

Precarious work and intrinsic job quality: Evidence from Finland, 1984–2013

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Abstract

It is often argued that job insecurity and precarious work are on the rise. However, the evidence to back these arguments remains mixed and inconclusive. In this study, we define and measure precarious work in Finland using five variables that reflect both objective and subjective insecurity: atypical employment, actually experienced unemployment, the threat of dismissal or unemployment, poor chances of finding a new job, and low earnings. Results based on Statistics Finland's Quality of Work Life Surveys from 1984 to 2013 indicate that, from a labour market or forms of employment perspective, the proportion of precarious wage earners has increased from 11% in 1984 to 13% in 2013. From a second perspective, however, focusing on changing working conditions, growing inequality and eroding social security mechanisms, we also analyse how a precarious labour market position is related to intrinsic job quality. Precarious workers experience decreased levels of skill and discretion, and they work in a less supportive environment than other employees.

JEL Codes: J21, J24, J31, J64, J81

Keywords

Atypical employment, job insecurity, job quality, precarious work, qualifications, skills, unemployment, work intensity

Introduction

There has been increasing discussion in recent years about the growing precariousness of work. In the early 2000s, much discussion of work-related insecurity and risk awareness was politically motivated and driven by the EuroMayDay movement. The political

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precariat movement has subsequently lost its momentum, but the causes it championed continue to attract academic interest (Neilson and Rossiter, 2008).

The economist Guy Standing (2011) has been particularly influential in arguing that neoliberal economic policy has resulted in a new class division, with ever-deepening polarization between winners and losers, and increasing numbers of middle-class wage- and salary-earners now running the risk of falling into precariousness. He defines the precariat as a class in wage labour society who face constant uncertainty about their rights, income and future.

However, the precariat is not a class concept in the traditional sense of the word, as the characteristics of precarious work have nothing to do with either occupational status or job content. Even educated and comparatively privileged knowledge workers can be affected by unemployment, fragmented income streams and insecurity (Chan, 2013).

It is possible to identify two major approaches in the debate around the precariat. The tradition represented by Standing can be described as the labour market-oriented stream. It is characterized by classifications based on labour market position and type of employment, and its aim is to establish empirical generalizability and develop research theory (e.g. Kalleberg, 2011).

The second major approach is grounded in social theoretical reflection on changes in the world of work and the economy (e.g. Moulier-Boutang, 2012). This tradition stems from theories of the transition of the capitalist mode of production from Fordism to post-Fordism, emergence of the service economy and neoliberalist deregulation. These changes, it is thought, have resulted in the growth of flexible and insecure forms of work (Jokinen, 2016).

The main difference between these two approaches is one of perspective. The labour market orientation deals with the growth in precarity as a structural (e.g. forms of employment) and qualitative (e.g. changing working conditions) issue. The theoretical debate, on the other hand, is not limited to analysing changes in the workplace. Instead, the phenomenon is approached as a political process cutting across society as a whole and centring on the growth of inequality and the erosion of social security mechanisms.

In this article, we offer an empirical examination of changes in the Finnish labour market over the past three decades and discuss our results against the general theory. Finland presents an interesting case for analysis as it seems that work here is less precarious than elsewhere in Europe (Puig-Barrachina et al., 2014). Finland is an advanced information society where wage- and salary-earners have a high level of education and the welfare state provides protection for individuals, mitigating the pressures of global capitalism (Pyöriä et al., 2005).

We begin by introducing the case of Finland and presenting our research objectives. Then, we define the criteria of the wage- and salary-earning precariat and use a representative statistical data set to estimate its size from the 1980s to the present day. Following this, we examine factors predicting a precarious labour market position as well as its associations with intrinsic job quality (skill use and discretion, social and physical work environment, and work intensity). We are interested in finding out to what extent wage employment in Finland has been made precarious, as well as the extent to which this entails poor working conditions.

Background

In the early 20th century, Finland was still one of the poorest and most agrarian areas in Europe. In the post-war era, Finland caught up with the rest of the industrial world in a quantum leap from primary production to services and innovation-driven industries. In the latter half of the 20th century, as measured by gross domestic product (GDP) per capita, Finland became one of the most affluent societies in the world, surpassing, among others, the UK.

Policy choices were crucial. The development of welfare state mechanisms since the 1960s has provided the social cohesion necessary for the nation's rapid modernization. In particular, systematic investment in education has made it possible to meet the demands of the changing industrial environment. In 2013, 46% of Finnish employees had tertiary-level education compared to a mere 10% in 1977 (Sutela and Lehto, 2014: 17). Today, Finland ranks at the top in education and skills among the industrialized economies (Organisation for Economic Cooperation and Development (OECD), 2014).

Along with the development of welfare state mechanisms, trade unions have gained a strong position in the Finnish political decision-making arena, playing a key role in regulating the distribution of income and protecting workers' rights. Although increasing emphasis is placed on local bargaining, major economic actions are usually taken after consultations among the government, trade unions, political parties and the business world. The rate of unionization is about 75%, one of the highest in Europe (Ministry of Employment and the Economy, 2012).

Finnish labour market regulation is best described as individually protective and collectively collaborative, albeit not overly restrictive from the employers' point of view. There is no formal minimum wage legislation; instead, pay rates are set by legally binding industry-level agreements. The Working Hours Act, one of the key statutory mechanisms protecting employees' rights, limits the maximum number of regular weekly working hours to 8 a day and 40 per week, but in practice industry-specific agreements are made through collective agreements. Weekly working hours do not typically exceed the standard 40 hours (Ojala and Pyöriä, 2015).

In short, collaboration and collective negotiations are the guiding principles of Finnish industrial relations. Collective bargaining coverage in Finland is very high, including over 90% of all employees (www.worker-participation.eu/). The system is not without flaws, but it has provided a robust foundation for the development of job quality. In international comparisons, Finland, along with the other Nordic countries, seems to perform very well in terms of the quality of working life, as, for example, the comprehensive Eurofound (2012, 2015) surveys indicate.

In their analysis of the European Working Conditions Survey from 2005, collected by Eurofound, Puig-Barrachina et al. (2014) compared the social distribution of precarious employment in the European Union (EU-27) countries. They based their analysis on a complex multidimensional construct including 11 indicators, including employment instability, low income level, insufficient protection, collective bargaining and training and low level of control over working time. The results speak in favour of the Nordic model of industrial relations: in Finland, Sweden and Denmark, work is less precarious than in other European countries.

Research objectives

As the brief outline above testifies, Finland has a relatively advantageous position considering working conditions and job quality. However, this is not to say the country is immune to the precarization of work. This is a global phenomenon transcending the borders of nation-states (International Labour Organization (ILO), 2012; Vosko 2010), although there is variation across capitalist regimes (Oinas et al., 2012). Therefore, country-specific analyses are important. We ask the following research questions:

1. What proportion of Finnish wage- and salary-earners are affected by the precarization of work?
2. To what extent is a precarious labour market position associated with a low level of intrinsic job quality?

Our analysis is based on pooled data from Statistics Finland's Quality of Work Life Surveys collected in 1984, 1990, 1997, 2003, 2008 and 2013. These are extensive studies with a very high response rate (68%–89%), involving between 3000 and 5000 people and covering the entire wage- and salary-earning population residing in Finland. The surveys have been conducted in the form of personal face-to-face interviews (Sutela and Lehto, 2014).

The data set represents Finnish wage- and salary-earners aged 15–64 who regularly work more than 10 hours a week. It does not provide us access to the hard core of the precariat, such as those whose income combines random sources and social security, but we do gain a picture of those who at the time of inquiry were in wage employment, even if this was on part-time or very short-term contracts.

The data set includes people employed under active labour market measures as well as those who have reluctantly accepted temporary or short-term employment. It allows us to make a comprehensive assessment of how the situation of wage- and salary-earners has developed over several decades, and furthermore to describe and identify the working conditions associated with a precarious labour market position.

Criteria of precarious employment

Defining and measuring precarious work is arduous. Precarious work is not a precise statistical category, as it includes a variety of aspects of employment relations and characteristics of jobs and working conditions (Kalleberg, 2014). Our purpose is to take into account the multidimensional nature of the phenomenon without making the empirical construct unnecessarily complex.

In the research literature, precarious work is typically associated with labour market uncertainty and risks, including atypical employment relationships, a high risk of job loss and poor prospects of employment if one is dismissed, and low earnings. These characteristics form the basis of our classification. This is not the only possible way to define precarity, but our choice is in line with earlier research (Kalleberg, 2011; Rodgers and Rodgers, 1989; Tompa et al., 2007).

We operationalize the wage- and salary-earning precariat using the following five criteria, which reflect both objective and subjective factors related to a weak labour market position:

1. Atypical employment relationship (temporary labour and agency workers);
2. Realized labour market risk (at least one spell of unemployment in the past 5 years);
3. Fear of labour market risk (is layoff, dismissal and/or unemployment considered a threat?);
4. Poor prospects of employment (assessment of chances of finding a new job in the open labour market);
5. Low earnings (lowest pay quartile).

Our first criterion is an *atypical employment relationship*, defined as comprising those working on temporary contracts since the 1980s as well as agency workers since 2008 (the year when this item was included for the first time in the Statistics Finland survey). We exclude part-time employment from this classification because it cannot be simply equated with precariousness (Kalleberg, 2014). For most people in Finland, part-time work is a voluntary choice based on open-ended employment contracts (Sutela and Lehto, 2014).

Instead, we focus on atypical employment that is linked to job insecurity. According to Kalleberg (2014), the priority in measuring precarious work should be the extent to which work is insecure, uncertain and unstable. Earlier empirical research has identified uncertainty as one of the most important perceived work-related threats (Cheng and Chan, 2008; Sverke and Hellgren, 2002).

Our second criterion is *realized labour market risk*, that is, whether the respondent has been out of work or laid off once or more during the 5 years preceding the survey.

Our third criterion is *the fear of labour market risk*. This is the sum of three risk factors (whether being laid off, dismissed and/or made redundant is perceived as a threat) that we form into a dichotomous variable (no threats vs at least one perceived threat). Although this fear is subjective, evidence suggests that employees are quite accurate in assessing the likelihood of labour market risks materializing in their current job (Green, 2006).

Our fourth criterion is *poor prospects of employment*. This is measured by the question, 'What do you think would be the likelihood of you finding a new job: good, reasonable, or poor?' The response is deemed to reflect precarity if the respondent feels he or she has poor chances of finding a new job in the open labour market.

Finally, we include *low earnings* in our classification, as this is a major factor of uncertainty for employees (Olsthoorn, 2014). By low earnings, measured by the question, 'What is your monthly gross pay in your main job before tax?' and standardized separately in each annual data set, we refer to the lowest income quartile. This choice is in line with the European Commission's (2004: 60) analysis of precarious employment.

Respondents meeting *three or more of these five criteria* are considered to be in a precarious position. Most wage- or salary-earners have been affected by uncertainty in one form or another; very few indeed meet none of these criteria (see Table 2). So we define

precarity essentially in terms of the accumulation of uncertainty. These measures are valid and reliable indicators of insecurity, in that their intercorrelations are fairly low, which means they are independent of one another. If they had correlated closely, we would be measuring one and the same dimension and fail to uncover the depth and complexity of the respondent's experience.

Intrinsic job quality

In addition to departing from the norm of standard and secure employment relationships, precarious work is often related to poor job quality (Kalleberg, 2012, 2014). Job quality is a broad concept encompassing various individual, social and organizational aspects. Green and Mostafa (2012) identify the following key dimensions: earnings, job security, career prospects (employability) and intrinsic job quality. As our classification of precarious work includes the first three dimensions, we focus on intrinsic job quality, a concept used by Green and Mostafa to refer to (1) skill requirements and discretion over daily job tasks, (2) the social and (3) physical work environment and (4) work intensity.

Green and Mostafa (2012) define skill requirements in terms of job complexity and the individual employee's discretion, which help strengthen the employee's position in the labour market. Autonomy supports control over the job and well-being in the workplace, as does variety in work, and these factors strengthen the individual employee's commitment to the job (see also Gallie, 2008). We measure five items: socio-economic status as a proxy measure for skill level, training provided by the employer, opportunities for self-development, variety in work and autonomy.

In the social environment of the workplace, support from superiors and colleagues is an important protective factor for employee well-being (Green and Mostafa, 2012). In addition to such support, we are interested in precarious employees' assessment of the climate and sense of solidarity in the workplace, as well as in their mental workload.

Physical job safety and the absence of health hazards in the workplace have always been crucial job quality factors, especially in earlier decades when mechanisms of labour market regulation were being developed (Green and Mostafa, 2012). Consequently, advanced industrial countries have seen a declining incidence of occupational accidents and physical health hazards (Green, 2006); Finland has very high standards of occupational safety. In our analysis, we take into account 15 physical workload factors (a sum variable).

Another major focus in studies on job quality has been work intensity. Research indicates that the intensity of work has been increasing in advanced industrial countries (De Bustillo et al., 2011; Green and Mostafa, 2012). In Finland, however, it seems that the ongoing financial crisis contributed to reducing work intensity between 2008 and 2013 (Sutela and Lehto, 2014: 69–74). We have two measures to describe experiences of work intensity. Table 1 gives a detailed description of the indicators reflecting intrinsic job quality.

In the analyses, we control for the factors that earlier research has shown to be associated with uncertainty of work (e.g. Green, 2006; Green and Mostafa, 2012). In addition to gender, age, and education/socio-economic status, we control for the background variables of variety in work (monotonous vs varied job content) and trade union membership (the high degree of unionization in Finland affords comprehensive protection to wage- and salary-earners).

Table 1. Indicators describing intrinsic job quality.

Dimensions of intrinsic job quality	Survey items	Scale, mean/changes in time, years of measure if other than 1984–2013
Skill use and discretion	Socio-economic status Attended training while being paid by employer, days over the last 12 months In your current workplace, are your opportunities for self-development: Is your work: Are you able to influence (a) The contents of your tasks? (b) The order in which you do your tasks? (c) The pace of your work? (d) Your working methods? (e) The divisions of tasks between employees? (f) Your choice of working partners? Sum, rel. 0.800. Open atmosphere and team spirit prevail at my workplace. There is an inspiring atmosphere at my workplace. Sum, rel. 0.848. Do you feel that you are a valued member of the work community? When your work seems difficult, do you receive support and encouragement from your superiors? When work seems difficult, do you receive support and encouragement from your co-workers? Do you regard your current tasks as mentally: Do you regard your current task physically: Adverse factors in a work environment: heat, cold, vibration, draught, noise, smoke/gases/fumes, dusts, dirtiness, poor lightning, irritant/corrosive substances, restlessness, repetitive/monotonous movements, difficult/uncomfortable working positions, heavy lifting. Sum, rel. 0.792. I do not have time to do my work as well and as conscientiously as I would like to. Adverse factors in the work environment: Time pressure and tight time schedules	I = Blue collar, 2 = Lower-level white collar, 3 = Upper-level white collar, increased from 1.7 to 2.0 0–97 days, varied between 2.1 and 3.4 I = Poor to 3 = Good, increased from 2.1 (1990) to 2.3 (2013), years 1990–2013 I = Highly monotonous to 4 = Highly varied, increased from 3.0 (1984) to 3.1 (2013) I = Not at all to 4 = A lot, increased from 2.3 (1984) to 2.5 (2013) I = Totally disagree to 5 = Totally agree, varied between 3.7 and 3.8, years 1997–2013 I = Never, 2 = Sometimes, 3 = Often, 4 = Always, varied between 3.0 and 3.2, years 1990–2013 I = Never to 4 = Always, varied between 2.6 and 2.7, years 1990–2013 I = Never to 4 = Always, varied between 3.0 and 3.2, years 1990–2013 I = Very undemanding to 4 = Quite demanding, 2.5, no change in time I = Very undemanding to 4 = Quite demanding, decreased from 2.2 (1984) to 2.1 (2013) The factor affects the respondent: 2 = To some extent to 4 = Very much; 0 = none of these to 15 = all of them, varied between 3.0 and 3.3 I = Totally untrue to 4 = Totally true, 2.22 (0.98), 2.2, no change in time, years 1997–2013 0 = Not present to 4 = Very much, varied between 1.2 (1984) and 1.6 (1997)
Social environment		
Physical environment		
Work intensity		

Table 2. The criteria and percentage of precarious work in 1984–2013 (% of Finnish wage- and salary-earners).

	1984	1990	1997	2003	2008	2013
Atypical employment relationship	11	15	18	14	13	13
Realized labour market risk	22	16	33	23	18	23
Fear of labour market risk	17	18	30	27	21	35
Poor prospects of employment	33	19	37	31	23	28
Low earnings	21	25	22	28	28	22
Accumulation of precarious job features						
All 5 features	1	1	2	1	1	1
4–5 features	4	2	8	5	3	4
3–5 features (the precariat)	11	8	18	14	10	13
2–5 features	27	24	38	35	27	34
1–5 features	61	57	74	68	62	69
N	4502	3503	2978	4104	4392	4876

Respondents meeting three or more of the five precarious job features are called the precariat.

Source: calculated from Statistics Finland's Quality of Work Life Surveys.

Field of employment and place of residence are also controlled for: this is important because the Finnish labour market is characterized by high structural and regional differentiation (Ministry of Employment and the Economy, 2010). We divide the country roughly into two parts: the densely populated southwest (the triangle formed by the three biggest cities) and rural Finland.

Furthermore, we standardize whether or not the respondent is studying while working in gainful employment. Students may be more inclined to think they have good chances of employment and they are not yet burdened by prolonged experiences of uncertainty. We also control for regular working hours as a continuous covariate since the most recent data available suggest that people in precarious positions work a couple of hours less per week than wage- and salary-earners on average. Finally, we control for the time point (year) because the data set is pooled. Unfortunately, we could not control for ethnicity because the data contain no such information.

Methods

Our methods are cross tabulation and multivariate analysis. We begin by examining the proportion of wage- and salary-earners in a precarious position according to the criteria specified (Table 2). Next, we use logistic regression analysis to see which background factors are associated with a precarious labour market position (Table 3). This allows us to establish the relative weight of these factors, that is, whether age is more closely associated with precarity than field of employment, for instance.

The factors included in the logistic regression model are gender, age, place of residence, studying, educational level, regular working hours, trade union membership, variety in work (monotonous vs varied work), field of employment and time point (year). Logistic regression is a predictive method that requires the setting of a reference group

Table 3. Factors explaining a precarious labour market position in 1984–2013.

	Low earnings	Atypical employment	Realized labour market risk	Fear of labour market risk	Poor prospects of employment	3–5 precarious features	
Gender	Woman, Ref. Man						
Age		1.22*** (1.12–1.35)	ns	ns	1.90*** (1.76–2.04)	1.61*** (1.46–1.77)	
	15–24 years	3.34*** (3.06–3.64)	5.70*** (4.93–6.58)	1.67*** (1.46–1.92)	0.04*** (0.03–0.05)	3.10*** (2.63–3.65)	
	25–34 years	6.23*** (5.37–7.23)	12.13*** (10.09–14.58)	3.46*** (3.06–3.91)	1.60*** (1.43–1.78)	0.05*** (0.04–0.05)	1.63*** (1.42–1.89)
	35–44 years	1.50*** (1.32–1.69)	4.78*** (4.05–5.65)	1.81*** (1.60–2.05)	1.41*** (1.27–1.56)	0.10*** (0.09–0.11)	ns
	45–54 years	0.87* (0.77–0.99)	2.11*** (1.78–2.50)	1.42*** (1.25–1.61)	1.42*** (1.28–1.58)	0.32*** (0.29–0.36)	ns
Place of residence	Ref. 55+ years	0.81*** (0.72–0.92)	1.42*** (1.19–1.69)	***	***	***	
	Rural, Ref. Urban area	1.63*** (1.52–1.76)	1.64*** (1.52–1.78)	1.49*** (1.40–1.59)	1.34*** (1.26–1.42)	1.35*** (1.26–1.44)	1.90*** (1.75–2.06)
	Yes, Ref. No	ns	1.57*** (1.34–1.83)	0.43*** (0.36–0.50)	0.70*** (0.60–0.83)	0.54*** (0.43–0.68)	0.45*** (0.37–0.55)
Education	Basic	9.73*** (8.55–11.07)	1.28*** (1.12–1.46)	1.47*** (1.32–1.63)	ns	1.88*** (1.70–2.08)	2.38*** (2.07–2.72)
	Secondary	5.37*** (4.81–6.00)	1.12* (1.01–1.25)	1.50*** (1.38–1.64)	ns	1.43*** (1.32–1.56)	1.88*** (1.68–2.11)
Working time	Ref. Higher	***	***	***	ns	***	***
	Part-time work – 34 hours/ week, Ref. 35+	8.05*** (7.27–8.91)	1.86*** (1.68–2.07)	1.50*** (1.37–1.65)	1.25*** (1.14–1.36)	1.16*** (1.05–1.28)	2.44*** (2.20–2.71)

(Continued)

Table 3. (Continued)

	Low earnings	Atypical employment	Realized labour market risk	Fear of labour market risk	Poor prospects of employment	3–5 precarious features
Trade union	1.46*** (1.34–1.59)	1.54*** (1.40–1.70)	0.92* (0.85–1.00)	0.79*** (0.73–0.85)	0.68*** (0.62–0.74)	ns
Job content	1.56*** (1.44–1.70)	ns	1.30*** (1.20–1.39)	1.29*** (1.21–1.38)	1.68*** (1.56–1.81)	1.51*** (1.37–1.67)
Field of employment	***	***	***	***	***	***
Ref. Transportation and storage; information and communication	2.55*** (1.96–3.32)	2.04*** (1.48–2.83)	1.84*** (1.45–2.33)	1.53*** (1.21–1.93)	ns	2.22*** (1.62–3.03)
Agriculture, forestry, fishing, mining	1.44*** (1.22–1.71)	ns	1.67*** (1.44–1.94)	1.79*** (1.56–2.05)	ns	1.84*** (1.49–2.27)
Manufacturing	ns	2.10*** (1.64–2.70)	2.69*** (2.27–3.18)	2.05*** (1.75–2.41)	0.57*** (0.48–0.68)	2.30*** (1.80–2.93)
Construction; electricity, gas, water	2.04*** (1.71–2.44)	0.77* (0.60–0.99)	1.20* (1.02–1.42)	ns	0.69*** (0.59–0.81)	ns
Wholesale and retail trade; repair of motor vehicles	2.11*** (1.66–2.67)	ns	1.32* (1.06–1.66)	ns	0.61*** (0.48–0.78)	1.42* (1.06–1.90)
Accommodation and food services	1.37*** (1.13–1.65)	1.56*** (1.23–1.97)	1.32*** (1.12–1.56)	1.31*** (1.12–1.52)	0.83* (0.71–0.97)	1.41** (1.12–1.79)
Finance and insurance; real estate	ns	3.23*** (2.51–4.16)	ns	0.69*** (0.57–0.84)	ns	1.70*** (1.30–2.22)
Public administration and defence	ns	7.30*** (5.74–9.28)	1.95*** (1.62–2.35)	1.58*** (1.33–1.87)	0.61*** (0.51–0.74)	2.95*** (2.31–3.78)
Education and research	2.15*** (1.80–2.58)	4.77*** (3.80–5.98)	1.41*** (1.19–1.66)	ns	0.52*** (0.44–0.61)	2.36*** (1.88–2.95)
Health care and social work						

Table 3. (Continued)

Year	Low earnings	Atypical employment	Realized labour market risk	Fear of labour market risk	Poor prospects of employment	3–5 precarious features
Other services; arts; extraterritorial organizations						
Ref. 1984						
1990	2.34*** (1.87–2.91)	3.42*** (2.64–4.43)	1.71*** (1.40–2.08)	1.30** (1.08–1.58)	ns	2.62*** (2.03–3.39)
1997	1.32*** (1.15–1.52)	1.40*** (1.19–1.66)	0.67*** (0.59–0.77)	ns	0.44*** (0.39–0.50)	0.74*** (0.63–0.88)
2003	1.34*** (1.16–1.56)	2.14*** (1.80–2.53)	2.22*** (1.97–2.50)	2.21*** (1.96–2.50)	1.19** (1.05–1.35)	2.10*** (1.78–2.45)
2008	3.06*** (2.67–3.52)	1.70*** (1.44–2.00)	1.45*** (1.29–1.63)	1.93*** (1.72–2.17)	0.67*** (0.60–0.76)	1.66*** (1.42–1.94)
2013	3.18*** (2.77–3.65)	1.54*** (1.30–1.82)	ns	1.44*** (1.28–1.62)	0.39*** (0.34–0.44)	ns
Constant	2.21*** (1.92–2.54)	1.66*** (1.40–1.96)	1.58*** (1.41–1.78)	3.02*** (2.69–3.39)	0.50*** (0.44–0.56)	1.66*** (1.42–1.94)
Nagelkerke R ²	1.63*** 42.3%	0.01*** 23.5%	0.04*** 12.9%	0.07*** 7.5%	1.56*** 33.1%	0.01*** 13.7%
N	24,252	24,252	24,252	24,252	24,252	24,252

CI: confidence interval. Values are expressed as Exp(B)Sig (95% CI). Exp(B)Sig: odds ratios. Chi-square significance values: **p* ≤ 0.05; ***p* ≤ 0.01; ****p* ≤ 0.001; ns: not significant.

for each background factor within different groups. The odds ratio for the reference group is always 1 and provides the point of comparison for the other groups' odds ratios. The odds ratio is not a probability, and an odds ratio of 2, for instance, does not mean that the number of precarious workers is twice as high in this particular group. Rather, the odds ratio provides an estimation of the explanatory power of different background factors.

An examination of odds ratios in Table 3 is based on the following equation

$$\ln \left[\frac{\text{Precarity}}{(1 - \text{Precarity})} \right] = a + b_G (\text{Gender}) + b_A (\text{Age}) + b_R (\text{Residence}) \\ + b_S (\text{Student}) + b_E (\text{Education}) + b_W (\text{Worktime}) + b_T (\text{Tradeunion}) \\ + b_M (\text{Monotonous}) + b_F (\text{Field}) + b_Y (\text{Year}) + e$$

Finally, we use a general linear model (GLM) and a linear probability model (LPM) to explore the dimensions of intrinsic job quality (illustrated in Table 1) in precarious work. The analysis is based on the following equations

$$(\text{QualityIndicator1}) = a + b_p (\text{Precarity}) + b_{C1} (\text{Control1}) + \dots + b_{C19} (\text{Control19}) + e$$

$$(\text{QualityIndicator14}) = a + b_p (\text{Precarity}) + b_{C1} (\text{Control1}) + \dots + b_{C19} (\text{Control19}) + e$$

This analysis provides means on the outcome variable's scale to compare the positions of precarious workers and other wage- or salary-earners (Table 4). The strength of the associations with the variables studied can be estimated based on the *F*-test results. Chi-square significance values were set as follows: * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$.

Precarious employment and economic fluctuations from the 1980s to the 2010s

As Table 2 shows, the proportion of precarious wage earners has varied according to economic cycles. The figure was at its lowest at 8% in 1990, just before Finland plunged into a deep recession, and at its highest in 1997, when the proportion of precarious workers climbed to 18%. Finland took longer than the rest of Europe to shrug off the recession, which explains the high figure for 1997. The financial crisis that reached Finland in late 2008 had less impact than the 1990s great recession, although a rebound is still not in sight. While the proportion of precarious wage- and salary-earners has increased, overall the situation in 2013 hardly differs from that 10 years earlier, when the economic outlook was strong.

Our assessment of the prevalence of precarity suggests that there have been no radical changes over the past three decades. The one notable exception is 1997. The 1997 data set represents a more selected sample of wage- and salary-earners than usual because of the high level of unemployment. In the latter half of the 1990s, the structure of labour demand changed much more rapidly than the structure of the labour force itself. As a result, even a high level of education and a permanent contract did not provide protection against redundancy (Kalela et al., 2001).

Table 4. Intrinsic job quality in precarious work (General Linear Model/Linear Probability Model).

Dimension of intrinsic job quality	Survey items	Model F (df) Sig., R ² , N	F (df) Sig. Precarity of work	Estim. mean (SD) Precarious employees	Estim. mean (SD) Other employees
Skill use and discretion	Socio-economic status, 1 = Blue-collar to 3 = Upper-level white collar	342.99 (26) ^{***} , 26.9% 24,169	312.29 (1) ^{***}	1.70	1.94
	Training in 12 months, 0–97 days	83.60 (28) ^{***} , 8.7%, 24,169	103.00 (1) ^{***}	1.94	3.14
	Opportunities for self-development, 1 = Poor to 3 = Good	105.16 (26) ^{***} , 12.2%, 19,502	140.88 (1) ^{***}	2.05	2.24
	Variety in work, 1 = Highly monotonous to 4 = Highly varied	129.87 (28) ^{***} , 13.0%, 24,111	50.14 (1) ^{***}	2.99	3.09
Social environment	Autonomy, 1 = Not at all to 4 = A lot	111.64 (28) ^{***} , 11.8%, 23,170	143.50 (1) ^{***}	2.31	2.47
	Open atmosphere, 1 = Totally disagree to 5 = Totally agree	26.56 (25) ^{***} , 3.8%, 16,045	7.12 (1) ^{**}	3.80	3.86
	Valued member of the work community, 1 = Never to 4 = Always	23.27 (26) ^{***} , 2.9%, 19,388	84.60 (1) ^{***}	3.01	3.17
	Support from superiors, 1 = Never to 4 = Always	15.28 (26) ^{***} , 1.9%, 19,298	8.17 (1) ^{**}	2.69	2.75
Physical environment	Support from colleagues, 1 = Never to 4 = Always	31.60 (26) ^{***} , 4.0%, 19,120	0.02 (1) ns	ns	ns
	Mental load, 1 = Very undemanding to 4 = Quite demanding	142.18 (28) ^{***} , 14.1%, 24,002	24.45 (1) ^{***}	2.39	2.46
	Physical load, 1 = Very undemanding to 4 = Quite demanding	361.97 (28) ^{***} , 29.5%, 24,098	7.77 (1) ^{**}	2.14	2.10
	Adverse factors, 0 = None to 15 = 15 factors	248.64 (28) ^{***} , 22.3%, 24,169	0.05 (1) ns	ns	ns
Work intensity	1 do not have time to do work conscientiously, 1 = Totally untrue to 4 = Totally true	56.58 (25) ^{***} , 8.0%, 16,071	10.04 (1) ^{**}	2.05	2.12
	Adverse factors: Time pressure and tight time schedules, 0 = Not present to 4 = Very much	39.75 (28) ^{***} , 4.3%, 24,134	28.87 (1) ^{***}	1.12	1.28

Controlled factors: gender, age, socio-economic status (excluding the first model), student, part-time work, trade union membership, place of residence (rural vs urban area), field of employment, year.
 Chi-square significance values: * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$; ns: not significant.

The criteria listed in Table 2 show no major changes from 1984 to 2013, with the exception of fears of a personal labour market risk materializing (+18 percentage points). As the financial crisis has persisted, increasing numbers have expressed fears for their job. Fears and risks concerning one's own labour position are cyclically sensitive. Uncertainty tends to increase in bad times, and confidence during good times. In Table 2, the macroeconomic situation seems most clearly reflected in perceived prospects of re-employment. These assessments were the most optimistic ahead of both recessions, in 1990 and 2008.

In 1984, assessments of employment prospects were surprisingly low, close to 1997 figures, possibly because of the lower level of labour market mobility in the 1980s. This probably also explains why despite the current financial crisis, people have not lost faith in their chances of finding a new job, although the proportion who regard their employment prospects as poor increased somewhat (+5 percentage points) in the wake of the recession from 2008 to 2013.

Overall then, there was increasing precarity in the Finnish labour market in the 1990s, but in the 2000s the situation returned to normal. During the financial crisis of 2008–2013, the proportion of precarious wage- and salary-earners increased, but uncertainty did not reach the same level as during the previous recession.

The accumulation of precarity?

We move on now to discuss the accumulation of uncertainty in certain groups. The odds ratios in Table 3 allow us to infer which background factors explain accumulating uncertainty. Cyclical fluctuation, which can be demonstrated by controlling for the time point, is associated with the precarization of work. However, the accumulation of uncertainty is most clearly reflected by individual factors, such as gender, being young, and having a low level of education, and structural factors, such as place of residence and field of employment.

The impact of place of residence is as expected: living outside urban Finland increases the risk of a precarious labour market position. As in other European countries, urban centres attract new enterprises and a talented workforce, powering innovation and economic growth, whereas rural areas are regressing.

The impact of field of employment has more intricate implications linked to atypical employment relationships and the risks associated with unemployment. On the one hand, employment in public services (education and research, and health care and social work, in particular) indicates uncertainty, largely attributable to the high prevalence of fixed-term contracts in these fields of employment. This is a distinctive feature of the Finnish labour market: temporary contracts are most common among highly educated public sector employees. In this sector, however, temporary contracts are often renewed and perceived prospects of re-employment are good.

On the other hand, uncertainty is no stranger to workers employed in primary production (agriculture etc.), construction and manufacturing. In these sectors, realized labour market risk and fear of unemployment are the most significant factors predicting precariousness. In recent years, cyclically sensitive fields of employment, such as construction and manufacturing, have suffered from the ongoing financial crisis, while public sector jobs have been more secure.

Gender, age and education proved to be the most important individual factors predicting precariousness. Women have a higher risk of being in a precarious labour market position than men, based on low earnings and poor prospects of employment. Being young and having a low level of education also increase the risk of a precarious labour market position. Studying has the opposite effect: acquiring an education is an intermediate phase that includes finding one's own place in the labour market and drifting through short-term jobs.

We should be cautious not to draw far-reaching conclusions from the association observed between youth and precarity. The association between age and a precarious labour market position is no longer statistically significant among wage- and salary-earners over 35 years old. Youth is a time of transition and exploration, and this has always involved an element of uncertainty.

Precarious work and its relation to intrinsic job quality

What kinds of working conditions are associated with a precarious labour market position? In Table 4, we assess how precarious wage earners compare with other employees in terms of the features of intrinsic job quality described in Table 1. In terms of skill use and discretion, the social and physical work environment and work intensity, Table 4 compares the means for precarious and other wage- and salary-earners.

Our key observation is that both privilege and disadvantage accumulate in the labour market. More surprisingly, among the indicators we have chosen to use here, there is not a single characteristic of precarious work that substantially offsets a weak labour market position. Precarious workers are in a worse position than others according to all other indicators except for mentally demanding tasks and work intensity. The effect of adverse work environment factors (heat, cold, etc.) and support from colleagues proved to be statistically non-significant.

The negative association observed between precarity and skill use and discretion is particularly pronounced and problematic. Precarious workers have less on-the-job training, variety in work and autonomy, as well as fewer opportunities for self-improvement than other employees. Yet these factors provide important protection against stressors at work, and the development of independent skills in particular is key to determining the employee's future labour market position (Green, 2006).

Furthermore, a precarious labour market position indicates a social climate that is less supportive of well-being in the workplace, for instance, in terms of support from one's superiors or collegial respect and appreciation (i.e. being a valued member of the work community). Earlier studies have found that the workplace climate and support from superiors provide protection against the stresses and experiences of injustice resulting from factors of insecurity such as fixed-term employment (Liukkonen, 2012).

In other words, the accumulation of work-related uncertainty is associated with weaker than average intrinsic job quality. In this respect, the criticisms raised in the precarity debate are well placed.

Summary and conclusions

In this article, we have discussed the precarity of work and its association with intrinsic job quality using a representative data set of Finnish wage- and salary-earners. Job

uncertainty in Finland today is at roughly the same level as three decades ago, which serves as a testament to the effectiveness and stability of the Nordic labour market model.

The most important factor explaining the limited spread of precarious employment in Finland is the culture of collaboration, negotiation and co-operation when important labour market decisions are undertaken. Finland, along with the other Nordic countries, has a reputation for displaying a high level of institutional trust (Ruostetsaari, 2015: 205). This extends from parliamentary democracy to labour market representatives.

Among the criteria we specified for precarious work (see Table 2), only the fear of labour market risk has considerably increased. This result is interestingly in line with the theoretical debate on precarity, which underscores the importance of the individual's experiences and awareness of risks (Della Porta et al., 2015; Wilson and Ebert, 2013).

Precarity cannot straightforwardly be reduced to a certain risk that has materialized, but the individual's subjective experiences of uncertainty and fear of the future may be a more relevant factor. It is impossible to know which fields of employment or occupations will provide the best protection in an economy subject to global competition. Especially in conditions of economic crisis, people are increasingly concerned about losing their job and income, even if it is not their own job that is at immediate risk.

On the other hand, our more objective indicators do not support the view of a trending or all-embracing growth of uncertainty in the workplace (see also Doogan, 2009, 2015; Fevre, 2007; Green, 2006). Most wage- and salary-earners in Finland are content with their working conditions and the quality of their work. During the period under study, there was no marked change in the average duration of employment or in the prevalence of atypical employment (Rokkanen and Uusitalo, 2013; Soininen, 2015).

There is nothing new about job uncertainty. In the 1950s, dockers in Finland were hired on a day-to-day basis, and in the 1960s, both the metal industry and the construction industry used precarious hired labour. The current debate on the precarization of work harks back to the days when industrial workers were fighting for their rights (Quinlan, 2012).

We do not want to play down the concerns raised by social theorists about the uncertainty of work, but we do share Fevre's (2007) view that there should be closer dialogue and exchange between theory and empirical research. Highlighting the stable features of the labour market and longer term, historical trajectories of development are not only important for the credibility of theory but also have a political dimension.

The view that working conditions are deteriorating and becoming less secure has become the discursive norm. Such fear-mongering may reinforce the distorted view that the only certainty is uncertainty and that collective safety networks can no longer be trusted. In this climate, it is ever easier for employers to downgrade working conditions. It would be more constructive to underline the role of trade unions and labour legislation in safeguarding both individual and collective interests. In this respect, Finland and the other Nordic countries can serve as encouraging examples of countries with effective mechanisms of labour market regulation.

Is all the talk about the increasing precarity of work an exaggeration, then? The main message from our research can be summarized as follows: first, the growing insecurity of work is a reality especially for those groups that face several simultaneous factors of uncertainty. The accumulation of uncertainty (3–5 precarious job features), however,

concerns only around one-tenth of all Finnish wage- and salary-earners (see Table 2). Second, our results indicate that the wage earning precariat is in a difficult position not only because of accumulating uncertainty but also because of adverse working conditions. In this respect, it is fair to describe this group as discriminated against in the labour market.

For people in a precarious labour market position, positive and negative determinants of intrinsic job quality are severely out of balance. Among precarious workers such factors as a sense of being respected and appreciated in the workplace or having influence over the variety in one's work are indicative of accumulating disadvantage. This is a worrying result, as skill use and discretion are generally considered to be the most important resources for well-being in the workplace (Karasek and Theorell, 1990; Siegrist et al., 2004). The development of independent skills is key to determining the employee's future labour market position (Green, 2006).

Rather than engaging in a discourse that underscores the climate of general uncertainty, it is important to explore more closely the situation of wage earners who are in the weakest and most vulnerable position. As for atypical employment relationships, a more detailed analysis would be worthwhile. Disadvantage is above all connected with whether or not atypical employment is a reluctant or active choice (Kauhanen and Nätti, 2015). Not all part-time or temporary workers are necessarily precarious. More detailed information is needed about the position of self-employed groups as well as those dependent on random jobs and social security, who, because of the limitations of our data, have received no discussion here.

This last point leads to an important policy implication. Although traditional welfare state mechanisms and labour market regulation have their merits, this obviously is not enough to prevent people from falling into the trap of precariousness. New means of social protection are needed (De Wispelaere, 2015). Universal and unconditional basic income is one such idea that is worthy of consideration.

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