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Escaping the trap of temporary employment: Precariousness among young people before and after Spain's 2021 labour market reform act

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Abstract

Temporary employment has been the core dimension of employment precariousness in Spain for decades. In December 2021, a labour market reform aimed at reducing the use of fixed-term contracts, which especially affected young people, was passed. This article compares the situation of young workers before and after this labour market reform, with the objective of identifying internal differences among this age group. The results show a substantial reduction in the prevalence of temporary employment after the reform, although they also show that temporary employment, as well as incipient forms of precariousness such as involuntary part-time employment, are more concentrated than before among the most disadvantaged in this age group, following traditional patterns of segmentation in the labour market. This article, therefore, provides insights into which profiles of young workers were better off after the reform and which were not, offering valuable lessons for other countries with similar labour market challenges.

KEYWORDS

non-standard employment, part-time, precariousness, temporary employment, young workers

INTRODUCTION

In December 2021, Spain's left-wing coalition government, after reaching an agreement with the country's main trade unions and employer associations, approved a labour market reform aimed at reducing temporary employment. The reform streamlines the existing types of contracts and reduces the leeway for employers to use fixed-term contracts. Spain had had the highest levels of temporary employment in Europe for many decades (the temporary employment rate was approximately 34% in 2006, 23% in 2012 and 26% in 2019). Although the pernicious effects of this situation, especially on young workers and other vulnerable groups (Muñoz de Bustillo, 2022), had been repeatedly highlighted, no truly effective policy had addressed this issue until the time of this reform.

One year later, the effects of this reform became apparent. An overtly positive—even congratulatory—assessment

of these outcomes has been made, both domestically and internationally. For instance, the evaluation conducted by the European Commission (2023) reads: 'Following the 2021 labour market reform, new contracts signed during 2022 point to a widespread reduction of the share of fixed-term contracts across all economic activities, falling overall to 62% from 90% in 2019 (the year before the COVID-19 pandemic). The share of temporary employees in the private sector fell to 14.8% in Q4 2022, down from 23.9% one year before' (p. 7–8).

In theory, the population group intended to benefit the most from this legal reform should be young workers. Temporary employment was more prevalent among Spanish youth than among any other demographic group, regardless of the level of training, the sector and gender (Úbeda et al., 2020). For more than 30 years, fixed-term contracts have been considered the maximum expression of precarious employment among young people in Spain. Their impact exceeded the scope of contract duration in terms of social protection and legal entitlements, and they were usually associated with lower earnings.

However, the reduction in fixed-term contracts may not be enough to alter the precarious situation of young workers, even though they are the most severely affected by temporary employment. The Spanish labour market is characterised by a strong segmentation, with young people, women and unskilled workers being those most often employed under fixed-term contracts (Malo & Cueto, 2013; Verd & López-Andreu, 2012). Thus, the precarious situation of young workers (or at least, the most disadvantaged among them, for example, in terms of educational level) could remain unchanged despite the reduction in temporary employment.

This article, therefore, compares the situation of young workers before and after the labour market reform, with the objective of identifying the changes that have occurred regarding their employment situation. The analysis focuses on the comparison of the volume and distribution among the young population of the different forms of contracts that may be considered precarious, paying special attention to fixed-term contracts, but also considering other forms of atypical employment, such as open-ended part-time contracts and involuntary part-time contracts. The analysis developed does not allow us to directly attribute the changes identified to the labour market reform, as it does not permit us to isolate the effects of the reform from other effects. However, it does allow us to provide a good overview of the transformations in the landscape of employment precariousness among young people in Spain, a landscape with relevant changes when compared to before the reform.

Key Practitioner Message

- Temporary employment among young people is lower since the Spanish 2021 Labour Market Reform Act.
- Along with the reduction of temporary employment, incipient forms of precariousness (e.g., involuntary part-time employment) appear.
- Involuntary part-time employment particularly affects young workers in elementary occupations, traditionally at the bottom of a segmented labour market.

The main contribution of this article is that it provides a detailed analysis of the changing picture of labour market precariousness since the passage of a reform firmly based on restricting the use of fixed-term contracts, which is a novelty at the international level. The findings are useful to see which profiles of young people improved their labour market position after the reform and which profiles did not, and, thus, to understand the recomposition of labour market precariousness in a context strongly characterised by labour market segmentation.

The results show that since the reform, temporary employment is more concentrated than before—in relative terms—among the most disadvantaged group of young people, who have also experienced an increase in involuntary part-time employment. This increase may be a sign that, although the formal appearance of precarious employment is changing, the structurally weak situation of many young workers in the labour market remains unchanged. These findings are helpful in indicating what policies should be implemented to correct the situation observed and can be valuable for other countries (especially Southern European countries) where temporary employment is an important aspect of the labour market experience of young people.

THEORETICAL BACKGROUND: ATYPICAL EMPLOYMENT, FIXED-TERM CONTRACTS AND PRECARIOUSNESS AMONG YOUNG PEOPLE

Häusermann and Schwander (2012) defined atypical employment as all employment-relations 'that deviate from the Standard Employment Relation (i.e., full time, stable, fully insured employment)' (p. 29). They also

noted that part-time and temporary employment are among the most prominent types of this non-standard employment. Temporary employment can also be considered a form of precarious employment. Kreshpaj et al. (2020) identified three main dimensions in their systematic review of the literature on precarious employment: the first dimension is linked to job insecurity and temporary employment, the second one refers to low wages, and the third is connected to the lack of protection and social rights. However, the most widespread use of the term 'employment precariousness' focuses on the first dimension. Barbier (2005) traced back the historical use of the term in France and found that it was initially used in the late 1970s and referred to the opposite of permanent, full-time employment. In other words, precarious employment was originally considered any job that fell outside the social standard of employment in the French labour market during the period referred to as the 'thirty glorious years'.

The use of the term *precarious employment* began to spread internationally in the 1980s, when it was used 'to describe non-standard, flexible working conditions that were adopted vigorously during this time by both political and business elites around the world' (Bobek et al., 2018, p. 24). In the 1990s, in the context of the strong 'flexibilisation' of labour markets in all Western countries, the term 'precariousness' came to be polysemous and has remained so until today. Its current use not only describes a non-standard employment situation, but also refers to the uncertain prospects that this employment situation involves for individuals beyond the labour market sphere (Bourdieu, 1999). Using the same line of reasoning, Paugam (cited by Barbier, 2005, p. 356) interpreted the term precariousness to refer to the uncertainty and economic vulnerability caused by an individual's employment situation. In this sense, Frade et al. (2004) highlighted the connection between the notion of precariousness and situations of unemployment and social exclusion, specifically focusing on the effects that it has on spheres other than the labour market. More recently, the term *precarity* has come to be used to express 'life precariousness', although, as mentioned above, precariousness had already been used with the same meaning.[1] The term precariousness will be used throughout this article to refer to atypical and insecure employment that includes, but is not limited to, temporary employment.

[1]Lazar and Sanchez (2019) offer a good review of the overlapping and conceptual boundaries between the terms precarity, precariousness and other terms such as precariat. This discussion goes beyond the objectives of this article.

Young people have been particularly affected by this increase in precarious employment. Put simply, at least from the 1990s onwards, 'young people and other labour market newcomers are more likely to be given a fixed-term contract' (Hvinden et al., 2019, p. 9). Several reasons have been adduced to account for this tendency, ranging from deregulation in many Western countries to changes in the recruitment policies of companies in the sectors where young people have traditionally had more job opportunities (Grotti et al., 2019; Hvinden et al., 2019). The fact is that young people with fixed-term contracts have lower pay, lower benefit entitlements and higher risk of job loss (Hvinden et al., 2019; O'Reilly et al., 2019).

The growth in temporary employment among youth has raised concerns about the gap between young workers and prime-age and older workers, with increasingly differentiated employment conditions (Bell & Blanchflower, 2011; De Lange et al., 2014). A debate has developed regarding whether temporary employment could be a 'stepping stone' towards permanent employment or rather, whether it may trap workers in unstable, 'dead-end' jobs (Bruno et al., 2012; Scherer, 2004). While empirical findings have sometimes been inconsistent and it is difficult to generalise, it can be stated that the longer individuals are in precarious employment, the more difficult it is for them to move away from it; and that only those with higher educational levels manage to overcome the initial disadvantage of holding the unskilled and temporary jobs associated with the lower segments of the labour market (Bruno et al., 2012; García-Pérez et al., 2019). The role played by labour market segmentation in these processes of entrapment in precariousness is crucial, since one of the factors that marks a difference between segments is contract stability. The primary segment is characterised by well-paid, stable jobs, opportunities for advancement and good working conditions, while the secondary segment is characterised by low-paid, precarious jobs with little chance of advancement and poor working conditions (Cruz et al., 2019; Doeringer & Piore, 1971). In addition, having a job in the secondary segment may have long-term negative effects on a worker's employment prospects, a situation that has been described in the literature as a 'scarring effect'. The latter refers to the situation of entrapment in the medium and long term caused by underemployment, instability and/or unemployment under certain sets of circumstances (Bruno et al., 2012; Skans, 2011). As a result, in subsequent years, it is very difficult for these individuals to find jobs with greater stability or in accordance with the educational level they attained.

Job insecurity among the young adult population and its effects increased after the Great Recession, especially in

Southern European countries (Karamessini et al., 2019). This has been apparent in Spain, where the economic crisis caused many young people to be trapped in precarious employment trajectories (Verd et al., 2019). Moreover, the high prevalence of young workers in temporary employment in the lowest segment of the Spanish labour market can be related to the significant presence of companies in the service sector that rely on price and cost reduction for competitiveness (Pitxer et al., 2014). A sign that the Spanish labour market is increasingly characterised by a low-cost service sector based on low-skilled jobs is that the country has one of the highest over-qualification rates in Europe (Eurostat, 2022; Herrera, 2017). In short, the widespread use of fixed-term contracts in Spain may be partly explained by the tendency of Spanish companies to compete by lowering their wage costs to the minimum, causing workers who occupy these jobs to become trapped in employment conditions typical of the lower segment of the labour market (Cruz et al., 2019).

LABOUR MARKET REFORMS IN SPAIN: THE PURSUIT OF FLEXIBILITY THROUGH TEMPORARY EMPLOYMENT

Flexibility measures and the endless period of labour market reforms

The Spanish labour market has been marked by high levels of unemployment since the late 1970s. To address this issue, public policies since the mid-1980s have sought to increase labour market flexibility, which has involved, among other measures, promoting the use of fixed-term contracts (Banyuls et al., 2009; Recio, 1997). These reforms have resulted in a labour market that is very fragile, highly vulnerable to economic shocks (Koch, 2006; Muñoz de Bustillo & Antón, 2012; Verick, 2009) and extremely segmented, with particular social groups experiencing greater uncertainty (Bernardi & Garrido, 2008; Bernardi & Martínez-Pastor, 2010). The widespread use of fixed-term contracts since the early 1990s (see Figure 1), together with the different levels of social protection experienced by permanent and temporary workers, have led some authors to speak of a 'generational segmentation' of the Spanish labour market and a 'polarised' situation where young workers are outsiders and older workers are insiders (Simó Noguera, 2008). However, this term obscures the true extent and nature of inequality in the Spanish labour market, since many of those who are presumably 'insiders' also have precarious jobs (Häusermann & Schwander, 2012; López-Andreu & Verd, 2016).

Younger workers, together with other social groups in the lowest segment of the Spanish labour market (e.g., migrants, women and unskilled workers), benefited the most from the growth in employment experienced between the mid-1990s and 2007, with the average annual growth rate in employment being 3.15% during that period (Andrés et al., 2010). However, younger workers were also the most negatively affected by the ensuing economic downturn, with the Spanish labour

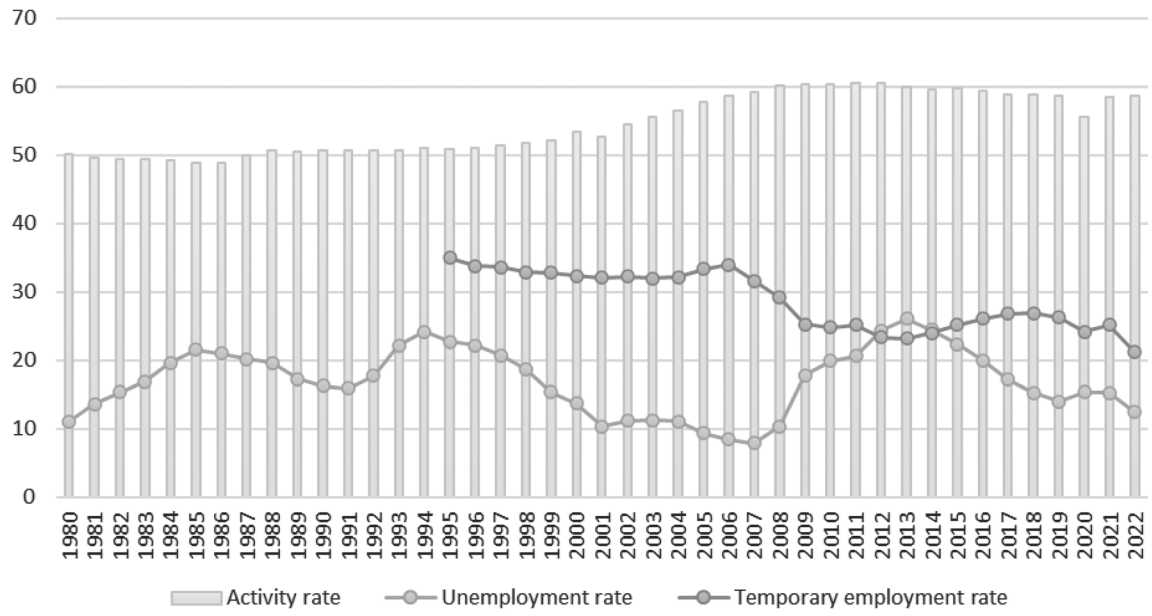

FIGURE 1 Activity, unemployment and temporary employment rates in Spain (1980–2022). *Source*: Spanish Labour Force Survey and Eurostat. Annual data refers to second quarter.

market being the most adversely affected by the Great Recession in Europe (Banyuls & Recio, 2017). The response to this increase in unemployment caused by the economic crisis was a new wave of labour market reforms in 2010 and 2012. Although they were justified by arguing that they would reduce labour market segmentation, in practice they only increased the employment instability of workers situated in the secondary segment (Cárdenas del Rey, 2020). The 2012 labour market reform also strengthened the ability of employers to introduce internal and external flexibility measures and negotiate collective agreements at the company level (López-Andreu, 2019), which produced a wage constraint effect. This effect, together with the focus on low-skilled economic activities (construction and tourism), exacerbated the differences among workers in the labour market, with a significant expansion of low-paid jobs (Hurley et al., 2019). Again, these policy reforms in the aftermath of the Great Recession had the strongest impact on younger workers, as they worsened their employment conditions and options for independent living (López-Andreu & Verd, 2020).

For many of those who entered the labour market during the Great Recession, the COVID-19 crisis compounded the scars from the previous economic shock. Thus, high unemployment in the early stages of their labour market trajectory followed by prolonged periods of temporary employment cannot be considered merely an insignificant bump in the career of young workers, as this can often have permanent scarring effects, including being stuck in low wage jobs, limited job prospects and/or periods of unemployment (Bentolila et al., 2021). The COVID-19 crisis not only aggravated the conditions of those who had joined the labour market during the Great Recession, but also greatly affected new young entrants (Molina & Godino, 2021). Therefore, the compound effect of the latter two employment crises on the labour market trajectories of young people has been enormous.

The 2021 labour market reform: Short-term effects on temporary employment

Reducing the use of fixed-term contracts was one of the main objectives of the reform of the labour market and collective bargaining agreed by social partners and the government in December 2021. This reform eliminated the so-called 'work-and-service contract', which was the most common type of fixed-term contract in Spain, and reduced other fixed-term contracts to a maximum of 1 year, limiting the applicable legal grounds. Moreover, the reform promoted discontinuous open-ended contracts for seasonal jobs (Pérez-Ortiz et al., 2022; Ruesga & Viñas, 2022). Despite the importance of seasonal activities (e.g., tourism) in Spain, temporary employment was regarded as a pernicious structural pattern in the Spanish labour market, as Spain had a higher rate of temporary employment in every single economic sector than any other EU country (Lahera & Conde-Ruiz, 2021).

Other countries at the international level made similar attempts in the past, mostly prohibiting the use of fixed-term contracts for permanent tasks (particularly in the case of Europe and Latin America) and limiting renewals or the overall duration of fixed-term work (e.g., North American countries) (ILO, 2016). The Portuguese 'Decent work agenda' approved in April 2023 is a recent example, although applying only a soft limitation on temporary contracts. Indeed, data shows this reform has not been particularly effective in the short-term (Eurostat, 2023).

The novelty of the Spanish labour market reform at the international level lies in its severe restriction on the use of fixed-term contracts. In this respect, the reform seems to have met its objective, as it has reduced the temporary employment rate to its lowest level in 35 years (17.3%). Specifically, temporary work and service contracts were eliminated and those for production circumstances have decreased by 27% (Felgueroso et al., 2023). However, some minor unions that did not support the labour market reform have stressed that the increase in stable employment is the result of employers offering contracts for fewer hours and with lower wages, such as part-time open-ended and discontinuous open-ended contracts (Unión Sindical Obrera, 2023). Some initial evaluations of the reform shared similar critical views regarding the increase in part-time contracts (De la Fuente & Bernat, 2022; Muñoz de Bustillo, 2022), which are seen as a way for employers to save labour costs by reducing not only working hours, but also social contributions and severance pay.

These criticisms beg the question of whether reducing temporary employment has generally improved the employment conditions of younger workers or whether this has been the case for only some groups of young workers. Temporary employment may have decreased to a similar extent for all young people, or it may be that the groups that have been at the bottom of the Spanish labour market segment structure have continued being affected by a greater prevalence of temporary employment. It may even be the case that the lower labour costs that part-time contracts entail for companies have been at the expense of increasing involuntary part-time work among young workers, thus changing the contractual form of precariousness from fixed-term contracts to involuntary part-time contracts. These

questions will be addressed empirically in the remainder of the article.

DATA AND METHODS

Data

The data analysed were obtained from the Spanish Labour Force Survey, carried out by the Spanish National Institute of Statistics. The specific databases used were those corresponding to the last quarter of 2019 and 2022. The size of the total sample was 163,152 and 128,192 individuals, respectively. The study is specifically focused on salaried employees in the private sector aged 16–34, which yields a subsample of 10,586 in 2019 (6.48% of the sample) and of 7531 in 2022 (5.87% of the sample). To offer some points of comparison, some analyses were also performed on all salaried private sector employees aged 16–64 (41,221 in 2019 and 32,885 in 2022).

Analysis

The first part of the analysis is descriptive and uses contingency tables to compare the distribution of different characteristics of contracts (taken as indicators of precarious employment) among different groups of salaried employees in the two periods analysed. The weighted absolute data are presented in the Appendix (Tables A1–A4). The weighted relative frequencies for young people aged 16–34 are presented in Tables 1 and 2.

The second part of the analysis uses logistic regressions to examine the relationship between the dependent and independent variables considered (listed in the next section). Only weighted data were used in these regressions. Table A5 in the Appendix shows the frequency distribution of the dependent and independent variables used in the regressions. Three regression models were performed, one for each of the dependent variables identified, which were run for the year 2019 and for the year 2022, resulting in a total of six logistic regressions. Table 3 shows the odds ratios for all the regressions, and in those that were significant in both periods the column labelled as 'direction of change' shows if the difference involved an increase in the probability of occurrence of the event (↑), a decrease (↓), or whether it was likely to remain practically the same (≈). There were some categories that were only significant in one of the two periods, for which the difference was not calculated. We identified a change in the odds ratios when, in addition to being significant in both periods, there were non-overlapping confidence intervals for the model in 2019 and in 2022. The odds ratios and their confidence intervals can be seen in Table A6 in the Appendix.

Variables regarding type of contract

The three variables regarding the type of contract listed below were used both in the descriptive tables and in the logistic regressions (they were considered the dependent variables in the logistic regressions):

- *Type of contract*: In the descriptive tables, a distinction was made between regular open-ended, discontinuous open-ended and fixed-term contracts. A dichotomous variable was used in the logistic regression, as the objective was to identify the determinants for having a fixed-term contract vs. any other type of contract; thus, regular open-ended and discontinuous open-ended contracts were merged into a single category.
- *Type of working day in open-ended contracts*: While in the descriptive tables, a distinction was made between full-time and part-time open-ended contracts,[2] here, the dichotomous variable used in the regression was: (1) having a part-time open-ended contract, (2) having any other type of contract, including part-time temporary contracts. The objective of the regression was to identify the determinants for having part-time open-ended contracts (which have increased, as denounced by some trade unions, seemingly as a way to comply with the new legislation without the cost of employing people on a full-time basis).
- *Voluntary/involuntary part-time status*: The categories for this variable in the descriptive tables are (1) voluntary, and (2) involuntary. Involuntary part-time employment is defined as those part-time jobs where workers reported that they 'had not been able to find a full-time job', while voluntary part-time employment refers to the acceptance of part-time employment for any other reasons, including having care responsibilities. The use of this latter category separated from the rest would allow the development of an analysis more focused on gender differences. However, this option has been discarded to develop a broader and more general approach. The categories used in the logistic

[2]Although a discontinuous open-ended contract could be considered a part-time contract, as Article 12 of the Spanish Labour Code establishes that a worker shall be considered to be employed part-time when he/she provides services for a number of hours per day, per week, per month or per year that is less than the number of hours considered standard for the activity in question in those periods of time, we adhere to the methodological definition of the National Statistics Institute (responsible for the Spanish LFS), which establishes the week as the reference period to distinguish full-time from part-time.

regression were different, as the objective was to discover the determinants for being in involuntary part-time employment (vs. having any other job, including in full-time employment). The two categories were (1) being in involuntary part-time employment, and (2) being in any other type of employment, including voluntary part-time and full-time employment.[3]

Sociodemographic and socioeconomic variables

The sociodemographic and socioeconomic variables that were used as independent variables in the logistic regressions are the following (some are also used in the descriptive analysis):

- *Gender*: This variable is also used in the descriptive analysis. It has two categories: (1) men and (2) women.
- *Age group*: This variable is also used in the descriptive analysis. It has two categories: (1) from 16 to 24 years old and (2) from 25 to 34 years old.
- *Highest educational level attained*: This variable is also used in the descriptive analysis. It has three categories: (1) primary (no formal education, incomplete and complete primary education), (2) secondary (first or second stage of secondary education) and (3) tertiary (higher education, including short-cycle tertiary education).
- *Occupational level*: This variable is also used in the descriptive analysis. It has six categories: (1) managers, technicians, and professionals, (2) accounting, administrative and other clerical workers, (3) tourism and hospitality, personal services, and retail sales workers, (4) skilled agricultural, livestock, forestry and fishery workers, (5) skilled workers in the manufacturing and construction industries and (6) elementary occupations (unskilled and semi-skilled workers).
- *Region*: For this variable the Spanish Autonomous Regions are divided into two groups, depending on whether they were: (1) low-unemployment regions (Aragon, the Balearic Islands, Catalonia, Madrid, Navarre, the Basque Country and La Rioja) or (2) high-unemployment regions (the remaining Spanish regions). This clustering follows the proposal by Bande and Karanassou (2014), which is based on the differences in regional unemployment records over a 30-year period (1980 to 2010).
- *Nationality*: This variable has three categories: (1) people born in Spain, (2) people born in the rest of the EU, and (3) people born in non-EU countries.

[3]Initially, the objective was to develop a model where the odds ratios were calculated for having an involuntary part-time open-ended contract vs. having any other contract, including in full-time employment. However, due to the small sub-sample of young people having an involuntary part-time open-ended contract in 2019 (only 413 out of 10,586 cases), the regression was done by calculating the odds ratios for having any involuntary part-time contract (being fixed-term or open-ended) vs. having any other contract.

RESULTS

This section is organised into two subsections. The first (Section 5.1) presents descriptive data. Absolute population data (shown in the Appendix) is first used to provide the magnitude of the changes in the use of the different types of contracts. Tables 1 and 2 are then compared to assess the unequal distribution of fixed-term contracts before and after the reform, with a view to identifying the job insecurity situations still experienced by some groups of young workers. This is followed by the differences regarding part-time and full-time open-ended contracts and voluntary/involuntary part-time status. The second (Section 5.2) presents Table 3, which summarises the results of a set of three logistic regression models. These results show the likelihoods of having a certain type of contract before and after the 2021 labour market reform, considering the sociodemographic and socioeconomic characteristics of young people.

The changes in the distribution of different types of employment contracts among young people

The first result yielded by the comparison of the types of employment contract between the 4th quarter of 2019 and the 4th quarter of 2022 for all Spanish private sector employees is the reduction in fixed-term contracts for all age groups (see Tables A1 and A2 in the Appendix). Nevertheless, the most important change occurred among those aged 16– 34: in the 4th quarter of 2019, 43.6% of workers between 16 and 34 years of age had a fixed-term contract, while in the 4th quarter of 2022 the percentage had decreased to 27%.

Regarding the comparison of part-time and full-time open-ended contracts, there was a similar increase in part-time contracts (16.9%) and in full-time contracts (16.2%) for all Spanish private sector employees. However, the increase in part-time contracts among young workers was higher in comparison with older employees and even compared with full-time contracts among young workers (see Tables A1 and A2 in the Appendix). This shows that the fears and complaints voiced by some social actors that fixed-term contracts might be replaced

TABLE 1 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
%	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	55.2	1.6	43.1	91.8	8.2	45.6	54.4
Women	53.8	2	44.2	77.3	22.7	47.8	52.2
Total	54.6	1.8	43.6	85.1	14.9	47	53
Age							
16–24 years	30.1	1.2	68.6	70.1	29.9	60.9	39.1
25–34 years	62.1	2	35.9	87.4	12.6	37.4	62.6
Total	54.6	1.8	43.6	85.1	14.9	47	53
Highest educational level attained							
Primary	42	3.2	54.7	87.9	12.1	47.6	52.4
Secondary	50.7	2.3	47	82.9	17.1	50.1	49.9
Tertiary	60.4	1.1	38.4	87.3	12.7	42	58
Total	54.6	1.8	43.6	85.1	14.9	47	53
Occupational level							
Managers, technicians and professionals	63	1.3	35.6	90.5	9.5	49.9	50.1
Accounting, administrative and other clerical workers	61.9	1.3	36.8	86.5	13.5	56.2	43.8
Tourism and hospitality, personal services and retail sales workers	52.5	2.1	45.4	73.9	26.1	46.5	53.5
Skilled agricultural, livestock, forestry and fishery workers	69.2	2.2	28.6	99.3	0.7	13.5	86.5
Skilled workers in the manufacturing and construction industries	56	1.5	42.5	95.9	4.1	47.4	52.6
Elementary occupations (unskilled and semi-skilled)	34.3	3	62.8	76.3	23.7	40.1	59.9
Total	54.6	1.8	43.6	85.1	14.9	47	53

Note: 4th quarter of 2019. Spanish private sector employees between 16 and 34 years old. Percentages.
Source: Developed by the authors based on the Spanish Labour Force Survey.

with part-time open-ended contracts for some workers seems to have been justified in the case of young workers. These arguments are reinforced if the changes in these types of contracts among young people aged 16–34 are compared (see Tables A3 and A4 in the Appendix). With the decrease in temporary employment, there were 1,081,980 young people with fixed-term contracts in 2022 (37.6% less), compared with 2,784,899 young people with open-ended contracts. However, the increase in part-time open-ended contracts in 2022 was 45.7%. Involuntary part-time employment, on the other hand, decreased by 6.4%, with 457,766 young people having this type of contract in 2022, but it is worth noting that this decrease was not homogeneous, as shown below.

Tables 1 and 2 show the percentage distribution of contract type, type of working day, and the voluntary or involuntary status of part-time work, according to socio-demographic and socioeconomic variables such as gender, age, highest educational level attained and occupational level. These data point to different trends at

TABLE 2 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
%	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	71.7	3.4	24.9	89.0	11.0	47.2	52.8
Women	66	4.3	29.6	76.3	23.7	50.3	49.7
Total	69.1	3.8	27	83.4	16.6	49.1	50.9
Age							
16–24 years	47.3	4.5	48.2	67.6	32.4	61.5	38.5
25–34 years	76.2	3.6	20.2	86.7	13.3	39	61
Total	69.1	3.8	27	83.4	16.6	49.1	50.9
Highest educational level attained							
Primary	55.5	5.1	39.4	89.0	11.0	40	60
Secondary	65.8	4.4	29.8	79.7	20.3	51.3	48.7
Tertiary	73.5	3.2	23.3	86.5	13.5	46.4	53.6
Total	69.1	3.8	27	83.4	16.6	49.1	50.9
Occupational level							
Managers, technicians and professionals	75.3	2.5	22.2	88.7	11.3	55.8	44.2
Accounting, administrative and other clerical workers	77.3	1.5	21.2	86.6	13.4	56	44
Tourism and hospitality, personal services and retail sales workers	64.9	4.9	30.2	70.2	29.8	50.4	49.6
Skilled agricultural, livestock, forestry and fishery workers	65	6.1	29	93.5	6.5	21.4	78.6
Skilled workers in the manufacturing and construction industries	72.5	3.5	24	93.8	6.2	54.5	45.5
Elementary occupations (unskilled and semi-skilled)	52.4	7	40.5	75.4	24.6	31.2	68.8
Total	69.1	3.8	27	83.4	16.6	49.1	50.9

Note: 4th quarter of 2022. Spanish private sector employees between 16 and 34 years old. Percentages.
Source: Developed by the authors based on the Spanish Labour Force Survey.

a descriptive level, comparing the percentage distribution of categories before and after the 2021 labour market reform.

Focusing on the changes regarding contract types, data in Tables 1 and 2 do not show any important differences in the overall increase in open-ended contracts and discontinuous open-ended contracts, nor in the decrease in fixed-term contracts. Looking at the age groups, there was a very significant increase (275%) in discontinuous open-ended contracts among young people aged 16–24 years old (1.2% in 2019 and 4.5% in 2022), and also an increase in regular open-ended contracts (30.1% in 2019 and 47.3% in 2022). Despite the increase among the younger age group, they still had the highest proportion of fixed-term contracts in 2022 (48.2%). In fact, the decline in these fixed-term contracts was smaller than that found among young people aged 25–34 years old. Regarding educational level, the increase in open-ended contracts and the decrease in fixed-term contracts were similar. Here, the highest increase (190%) in discontinuous

open-ended contracts is found among young people with a tertiary educational level (1.1% in 2019 and 3.2% in 2022). It should also be noted that young workers with a primary educational level experienced the smallest reduction in fixed-term contracts and were the age group with the highest rate of temporary employment. If we focus on occupational level, there was a considerable increase in open-ended contracts in elementary occupations (34.3% in 2019 and 52.4% in 2022), which was higher than in other occupational categories. However, they were still far behind other occupational groups in terms of open-ended contracts and continued to have the highest proportion of fixed-term contracts (40.5% in 2022). These data show that the most disadvantaged young people (those aged 16–24 with less work experience, primary education and who were working in elementary occupations) benefited to a lesser extent from the increase in open-ended contracts after the reform and remained at the top in terms of temporary employment. Another occupational group to be highlighted is that of skilled agricultural, livestock, forestry and fishery workers, with the largest increase (177.3%) in discontinuous open-ended contracts (from 2.2% to 6.1%). The increase in this type of contract was consistent with the seasonal nature of most of these sectors.

In relation to the type of working day, the main finding is that there was an increase in the percentage of part-time open-ended contracts for almost all categories, and therefore, a general decrease in the percentage of full-time open-ended contracts. Both types of contracts were more often used after the reform, but it was part-time open-ended contracts that increased the most. The categories of young people where the highest increase are observed were men, young people aged 16–24, young people with a secondary educational level and skilled agricultural, livestock, forestry, and fishery workers, with a huge percentage increase of 802.2% (although this only amounted to 1277 contracts). Even so, the occupations that still had the most part-time open-ended contracts in 2022 were those in tourism and hospitality, personal services and retail sales (29.8%) and elementary occupations (24.6%). Young people who experienced a decrease in part-time open-ended contracts were accounting, administrative and other clerical workers and young people with a primary educational level. It is worth noting that the latter were the group of young people that saw the highest increase in involuntary part-time employment, as will be discussed below.

Regarding the voluntary or involuntary status of part-time employment, a slightly greater decrease in involuntary part-time is observed in women (52.2% in 2019 and 49.7% in 2022) compared to men. However, the declines in both groups were very small between 2019 and 2022. While there was also a slightly higher increase in voluntary part-time employment among young people aged 26–34 (37.4% in 2019 and 39% in 2022), again, we are talking about very small variations between the years. A more notable difference is seen in involuntary part-time employment among young people with a primary educational level (52.4% in 2019 and 60% in 2022) and among young people in elementary occupations (59.9% in 2019 and 68.8% in 2022). Both showed a similar increase (14.5% and 14.9%, respectively) and display a significantly different trend from the rest of the groups (by educational level and occupational level), which saw involuntary part-time employment decline. These data show that young people with a primary education who were in elementary occupational levels (that is, the most disadvantaged profile of young people) were more often in involuntary part-time employment in 2022 compared to young people with other educational levels and occupations. While in 2019 they were the young people with the highest level of temporary employment, they experienced the highest increase of involuntary part-time work in 2022. Thus, we can find that the most disadvantaged profile among this age group seems to have been the most negatively affected by the possible replacement of fixed-term contracts with part-time contracts, especially involuntary part-time contracts, as highlighted above.

The propensity for young people to have certain types of employment contracts

After showing in the preceding section that a reduction in temporary employment (comparing the levels of the 4th quarter of 2019 with those of the 4th quarter of 2022) occurred especially among young people, the question we want to address in this section is what profiles among young workers were more likely to have certain specific types of contracts before and after the reform. This way it is possible to identify whether the axes of the inequality existing among young workers regarding types of employment contract were the same before and after the reform. To this effect, the regressions in Table 3 were used to test whether specific groups of young people were more likely than others to have certain types of employment contracts before and after the labour market reform (shown by the odds ratio), taking as a criterion for comparison the overlapping or not of the confidence intervals for the odds ratios obtained (see Table A6).

The odds ratios for having a fixed-term contract in the 4th quarter of 2019 shown in Model 1 serves to clearly illustrate the characteristics of the groups traditionally included in the most precarious segments of the Spanish labour market. As mentioned in Section 3 above,

TABLE 3 Logistic regressions considering the odd ratios for having a fixed-term contract vs. any other type of employment contract (Model 1), for having a part-time open-ended contract vs. any other type of contract (Model 2), and having an involuntary part-time employment contract vs. any other type of contract (Model 3).

	Model 1: Fixed-term contract			Model 2: Part-time open-ended contract			Model 3: Involuntary part-time employment contract		
	2019	2022		2019	2022		2019	2022	
	Odds ratio	Odds ratio	Direction of change	Odds ratio	Odds ratio	Direction of change	Odds ratio	Odds ratio	Direction of change
Constant	0.31**	0.23**		0.03**	0.04**		0.03**	0.03**	
Gender									
Men	ref.	ref.		ref.	ref.		ref.	ref.	
Women	1.18**	1.41**	↑	2.25**	1.85**	≈	1.69**	1.67**	≈
Age									
25–34 years	ref.	ref.		ref.	ref.		ref.	ref.	
16–24 years	4.08**	3.86**	≈	1.04	1.49**		1.35**	1.63**	≈
Highest educational level attained									
Primary	ref.	ref.		ref.	ref.		ref.	ref.	
Secondary	0.88	0.62**		1.42	2.03*		2.04**	1.70*	≈
Tertiary	1.00	0.67*		1.38	1.63		2.31**	1.95*	≈
Occupational level									
Managers, technicians and professionals	ref.	ref.		ref.	ref.		ref.	ref.	
Accounting, administrative and other clerical workers	0.97	0.87		1.27	1.07		0.77*	0.91	
Tourism and hospitality, personal services and retail sales workers	1.16*	1.25*	≈	2.32**	2.29**	≈	2.13**	2.67**	≈
Skilled agricultural, livestock, forestry and fishery workers	0.71	1.37		0.12	0.59		0.70	1.56	
Skilled workers in the manufacturing and construction industries	1.32**	1.20		0.53**	0.60**	≈	0.53**	0.75	
Elementary occupations (unskilled and semi-skilled)	2.64**	2.23**	≈	1.69**	1.79**	≈	1.92**	3.05**	↑
Region									
Low-unemployment regions	ref.	ref.		ref.	ref.		ref.	ref.	
High-unemployment regions	1.76**	1.29**	↓	0.91	1.01		1.60**	1.33**	≈
Nationality									
People born in Spain	ref.	ref.		ref.	ref.		ref.	ref.	
People born in the rest of the EU	0.83*	0.83		0.75	0.70		0.89	0.68	
People born in non-EU countries	1.35**	1.12		0.93	0.75**		1.26**	1.16	

(Continues)

TABLE 3 (Continued)

	Model 1: Fixed-term contract			Model 2: Part-time open-ended contract			Model 3: Involuntary part-time employment contract		
	2019	2022		2019	2022		2019	2022	
	Odds ratio	Odds ratio	Direction of change	Odds ratio	Odds ratio	Direction of change	Odds ratio	Odds ratio	Direction of change
Number of cases	10,586	7531		10,586	7531		10,586	7531	
Nagelkerke *R* Square	0.16	0.18		0.08	0.09		0.09	0.10	

Note: 4th quarter of 2019 and 4th quarter of 2022. Spanish private sector employees aged between 16 and 34 years.
Source: Developed by the authors based on the Spanish Labour Force Survey.
*Significance level: $p < 0.05$; **Significance level: $p < 0.01$.

the following groups have most often been in temporary employment in Spain since the early 1990s: women, workers born in non-EU countries, the youngest among young workers and workers in elementary occupations or working in tourism and hospitality, personal services and retail sales sectors, or even those working in skilled occupations in the manufacturing and construction sectors. These data also show how temporary employment and unemployment are two sides of the phenomenon of precariousness. Since the 4th quarter of 2019, young people had greater chances of having a fixed-term contract if they lived in one of the regions with the highest unemployment rates in Spain.

The comparison of the odds ratios for the 4th quarter of 2022 in Model 1 shows the changes in the internal inequalities among young people of 16–34 years of age after the labour market reform. The odds ratio for residents in regions with high unemployment rates decreased slightly after the reform, which would indicate that the employment situation of these young people moved slightly closer to that of others in their age group (therefore, there was a reduction in inequality). In addition, the fact that place of birth was no longer significant in 2022 regarding the prevalence of fixed-term contracts seems to indicate that a smaller role is played by ethnic origin in terms of labour market instability. This trend of continuity or a slight reduction of differences between groups regarding region of residence and ethnic origin is counterbalanced by an increase in the odds ratio of women having a fixed-term contract, which was 1.41 for the 4th quarter of 2022, taking men as the reference group. Another exception to this trend of a reduction in differences between groups is found when comparing the odds ratios for the educational level variable. As shown in Table 3, there were no significant differences between the various educational levels in relation to their propensity to have a temporary contract in the 4th quarter of 2019. However, the situation changed in the 4th quarter of 2022, as young people with a secondary or tertiary educational level had a negative probability of being employed under a fixed-term contract, compared to young people with a primary educational level. This means that young people with higher than a primary educational level were more likely to avoid having a fixed-term contract in 2022 than in 2019. In other words, in 2022 young people with a primary educational level were more likely to have a fixed-term contract (despite their number having been reduced) when compared to young people with higher levels of education. These differences provide an indication of where precariousness is concentrated after the reform, something that will be further discussed in the analysis of models 2 and 3.

The logistic regressions for Model 2 were built to check the extent to which the increase in part-time open-ended contracts among young people, as noted in Section 5.1, led to an increase in differences among groups of young workers. Looking at the odds ratios for Model 2, two categories that were not significantly associated with having a part-time open-ended contract in the 4th quarter of 2019 were significant in 2022: young people with a secondary education level and young people between 16 and 24 years of age. This may indicate that employers had changed a good part of the enormous volume of fixed-term contracts that workers with these profiles had in 2019 (see Table A3) for part-time open-ended contracts, something that seems not to have happened for other groups (e.g., young people with tertiary educational level). The significance of these odd ratios may also be explained by the desire of young people with these profiles to combine training and employment. In addition, it is notable that there is a negative relationship between being born in non-EU countries and having a part-time open-ended contract, probably because in the reference category in the regression (people born in Spain) the volume of part-time open-ended contracts rose proportionally more. Thus, and in general, Model

2 reveals few internal differences in the propensity to have a part-time open-ended contract between 2019 and 2022 among young people. It can therefore be concluded that the increase in part-time open-ended contracts (as an employer's strategy to reduce costs) did not affect a specific group of young people, but had a similar impact on young people across the board. However, it should not be inferred from this analysis that the inequalities linked to the use of part-time open-ended contracts among young people were reduced; the results of regression Model 3 (below) qualify this fairly egalitarian image provided by Model 2.

The logistic regressions of Model 3, which compared the probability of having an involuntary part-time contract vs. any other type of contract, reveals similar odd ratios in 2019 and 2022 for many significant categories. However, the ratios indicating a positive relationship for people born in non-EU countries (compared with people born in Spain) in 2019 were no more significant in 2022. The ratios indicating a negative relationship for accounting, administrative and other clerical workers, and for skilled workers in the manufacturing and construction industries, were no more significant in 2022 either. These results seem to reveal a trend towards a more equal probability of having an involuntary part-time contract in 2022 among the different profiles of young workers. However, this is only one part of the story, because when occupational level is considered, the odds ratio for young people working in elementary occupations is higher. In the 4th quarter of 2022, young people working in elementary occupations were 3.05 times more likely to have an involuntary part-time employment contract than the reference group. Moreover, young people having an occupation in tourism and hospitality, personal services and retail sales were 2.67 times more likely to have an involuntary part-time employment contract than the reference group.[4] These odds ratios are the two highest for Model 3, which suggests that in the 4th quarter of 2022, involuntary part-time work is strongly linked to occupational level. The strong correlation between involuntary part-time work and elementary occupations also suggests that this type of employment could represent a new form of labour market precariousness, once the volume of fixed-term contracts has been reduced. In this sense, it could be said that after the reform the precarious employment situation for young people in this occupational category has not improved.

[4]However, using the criterion for the comparison of odds ratios explained in Section 4, we cannot state that this likelihood is higher after the reform, as the confidence intervals of the coefficients for 2019 and 2022 are slightly overlapping (see Table A6).

DISCUSSION AND CONCLUSIONS

The labour market situation of many young people across Western countries has been characterised since at least the 1990s by its instability. Although unemployment rates have decreased steadily since the Great Recession (with a very important interruption of this trend during the pandemic years), temporary employment continues to be widespread among young workers, which implies lower pay, lower benefit entitlements and higher risk of job loss. In this context, Spain has been one of the champions in employment precariousness among young people in Europe for many decades.

The main objective of this article has been to evaluate the situation of precariousness among young people after the Spanish 2021 labour market reform, which introduced very important restrictions in the use of fixed-term contracts. The initial findings from the analysis indicate that young people are in a better situation regarding their contractual stability since the reform. The percentage of young people with fixed-term contracts was substantially lower, so the differences in precarious employment between young workers and other workers were reduced. The results also indicate that certain internal differences that existed prior to the reform among this age group in regard to temporary employment were reduced, particularly when we consider those living in regions with high unemployment as well as those born in non-EU countries. The results also show that young people with more than a primary level education benefited the most from the reduction in temporary employment. This is an important factor in the distribution of temporary employment in the Spanish labour market after the reform. The role of educational level and its connection with labour market segmentation will be discussed below.

The new profile of employment precariousness in a highly segmented labour market

Although the reduction in temporary employment is very clear, the analysis reveals an increase in discontinuous open-ended and part-time open-ended contracts, which, as indicated in the literature, can be understood as a result of the strategy that employers have followed to comply with the new legislation and at the same time reduce their labour costs (Muñoz de Bustillo, 2022; Pérez de Prado, 2022). The increase in the use of discontinuous open-ended contracts was provided for by law and by itself cannot be interpreted as having led to growth in precarious employment, given that the alternative for seasonal workers was being unemployed during the

periods without work activity. Nevertheless, some companies have been prosecuted for the fraudulent use of discontinuous open-ended and part-time open-ended contracts (Bayona, 2022).

The increase in involuntary part-time employment among young people with a primary education and in elementary occupational levels is more troubling, as it does not violate the law, but can be identified as an emerging aspect of precarious employment among young people in Spain. After the reform, involuntary part-time employment seems to be strongly connected with occupational category. It therefore seems that internal differences within this age group regarding the likelihood of said employment may increase.

The probability of having a temporary contract after the reform is also more concentrated in certain groups of young people. As already indicated, the reduction in temporary work has not benefited workers of all educational levels equally; since the reform, having only a primary educational level is associated with having a fixed-term contract. The latter is also connected to being a woman and being younger, an association that already existed before the reform, but that has now become stronger. Temporary employment has therefore become, since the reform, a characteristic more concentrated in specific profiles of young people. Employment sector and occupational level have also become more important when we look at the distribution of fixed-term contracts since the reform: temporary employment has come to be strongly associated with elementary occupations (unskilled and semi-skilled) and work in tourism and hospitality, personal services and retail sales.

The apparent sectoral and occupational concentration of fixed-term contracts and involuntary part-time employment found in the survey can be linked to the above-mentioned strategy applied by some employers to compete by lowering their wage costs to the minimum. As this segmentation is anchored in the structural characteristics of the Spanish economy, it is not surprising that the elimination of some precarious contract types by law has led to employers replacing them with other formally different but equally precarious contract types.

Limitations and future directions for research

The approach and analysis carried out in this study have some limitations. First, the data used convey a very general and broad picture of employment precariousness among young workers since the reform. A more detailed look with a specific sectoral focus, or with a more disaggregated analysis in some categories could offer a more precise picture. Moreover, wage levels, which are an important dimension of employment precariousness, have not been considered. Second, the analysis refers to the situation immediately after the approval of the reform, and therefore it does not take into account the consequences on the use of contracts of possible organisational changes by employers in the direction of replacing the external flexibility that the law allowed until the reform with some type of internal flexibility. It could be that companies will simply have a greater turnover of workers formerly employed under open-ended contracts (Toharia, 2011) so as not to lose the external flexibility that they enjoyed before the reform. The analysis of this possible transition from external flexibility to internal flexibility would require the use of different databases than those used here and is an important direction for future research. Finally, another direction for research that could not be developed with the data and analytical approach carried out here would be an analysis from an intersectional perspective, interweaving different factors which overlap among young workers in the most precarious positions in the labour market, for which a bigger subsample of some types of contracts would be needed.

Policy implications

Overall, the labour market reform approved in December 2021 has somewhat improved the situation of labour market precariousness that a very high percentage of young Spanish workers were experiencing at the time. This indicates that the effects that certain policy recommendations based on economic orthodoxy have had on the working population can be counteracted by political action, by passing the necessary legislative reforms (Furlong et al., 2018). However, greater monitoring and sanctions by government against the fraudulent use of certain types of contracts is necessary to prevent employers from misusing legally and formally accepted employment contract types. The increase in involuntary part-time employment in elementary occupations could be an indicator of this misuse, with companies hiring part-time workers to perform tasks that are in reality full-time.

In addition, the connection between labour market segmentation and job insecurity among young workers is worrying, as mobility between labour market segments in Spain is highly limited and having a job in the secondary segment has long-term negative impacts on the employment prospects of workers (Molina & Godino, 2021). Unless economic policies can change the characteristics of the Spanish production model and reduce the importance of the precarious segments, a proportion of

young Spaniards may continue to be trapped in employment precariousness. However, reversing Spanish labour market segmentation is a difficult task (Miguélez & Prieto, 2009). In order to reduce employment precariousness among young people, the current labour market reform should be accompanied by a commitment to change the Spanish production model, promoting the creation of skilled jobs in those sectors where young people are hired.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no competing interests.

DATA AVAILABILITY STATEMENT

The database mentioned in the article is publicly available upon request to the Spanish National Institute of Statistics.

PERMISSION TO REPRODUCE MATERIAL FROM OTHER SOURCES

Material from other sources is not used.

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APPENDIX A

TABLE A1 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	5,327,495	138,045	1,884,790	5,221,918	243,622	246,921	347,463
Women	4,410,273	224,415	1,607,789	3,484,735	1,149,954	887,476	959,673
Total	9,737,768	362,460	3,492,579	8,706,653	1,393,576	1,134,397	1,307,136
Age							
16–34 years	2,169,039	72,691	1,733,797	1,908,634	333,096	434,249	489,163
35–49 years	4,700,054	161,170	1,241,036	4,243,515	617,709	436,644	490,844
50–64 years	2,806,584	126,397	507,864	2,510,095	422,887	247,295	318,950
Total	9,675,678	360,258	3,482,697	8,662,244	1,373,692	1,118,188	1,298,957
Highest educational level attained							
Primary	464,209	30,357	309,485	409,306	85,261	53,431	94,389
Secondary	5,093,508	253,665	2,108,256	4,514,005	833,169	682,529	818,865
Tertiary	4,180,051	78,438	1,074,838	3,783,343	475,146	398,437	393,882
Total	9,737,768	362,460	3,492,579	8,706,653	1,393,576	1,134,397	1,307,136
Occupational level							
Directors, technicians, and professionals	2,963,655	48,329	593,338	2,785,584	226,400	231,371	188,654
Accounting, administrative, and other clerical workers	1,299,996	18,763	272,300	1,136,992	181,768	163,554	90,383
Tourism and hospitality, personal services, and retail sales workers	2,058,528	100,312	864,991	1,674,984	483,856	411,032	479,060
Skilled agricultural, livestock, forestry, and fishery workers	96,806	3083	37,620	96,954	2934	2634	10,329
Skilled workers in the manufacturing and construction industries	2,110,111	57,570	793,502	2,101,977	65,703	60,202	69,835
Elementary occupations (unskilled and semi-skilled)	1,208,673	134,403	930,828	910,162	432,914	265,604	468,875
Total	9,737,768	362,460	3,492,579	8,706,653	1,393,576	1,134,397	1,307,136

Note: 4th quarter of 2019. Spanish private sector employees between 16 and 64 years. Weighted absolute frequencies.
Source: Developed by the authors based on the Spanish Labour Force Survey.

TABLE A2 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	6,215,526	234,965	1,038,131	6,114,685	335,806	248,268	320,974
Women	5,004,711	339,702	1,012,265	4,061,463	1,282,951	839,401	894,747
Total	11,220,237	574,667	2,050,396	10,176,148	1,618,757	1,087,669	1,215,722
Age							
16–34 years	2,764,899	153,384	1,081,980	2,432,789	485,494	442,397	457,766
35–49 years	5,048,686	230,241	634,323	4,637,636	641,291	386,545	423,799
50–64 years	3,315,453	185,728	322,693	3,038,825	462,356	234,620	320,815
Total	11,129,039	569,353	2,038,995	10,109,250	1,589,141	1,063,562	1,202,380
Highest educational level attained							
Primary	494,597	45,055	181,686	463,247	76,405	43,831	69,228
Secondary	5,819,248	386,031	1,215,105	5,222,070	983,209	644,170	756,854
Tertiary	4,906,392	143,581	653,605	4,490,831	559,142	399,668	389,640
Total	11,220,237	574,667	2,050,396	10,176,148	1,618,757	1,087,669	1,215,722
Occupational level							
Directors, technicians, and professionals	3,499,225	75,634	382,824	3,291,447	283,412	235,270	183,883
Accounting, administrative, and other clerical workers	1,440,181	27,453	143,999	1,278,760	188,875	137,298	91,571
Tourism and hospitality, personal services, and retail sales workers	2,216,380	157,087	492,112	1,804,471	568,996	396,050	432,972
Skilled agricultural, livestock, forestry, and fishery workers	113,951	8729	24,292	117,394	5286	2962	7522
Skilled workers in the manufacturing and construction industries	2,524,121	101,336	404,115	2,533,712	91,746	69,914	74,044
Elementary occupations (unskilled and semi-skilled)	1,426,380	204,428	603,054	1,150,365	480,443	246,175	425,731
Total	11,220,237	574,667	2,050,396	10,176,148	1,618,757	1,087,669	1,215,722

Note: 4th quarter of 2022. Spanish private sector employees between 16 and 64 years. Weighted absolute frequencies.
Source: Developed by the authors based on the Spanish Labour Force Survey.

TABLE A3 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	1,177,123	34,926	918,795	1,112,204	99,846	154,553	184,260
Women	991,916	37,764	815,001	796,430	233,251	279,695	304,903
Total	2,169,039	72,691	1,733,797	1,908,634	333,096	434,249	489,163
Age							
16–24 years	281,907	11,420	641,840	205,703	87,625	229,712	147,539
25–34 years	1,887,132	61,270	1,091,956	1,702,931	245,472	204,536	341,624
Total	2,169,039	72,691	1,733,797	1,908,634	333,096	434,249	489,163
Highest educational level attained							
Primary	61,611	4726	80,211	58,321	8015	9728	10,700
Secondary	1,068,869	48,224	992,491	926,560	190,533	281,757	281,059
Tertiary	1,038,560	19,741	661,095	923,753	134,548	142,764	197,404
Total	2,169,039	72,691	1,733,797	1,908,634	333,096	434,249	489,163
Occupational level							
Directors, technicians, and professionals	707,444	14,962	400,143	653,428	68,979	105,295	105,870
Accounting, administrative, and other clerical workers	264,111	5626	156,836	233,313	36,424	44,792	34,966
Tourism and hospitality, personal services, and retail sales workers	591,758	24,145	512,111	455,333	160,570	195,378	224,879
Skilled agricultural, livestock, forestry, and fishery workers	18,194	580	7527	18,639	135	221	1414
Skilled workers in the manufacturing and construction industries	390,206	10,383	295,755	384,359	16,229	26,400	29,280
Elementary occupations (unskilled and semi-skilled)	197,327	16,995	361,424	163,562	50,760	62,163	92,754
Total	2,169,039	72,691	1,733,797	1,908,634	333,096	434,249	489,163

Note: 4th quarter of 2019. Spanish private sector employees between 16 and 34 years. Weighted absolute frequencies.
Source: Developed by the authors based on the Spanish Labour Force Survey.

TABLE A4 Type of contract, type of working day in open-ended contracts and voluntary/involuntary part-time status by gender, age, highest educational level attained and occupational level.

	Type of contract			Type of working day in open-ended contracts		Voluntary/involuntary part-time status	
	Open-ended	Discontinuous open-ended	Fixed-term	Full-time	Part-time	Voluntary	Involuntary
Gender							
Men	1,548,037	73,351	536,171	1,443,553	177,835	161,580	180,419
Women	1,216,863	80,033	545,808	989,236	307,659	280,817	277,347
Total	2,764,899	153,384	1,081,980	2,432,789	485,494	442,397	457,766
Age							
16–24 years	463,701	44,588	472,507	343,734	164,555	248,974	155,746
25–34 years	2,301,198	108,796	609,473	2,089,055	320,939	193,423	302,020
Total	2,764,899	153,384	1,081,980	2,432,789	485,494	442,397	457,766
Highest educational level attained							
Primary	73,371	6773	52,171	71,327	8818	7643	11,453
Secondary	1,296,721	86,341	587,059	1,102,794	280,268	268,865	255,051
Tertiary	1,394,807	60,270	442,749	1,258,669	196,408	165,889	191,262
Total	2,764,899	153,384	1,081,980	2,432,789	485,494	442,397	457,766
Occupational level							
Directors, technicians, and professionals	954,631	31,766	280,679	874,860	111,537	119,193	94,539
Accounting, administrative, and other clerical workers	328,385	6247	90,076	289,942	44,690	39,611	31,095
Tourism and hospitality, personal services, and retail sales workers	668,852	50,192	311,574	504,531	214,512	198,998	195,485
Skilled agricultural, livestock, forestry, and fishery workers	17,995	1676	8033	18,393	1278	664	2445
Skilled workers in the manufacturing and construction industries	504,461	24,609	167,079	496,517	32,552	37,040	30,887
Elementary occupations (unskilled and semi-skilled)	290,576	38,894	224,540	248,544	80,926	46,890	103,315
Total	2,764,899	153,384	1,081,980	2,432,789	485,494	442,397	457,766

Note: 4th quarter of 2022. Spanish private sector employees between 16 and 34 years. Weighted absolute frequencies.
Source: Developed by the authors based on the Spanish Labour Force Survey.

TABLE A5 Frequencies of dependent and independent regression variables.

Dependent variables (percentage)	2019	2022
Model 1: Fixed-term contract		
Fixed-term contract	46.5	29.6
Other type (regular or discontinuous open-ended)	53.5	70.4
Model 2: Part-time open-ended contract		
Part-time open-ended contract	8.5	13.0
Other type of contract	91.5	87.0
Model 3: Involuntary part-time contract		
Involuntary part-time employment contract	13.2	11.8
Other type of contract	86.8	88.2
Independent variables (percentage)	**2019**	**2022**
Gender		
Men	53.6	53.9
Women	46.4	46.1
Age		
16–24 years	23.5	24.5
25–34 years	76.5	75.5
Region		
Low-unemployment regions	48.5	48.7
High-unemployment regions	51.5	51.3
Highest educational level attained		
Primary	3.7	3.3
Secondary	53.1	49.2
Tertiary	43.2	47.4
Occupational level		
Managers, technicians and professionals	28.2	31.7
Accounting, administrative and other clerical workers	10.7	10.6
Tourism and hospitality, personal services and retail sales workers	28.4	25.8
Skilled agricultural, livestock, forestry and fishery workers	0.7	0.7
Skilled workers in the manufacturing and construction industries	17.5	17.4
Elementary occupations (unskilled and semi-skilled)	14.5	13.8
Nationality		
People born in Spain	76.8	74.4
People born in the rest of the EU	7.3	4.9
People born in non-EU countries	15.9	20.7
Sample size (unweighted)	10,586	7531

Note: 4th quarter of 2019 and of 2022. Spanish private sector employees between 16 and 34 years. Percentages.
Source: Developed by the authors based on the Spanish Labour Force Survey.

TABLE A6 Confidence intervals and odds ratio of the logistic regressions for having a fixed-term contract vs. any other type of employment contract (Model 1), for having a part-time open-ended contract vs. any other type of contract (Model 2), and having an involuntary part-time employment contract vs. any other type of contract (Model 3).

	Model 1: Fixed-term contract								Model 2: Part-time open-ended contract								Model 3: Involuntary part-time employment contract							
	2019				2022				2019				2022				2019				2022			
			CI (90%)				CI (90%)				CI (90%)				CI (90%)				CI (90%)				CI (90%)	
	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U
Constant	0.00	0.31			0.00	0.23			0.00	0.03			0.00	0.04			0.00	0.03			0.00	0.03		
Gender																								
Men	ref.				ref.				ref.				ref.				ref.				ref.			
Women	0.00	1.18	1.09	1.27	0.00	1.41	1.28	1.55	0.00	2.25	1.97	2.57	0.00	1.85	1.63	2.11	0.00	1.69	1.52	1.89	0.00	1.67	1.47	1.91
Age																								
25–34 years	ref.				ref.				ref.				ref.				ref.				ref.			
16–24 years	0.00	4.08	3.74	4.44	0.00	3.86	3.50	4.26	0.67	1.04	0.90	1.19	0.00	1.49	1.31	1.70	0.00	1.35	1.20	1.51	0.00	1.63	1.42	1.86
Highest educational level attained																								
Primary	ref.				ref.				ref.				ref.				ref.				ref.			
Secondary	0.25	0.88	0.73	1.06	0.00	0.62	0.49	0.78	0.13	1.42	0.97	2.09	0.01	2.03	1.32	3.14	0.00	2.04	1.46	2.85	0.03	1.70	1.15	2.51
Tertiary	0.98	1.00	0.82	1.22	0.01	0.67	0.52	0.86	0.18	1.38	0.93	2.07	0.07	1.63	1.04	2.55	0.00	2.31	1.63	3.28	0.01	1.95	1.30	2.93
Occupational level																								
Managers, technicians and professionals	ref.				ref.				ref.				ref.				ref.				ref.			
Accounting, administrative and other clerical workers	0.66	0.97	0.85	1.10	0.17	0.87	0.73	1.03	0.08	1.27	1.02	1.58	0.61	1.07	0.85	1.35	0.04	0.77	0.63	0.95	0.55	0.91	0.70	1.18
Tourism and hospitality, personal services and retail sales workers	0.02	1.16	1.04	1.29	0.01	1.25	1.09	1.43	0.00	2.32	1.94	2.77	0.00	2.29	1.92	2.72	0.00	2.13	1.84	2.48	0.00	2.67	2.23	3.20
Skilled agricultural, livestock, forestry and fishery workers	0.23	0.71	0.45	1.14	0.33	1.37	0.80	2.34	0.21	0.12	0.01	1.93	0.43	0.59	0.20	1.78	0.52	0.70	0.29	1.71	0.38	1.56	0.68	3.56
Skilled workers in the manufacturing and construction industries	0.00	1.32	1.17	1.49	0.06	1.20	1.02	1.42	0.00	0.53	0.39	0.72	0.00	0.60	0.46	0.79	0.00	0.53	0.42	0.67	0.09	0.75	0.57	0.99
Elementary occupations (unskilled and semi-skilled)	0.00	2.64	2.32	3.01	0.00	2.23	1.89	2.63	0.00	1.69	1.35	2.13	0.00	1.79	1.44	2.24	0.00	1.92	1.60	2.31	0.00	3.05	2.45	3.80
Region																								
Low-unemployment regions	ref.				ref.				ref.				ref.				ref.				ref.			
High-unemployment regions	0.00	1.76	1.64	1.89	0.00	1.29	1.18	1.42	0.21	0.91	0.81	1.03	0.88	1.01	0.89	1.14	0.00	1.60	1.44	1.78	0.00	1.33	1.17	1.51

(Continues)

TABLE A6 (Continued)

	Model 1: Fixed-term contract								Model 2: Part-time open-ended contract								Model 3: Involuntary part-time employment contract							
	2019				2022				2019				2022				2019				2022			
			CI (90%)				CI (90%)				CI (90%)				CI (90%)				CI (90%)				CI (90%)	
	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U	Sig.	OR	L	U
Nationality																								
People born in Spain	ref.				ref.				ref.				ref.				ref.				ref.			
People born in the rest of the EU	0.02	0.83	0.72	0.95	0.15	0.83	0.66	1.03	0.06	0.75	0.59	0.97	0.06	0.70	0.51	0.95	0.34	0.89	0.73	1.09	0.06	0.68	0.48	0.95
People born in non-EU countries	0.00	1.35	1.22	1.49	0.10	1.12	1.00	1.26	0.43	0.93	0.79	1.09	0.00	0.75	0.64	0.88	0.00	1.26	1.10	1.44	0.11	1.16	0.99	1.35
Number of cases	10,586				7531				10,586				7531				10,586				7531			
Nagelkerke *R* Square	0.16				0.18				0.08				0.09				0.09				0.10			

Note: 4th quarter of 2019 and 4th quarter of 2022. Spanish private sector employees aged between 16 and 34 years.

Abbreviations: CI, confidence intervals; L, lower; OR, odds ratio; U, upper.

Source: Developed by the authors based on the Spanish Labour Force Survey.