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# Quantity over quality? How economic factors and welfare state interventions affected job insecurity and job quality before, during and after the economic crises

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## Abstract

This article uses multilevel analysis of 24 European countries to examine the effects of macroeconomic variables (GDP and unemployment) and welfare state interventions (active and passive labour market policies) on job insecurity and job quality in Europe from the mid-1990s until the last 2021 COVID crisis. The paper makes a distinction between the crisis of the welfare state and the reaction of welfare states to crises and connects the job quality literature with that on the transformation of the welfare state. The article introduces several innovations to the literature by looking at the impact of welfare state interventions on multi-dimensional job quality, distinguishing between different types of active labour market policy spending and considering the generosity of benefits. The findings show that active labour market policies (ALMPs) and passive labour market policies (PLMPs) have a positive effect in reducing job insecurity across skill groups. ALMPs and PLMPs also improved several dimensions of job quality, but mostly among manual/low-skilled workers, while they have a negative effect on work pressure which mostly affects medium- and high-skilled workers. The article concludes by discussing how, due to the reach of ALMP and PLMP

interventions, the positive effects of the welfare state on job quality are concentrated among lower-skilled workers, thereby limiting the ambition of contemporary welfare states to generate positive spillover effects on the quality of work for all workers.

**KEYWORDS**
ALMP (active labour market policy), labour markets and labour market policy, welfare states

## 1 | INTRODUCTION

There is an intertwined connection between welfare state intervention, economic crises and work. The need for state interventions becomes especially important during a crisis, when the presence of labour market risks is more visible. Economic crises, such as the 2008 financial crisis and the recent COVID pandemic, are often closely linked to increased unemployment and greater insecurity among workers. At the same time, the literature on the crisis of work refers to the role that transformed welfare states might play in contributing to the pervasive changes in the quality of work (Doogan, 2013; Standing, 2011; Streeck, 2014, p. 53).

While the literature has focused on the role employment and unemployment policies have played in the quantitative increases in employment rates, we know very little about the compensatory role welfare states have played with respect to job quality. This is relevant, as the crisis of welfare state interventions in Europe often refers to the decline of work quality for labour market insiders (Standing, 2011). It is also relevant to the (now abandoned) EU policy goal in 2002 to create not just more jobs, but also better jobs (Smith et al., 2008). Since the 1990s, the literature has reported issues of job quality emerging across Europe (Gallie, 2017; Lopes et al., 2014; Rafferty et al., 2015), while welfare state interventions have been oriented towards the supply side (Jessop, 1993), and ALMPs have been introduced that place an emphasis on work creation/reinsertion (Eichhorst et al., 2011). With the aim of finding an answer to this puzzling coincidence, this article questions how labour and social policy state intervention in employment and unemployment has been associated with the quality of jobs. In other words, has there been a trade-off between the quality and quantity of the jobs during and following economic crises over the last three decades?

We aim to answer this question using multilevel modelling on the 1995, 2000, 2005, 2010, 2015 and 2021 waves of the European Working Conditions Survey (EWCS). We examine how the employment and unemployment policies (i.e., ALMPs and PLMPs) are associated with general workers' job quality and job insecurity. Five indicators are used for job quality—work pressure, content autonomy, procedural autonomy, lack of prospects for advancement and job dissatisfaction. We also examine the impact of macroeconomic factors—namely, GDP and unemployment rate—and we control for the unemployment rate for all models. Considering these variables allows us to indirectly capture the decline of the economy, the closure of businesses and their effects on work quality and insecurity. We investigate these for all six waves, using the year as a proxy indicating the timing of the state intervention with relation to the 2008 financial crisis (the 2010 wave) and the 2020 COVID crisis (the 2021 wave). We then study how this varies across skill levels, focusing on the years since the 2008 crisis, to analyse in more depth the short-term and long-term effects of the crisis and state intervention in workers' job quality and insecurity across groups of workers.

Our findings show that in contradiction to some of our hypotheses, the higher ALMP and PLMP spending have similar effects and are associated with lower job insecurity and positive effects on most dimensions of job quality. However, our analysis has revealed some critical elements that indicate the presence of a trade-off between quantity and quality in the contemporary workfare system: first, the positive effects of ALMPs/PLMPs on job dissatisfaction and career prospects exist up to 2010; second, ALMPs and PLMPs have a negative association with work pressure

which affects workers with medium and higher levels of skills (while the generosity of benefits has a positive effect on work pressure); and, third, the positive spillover effects of ALMPs and PLMPs occur across skill groups in respect to job insecurity, but on job quality concern mostly manual/low-skilled workers.

The paper proceeds as follows. The first part of the paper explores the notion of crisis in welfare states in relation to work, discusses the effect of labour market policies (ALMPs and PLMPs) on job insecurity and job quality, and proposes a theoretical framework to investigate the link between ALMPs/PLMPs and job quality. This part is followed by a methodology that explains the models and illustrates the use of data. In the third section of the paper, we present the empirical findings: the evolution of job insecurity and job quality; the effects of macroeconomic variables and labour market policies on job insecurity and job quality since the mid-1990s; and, finally, the effects of the same factors on different skill groups over the crises years. The paper concludes with a discussion of the implications of the study for the literature on the crisis of the welfare state.

## 2 | LITERATURE AND THEORY: THE CRISIS OF WELFARE STATES VIS-À-VIS WORK

### 2.1 | The crisis of welfare states and the role of work

The notion of crisis has been recently used in two ways in the welfare state literature. First, the concept of crisis is used in relation to the 2008 financial crisis and the subsequent state responses between 2010 and 2011 particularly in European welfare states (Greve, 2011). Temporary economic crises influence growth and unemployment and guide welfare state responses, for example, due to an increase in spending to address economic shocks. The recent COVID-19 pandemic has also been framed as a crisis due to the temporary economic shocks to growth, production and work (Cook & Ulriksen, 2021). In the aftermath of the Euro crisis, there has been a move towards a targeted and narrower welfare state in Europe, which a part of the literature has conceptualised as a welfare state crisis (Greve, 2012). This literature refers to the second and broader notion of crisis vis-à-vis the welfare state that precedes 2008 and concerns how welfare states are able to compensate for the rise of labour market risks due to (or in spite of) the transition to the knowledge-based economy (see Greve, 2017; Taylor-Gooby, 2004). Here, the perspectives range from an optimistic view of the passage to the knowledge-based economy as a strategy to protect workers from the risks that emerge from the economy (Gilbert, 2002; Iversen & Soskice, 2020), to a more critical account of how active welfare state interventions reduced overall security for workers (Doogan, 2013; Standing, 2011; Streeck, 2014, p. 53).

By linking the literature on the welfare state crisis to that on the sociology of work, we find two important avenues that deserve further investigation. First, the literature that has researched the crisis of work in relation to the welfare state has mostly examined the effects of welfare state interventions on subjective job insecurity (see Chung; 2020; Chung & van Oorschot, 2011; van Oorschot & Chung, 2015). This draws on the classic economic operationalisation of insecurity in relation to work that understands insecurity as the risk of losing one's job or as the insecurity that comes from having a contract with uncertain tenure (employment insecurity or job insecurity) (Burgoon & Dekker, 2010). If this focus brings scholars to investigate labour market outsiders (i.e., those at a higher risk of being atypically employed or unemployed, see Schwander & Häusermann, 2013), examining job quality means looking at the effects of policies for the majority of workers, namely also labour market insiders. This seems a profitable avenue to explore for welfare state researchers: in his assessment of the change to work after the crisis, Gallie (2017, p. 239) found that 'there is no evidence of a consistent underlying trend with respect to job insecurity', but, on the other hand, he identified more worrying trends in respect to work intensity and work pressure. Hence, there are other dimensions to the crisis than unemployment, such as the diffusion of insecurity for insiders (see also Greve, 2017).

Second, the crisis of work can be analysed by distinguishing the two overlapping trends: the conjunctural evolution of work and the capacity of the welfare state to absorb short-term labour market shocks over crises. There is evidence of a short-term effect on job quality related to the 2008 crisis. For example, Erhel et al. (2022) investigated the effects of the economic crisis on job quality, which suggested a declining pattern of job quality across Europe over this period. At the same time, the transfer of labour market risks from employers to employees that has affected job quality started in the 1990s (the 'insecurity thesis', see Heery & Salmon, 2000). Despite the rising wages and falling hours in the 1990s, during this decade job dissatisfaction started to increase in Europe (Clark, 2005). An increase in work pressure and a decline in work autonomy occurred between the 1990s and 2000s (Lopes et al., 2014). The timing is indicative: scholars have suggested a link between the rise of overall insecurity and the passage of a post-Fordist welfare state arrangement that placed more importance on incentives than on labour market protection (see Standing, 2011). Doogan found that a 'deterioration of working conditions, a loss of employment protection and work intensification' (Doogan, 2013, p. 194) had accompanied the passage to the knowledge economy welfare state. For Doogan, the 'greater exposure of employees to market forces, the impact of the intensification of the labour process and a loss of status and control at work' (2001, p. 436) were not simply the inevitable unintended effects of the economic shift, but also the result of how the post-Fordist welfare states contribute to manufacturing uncertainty. A similar perspective is hinted at by Jessop's (1993) passage to a Schumpeterian Workfare Model—namely, a model of the welfare state built around the provision of supply-side interventions (such as ALMPs) rather than the direct creation of work. What are, therefore, the effects of active and passive labour market interventions by transformed welfare states on workers?

## 2.2 | Labour market policies and the spillover effects on job insecurity and job quality

There is far more research on the effects of welfare state interventions on job insecurity specifically than about the effects of ALMPs and PLMPs on job quality. This article does not discuss the effects of employment protection regulation or legislation (EPL) on job quality and job security, that is reported to have mixed effects depending on the position of the worker as outsider or insider (see Chung & van Oorschot, 2011; van Oorschot & Chung, 2015).

A large body of literature stresses the positive effects of ALMPs in creating employment opportunities and increasing labour market security (see Chung & Mau, 2014, for a review, and Anderson & Pontusson, 2007; Chung & van Oorschot, 2011; van Oorschot & Chung, 2015). The scholarship has also raised the issue of the trade-off between ALMPs and their effects on the quality of work. First, while ALMPs usually target people who are out of work, some ALMPs also target employed individuals (e.g., upskilling, see Bengtsson et al., 2017). Most importantly, ALMPs generate spillover effects on insiders via the trade-off between the quantity and quality of work: as pointed out by Eichhorst et al. (2011, p. 281), the declining quality of work is also an effect of the focus on quantity in institutional policies. ALMPs affect not only those who are out of work, but also those seeking work or in work, as, given the incentives to be in work, their 'out of work' options in the presence of ALMPs become less attractive, and they will accept or stay in jobs with poorer conditions (e.g., higher intensification and work pressure) (ibid). When one considers in detail the type of social investment interventions promoted in Europe, upskilling remains marginal, and the most widespread form of social investment is rather the one that provides incentive reinforcement and activation (Bengtsson et al., 2017)—labelled by Barbier as a (neo)liberal form of workfarism (Barbier & Knuth, 2010). These policies could have a different effect on job quality: incentive reinforcement to be in work is likely to have negative effects on the quality of work, as it diminishes the capacity for workers to refuse 'bad jobs' (i.e., they get the incentives only if they do not refuse jobs). Similarly, the flexibility of work generally accompanies the use of ALMPs, generating a tension between the focus on the quantity and quality of work (see Smith et al., 2008). However, ALMPs, in particular those focusing on upskilling (see Bonoli, 2010), could also have positive effects on elements of job quality such as autonomy. As content autonomy refers to the learning opportunities available to workers at work (see Lopes et al., 2014), it could be positively influenced by a climate where training and upskilling opportunities are available for those who are out of work.

Regarding the effects of PLMPs (e.g., unemployment benefits) on job insecurity and job quality, studies conducted after the financial crisis stressed the positive role of PLMPs in providing job security (Chung & van Oorschot, 2011; in part van Oorschot & Chung, 2015), although these effects are less evident once labour market and macroeconomic conditions are considered. The effects of PLMPs on the overall quality of work for insiders remain less explored. While unemployment benefits mostly offer protection for those who are out of work, they also have an effect for those who are in work, as the presence of PLMPs allows a better job fit for workers (Marimon & Zilibotti, 1999). Hence, using similar logic to Eichhorst et al. (2011) in relation to ALMPs, PLMPs could have the opposite effect to ALMPs in increasing the quality of work by making out-of-work options more appealing and therefore strengthening the position of workers in refusing low-quality jobs. However, as PLMPs have been reoriented towards forms of activation/targeting, lowering their compensatory effects (Ferragina, 2022; Marchal et al., 2014), and their generosity between 1980 and 2018 has decreased in most countries (Scruggs & Tafoya, 2022), PLMPs might be less effective in offering out-of-work options, and therefore their spillover effect on job quality could be less marked.

## 2.3 | A framework to understand the link between labour market policies, job insecurity and job quality

As illustrated in the previous paragraph, our framework investigates the effects of welfare state interventions on job insecurity and job quality by examining the impact of ALMPs and PLMPs in a similar fashion to previous literature in this field (Chung & Mau, 2014).

In line with the existing literature, we understand the changes to subjective job insecurity and to job quality as being influenced by economic changes, including those related to the economic effects of the crises (i.e., unemployment and growth), and welfare state interventions (see Figure 1). Indeed, macroeconomic variables have important effects in mediating the effects of employment policies on job quality. For example, Chung and van Oorschot (2011) found that the effects of economic protection legislation (EPL), ALMPs and PLMPs on subjective job insecurity are not significant once macroeconomic factors are considered.

We hypothesise that the effects of those variables would be mediated by the levels of skills of individuals. We hypothesise that ALMPs have an effect on job insecurity for manual workers in particular, as they are the target of these policies and more affected by them (Escudero, 2018; Bonoli and Liechti, 2020). We also hypothesise that PLMPs have an effect on manual workers in particular, as those are more likely to use benefits. Regarding job quality, Lopes et al. (2014) found that manual workers have less job satisfaction than high-skilled workers and clerical workers, and therefore we can conjecture that ALMPs and PLMPs are able to reduce the job quality of manual workers in particular.

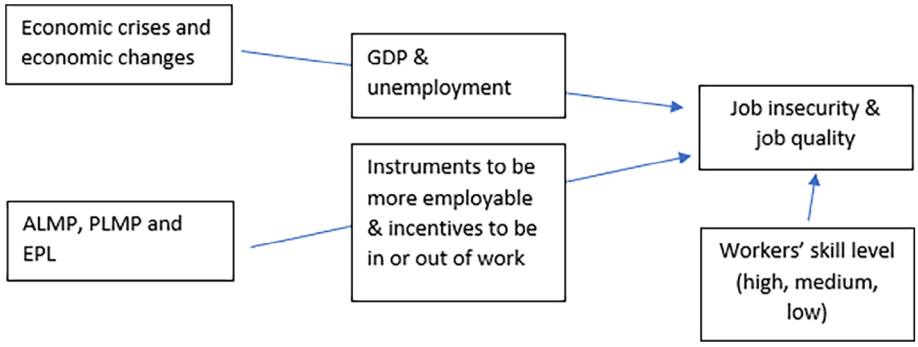


**FIGURE 1** The framework linking economic and employment policies to job insecurity and job quality. [Colour figure can be viewed at wileyonlinelibrary.com]

The effects of EPL on job insecurity are mixed depending on the position of workers (see Adascalitei & Vegetti, 2018; Esser & Olsen, 2012), while EPL should have a positive effect on job quality (see Arranz et al., 2019, for young people). While in this article we do not discuss differences across businesses and NACE sectors, it should be noted that skill groups tend to be concentred in certain NACE sectors (as shown in Table A.7 in the Data S1) and therefore our analysis per skills considers indirectly the differential effects of policies on job quality and job insecurity across sectors.

We contribute to the understanding of the impact of welfare state policies on work in two ways. First, as mentioned above, the main innovation of our framework is in the operationalisation of the effects of welfare state interventions beyond subjective job insecurity (Chung & van Oorschot, 2011; van Oorschot & Chung, 2015), by including the multidimensional concept of job quality (Leschke & Watt, 2014).

Second, while most studies focus on the general OECD spending when examining the impact of these policies on work, we try to capture not just the level of spending but also the impact of different types of policies. Regarding ALMPs, building on Bengtsson et al. (2017), we use three different types of ALMPs, as identified by Bonoli (2010): employment assistance, occupation and human capital investment. In respect to PLMPs, we embed in the analysis the measurement of the generosity of the welfare state, as per Scruggs and Tafoya (2022). The operationalisation of these policies is discussed in more detail in the methodology section.

Based on the literature illustrated above, we use the following hypotheses to investigate the effects of macro variables on individuals (see Figure 2):

- GDP and unemployment are associated with, respectively, a decrease and an increase in job insecurity (H1); they also are associated with, respectively, an increase and a decrease in job quality (H2).
- Active labour market policies (ALMPs) are associated with an increase in job insecurity (H3) and have a mixed effect on job quality (they are associated with an increase in work pressure but also an increase in autonomy) (H4).
- Passive labour market policies (PLMPs) are associated with a decrease in job insecurity (H5) and an increase in job quality (H6).
- ALMPs and PLMPs have a greater effect on job insecurity (H7) and job quality (H8) for individuals with lower skills than for individuals with medium and higher levels of skills.

## 3 | DATA AND METHODOLOGY

The aim of this paper is to examine the changes in job quality and job insecurity since 1995 and to investigate the effects of economic factors and work-related welfare state interventions (ALMPs and PLMPs[1]) on both job insecurity

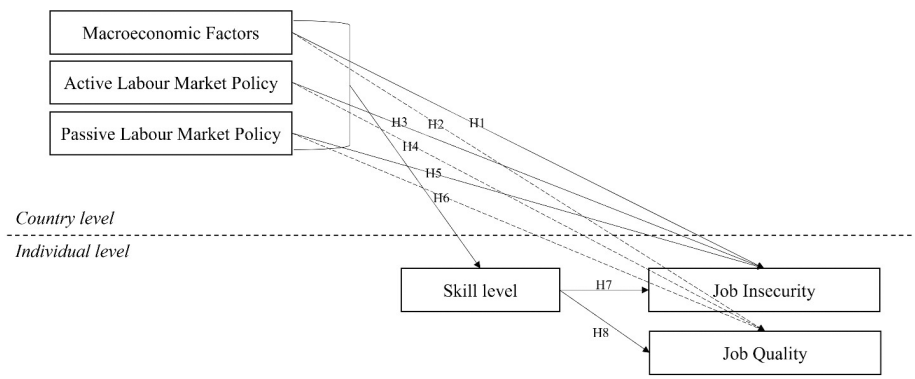


FIGURE 2 The multilevel model with the hypotheses.

and job quality. We investigate this using multilevel modelling on six different waves of the European Working Conditions Survey: 1995, 2000, 2005, 2010, 2015 and 2021. The EWCS workers (who worked for pay or profit at least 1 h in the week preceding the interview) are aged 15 and above (16 in Bulgaria, Norway, Spain and the United Kingdom). Respondents are approached face to face, except the 2021 wave, which was based on telephone interviews. The data is randomly sampled and stratified in each country.

We use two models in which we investigate job insecurity and various other indicators of job quality (work pressure, procedural autonomy, content autonomy, bad career prospects and dissatisfaction) as dependent variables. The first model investigates the long-term impact of economic factors (GDP and unemployment), ALMPs and PLMPs on both job insecurity and job quality. This model covers the year-by-year effects of the six waves. We use the independent variables listed below and estimate separate models for each wave of the survey. That allows us to compare the estimates of macroeconomic variables over time across various dimensions of job quality and insecurity. The second model tests the short-term impact of economic factors (growth and unemployment), ALMPs and PLMPs over the periods that cover two crises period: the 2008 financial crisis and the COVID crisis. For this model, we use only the waves involved in the crisis periods, namely 2010, 2015 and 2021, and we break down the model per skill level. For the 2021 wave, we consider only job insecurity and bad prospects as dependent variables due to limitations in the availability of data. In this model, we aim to use skill levels to examine the varying impacts of policies on job quality by skill levels of individual workers. To do so, we estimate our models with an interaction term between the independent variable of interest and the categorical variable for each skill level.

Our decision to use multi-level modelling is motivated by the fact that the interclass correlation (ICC) for each dependent variable is generally sufficiently high (>0.05) for work pressure, content autonomy, job insecurity and dissatisfaction with some exceptions in few waves (see Table A.5 and A.6 in Data S1) and by the significant cross-national variations observed (even for ICC <0.05) analysing the fixed-effects models.[2] Our analysis includes 24 European countries. However, data availability varies across EWCS waves and for dependent variables, and therefore the sample composition for each estimation might vary slightly. The data availability for dependent variables across EWCS waves and countries is in Table A.29 in Data S1. At the national level, we use data from the OECD and the Comparative Welfare Entitlements Project (CWEP)—please see details below in the 'Independent variables' section.

Our analysis uses mixed and meqrlogit commands in STATA (a *mixed* command for continuous dependent variables and *meqrlogit* for binary dependent variables). We estimate these models using maximum likelihood estimation with robust standard errors. For the second model, we present marginal effects for easier interpretation of estimates. We estimate our models on samples from every EWCS wave separately. Across all our models, we control for unemployment. The motivation for that is that we intend to capture the association between ALMPs and attitude towards one's own working conditions. Since both the timing or take-up of ALMPs and working conditions can be affected by working conditions, it seems reasonable to control for it via unemployment.

## 3.1 | Dependent variables

Regarding job quality, in line with the literature, we use a multidimensional operationalisation (see previous section). For job insecurity, we use the measure of subjective job insecurity ('I might lose my job in the next six months').[3] For job quality, we use three dimensions presented by Lopes et al. (2014): work pressure, procedural autonomy and content autonomy. We use factor analysis to construct three dependent variables that represent three aspects of job quality that are present in the 1995–2015 waves. Procedural autonomy (PA) refers to the degree of control that workers perceive that they have over when and how they carry out their tasks; content autonomy (CA) refers to the learning opportunities available in their job and whether workers assess the quality of their work; and, finally, work pressure (WP) is constructed by combining measures on work intensity (working at very high speed and too-tight deadlines) and questions related to potentially stressful patterns of work, such as reliance on work done by colleagues, defined performance targets, and time constraints (from Lopes et al., 2014). We adopt the same

methodology that Lopes et al. (2014) used and perform categorical principal components analysis over the entire 1995–2015 EWCS sample. The loadings of these factors approximate those in the original paper, and therefore we use the same naming as the original paper.[4] We perform categorical principal components analysis to obtain the three dimensions using six underlying EWCS variables for work pressure (Table A.2), four for procedural autonomy (Table A.3) and three for content autonomy (Table A.4).

In addition to these three, we examine two other dimensions of job quality: the dimension of bad career prospects, which asks workers to evaluate their perspective of career progress and is therefore a measure of negative career mobility ('My job offers good prospects for career advancement')[5]; and, finally, a measure of job dissatisfaction, which asks workers to evaluate the overall working conditions in their main paid job ('On the whole, are you very satisfied, satisfied, not very satisfied or not at all satisfied with working conditions in your main paid job?').[6] We recode them into binary variables and clean them in a way that N/As, 'don't knows' and similar choices are coded as missing and excluded.

### 3.2 | Independent variables

At the national level, we have economic and policy-related variables for each model. For the macroeconomic variables, we use GDP per capita (divided by 1000 for better presentation of estimates) and the unemployment rate from the OECD in the respective year considered in the EWCS wave. To investigate ALMPs and PLMPs, we use the following:

- For OECD spending, we use active programmes (110), active measures (112) and active programmes without employment maintenance incentives (210) for ALMP spending, and passive measures (120) and passive measures without partial unemployment benefits (220) for PLMP spending.[7]
- We use three specific ALMPs identified by Bonoli (2010): employment assistance, occupation and upskilling. We construct these by summing OECD spending data in line with the paper: employment assistance (public employment services and administration, employment subsidies, job rotation schemes, and start-up incentives); occupation, namely direct job creation; and upskilling/training.
- We use the measurements of unemployment benefit generosity from the Comparative Welfare Entitlements Project (CWEP)[8]: single replacement rate (UE_RR_S100); couple replacement rate with one earner and two children (UE_RR_C1000); qualification period—that is, weeks of insurance needed to qualify for benefits (UE_QUAL_40); weeks of benefit entitlement (UE_DUR_40); and waiting days—that is, the number of days one must wait to start receiving benefits after becoming unemployed (UE_WAIT).

In our models, we control for age (continuous variable), gender (binary variable), self-employment/employment status (binary variable) and skill level for model 1. These control variables allow us to consider the individual variations in job quality across age and gender, as indicated by the literature (see Arranz et al., 2019; Smith et al., 2008). Skill levels are constructed by using the first digit of ISCO,[9] and we grouped them into high-skilled, semi-skilled and low-skilled/unskilled. For the second model, we also include type of contract (permanent/non-permanent).

## 4 | FINDINGS

### 4.1 | The descriptive evolution of job insecurity and job quality before and after the crisis

As a first step, we examine the descriptive statistics of subjective job insecurity and job quality in the EWCS (the descriptive statistics of all the independent variables, including macroeconomic, PLMP and ALMP are in Data S2).

The item that evaluates subjective job insecurity—the fear of losing one's job within the next 6 months—reached its highest level in 2010 during the crisis and had only partially recovered by 2015 (see Figure 3 below). The rates of agreement on job insecurity vary between about 20 per cent and 40 per cent around Europe, reaching an average of 29 per cent in the countries considered in our study.

The other two items investigating job quality do not seem to have been affected by the 2010 crisis, and they show a declining trend if we look at the 2005–2015 evolution. The proportion of those who are dissatisfied with their job was 22 per cent in 2005 and 15 per cent in 2015. It is relevant to note, however, that in 2015, more than half the population (56 per cent in EU countries) believed that it had bad career prospects (Figure 3), although this percentage decreased compared to 70 per cent in 2005.

The long-term evolution of job quality becomes more evident by looking at the elements of job quality used by Lopes et al. (2014) since the 1995 wave. Unlike Lopes et al. (2014), we include the 2015 wave to understand how work pressure, content autonomy and procedural autonomy have evolved since 2010, although these indicators are not available in 2021. To simplify the reading of the figure below, we put the averages for all our case studies, as well as the evolution in 12 case studies that represent different cases across Europe. Figure 4 below shows a steep increase in work pressure both on average and in the individual countries from 1995, as well as following the post-crisis recovery between 2010 and 2015 (see also Table 1 showing the evolution in the components of work pressure for all the countries considered).

Both procedural autonomy and content autonomy have been declining, on average, since 1995; in both cases, there is a slight increase after the crisis (between 2010 and 2015), but the level in the latest available round (2015) is

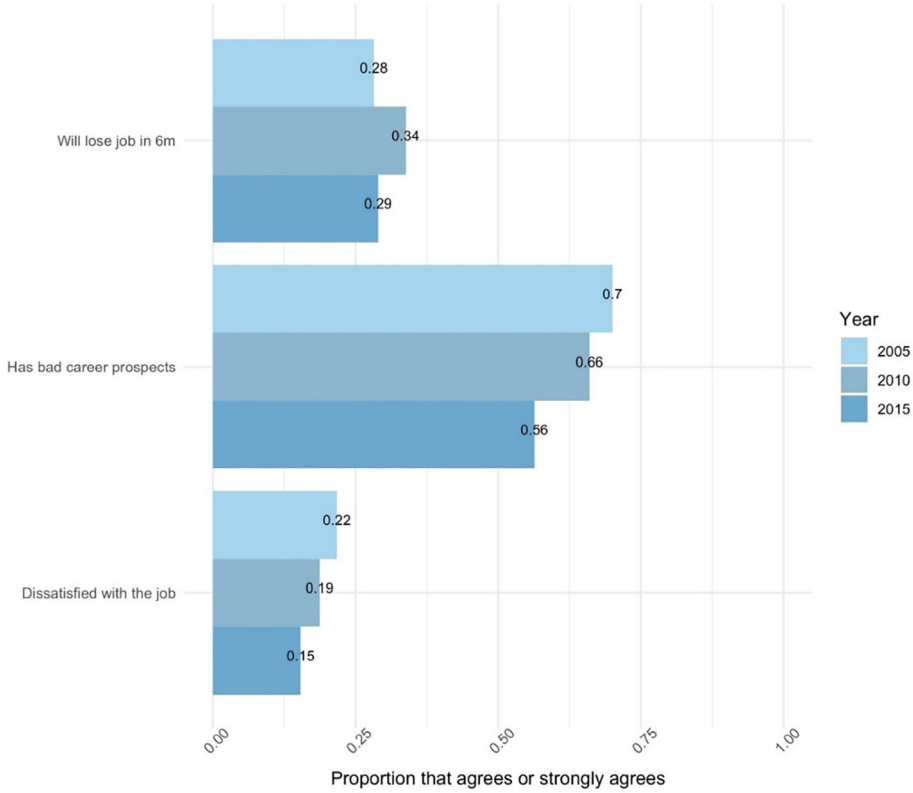


**FIGURE 3** Responses to the dimensions of job quality in 2005, 2010 and 2015, using EWCS data. [Colour figure can be viewed at wileyonlinelibrary.com]

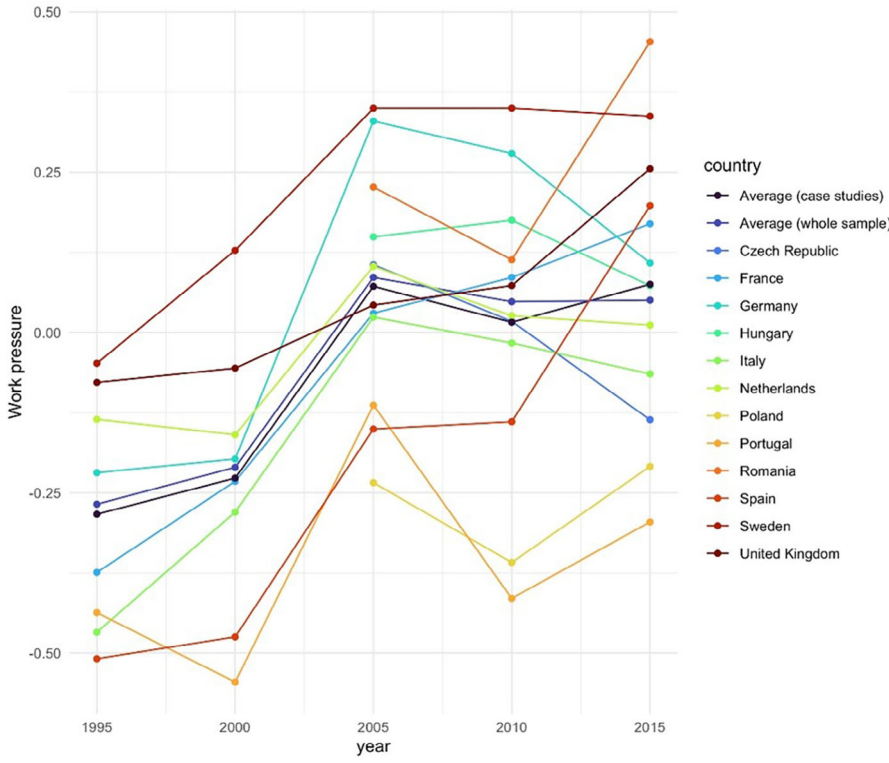


**FIGURE 4** Analysis of EWCS data on work pressure in the sample and across the example cases. [Colour figure can be viewed at wileyonlinelibrary.com]

lower than the starting point (1995) (Figures 5 and 6 below, as well as Tables 2 and 3 that show the evolution of the components of autonomy for all the countries considered).

## 4.2 | The impact of economic factors, ALMPs and PLMPs on job insecurity and job quality across the years (Model 1)

To explain the critical aspects of job quality illustrated above, we examined the year-by-year table (with total employment as a control), analysing the effects of economic and labour market policies in the various waves (1995, 2000, 2005, 2010 and 2015) and for the different elements of job quality (work pressure, procedural autonomy, content insecurity, job insecurity, bad prospects and dissatisfaction) that are available for those waves. For 2021, we were only able to analyse the effects on two dimensions: job insecurity and bad career prospects.

> **H1 and H2.** GDP and unemployment are associated with, respectively, a decrease and an increase in job insecurity (H1); they also are associated with, respectively, an increase and a decrease in job quality (H2).

Regarding the impact of economic variables (GDP and unemployment) on job insecurity and job quality, these indicators behave exactly as expected and confirm our hypotheses. A higher GDP is associated with lower levels of subjective job insecurity and bad prospects in all the available waves, and higher levels of procedural and content autonomy (in the years 2005 and 2015).

**TABLE 1** Distribution of EWCS components of Work Pressure factor over years for the countries considered.

| Work pressure variables | | 1995 | 2000 | 2005 | 2010 | 2015 |
|---|---|---|---|---|---|---|
| Q49a: Does your job involve working at very high speed? | All of the time | 11.23% | 10.50% | 11.17% | 9.84% | 9.97% |
| | Almost all of the time | 13.92% | 13.46% | 14.29% | 13.76% | 13.99% |
| | Around ¾ of the time | 6.68% | 8.10% | 8.13% | 9.21% | 9.76% |
| | Around half of the time | 12.12% | 13.61% | 12.73% | 12.93% | 13.28% |
| | Around ¼ of the time | 12.20% | 12.76% | 12.26% | 13.33% | 13.19% |
| | Almost never | 15.74% | 16.99% | 18.72% | 19.16% | 18.95% |
| | Never | 27.12% | 23.55% | 21.59% | 20.84% | 20.28% |
| Q49b: Does your job involve working to tight deadlines? | All of the time | 14.46% | 12.91% | 13.37% | 11.48% | 11.23% |
| | Almost all of the time | 13.55% | 13.83% | 14.68% | 13.99% | 14.48% |
| | Around ¾ of the time | 5.72% | 7.36% | 7.32% | 8.39% | 8.92% |
| | Around half of the time | 9.26% | 11.06% | 11.67% | 12.19% | 12.47% |
| | Around ¼ of the time | 10.84% | 11.52% | 12.77% | 13.59% | 14.21% |
| | Almost never | 14.47% | 18.54% | 18.77% | 18.48% | 18.10% |
| | Never | 30.54% | 23.70% | 20.07% | 20.72% | 19.88% |
| Q50a: Is your pace of work dependent on the work done by colleagues? | % of yes | 36.50% | 42.66% | 43.08% | 41.69% | 39.79% |
| Q50c: Is your pace of work dependent on numerical production targets or performance targets? | % of yes | 33.87% | 28.65% | 37.47% | 33.87% | 35.33% |
| Q61g: You have enough time to get the job done. (ordinal) | Always | | | 44.35% | 35.37% | 33.90% |
| | Most of the time | | | 26.35% | 40.12% | 40.65% |
| | Sometimes | | | 16.14% | 14.38% | 15.35% |
| | Rarely | | | 6.93% | 6.47% | 6.26% |
| | Never | | | 5.30% | 2.64% | 2.52% |
| Q61g_lt: You have enough time to get the job done. (dichotomous) | % of yes | 79.04% | 78.39% | | | |

Unemployment has the opposite effects. In line with what we expected from the literature, we find that in all the available waves, higher levels of unemployment are associated with higher subjective job insecurity. This trend was confirmed during COVID: we find that in 2021, GDP reduced job insecurity and unemployment had a positive association with this variable. Unemployment is also positively associated with lower content and procedural autonomy (particularly in 2005 and 2015) and bad prospects for all waves. In general, we find that the effect of macroeconomic variables on elements of job quality is stronger in the non-crisis waves (2005 and 2015) than in 2010 and 2021.

**H3 and H4.** Active labour market policies (ALMPs) are associated with an increase in job insecurity (H3) and have a mixed effect on job quality (they are associated with an increase in work pressure but also an increase in autonomy) (H4).

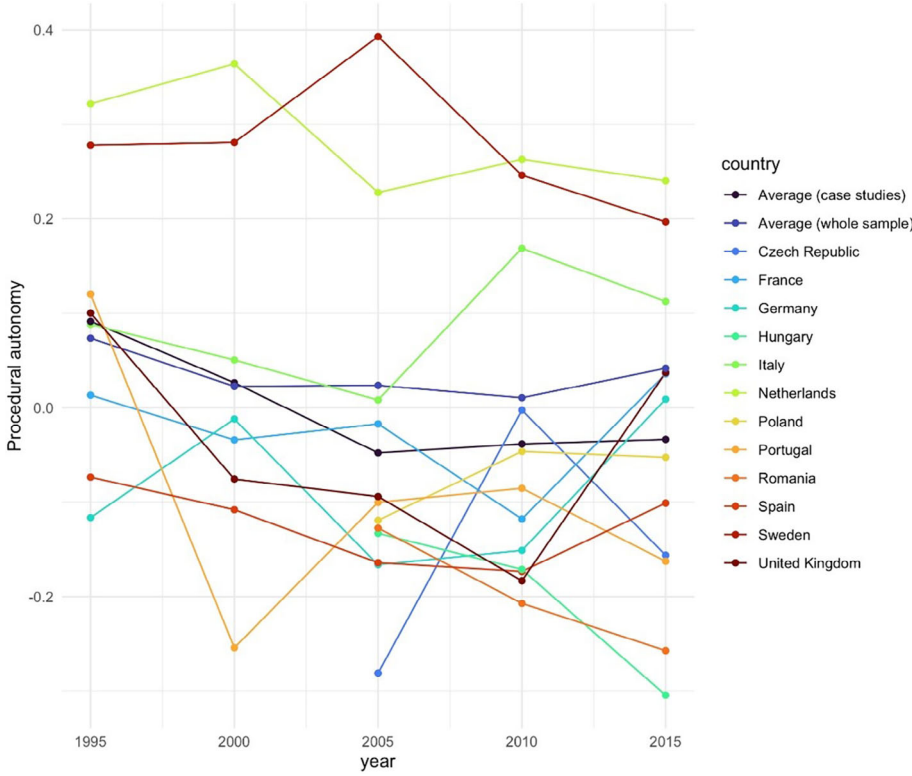


**FIGURE 5** Analysis of EWCS data on procedural autonomy in the sample and across the example cases. [Colour figure can be viewed at wileyonlinelibrary.com]

Regarding the role of ALMPs, we first analysed the total level of spending using OECD data with various types of active measures: active programmes (110), active measures (112) and active programmes without employment maintenance incentives (210). Here, we confirm the evidence already present in the literature: the presence of these programmes is significantly associated with lower levels of job insecurity in all the available waves (2005, 2010 and 2015). For the 2021 COVID wave, we find a positive association between ALMPs and job insecurity, but only concerning one measure (210) (see Tables 4 and 5).

Regarding the effects of the active measures on elements of job quality, the results show that—unlike our starting hypothesis—ALMPs have a positive effect on all elements of job quality except for work pressure. Higher spending on active programmes is associated with higher autonomy in all the waves (except procedural autonomy in 2010 with active programmes 110, and procedural autonomy in 2015 with active measures 112). However, active programmes are also associated with higher levels of work pressure in several years (1995, 2005 and 2015 for active measures 112; 1995 for active programmes 110; and 2005 and 2015 for active programmes 210). The dimensions by Bonoli (assistance and upskilling) show significant associations with these items, in a very similar way to the levels of spending: the presence of assistance and upskilling has a negative association with job insecurity in all the waves, including the COVID wave in 2021. They also have a positive association with content and procedural autonomy in the 1995, 2000 and 2015 waves, in particular regarding assistance. However, employment assistance is associated with higher levels of work pressure in 2005 and 2015, and upskilling is linked to higher work pressure in 1995, 2005 and 2015. The other two aspects of job quality (bad prospects and dissatisfaction) are positively impacted by government spending on the ALMPs, but only up to 2010. The exception to this trend is the Bonoli (2010) measure of upskilling, which shows a strong significant association in reducing job dissatisfaction in all available waves.

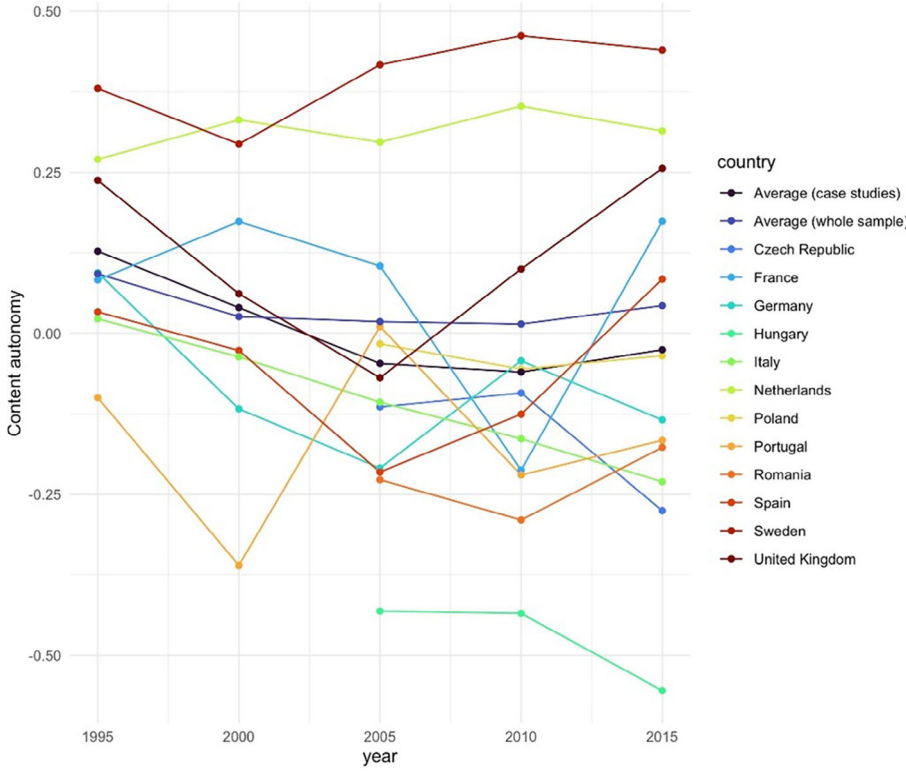


**FIGURE 6** Analysis of EWCS data on content autonomy in the sample and across the example cases. [Colour figure can be viewed at wileyonlinelibrary.com]

**TABLE 2** Distribution of EWCS components of content autonomy factor over years for the countries considered.

| Content autonomy variables | | 1995 | 2000 | 2005 | 2010 | 2015 |
|---|---|---|---|---|---|---|
| Q53b: Does your main paid job involve assessing yourself the quality of your own work? | % of yes | 74.28% | 73.90% | 71.81% | 71.78% | 73.07% |
| Q53c: Does your main paid job involve solving unforeseen problems on your own? | % of yes | 82.03% | 81.63% | 80.01% | 79.15% | 81.78% |
| Q53f: Does your main paid job involve learning new things? | % of yes | 73.57% | 70.59% | 70.32% | 66.42% | 68.50% |

**TABLE 3** Distribution of EWCS components of Procedural Autonomy factor over years for the countries considered.

| Content autonomy variables | | 1995 | 2000 | 2005 | 2010 | 2015 |
|---|---|---|---|---|---|---|
| Q50e: Is your pace of work dependent on the direct control of your boss? | % of yes | 31.95% | 29.15% | 35.39% | 35.18% | 34.52% |
| Q54a: Are you able to choose or change your order of tasks? | % of yes | 67.63% | 66.15% | 65.87% | 65.73% | 66.74% |
| Q54b: Are you able to choose or change your methods of work? | % of yes | 72.44% | 69.38% | 68.28% | 67.15% | 68.46% |
| Q54c: Are you able to choose or change your speed or rate of work? | % of yes | 71.84% | 69.17% | 71.46% | 70.82% | 71.87% |

**TABLE 4** Estimates by year across our models for ALMP and PLMP indicators.

| Dependent variable | | Work pressure | Procedural autonomy | Content autonomy | Job insecurity | Bad prospects | Dissatisfaction |
|---|---|---|---|---|---|---|---|
| Indep. Variable | Year | | | | | | |
| **act_programmes110** | 1995 | **0.167**** | **0.214***** | **0.235***** | | | **−0.300**** |
| | | (0.0837) | (0.0705) | (0.0737) | | | (0.123) |
| | 2000 | 0.0896 | **0.297***** | **0.260***** | | | −0.0919 |
| | | (0.135) | (0.0674) | (0.0987) | | | (0.163) |
| | 2005 | **0.285***** | **0.228**** | **0.269**** | **−0.464***** | **−0.165**** | **−0.424***** |
| | | (0.0823) | (0.103) | (0.127) | (0.147) | (0.0727) | (0.0968) |
| | 2010 | 0.0921 | 0.182* | **0.236***** | **−0.443***** | **−0.165**** | **−0.363***** |
| | | (0.0810) | (0.110) | (0.0882) | (0.123) | (0.0829) | (0.0945) |
| | 2015 | **0.322***** | **0.171**** | **0.258***** | **−0.329***** | −0.127 | −0.068 |
| | | (0.0755) | (0.0674) | (0.0939) | (0.0857) | (0.0811) | (0.0626) |
| | 2021 | | | | −0.025 | 0.022 | |
| | | | | | (0.171) | (0.099) | |
| **act_measures112** | 1995 | **0.187**** | **0.217***** | **0.248***** | | | **−0.332***** |
| | | (0.0863) | (0.0699) | (0.0751) | | | (0.120) |
| | 2000 | 0.0531 | **0.346***** | **0.366***** | | | −0.225 |
| | | (0.135) | (0.0707) | (0.125) | | | (0.168) |
| | 2005 | **0.242**** | **0.340***** | **0.377***** | **−0.548***** | −0.174* | **−0.525***** |
| | | (0.117) | (0.108) | (0.131) | (0.185) | (0.0950) | (0.181) |
| | 2010 | 0.0368 | **0.284**** | **0.297***** | **−0.467***** | −0.19 | **−0.451***** |
| | | (0.0895) | (0.118) | (0.107) | (0.146) | (0.121) | (0.151) |
| | 2015 | **0.357***** | 0.183* | **0.278**** | **−0.365***** | −0.176* | −0.0679 |
| | | (0.0775) | (0.0968) | (0.129) | (0.102) | (0.0920) | (0.0737) |
| | 2021 | | | | 0.057 | 0.024 | |
| | | | | | (0.167) | (0.098) | |
| **active210** | 2000 | | | | | | −0.0841 |
| | | | | | | | (0.162) |
| | 2005 | **0.295***** | **0.233**** | **0.277**** | **−0.453***** | **−0.159**** | **−0.422***** |
| | | (0.0828) | (0.101) | (0.125) | (0.147) | (0.0726) | (0.0950) |
| | 2010 | 0.0925 | 0.188* | **0.238***** | **−0.433***** | −0.155* | **−0.359***** |
| | | (0.0820) | (0.106) | (0.0856) | (0.123) | (0.0864) | (0.0939) |
| | 2015 | **0.316***** | **0.169**** | **0.248***** | **−0.308***** | −0.122 | −0.0773 |
| | | (0.0736) | (0.0668) | (0.0929) | (0.0863) | (0.0814) | (0.0642) |
| | 2021 | | | | **−0.541**** | −0.063 | |
| | | | | | (0.206) | (0.137) | |
| **pas_measures120** | 1995 | 0.0803* | **0.124***** | **0.122***** | | | **−0.235***** |
| | | (0.0469) | (0.0342) | (0.0371) | | | (0.0623) |
| | 2000 | 0.0146 | **0.205***** | **0.255***** | | | **−0.255***** |
| | | (0.0614) | (0.0533) | (0.0715) | | | (0.0841) |

**TABLE 4** (Continued)

| Dependent variable | | Work pressure | Procedural autonomy | Content autonomy | Job insecurity | Bad prospects | Dissatisfaction |
|---|---|---|---|---|---|---|---|
| Indep. Variable | Year | | | | | | |
| | 2005 | **0.109**** | 0.0870* | **0.110**** | **−0.208***** | **−0.0948**** | **−0.201***** |
| | | (0.0437) | (0.0461) | (0.0546) | (0.0711) | (0.0374) | (0.0643) |
| | 2010 | 0.047 | 0.00343 | 0.0385 | **−0.171***** | −0.101* | **−0.170***** |
| | | (0.0464) | (0.0514) | (0.0470) | (0.0606) | (0.0525) | (0.0581) |
| | 2015 | 0.0991* | **0.133***** | **0.201***** | **−0.172**** | −0.031 | −0.0958 |
| | | (0.0528) | (0.0458) | (0.0583) | (0.0712) | (0.0471) | (0.0612) |
| | 2021 | | | | −0.138 | −0.005 | |
| | | | | | (0.095) | (0.058) | |
| **passive220** | 2000 | | | | | | **−0.278***** |
| | | | | | | | (0.0886) |
| | 2005 | **0.103**** | 0.0882* | **0.110**** | **−0.214***** | **−0.103***** | **−0.206***** |
| | | (0.0445) | (0.0472) | (0.0547) | (0.0739) | (0.0388) | (0.0669) |
| | 2010 | 0.0524 | 0.00318 | 0.0493 | **−0.174***** | **−0.108**** | **−0.181***** |
| | | (0.0469) | (0.0550) | (0.0486) | (0.0615) | (0.0531) | (0.0595) |
| | 2015 | 0.101* | **0.134***** | **0.211***** | **−0.179**** | −0.042 | −0.102 |
| | | (0.0535) | (0.0474) | (0.0579) | (0.0728) | (0.0467) | (0.0640) |
| | 2021 | | | | −0.315* | −0.001 | |
| | | | | | (0.145) | (0.094) | |

*Note*: Robust standard errors in parentheses. See Data S2 for full specification of models and estimates of other covariates. Bold indicates significant values.
***$p < 0.01$,**$p < 0.05$,*$p < 0.1$.

Overall, these findings suggest that, examining both the level of spending and the policy breakdown in employment assistance and upskilling, higher ALMP spending is generally associated with a higher presence of job quality among workers (particularly up to 2010), except in relation to work pressure.

**H5 and H6.** Passive labour market policies (PLMPs) are associated with a decrease in job insecurity (H5) and an increase in job quality (H6).

PLMPs (passive 220 and passive measures 120) behave in a similar way to ALMPs, as they are associated with lower levels of job insecurity and higher levels of autonomy, but also higher levels of work pressure in several waves (see Table 4). In addition, in the 2021 COVID wave, PLMPs (passive 220) are associated with lower levels of job insecurity. This indicates that, different from our hypothesis, PLMPs have similar effects to ALMPs when it comes to job security and job quality. In addition, during the 2021 COVID wave, PLMPs had a positive effect on job insecurity, but no effects on bad prospects.

However, findings vary when we examine the generosity of benefits using the CWEP indicators (see Table 6). Higher/longer couple replacement rate, qualification period and duration of benefits are associated with lower levels of work pressure and higher levels of autonomy in several waves (see weeks of insurance and weeks of benefits on procedural autonomy; couple replacement rate, duration of benefits, weeks of insurance and weeks of benefit entitlement). The CWEP indicators of generosity are the only indicators that are negatively—rather than positively—associated with work pressure among the labour market indicators we used. Weeks of insurance and benefit

**TABLE 5** Estimates by year across our models using indicators from Bonoli (2010): assistance, upskilling and occupation.

| Dependent variable | | Work pressure | Procedural autonomy | Content autonomy | Job insecurity | Bad prospects | Dissatisfaction |
|---|---|---|---|---|---|---|---|
| Indep. Variable | Year | | | | | | |
| **employment_assistance_bonoli** | 1995 | 0.323* | **0.573***** | **0.578***** | | | −**0.570**** |
| | | (0.184) | (0.177) | (0.146) | | | (0.276) |
| | 2000 | 0.272 | **0.749***** | **0.718***** | | | −0.109 |
| | | (0.352) | (0.148) | (0.193) | | | (0.452) |
| | 2005 | **0.650***** | 0.31 | 0.301 | −**0.754**** | −0.255 | −**0.731**** |
| | | (0.192) | (0.252) | (0.306) | (0.368) | (0.168) | (0.322) |
| | 2010 | 0.232 | 0.186 | 0.388 | −**0.782**** | −0.245 | −0.527* |
| | | (0.184) | (0.259) | (0.240) | (0.393) | (0.190) | (0.277) |
| | 2015 | **0.620***** | **0.369**** | **0.656***** | −**0.687***** | 0.0455 | 0.106 |
| | | (0.120) | (0.183) | (0.220) | (0.244) | (0.220) | (0.159) |
| | 2021 | | | | 0.22 | 0.113 | |
| | | | | | (0.185) | (0.109) | |
| **upskilling_bonoli** | 1995 | **0.605**** | **0.454**** | **0.615***** | | | −**0.611**** |
| | | (0.278) | (0.216) | (0.195) | | | (0.264) |
| | 2000 | 0.236 | **0.565***** | **0.544**** | | | −0.550* |
| | | (0.249) | (0.163) | (0.231) | | | (0.290) |
| | 2005 | **0.527**** | **0.591**** | **0.732**** | −**1.245***** | −**0.474**** | −**1.245***** |
| | | (0.236) | (0.257) | (0.319) | (0.440) | (0.222) | (0.367) |
| | 2010 | 0.0811 | 0.413 | 0.431** | −0.735*** | −0.295 | −**0.810***** |
| | | (0.230) | (0.263) | (0.192) | (0.250) | (0.218) | (0.225) |
| | 2015 | **0.538***** | **0.472**** | **0.633***** | −**0.742***** | −0.156 | −**0.389**** |
| | | (0.154) | (0.229) | (0.216) | (0.267) | (0.240) | (0.175) |
| | 2021 | | | | −**2.067***** | −0.242 | |
| | | | | | (0.512) | (0.391) | |
| **occupation_bonoli** | 1995 | 0.317 | 0.143 | 0.277 | | | −**1.024***** |
| | | (0.293) | (0.270) | (0.269) | | | (0.311) |
| | 2000 | −0.196 | 0.0751 | 0.396 | | | −0.213 |
| | | (0.280) | (0.411) | (0.481) | | | (0.506) |
| | 2005 | −0.958 | −0.425 | −0.765 | −0.947 | −0.586 | −0.0192 |
| | | (0.623) | (0.542) | (0.745) | (0.905) | (0.477) | (0.798) |
| | 2010 | 0.263 | −0.411 | −0.556 | 0.109 | −0.228 | 0.201 |
| | | (0.361) | (0.373) | (0.543) | (0.500) | (0.546) | (0.593) |
| | 2015 | 0.158 | −**0.518***** | −**0.649**** | 0.135 | −**0.341***** | 0.153 |
| | | (0.124) | (0.126) | (0.270) | (0.316) | (0.129) | (0.122) |
| | 2021 | | | | −1.109 | −1.264 | |
| | | | | | (1.239) | (0.69) | |

*Note*: Robust standard errors in parentheses. See Data S2 for full specification of models and estimates of other covariates. Bold indicates significant values.

***$p < 0.01$,**$p < 0.05$,*$p < 0.1$.

**TABLE 6** Estimates by year across our models for CWEP indicators.

| Dependent variable | | Work pressure | Procedural autonomy | Content autonomy | Job insecurity | Bad prospects | Dissatisfaction |
|---|---|---|---|---|---|---|---|
| Indep. Variable | Year | | | | | | |
| **UE_RR_S100** | 1995 | | | | | | −0.144 |
| | | | | | | | (0.404) |
| | 2000 | −0.365 | 0.418 | 0.359 | | | 0.233 |
| | | (0.234) | (0.282) | (0.340) | | | (0.240) |
| | 2005 | 0.164 | **0.438**** | **0.486**** | 0.0819 | 0.0402 | 0.168 |
| | | (0.274) | (0.171) | (0.238) | (0.329) | (0.224) | (0.329) |
| | 2010 | −0.151 | **0.406**** | 0.227 | −0.34 | 0.32 | 0.0853 |
| | | (0.362) | (0.184) | (0.231) | (0.307) | (0.266) | (0.369) |
| | 2015 | −0.329 | 0.376* | 0.238 | −0.00863 | **0.294**** | 0.0169 |
| | | (0.200) | (0.204) | (0.258) | (0.338) | (0.129) | (0.180) |
| **UE_RR_C1000** | 1995 | | | | | | −0.396 |
| | | | | | | | (0.322) |
| | 2000 | −0.34 | 0.511 | 0.246 | | | 0.345 |
| | | (0.334) | (0.368) | (0.403) | | | (0.343) |
| | 2005 | 0.451 | 0.255 | 0.640* | 0.338 | −0.114 | −0.00982 |
| | | (0.353) | (0.336) | (0.373) | (0.472) | (0.383) | (0.600) |
| | 2010 | 0.069 | 0.166 | 0.172 | −0.178 | 0.223 | −0.339 |
| | | (0.521) | (0.374) | (0.343) | (0.323) | (0.395) | (0.570) |
| | 2015 | −**0.718***** | 0.333 | 0.307 | 0.173 | 0.241 | −**0.298**** |
| | | (0.211) | (0.297) | (0.379) | (0.434) | (0.314) | (0.143) |
| **UE_QUAL_40** | 1995 | | | | | | −0.000103 |
| | | | | | | | (0.000188) |
| | 2000 | −7.57E-05 | **0.000279**** | 0.000209* | | | 0.000185 |
| | | (0.000151) | (0.000120) | (0.000124) | | | (0.000138) |
| | 2005 | −0.000257 | 4.50E-05 | 2.29E-05 | −2.48E-05 | 8.04E-07 | 4.84E-05 |
| | | (0.000180) | (9.22e-05) | (0.000121) | (0.000136) | (8.08e-05) | (0.000171) |
| | 2010 | −**0.000163**** | 9.20E-05 | **0.000226**** | −0.000175* | −7.04E-06 | −**0.000193**** |
| | | (7.07e-05) | (0.000104) | (8.85e-05) | (9.78e-05) | (0.000110) | (9.82e-05) |
| | 2015 | −0.000132* | 5.59E-05 | 0.000190* | 8.52E-05 | −2.02E-05 | −**0.000202***** |
| | | (7.15e-05) | (9.76e-05) | (0.000105) | (0.000139) | (7.79e-05) | (7.75e-05) |
| **UE_DUR_40** | 1995 | | | | | | −**0.000501**** |
| | | | | | | | (0.000197) |
| | 2000 | −**0.000188***** | −1.04E-05 | 0.00015 | | | −0.000183* |
| | | (5.97e-05) | (8.91e-05) | (9.49e-05) | | | (0.000107) |
| | 2005 | **0.000166**** | **0.000232**** | 0.000156 | −**0.000478**** | −7.19E-05 | −**0.000403**** |
| | | (6.75e-05) | (0.000111) | (0.000151) | (0.000199) | (8.41e-05) | (0.000165) |
| | 2010 | −**0.000110**** | 0.00012 | 3.85E-05 | −0.00032 | −**0.000364***** | −0.000310* |
| | | (5.29e-05) | (0.000126) | (0.000136) | (0.000219) | (8.52e-05) | (0.000161) |

(Continues)

**TABLE 6** (Continued)

| Dependent variable | | Work pressure | Procedural autonomy | Content autonomy | Job insecurity | Bad prospects | Dissatisfaction |
|---|---|---|---|---|---|---|---|
| Indep. Variable | Year | | | | | | |
| | 2015 | 3.14E-07 | 0.000128 | 8.82E-05 | −0.000176* | −2.63E-05 | −4.18E-05 |
| | | (5.40e-05) | (9.53e-05) | (0.000112) | (0.000101) | (6.49e-05) | (4.89e-05) |
| **UE_WAIT** | 1995 | | | | | | −0.00944 |
| | | | | | | | (0.0202) |
| | 2000 | **0.0473*** ** | 0.00183 | 0.0077 | | | 0.00376 |
| | | (0.0158) | (0.0175) | (0.0219) | | | (0.0302) |
| | 2005 | 0.00408 | 0.0131 | 0.0171 | −0.0128 | −0.00842 | 0.0189 |
| | | (0.0159) | (0.0111) | (0.0152) | (0.0231) | (0.0114) | (0.0193) |
| | 2010 | 0.018 | 0.00702 | 0.0101 | −0.00146 | −0.00211 | 0.0128 |
| | | (0.0159) | (0.0147) | (0.0160) | (0.0163) | (0.0110) | (0.0156) |
| | 2015 | 0.0191 | 0.00369 | 0.00266 | −0.00298 | 0.00812 | **0.0263*** ** |
| | | (0.0117) | (0.0121) | (0.0173) | (0.0187) | (0.0145) | (0.00890) |

*Note*: Robust standard errors in parentheses. See Data S2 for full specification of models and estimates of other covariates. Bold indicates significant values.
***$p < 0.01$,**$p < 0.05$,*$p < 0.1$.

entitlement are also negatively associated with job dissatisfaction for several waves. Overall, PLMP generosity has a positive effect on work pressure, autonomy and job dissatisfaction.

## 4.3 | The effects across skills and regimes in between the crises (2010, 2015 and 2021 waves) (Model 2)

Does the effect of ALMPs and PLMPs apply to workers across all skill levels? To better understand the short-term impact of the latest crises (2010 and 2021) – and the mediating effect of welfare state interventions – on job insecurity and job quality, we examined three waves: 2010, 2015 and 2021 (respectively, Tables A.26, A.27 and A.28). We conducted an analysis across skills levels to test the hypothesis that ALMPs and PLMPs might only be able to reduce effects on the economy on job insecurity and job quality for low-skilled/manual workers. First, we note that in 2010, the impact of GDP and unemployment factors on job insecurity is across skills, but on job quality the effect is mixed: they affect autonomy, bad prospects and dissatisfaction, particularly among manual workers and service workers/clerks.

> **H7 and H8.** Individuals with lower skill levels experience more effects of ALMPs and PLMPs on job insecurity and job quality than individuals with medium and higher levels of skills.

Regarding the 2010 wave, we note that the positive effects of ALMPs and PLMPs in reducing job insecurity, which were illustrated above, concern all skill groups (low, medium and high). If we examine the dimensions of job quality, however, we find a difference between skill levels. In particular, for work pressure, the effects of policies in increasing work pressure concern managers/professionals. For autonomy, the effects of ALMPs and PLMPs in increasing both aspects of autonomy concern manual and service workers and clerks. Similarly, ALMPs and PLMPs reduce job dissatisfaction among manual and service workers. The effect of active and passive policies in reducing

bad prospects concerns manual workers mostly, and sometimes also service workers. Overall, this indicates that, during the post-crisis 2010 wave, it was low- and medium-skilled workers in particular that benefited from policies.

If we examine the 2015 wave (the wave in between the two economic crises), we find some variations in terms of associations between policies and job insecurity/job quality across skills. In this wave, ALMPs and PLMPs have a positive effect on job dissatisfaction and bad prospects, but only among manual workers. Furthermore, these policies increase work pressure among service workers and managers/professionals. The positive effects of policies on autonomy and job insecurity occur either across skill levels or among manual and service workers.

Finally, during the 2021 wave, PLMPs are negatively associated with job insecurity only for service workers and managers/professionals, while ALMPs (active measures 210 and upskilling) are negatively associated with job insecurity across skill levels. The presence of PLMPs (passive measures 120 and 220) and upskilling is associated with lower levels of bad prospects only for manual workers, while occupation is positively associated with lower levels of bad prospects for manual workers and managers/professionals. This confirms again that ALMPs and PLMPs impact job insecurity across skill levels, but that they impact job quality among manual workers specifically.

## 5 | DISCUSSION AND CONCLUSION

Our article makes a theoretical and empirical contribution to the investigation of the impact of welfare state interventions on the quality of work. First, we expanded the notion of the crisis of the welfare state beyond quantitative decreases/increases in the employment rate and workers' concerns about keeping their jobs (job insecurity) (see Chung, 2020) and we also consider the multidimensional measures of job quality. This part brought together the literature on the changed conditions of work in Europe (Gallie, 2017; Lopes et al., 2014; Standing, 2011) with that on welfare state transitions (Jessop, 1993). Second, developing the framing of the crisis of the welfare state in Greve (2012), we distinguish between the crisis as a critical passage to a new model of interventions, and the crisis as a reaction by welfare states to contextual economic crises. Our findings show that, during the crises, workers from more skill groups benefited from the presence of ALMPs and PLMPs, but the effects of welfare state interventions on job quality and job insecurity after the 2008 financial crisis and the COVID-19 pandemic are aligned with the effects during non-crisis years.

Regarding the long-term effects of the transformed welfare states and the crisis of the welfare state, has the development of ALMPs led to a trade-off between the quantity and quality of work? Our article investigated this contention by exploring the impact of macroeconomic variables, ALMPs and PLMPs on job insecurity and job quality. We considered not only OECD spending, but also the nuanced impact of ALMPs (Bonoli, 2010) and the effects of PLMP generosity (Scruggs & Tafoya, 2022). Generally, ALMP and PLMP spending does not show a trade-off in effects, and ALMPs and PLMPs have similar effects on job insecurity and job quality: higher spending on both ALMPs and PLMPs is associated with lower levels of job insecurity and higher levels of job quality for several dimensions. This indicates that the presence of welfare state interventions compensates, at least in part, for the negative effects of macroeconomic factors (lower levels of GDP and higher levels of unemployment) on job quality. However, we also find a few caveats that challenge this contention and that indicate the presence of a trade-off between quantity and quality (see Eichhorst et al., 2011, p. 281). First, the positive effects of ALMPs and PLMPs on job dissatisfaction and career prospects are present up to the 2010 wave. Furthermore, there is an important exception to the trend described above, which relates to work pressure, an indicator that captures the growing intensification of work since the mid-1990s (Lopes et al., 2014; our analysis above). We find that work pressure is negatively impacted by ALMPs and PLMPs. However, the generosity of benefits has a positive effect on work pressure—a finding that appears to be significant given the reduction in generosity in social security provisions in Europe since the mid-1990s (Marchal et al., 2014; Scruggs & Tafoya, 2022). Among the types of ALMPs (Bonoli, 2010), upskilling is the one that has more consistent positive effects on job quality across waves. This is a relevant finding, considering that

upskilling has been weakened compared to other types of market-oriented ALMP interventions (Bengtsson et al., 2017).

Moreover, the positive effects of ALMPs and PLMPs on job quality are more modest once we consider the breakdown in relation to skills between 2010 and 2021—considering the two crises that occurred in this period. Here, we find that while ALMPs and PLMPs positively affect all skill groups when it comes to job insecurity, for several dimensions of job quality, the positive effects are concentrated among low/manual levels of skills, especially in 2015, involving at times medium-skilled workers. The presence of ALMPs/PLMPs, however, increases work pressure among service workers and managers/professionals. Manual/lower-skilled workers are often depicted as the losers of the knowledge-based transition in European welfare states (Iversen & Soskice, 2020), but our findings show that the welfare state has a positive spillover effect on job quality mostly among this category of workers. Our findings are aligned with a vision of a transformed welfare state that aims to enable those more at risk (Doogan, 2013; Gilbert, 2002) and targets incentives to be in/out of work via ALMPs and PLMPs towards lower-skilled workers, but that does not fulfil the ambition to generate positive spillover effects on the quality of work for all workers, as was the case for the Keynesian Workfare Model (Jessop, 1993). Furthermore, the ALMPs and PLMPs in the transformed welfare state are more effective in impacting job insecurity than job quality, as in the case of job insecurity interventions have a positive effect across skill groups, while the same is not true for job quality. Our findings are important for the social policy literature as they underline where the real crisis in European welfare state interventions lies: not in the explicit and radical transformation in the tenure of work for Europeans (job insecurity), but in how the new Schumpeterian Workfare Model affects the condition of work for the majority of workers. The critiques made by Streeck (2014) and Standing (2011) to the transformed welfare state and how it contributes to the pervasive forms of insecurity in the workforce are in part corroborated by our findings. The main take away message from our research is that social policy scholars can and should analyse broader measures of insecurity than just those related to the tenure of work to assess the impact of the transformed welfare state, both in ALMPs and PLMPs.

Our study is in many respects exploratory and contains several limitations, such as the lack of discussion of employment legislation as a type of state intervention. As multilevel analysis explores the interplay between macroeconomic and individual variables, further studies could focus on other issues that we could not address in this article, such as regime effects and the effects of political factors on job quality and job security. Furthermore, as the impact of policies varies across skill groups, future studies should further investigate how the decline of specific sectors affects job quality and job security. As job quality indicators were not available in the EWCS in 2021 due to the pandemic, the last comparable multidimensional indicators of job quality were in 2015. Given the negative trends emerging in respect to the quality of work (Gallie, 2017; Lopes et al., 2014), having more recent comparative data to investigate the impact of policies on the quality of work would deepen the understanding of the impact of welfare state interventions on work over the past decade.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in the European Working Conditions Survey: 1995, 2000, 2005, 2010, 2015 and 2021 at https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys-ewcs

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## ENDNOTES

[1] We have included analysis of EPL through the Employment Protection Index in the OECD (see the results in Data S1), but we are not discussing this in the paper.

[2] Using our robustness check, procedural autonomy, however, did not show a prominent cross-national variance in 1995, and therefore the results for this model should be interpreted with caution. Estimations for the fixed-effect models are available upon request.

[3] If the individual answered 'Strongly agree', 'Tend to agree' or 'Neither agree nor disagree'.

[4] There is a slight variation between ours and the Lopes et al. (2014) distribution of variables used for factor analysis. We attribute this to the fact that the 1995–2010 data was likely revised and, possibly, reweighted with the addition of the 2015 wave.

[5] 'Neither agree nor disagree', 'Tend to disagree' or 'Strongly disagree'.

[6] 'Not very satisfied' and 'Not at all satisfied'.

[7] These are from the following website: https://stats.oecd.org/index.aspx?DataSetCode=LMPEXP.

[8] The codebook is available here: http://cwed2.org/Data/Codebook.pdf

[9] The 'high-skilled' group are employees with an ISCO starting with 1 (Managers) or 2 (Professionals). The 'semi-skilled' group are employees with an ISCO starting with 3 (Technicians and Associate Professionals), 4 (Clerical Support Workers), 5 (Service and Sales Workers) or 6 (Skilled Agricultural, Forestry and Fishery Workers). The 'low-skilled/unskilled' group are employees with an ISCO starting with 7 (Craft and Related Trades Workers), 8 (Plant and Machine Operators, and Assemblers) or 9 (Elementary Occupations).

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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