuals aged 25–60. A working household is defined as a household in which at least one adult is in work. Since 2013, the non-working households have been increasingly far away from the rest.

Spanish households have seen the median of their real gross and net incomes almost unchanged over the last two decades (Figure 39). Median gross income was €17,900 in 2005. At the worst point of the Great Recession, in 2013, the median gross household income stood at €17,413. In 2021, it reached €20,537. The evolution of disposable income is similar. Working households have twice as much disposable income as non-working households. This outlines the importance of having a job in Spain.

Over the distribution, we observe that between 2005 and 2008, increases at the bottom were lower for gross household income than for disposable household income, while in contrast, at the top, increases were higher for gross household income than for disposable household income (Figure 40). During the period 2008–21, changes in both measures of income were almost null in all percentiles.

Figure 39. Median real gross household earnings and disposable household income among working households, over time
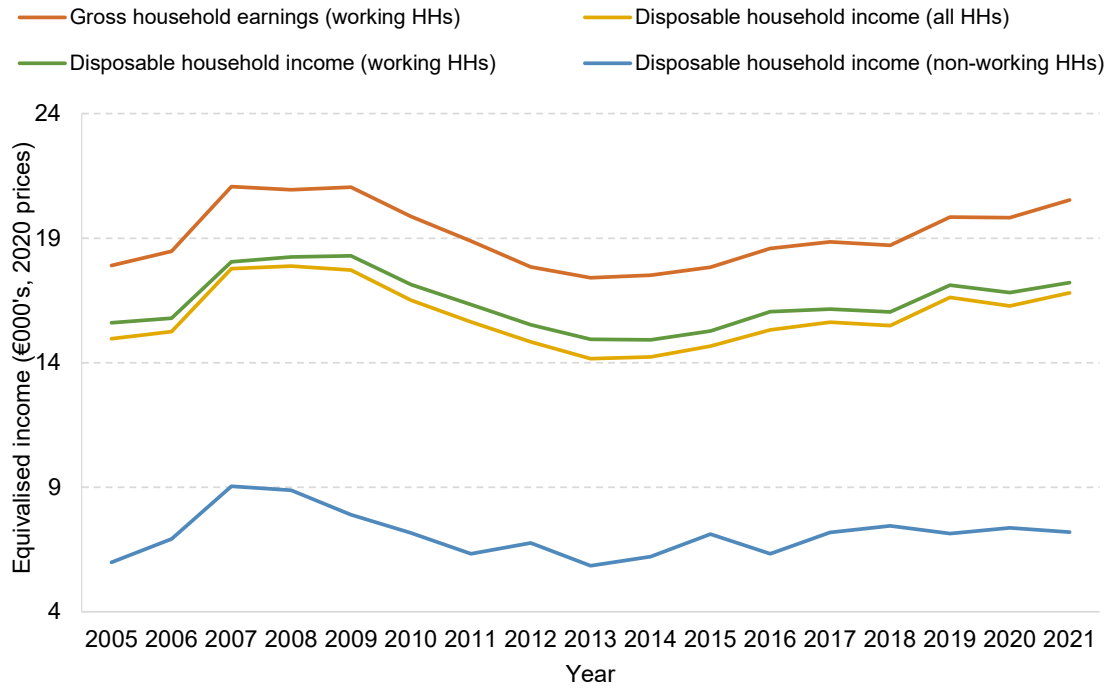
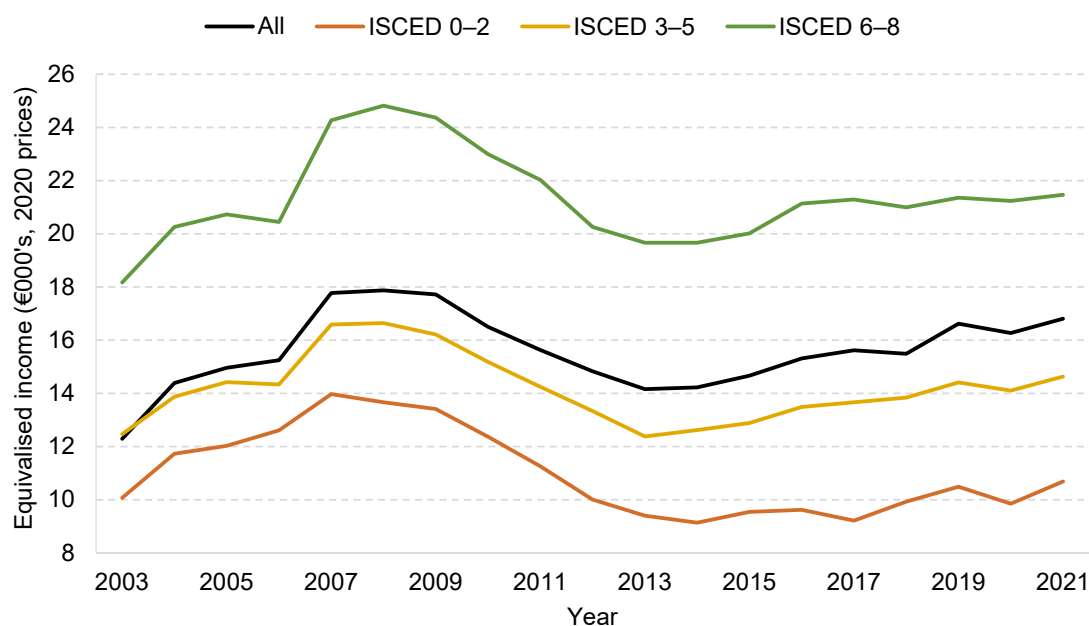*Source*: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60. A non-working household is defined as households in which none of their working age members worked. All incomes have been equivalised using the modified OECD equivalence scale and refer to 1 year before the reference year of the sample. Figure 66 in Appendix A4 shows results using the Spanish Survey of Household Finances.

Figure 40. Annualised growth in real gross household earnings and household disposable income for working households, by percentile, selected periods

Disposable household income ——— Gross household earnings

2005–08

2008–21
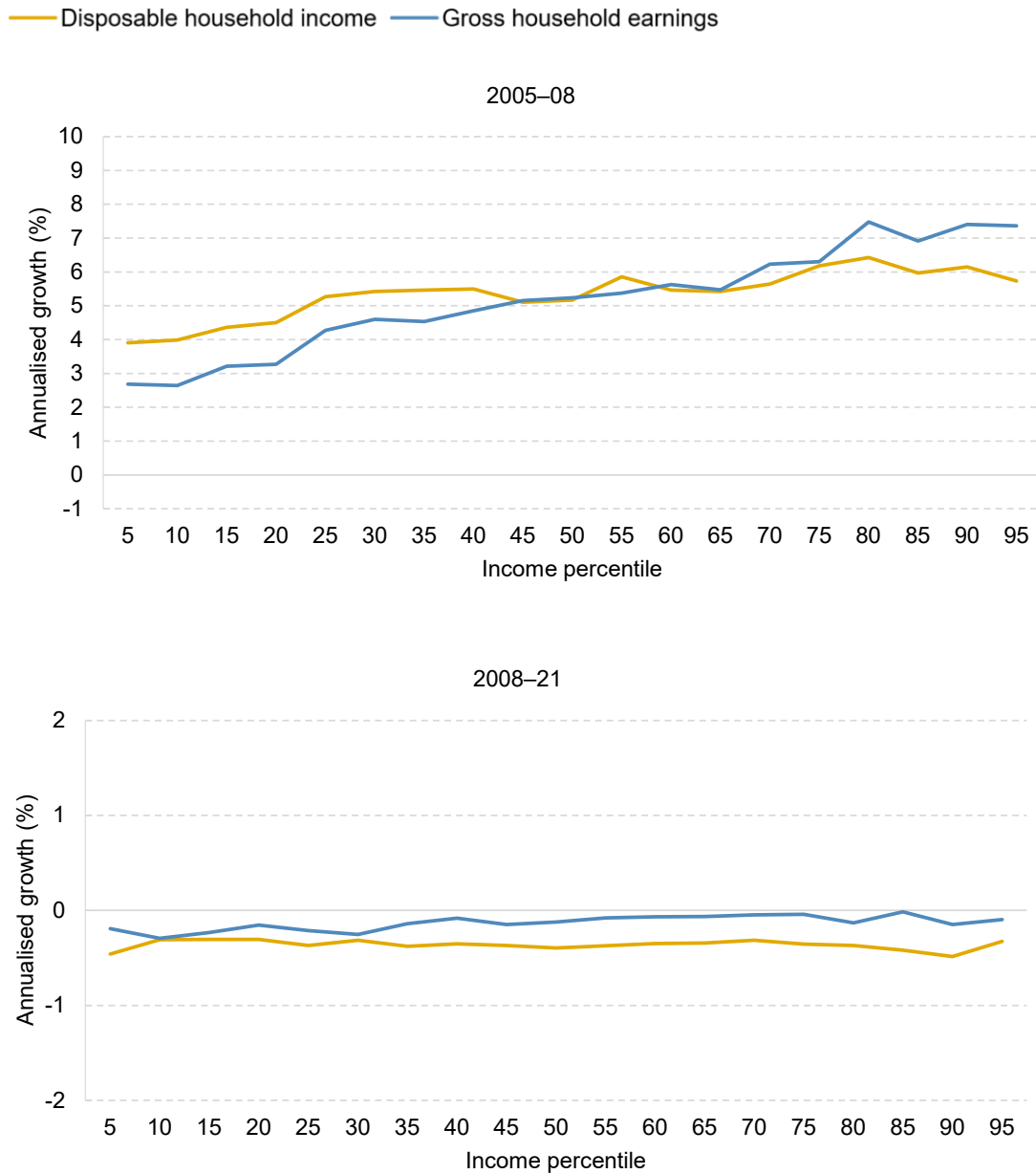
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60 in working households. A non-working household is defined as households in which none of their working age members worked. All incomes have been equivalised using the modified OECD equivalence scale and refer to 1 year before the reference year of the sample. Figure 67 in Appendix A4 shows results using the Spanish Survey of Household Finances.

There exist large differences by educational level (Figure 41). Households with tertiary education have twice as much disposable income as those with primary education (€22,000 versus €11,000 in 2021). The 2008 crisis led to a loss that has yet to be recovered. Households with tertiary education had 13.5% less disposable income in 2021 than in 2008, those with secondary experimented lost 12.1%, while primary-educated households lost 21.8% of their 2008 income.

Figure 41. Median real disposable household income for all households, overall and by education, over time

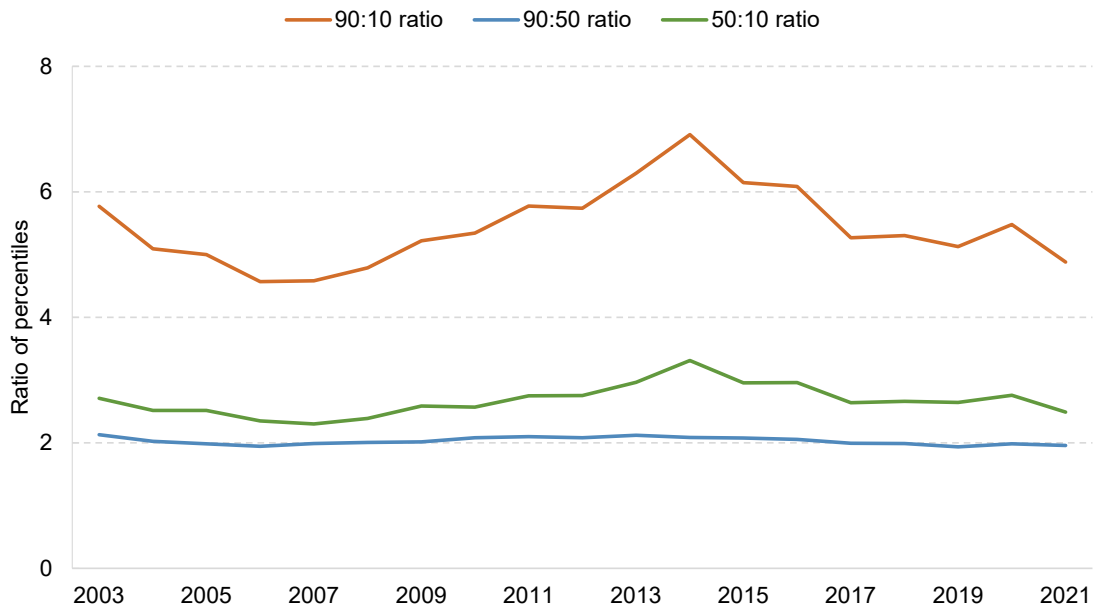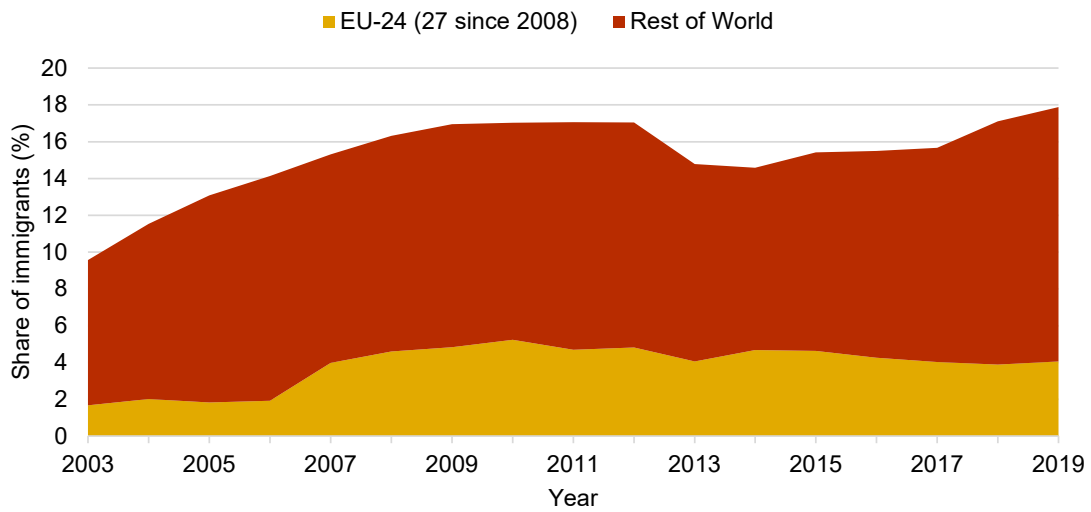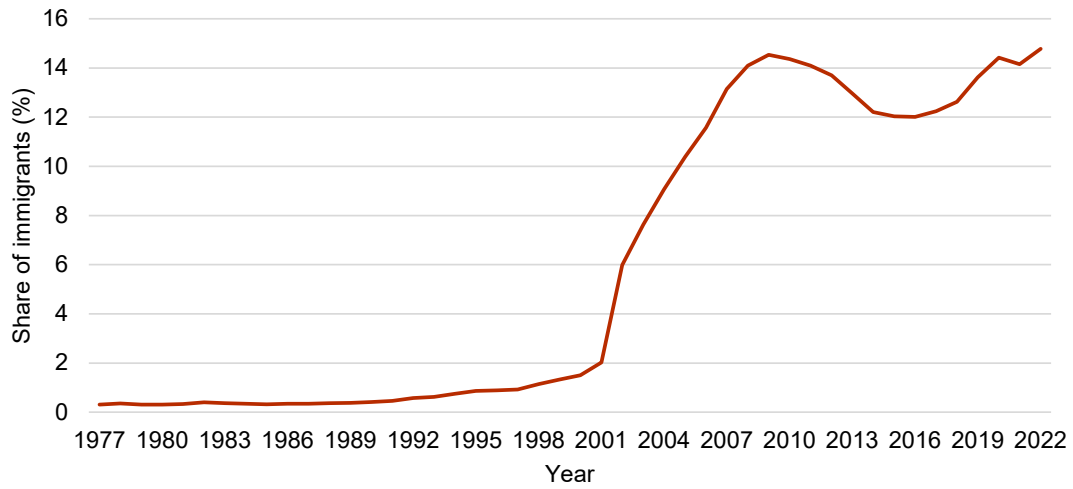*Source*: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60 in working households. All incomes have been equivalised using the modified OECD equivalence scale and refer to 1 year before the reference year of the sample. Figure 68 in Appendix A4 shows results using the Spanish Survey of Household Finances.

Household income inequality is also slightly countercyclical in Spain. From the turn of the century, we can differentiate three periods during which inequality moves in parallel to unemployment: firstly, a decrease in inequality until 2007; secondly, an increase until 2013; and finally, there has been a progressive decline in inequality since 2014, interrupted only by the COVID-19 pandemic.[13]

Figure 42 shows that the Gini coefficient in disposable household income peaked in 2013 at 0.35, and that 23.3% of households had an income below 60% of the median. The income share belonging to the top 1% peaked earlier in 2010, rising to 4.8%.[14] As with earnings inequality, we observe a mild reduction in household inequality since 2013, close to pre-crisis levels.

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[13] Appendix A4 contains figures using the Spanish Survey of Household Finances, EFF. The countercyclical evolution of household inequality is less visible using the EFF. This discrepancy deserves more in-depth analysis. The great advantage of using the EFF is that, in addition to income, it also provides detailed information on wealth and consumption. According to the results in Anghel et al. (2018) which are currently in the process of being updated, wealth inequality is much higher than income inequality. However, by international standards, Spain has a moderate level of wealth inequality, which is associated with more widespread ownership of real assets. The fall in the owner-occupancy rate since 2011 has contributed to increasing inequality. Indeed, the rise in wealth inequality in the most recent years is remarkable. The wealth Gini rose from 0.57 in 2005 to 0.68 in 2014 and to 0.7 in 2020. At the worst point in the Great Recession, the richest decile owned more than 50% of the country's wealth, while the richest top 1% owned as much as 20%. The reversal in income inequality since 2014 does not seem to have translated into a fall in wealth inequality. On the other hand, the variations in per capita consumption qualitatively followed the developments in per capita income, although their variations were smaller. As a consequence, consumption inequality is lower than income inequality. It is noteworthy that, during the financial crisis (2008–14), the fall in consumption of households with less income was proportionately greater than that of those with higher income, especially in durable goods. After that, however, consumption inequality remained almost unchanged.

[14] The EFF, which oversamples wealthy households, shows that the peak of the top 1% share was achieved in 2013 at 6.8%.

The percentile ratios depicted in Figure 43 show that the highest levels of inequality were reached in 2014. In that year, the 90:10 ratio reached nearly 6.9. Comparing the evolution of the 90:50 and 50:10 ratios, we see that it is the latter that has increased the most. This tells us that inequality at the bottom of the distribution is behind the increase in overall inequality between 2007 and 2014. It is important to note that the pension system, the increase in top marginal rates between 2012 and 2014 and the increase in household size limited the expansion of inequality during the worst of the crisis (Anghel et al., 2018).

Figure 42. Gini, relative poverty, and top 1% share of net household income for all households, over time
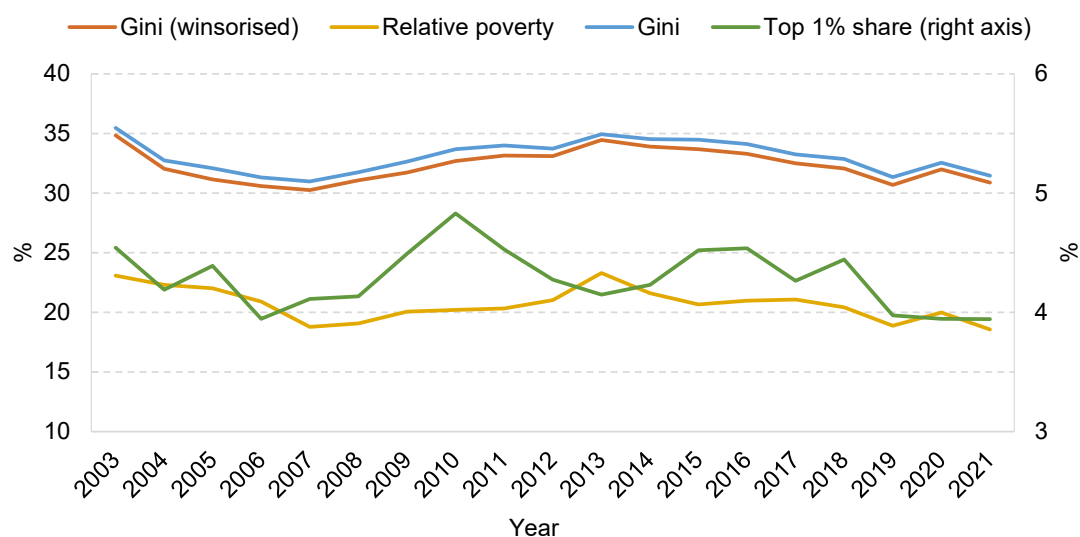
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60 in working households. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. The relative poverty rate is defined as the proportion of people living in households with less than 60% of contemporaneous median income before the deduction of housing costs. All incomes have been equivalised using the modified OECD equivalence scale and refer to 1 year before the reference year of the sample. Figure 69 in Appendix A4 shows results using the Spanish Survey of Household Finances.

Figure 43. Percentile ratios of disposable household incomes for all households, over time

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is individuals aged 25–60 in working households. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale and refer to 1 year before the reference year of the sample. Figure 70 in Appendix A4 shows results using the Spanish Survey of Household Finances.

Another group that deserves a final mention is that of immigrant households in Spain (Figure 44). Prior to the 2000s, the small immigrant population in Spain was better skilled than the natives, although they had worse labour outcomes (lower earnings for similar hours worked). Thereafter, the group of immigrants become larger (from 1.5% in 2000 to 14.8% in 2022) and less educated than natives, further worsening their labour market outcomes (Figure 46). This means that by 2019 migrants accounted for one-third of the poorest income decile, but only 5% of the richest decile (Figure 45).

Figure 44. Share of immigrants in the population, over time

Source: Spanish Labour Force Survey (left) 1977–2021; Spanish Life Conditions Survey (right) 2004–20.

Note: Sample is individuals aged 25–60.

Figure 45. Share of immigrants in the population, across the disposable income distribution, 2003 and 2019
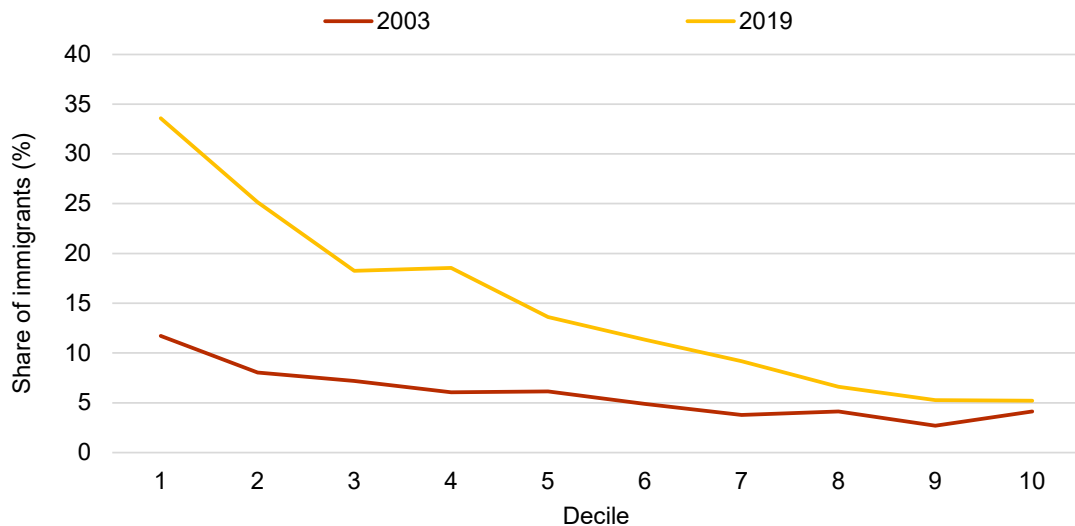
Figure 46. Outcomes of immigrants relative to natives, 1996, 2007 and 2019
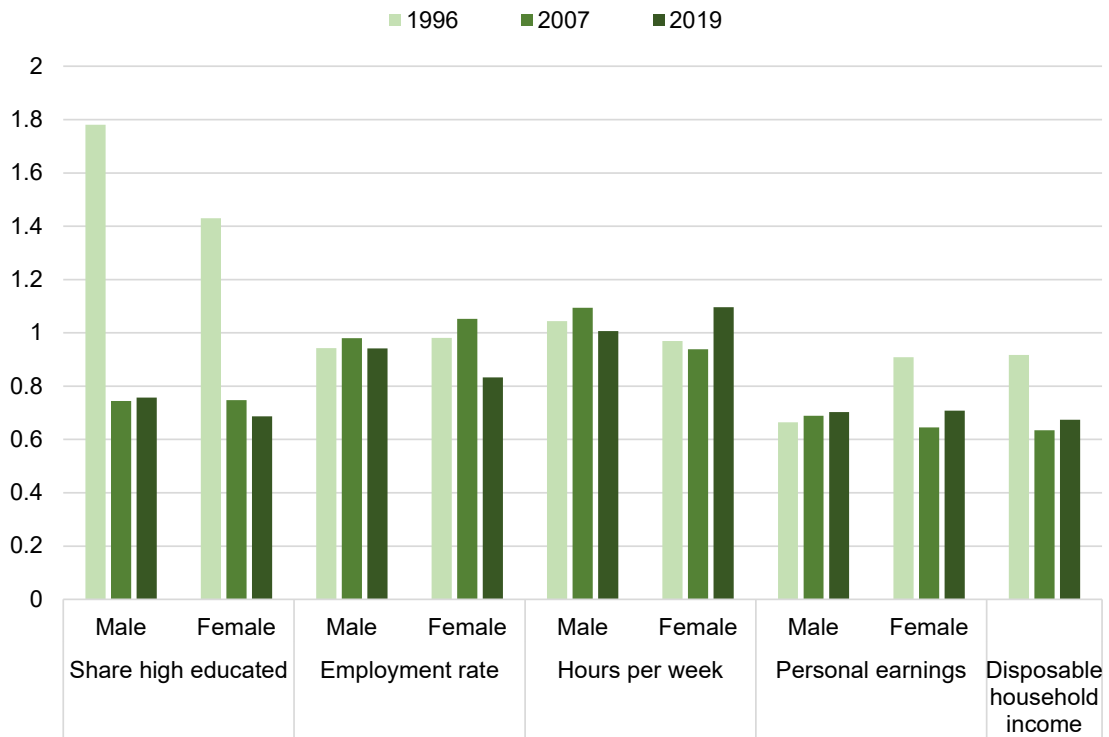
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A. Appendix

A1. Comparison between surveys

**Table 1. Comparison of social benefits variables between the two surveys used**.

	Spanish Life Conditions survey (ECV)	Spanish Survey of Household Finances (EFF)
Benefits (in gross terms)	Unemployment benefits (PY090G), Old-age benefits (PY100G), Survivor benefits (PY110G), Sickness benefits (PY120G), Disability benefits (PY130G), Education-related allowances (PY140G); PLUS Family/child-related allowances (HY050G), Social exclusion not elsewhere classified (HY060G), Housing allowances (HY070G),	Pension income (widowhood, orphan's, retirement or disability, pensions from pension schemes): p6_74b_i+p6_74_i. Income from public benefits: p6_75d3. Income from grants: p6_75d4.
Gross income INCLUDES EMPLOYEE SSCs in ECV and EFF	hy010. The sum for all household members of gross personal income components Gross employee cash or near cash employee income (PY010G), Company car (PY021G), Gross cash benefits or losses from self-employment (including royalties) (PY050G), Pensions received from individual private plans (other than those covered under ESSPROS) (PY080G), Unemployment benefits (PY090G), Old-age benefits (PY100G), Survivor benefits (PY110G), Sickness benefits (PY120G), Disability benefits (PY130G), Education-related allowances (PY140G); Plus gross income components at household level: Income from rental of a property or land (HY040G), Family/child-related allowances (HY050G), Social exclusion not elsewhere classified (HY060G), Housing allowances (HY070G), Regular inter-household cash transfers received (HY080G), Interests, dividends, profit from capital investments in unincorporated business (HY090G), Income received by people aged under 16 (HY110G))	Household income: renthog Income of employed persons: p6_64_i+p6_66_i,. Income from unemployment benefits and redundancy payments: p6_68_i+p6_70_i. Income from self-employment: p6_72_i. Pension income (widowhood, orphan's, retirement or disability, pensions from pension schemes): p6_74b_i+p6_74_i. Other widow's, widower's or orphan's pensions not previously declared: p6_75b. Income from ex-partners: p6_75d1. Income from other relatives outside the household: p6_75d2. Income from public benefits: p6_75d3. Income from grants: p6_75d4. Income from membership of a board of directors of a public limited company or similar: p6_76b. Income from insurance policies, prizes, lotteries, inheritances, severance pay or early retirement not previously declared: p6_75f Rental income from real assets: p7_2. Capital gains on sales of real estate: p7_4a Capital gains on sales of jewellery, works of art or antiques: p7_6a. Gains on sales of financial assets: p7_8a. Interest on bank accounts: p7_10. Dividend income, other than from household-managed businesses, options, stock options, stock options, loans to third parties: p7_12. Income from businesses not directly managed by household members: p7_12a. Income from other sources received in the year preceding the year to the survey year: p7_14.

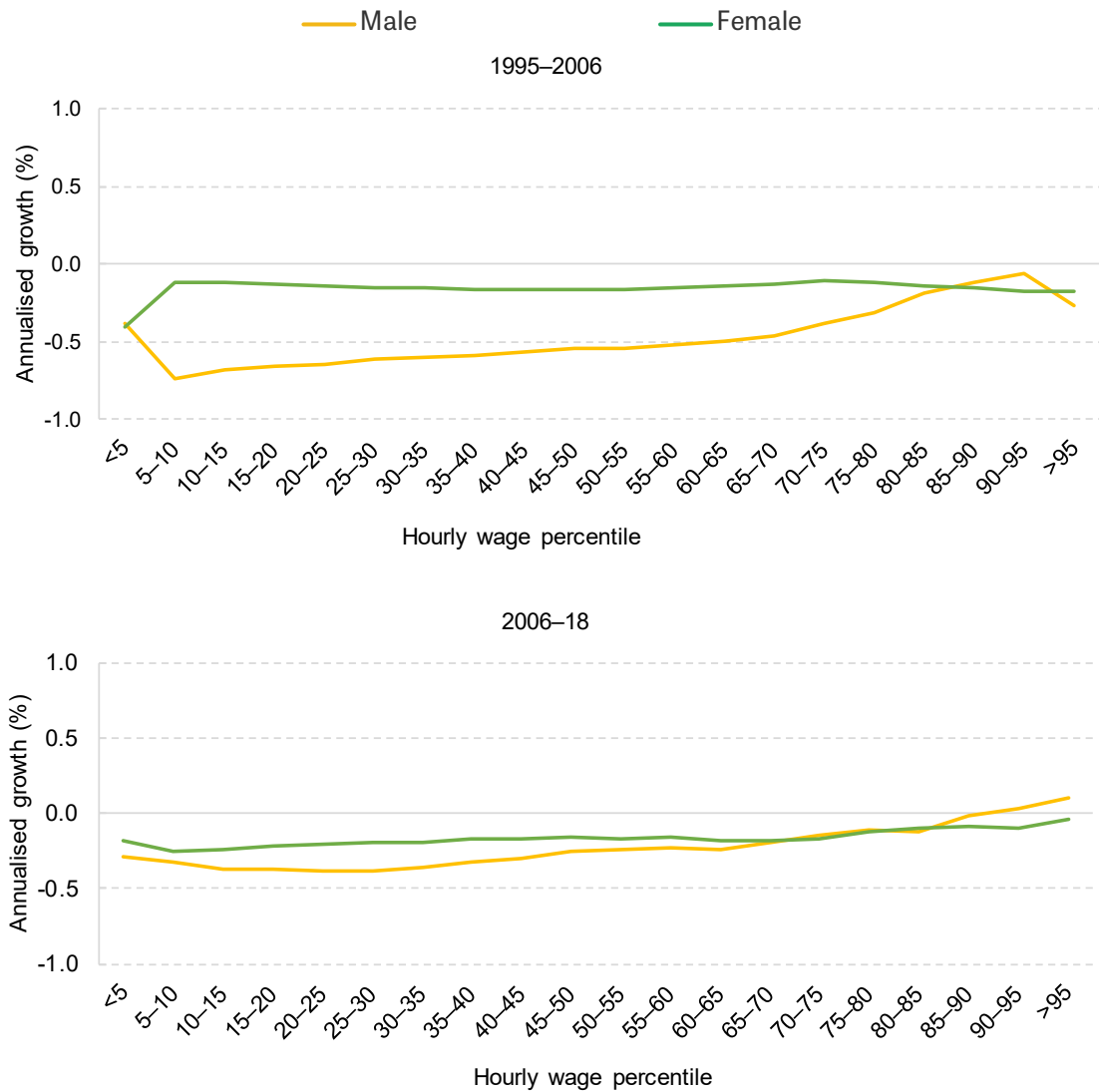| Employee SSC	Cannot be observed separately	Cannot be observed separately
Employer SSC	Employer's social security contributions (PY030G)	Does not appear
Direct taxes	Regular taxes on wealth (HY120G), Tax on income and social insurance contributions (HY140G)	Does not appear
Disposable income	Gross income (HY010, already has benefits), minus direct daxes (HY120G, HY140G)	Does not appear

A2. Figures for 25–74 age group
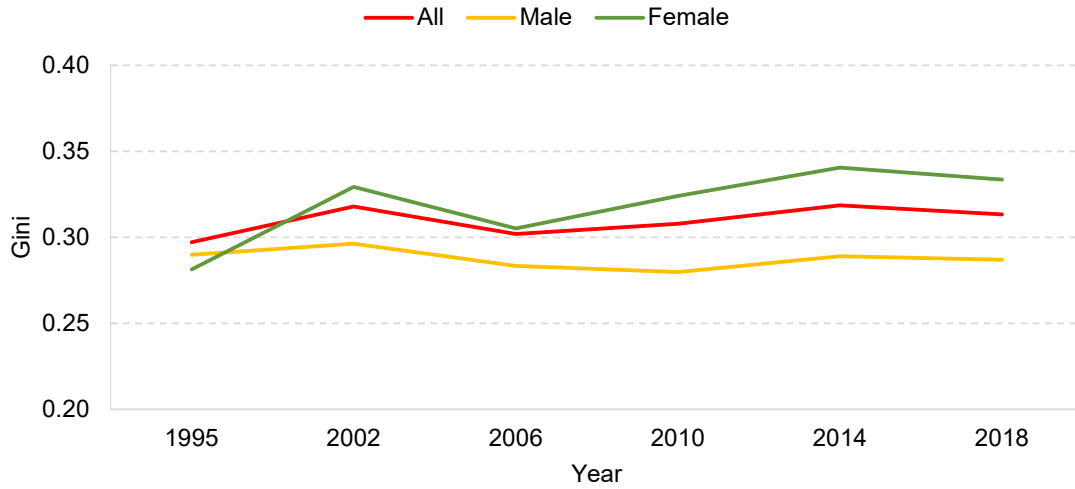
Figure 47. Growth in hourly wages among employees by wage percentile, by sex, selected period (25–74 age group)
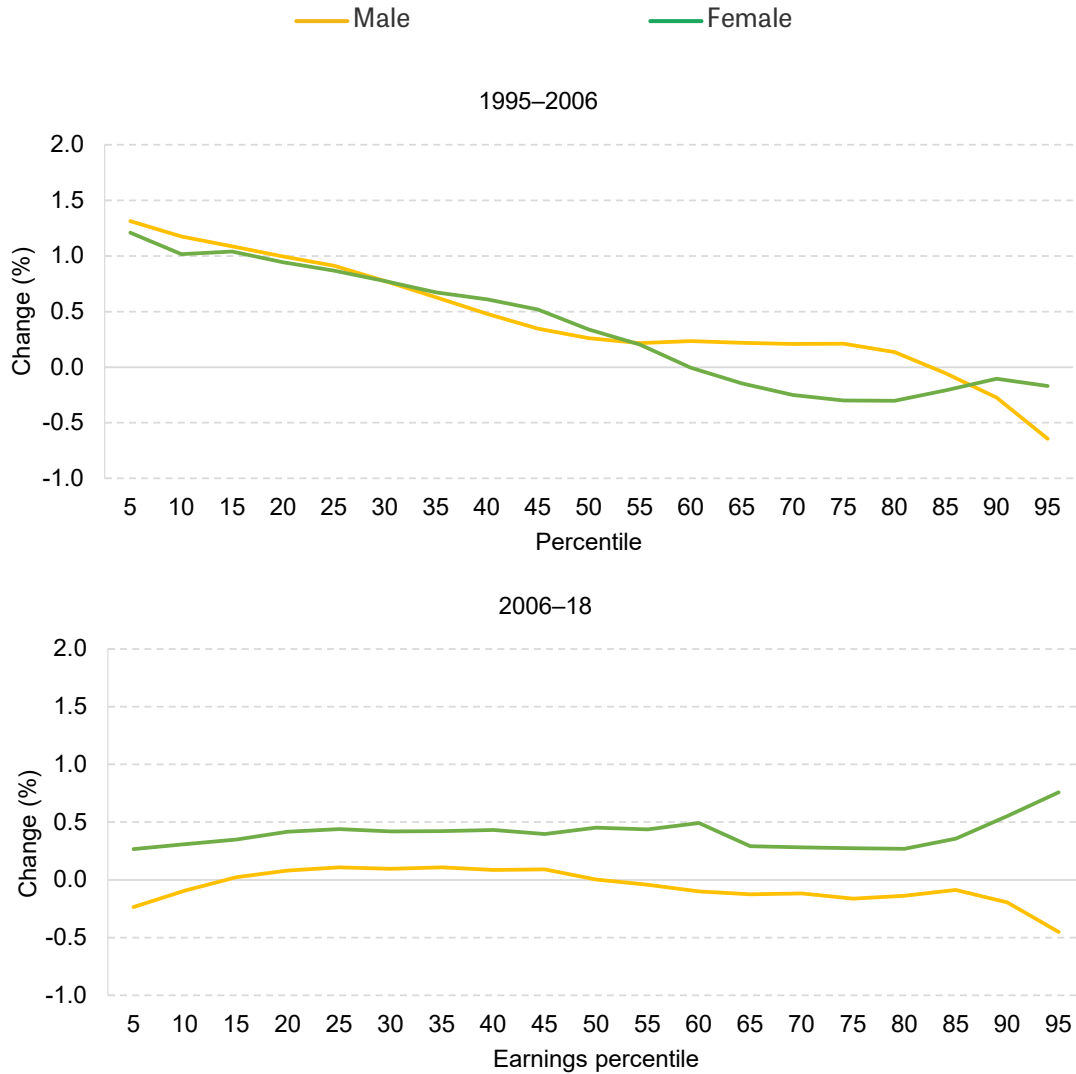
Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–74. Wages are in 2020 prices.

Figure 48. Annualised growth in mean hours worked among employees by hourly wage percentile, by sex, selected periods (25–74 age group)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Hours include paid (but not unpaid) overtime and have been top-coded to 97 hours per week.

Figure 49. Gini coefficient of gross individual earnings, overall and by sex, over time (25–74 age group)


Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is individuals in work aged 25–74.

Figure 50. Annualised growth in gross earnings by earnings percentile, overall and sex, selected periods (25–74 age group)

1995–2006

— Male — Female — All

2006–18

— Male — Female — All

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–74.

A3. Figures of Section 4.4 for employees only

A.3.1 Spanish Life Conditions Survey (employees only)

Figure 51. Median real gross individual earnings, overall and by sex, employees only, over time, ECV (Figure 17)
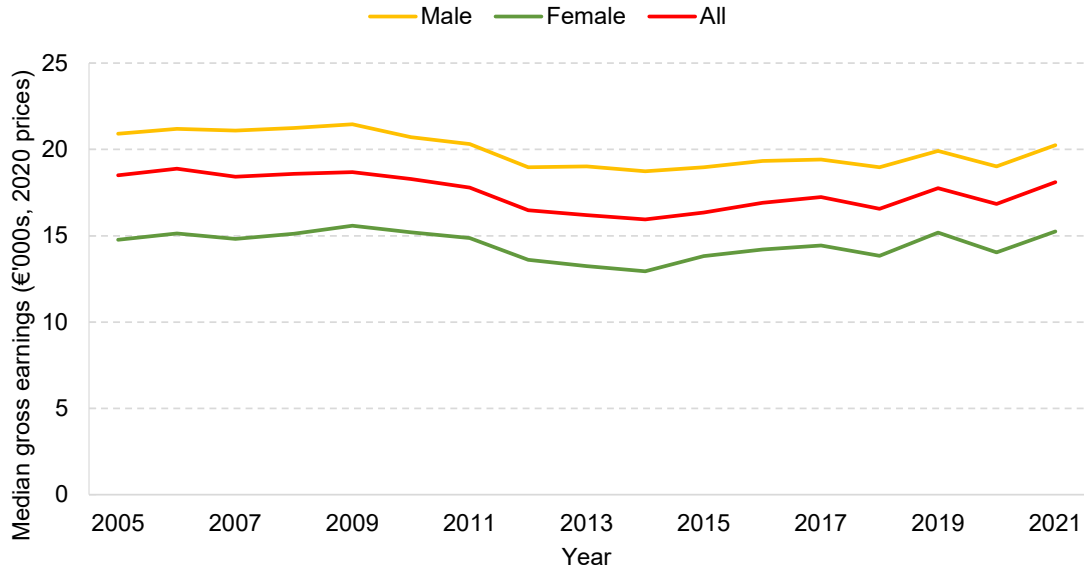
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample.
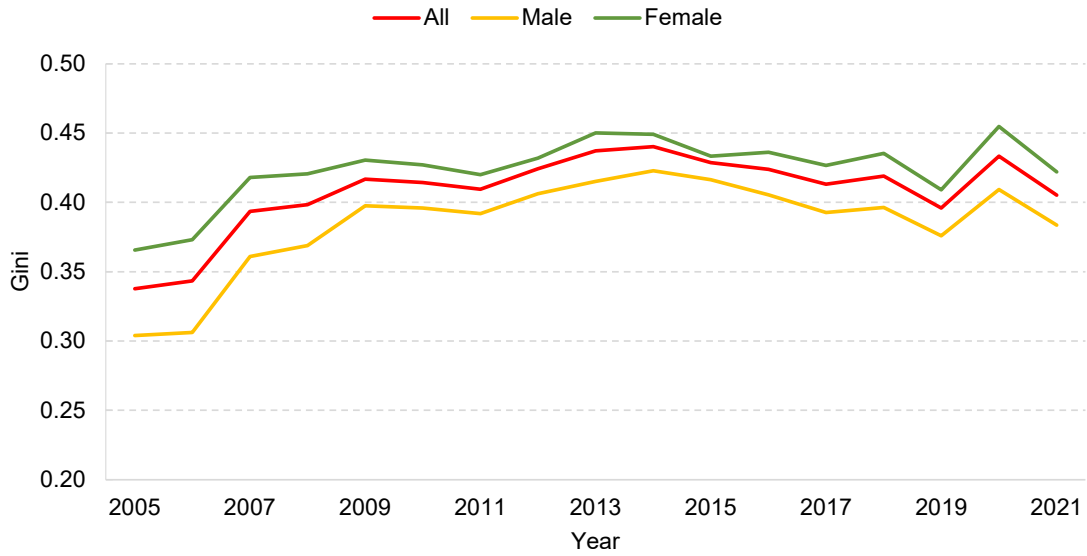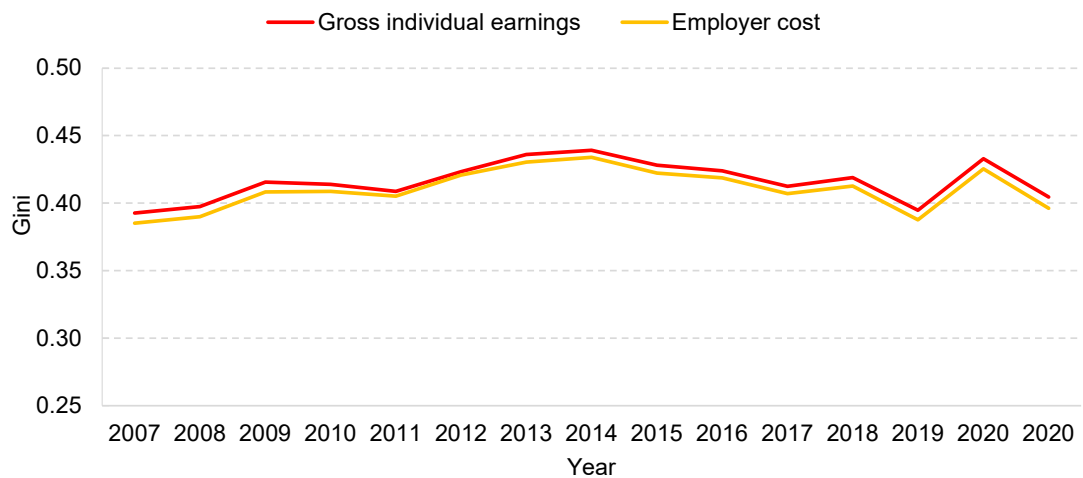
Figure 52. Median real gross individual earnings, by sex and education, employees only, over time, ECV (Figure 18)
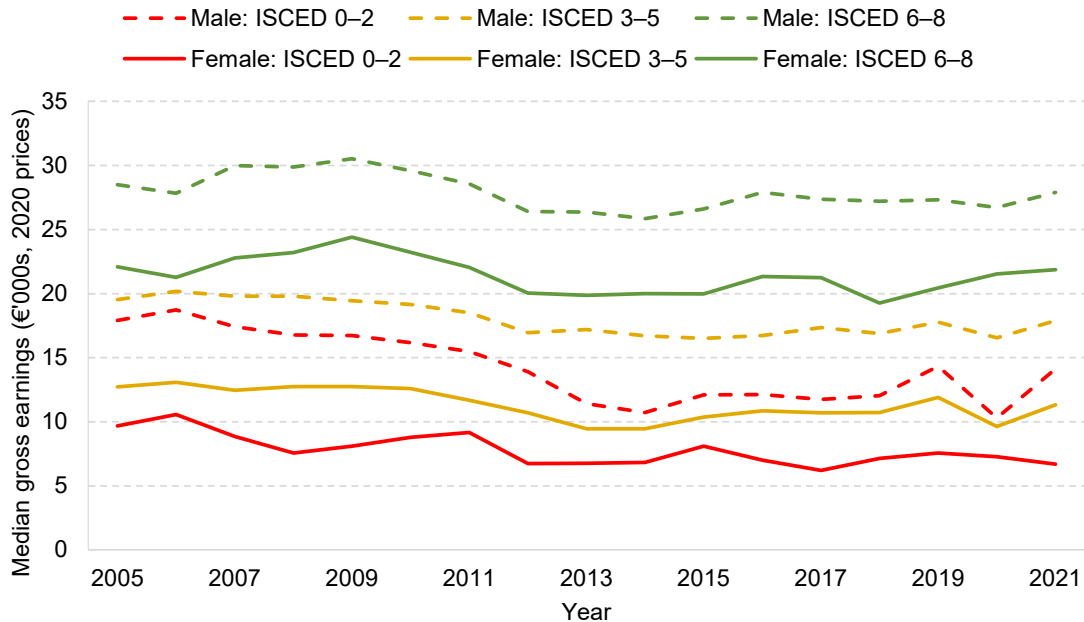
Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample.
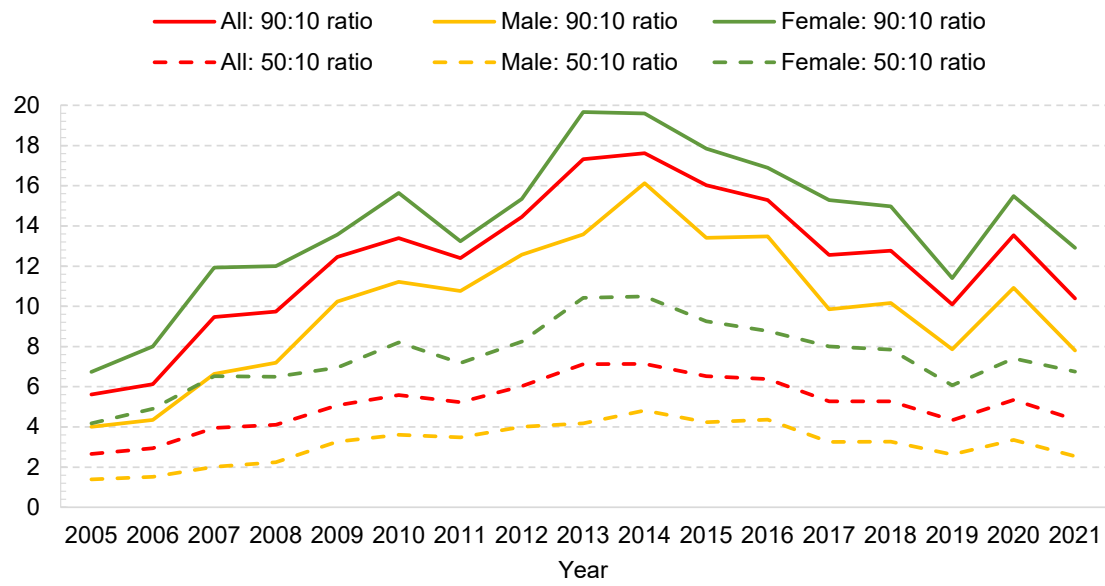
Figure 53. Gini coefficient of gross individual earnings, overall and by sex, employees only, over time, ECV (Figure 19)

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample.
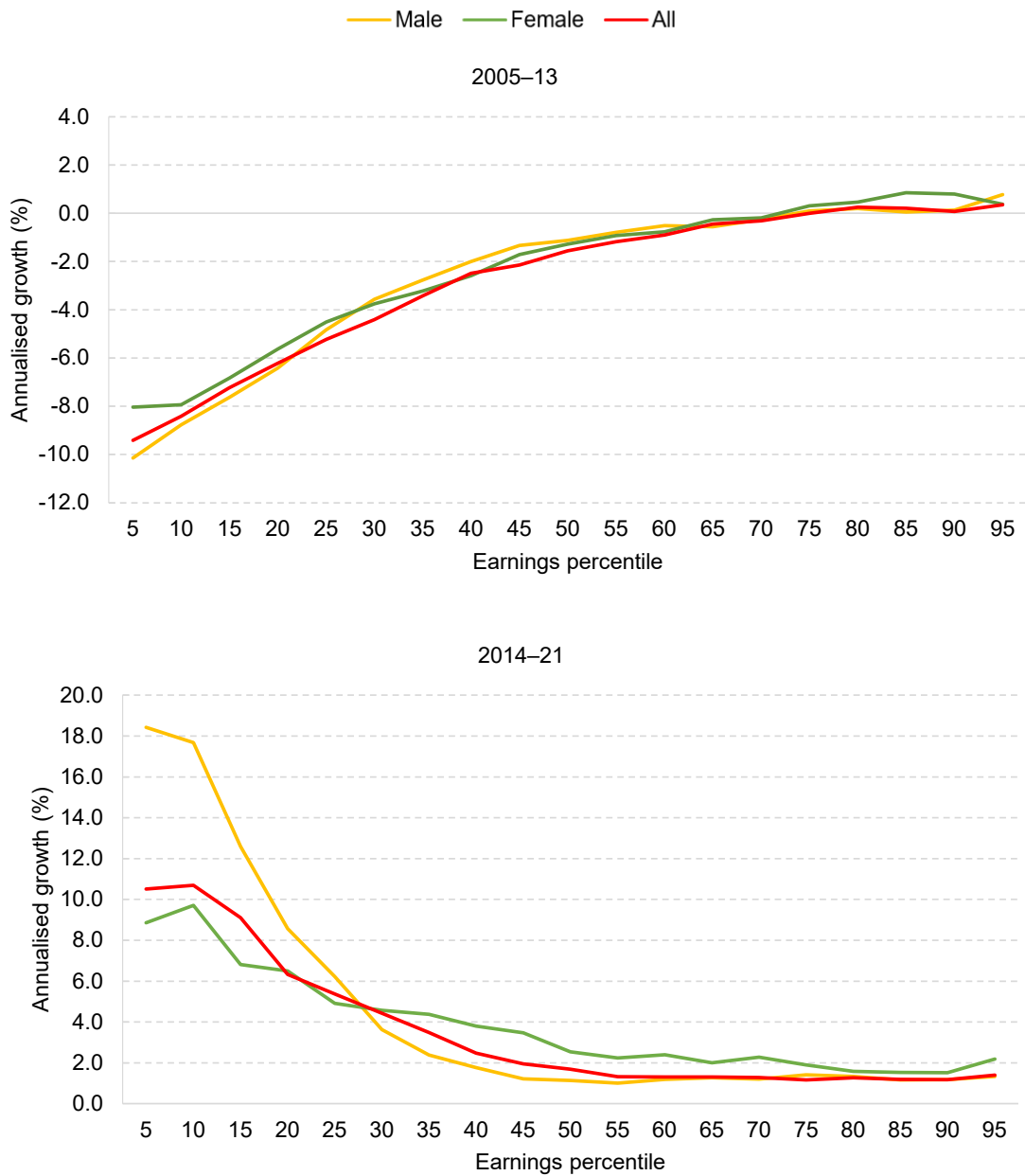
Figure 54. Gini coefficient of gross individual earnings and total employer cost, employees only, over time, ECV (Figure 20)

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample.

Figure 55. 90:10 and 50:10 ratios of gross individual earnings, overall and by sex, employees only over time, ECV (Figure 21)

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or less earnings are excluded. Earnings refer to 1 year before the reference year of the sample.

Figure 56. Annualised growth in gross earnings by earnings percentile, overall and sex, employees only selected periods, ECV (Figure 22)

Source: Spanish Life Conditions Survey, 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or less earnings are excluded. Earnings refer to 1 year before the reference year of the sample.

Figure 57. Annualised growth in gross earnings and employer cost by earnings percentile, employees only overall and sex, selected periods, ECV (Figure 23)
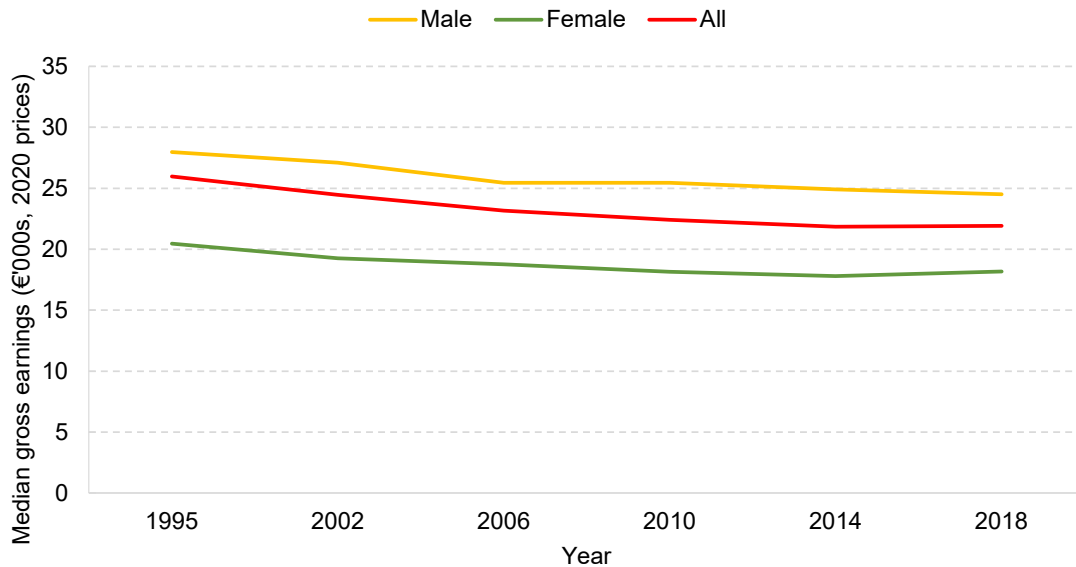
2007–21

Source: Spanish Life Conditions Survey (INE) 2006–22.

Note: Sample is employees aged 25–60. Individuals with zero or negative earnings are excluded. Earnings refer to 1 year before the reference year of the sample.

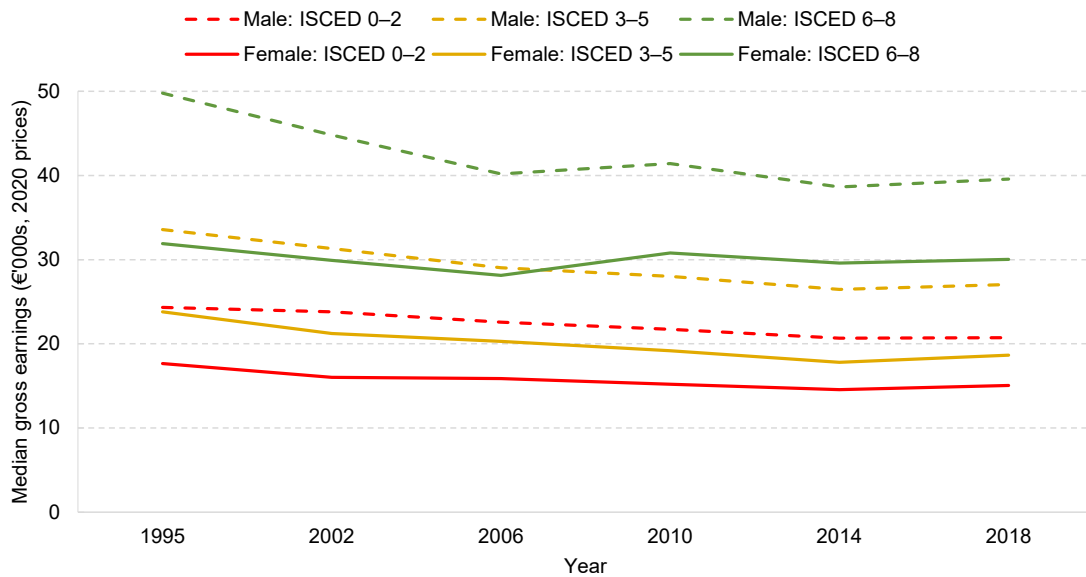### A.3.2. Structure of Earnings Survey (employees only)

Figure 58. Median real gross individual earnings, overall and by sex, over time (Figure 17)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Annual wages are in 2020 prices.

Figure 59. Median real gross individual earnings, by sex and education, over time (Figure 18)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. Annual wages are in 2020 prices.

Figure 60. Gini coefficient of gross individual earnings, overall and by sex, over time (Figure 19)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60.

Figure 61. Gini coefficient of gross individual earnings and total employer cost, over time
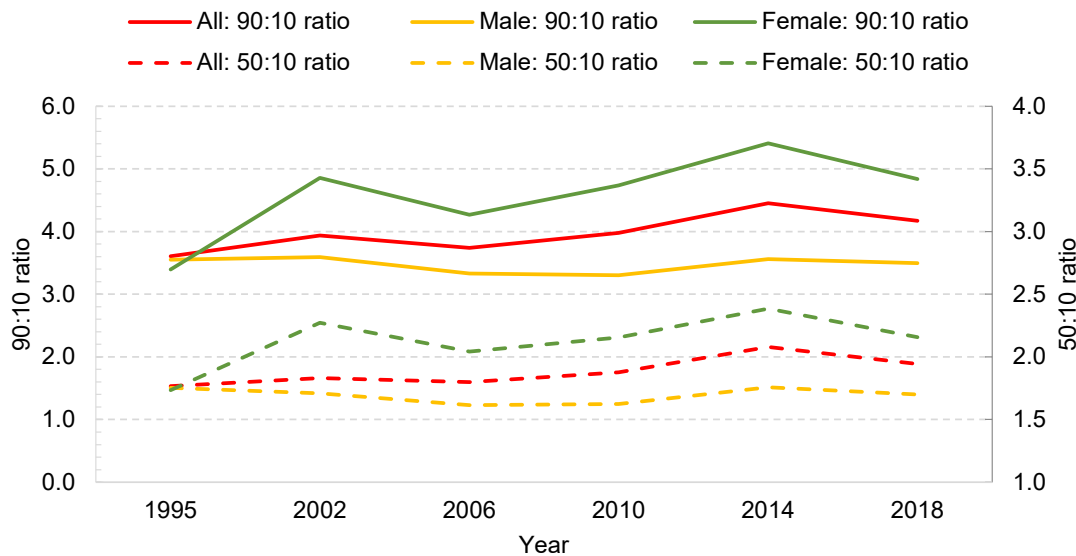

(Figure 20)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60. The 'Employer cost' series includes Employer Contributions only from 2002.

Figure 62. 90:10 and 50:10 ratios of gross individual earnings, overall and by sex, over time (Figure 21)
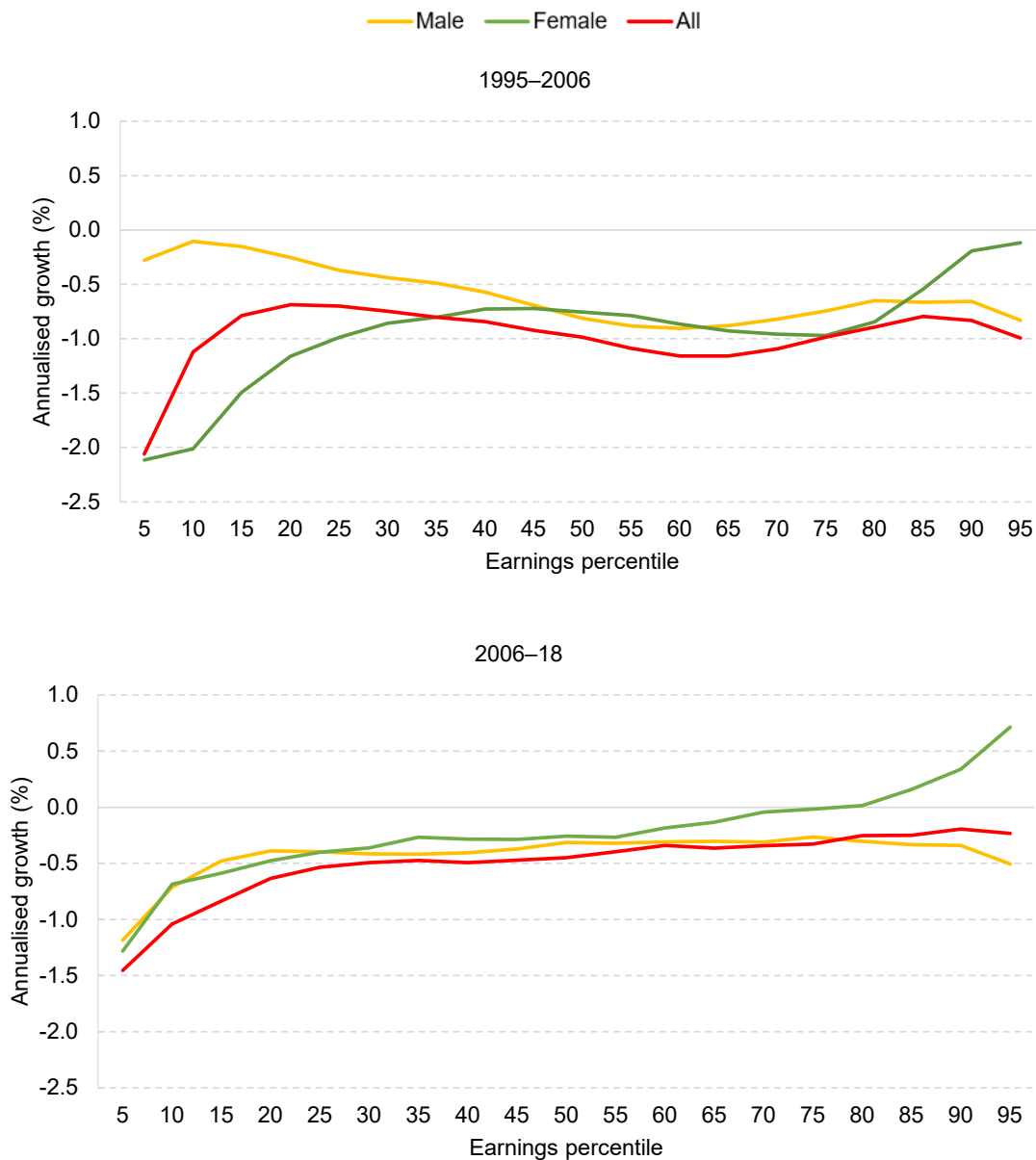

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60.

Between 1995 and 2006, there were wages drops at every percentile, especially for women at the bottom of the distribution. Between 2006 and 2018, only women at the top have higher annual wages.

Figure 63. Annualised growth in gross earnings by earnings percentile, overall and sex, selected periods (Figure 22)

Source: Structure of Earnings Survey (INE) 1995, 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is employees aged 25–60.

Figure 64. Annualised growth in gross earnings and employer cost by earnings percentile, selected periods (Figure 23)


Source: Structure of Earnings Survey (INE) 2002, 2006, 2010, 2014, 2018. Firms with fewer than 10 employees are excluded. Sectors excluded: agriculture, hunting and forestry; fishing; public administration and defence; compulsory social security; activities of households; extra-territorial organisations and bodies; education, health and social work; and other community, social and personal service activities.

Note: Sample is individuals in work aged 25–60. The 'employer cost' series includes employer contributions only from 2002.

A4. Figures of Section 6 with the Spanish labour force survey and the Spanish Survey of Household Finances
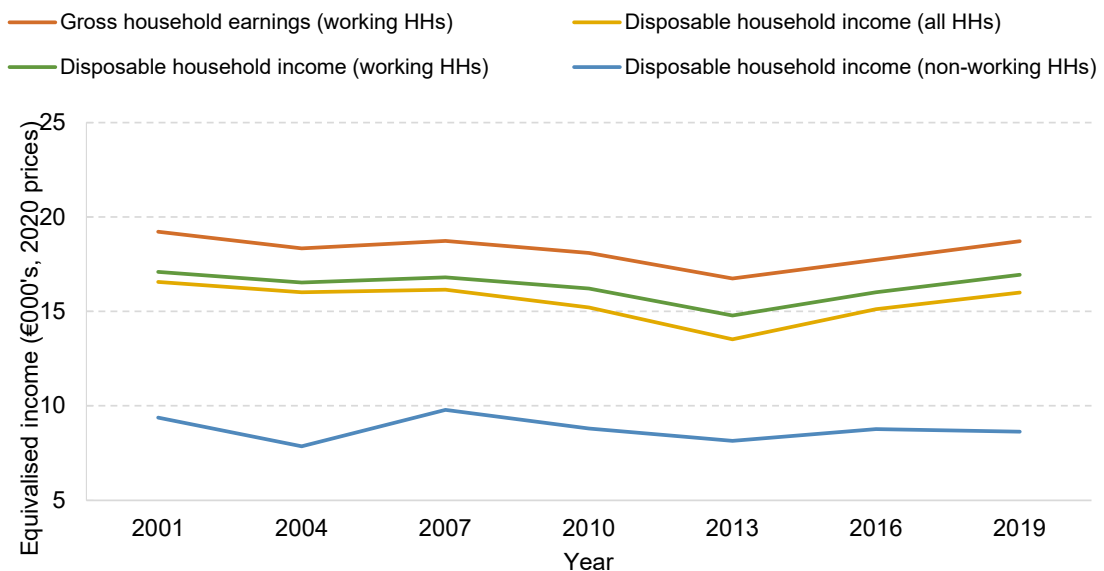
Figure 65. Share married/cohabiting, overall and by education, over time (Figure 33)
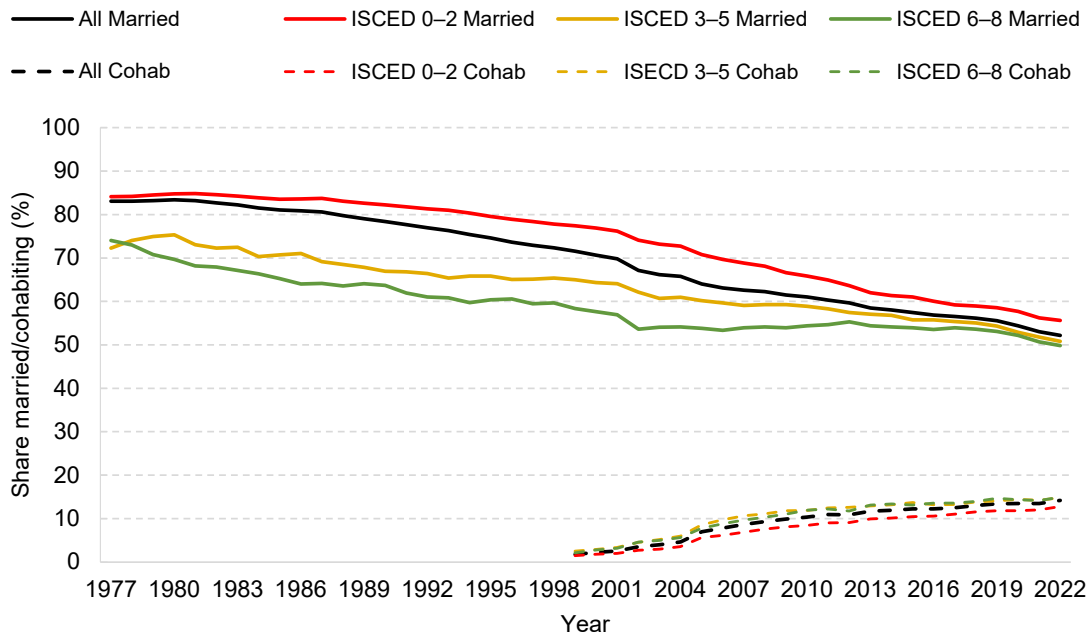
Source: Spanish labour force survey (INE) 1977–2022.

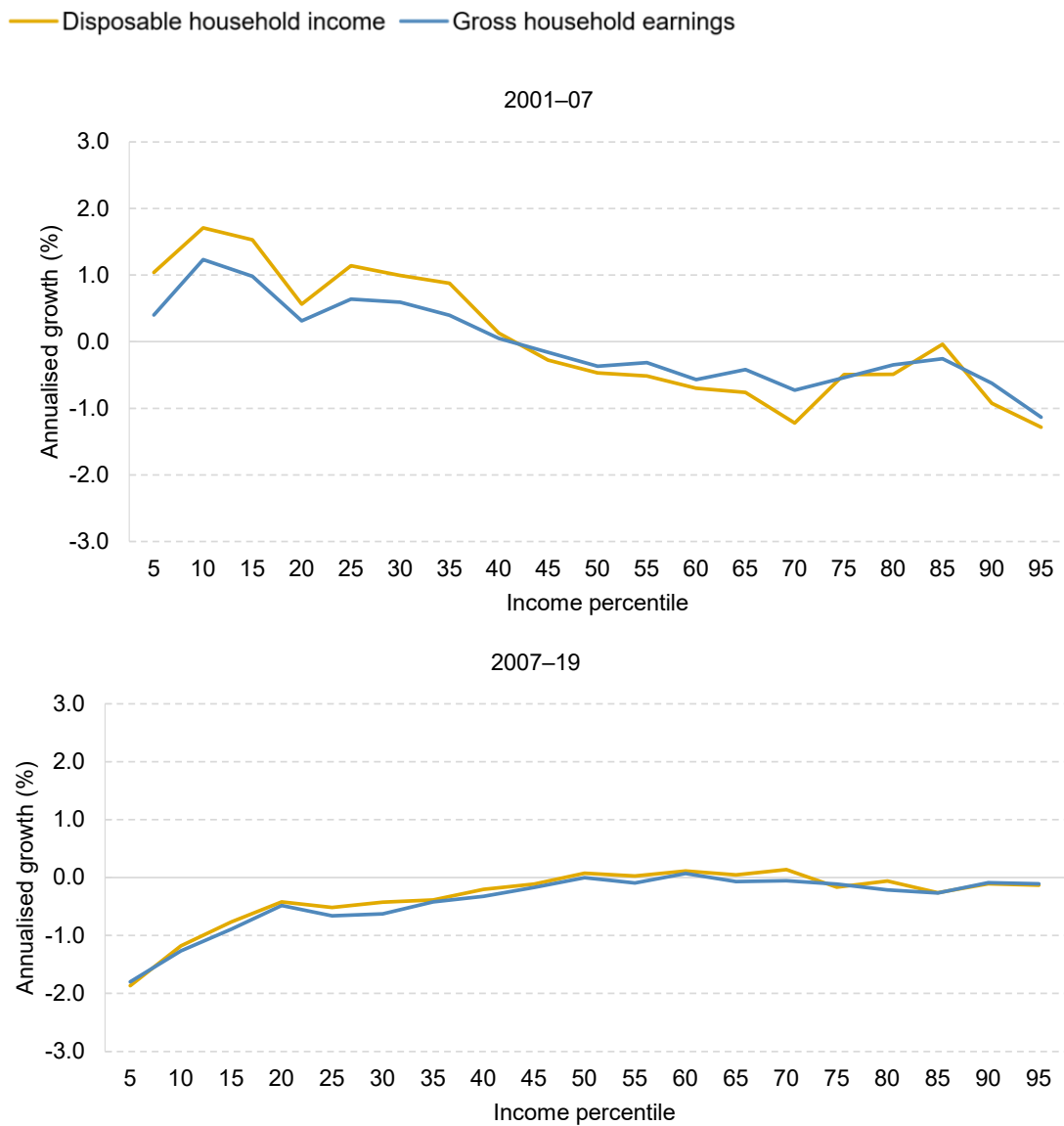*Note*: Sample is individuals aged 25–60 who have completed full-time education.

Figure 66. Median real gross household earnings and disposable household income among working households, over time (Figure 39)

Source: Spanish Survey of Household Finances (Banco de España) 2002–20.

Note: Sample is individuals aged 25–60. A working household is defined as a household in which at least one adult is in work. A non-working household is defined as households in which none of their working age members worked. Income refers to 1 year before the reference year of the sample. All incomes have been equivalised using the modified OECD equivalence scale.

Figure 67. Annualised growth in real gross household earnings and household disposable income for working households, by percentile, selected periods (Figure 40)

— Disposable household income — Gross household earnings

Source: Spanish Survey of Household Finances (Banco de España) 2002–20.

Note: Sample is individuals aged 25–60. Sample is individuals in working households. A working household is defined as a household in which at least one adult is in work. Income refers to 1 year before the reference year of the sample. All incomes have been equivalised using the modified OECD equivalence scale.
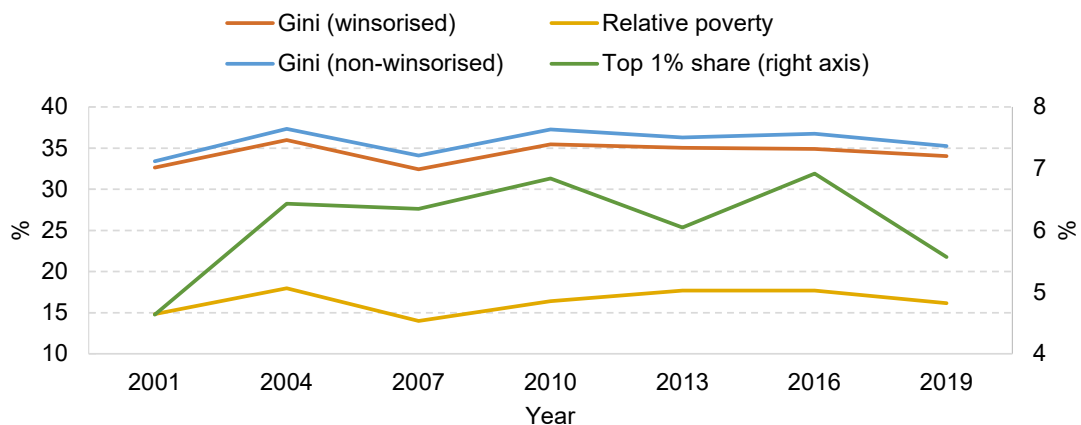
Figure 68. Median real disposable household income for all households, overall and by education, over time (Figure 41)
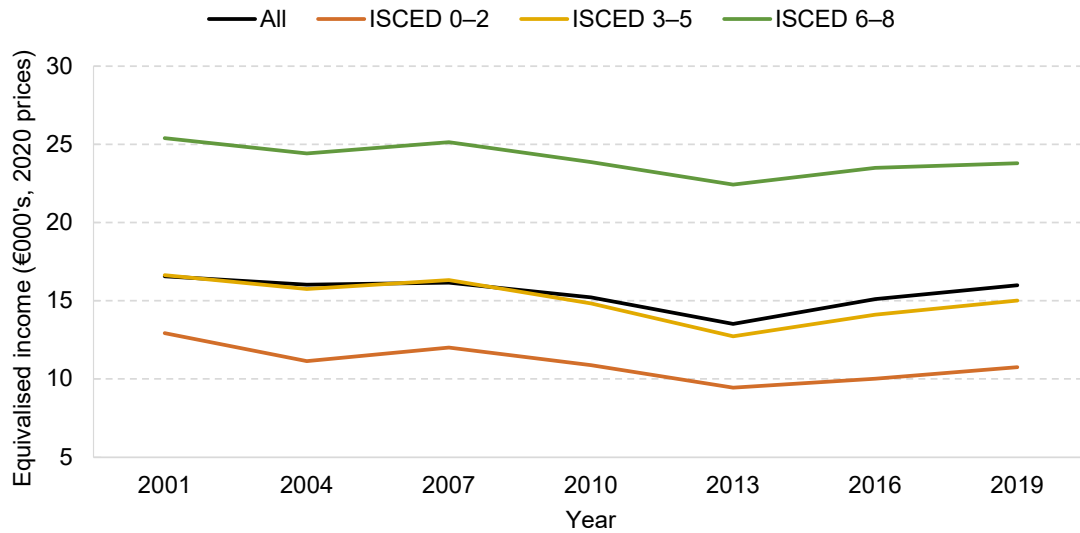
Source: Spanish Survey of Household Finances (Banco de España) 2002–20.

Note: Income refers to 1 year before the reference year of the sample. All incomes have been equivalised using the modified OECD equivalence scale.

Figure 69. Gini, relative poverty, and top 1% share of net household income for all households, over time (Figure 42)
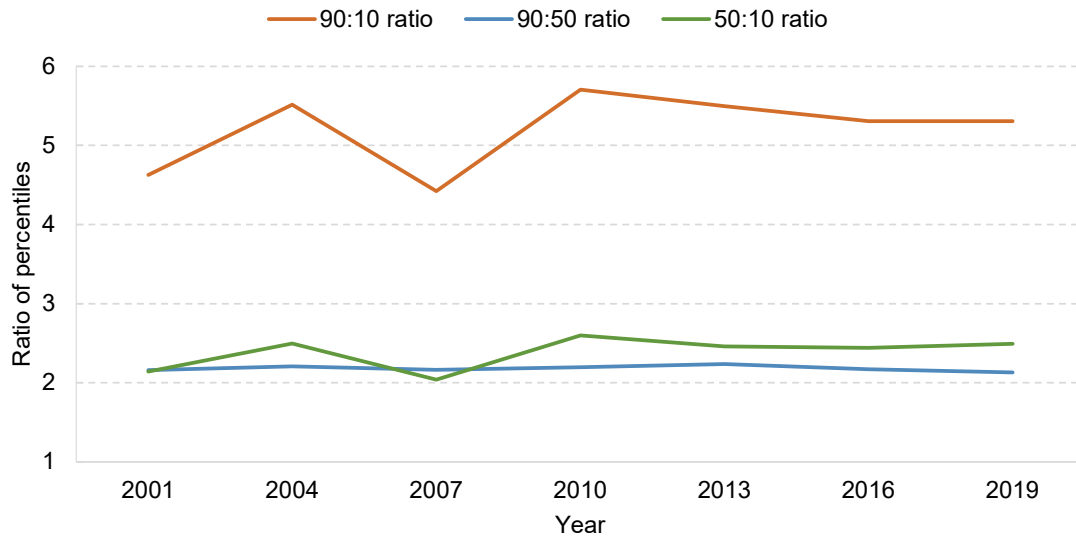

Source: Spanish Survey of Household Finances (Banco de España), 2002–20.

Note: Income refers to 1 year before the reference year of the sample. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. Gini (winsorised) is the Gini index winsorised at 0 and at the 99th percentile. The relative poverty rate is defined as the proportion of people living in households with less than 60% of contemporaneous median income before the deduction of housing costs. All incomes have been equivalised using the modified OECD equivalence scale.

Figure 70. Percentile ratios of disposable household incomes for all households, over time (Figure 43)

Source: Spanish Survey of Household Finances (Banco de España), 2002–20.

Note: Income refers to 1 year before the reference year of the sample. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale.