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A time-series analysis of precarious work in the elementary professions in Ireland.

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A time-series analysis of precarious work in the elementary professions in the Republic of Ireland

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ABSTRACT

In an increasingly interconnected world, labour markets are under constant pressure to adapt to the forces of globalisation and technological change. This is especially the case for small open economies such as Ireland. Across the EU, permanent full-time jobs are declining as a proportion of the labour force and real wages are falling in many sectors. Some argue that the competitive pressures of globalisation are creating a race to the bottom in wages and working conditions and an underclass of precarious workers who barely scrape by and have little or no future prospects. Flexibility is a key word in the mantra of international 'competitiveness' and some would argue a source of much of the insecurity associated with modern day labour markets. Considering both the income and employment security aspects of precariousness this paper examines trends in Ireland from 2004 to 2015 in the elementary occupations. While the overall structure of the labour market, specifically the proportion of temporary contracts has hardly changed since 2004 the proportion of those temporary workers who are involuntarily so has grown considerably. The proportion of temporary contracts as a proportion of employment for those under 30 has grown markedly whilst it has actually fallen slightly for older cohorts. Furthermore, the proportion of part-time workers has grown as a proportion of the overall labour market as has the share of workers within that category who would prefer to be in full-time employment. These trends hold across certain groups identified as particularly vulnerable to precariousness in the international literature; women, young people and foreign nationals. The incidence of involuntary part-time and temporary work is higher in all categories for elementary workers. In terms of income insecurity, the deprivation rate for elementary workers rose significantly between 2004 and 2015 (from 13% to 23%) and almost 80% of elementary workers in 2015 had some difficulty in making ends meet as did a similar proportion of temporary workers. Over 1 in 5 temporary workers had been in receipt of some form of welfare assistance in the previous 12 months in 2015.

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1. INTRODUCTION

With giant strides in technological development and the acceleration of globalization in recent decades, there is constant pressure on labour markets to adjust. The nature and implications of these adjustments have been of growing interest to policymakers, academics and workers alike. The mantra of the era to meet these challenges is facilitating 'flexibility' in labour markets in the interest of international competitiveness. Some are concerned however that this flexibility comes at the expense of decent and stable jobs and by extension the quality of life of workers.

The term 'precarious work' is often used as a blanket term for low-wage and/or temporary jobs and interchangeably with the similar concept of non-standard work. Like non-standard work, precarious work is a relative concept in that it is measured relative to standard employment (full-time with an open-ended contract). While the line at which non-precarious becomes precarious is a contested one there is broad consensus about the negative implications of insecure employment and low-wages on health, well-being and quality of life (Eurofound 2015).

The growing numbers of 'working-poor' across the developed world calls into question the long-standing conventional wisdom that a job is the best way out of poverty. More and more working people are at risk of poverty and deprivation and in some countries are often in receipt of government supports to bring them up to subsistence levels of income. There is also mounting evidence to suggest that those at the bottom, especially those on temporary contracts in low-skilled positions, have less and less opportunities for career progression than in the past (ILO 2016). Individuals are much less likely to be able to 'work their way' to a promotion as a growing number of businesses turn to temporary contract employment strategies, rarely offering training or transitions to standard contracts to these workers. There is growing concern in some quarters that these practices are creating a secondary labour market of precarious workers with less stability and lower wages and are being used to reduce the power of unions (Standing 2016). Precarious work refers to employment that is low-pay, unstable, insecure (in that it offers little in the way of social protection) and is associated with vulnerability, both economic and social. Standing (2016) emphasises the lack

of control the 'precariat' have over their own time. The term "working poor" only refers to the income element of precariousness. According to the European Parliament, three main characteristics make up precariousness:

- A) insecure employment (fixed-term or zero hour contracts),
- B) vulnerable employees (low-paid work or working-poor) and
- C) unsupportive entitlements (in the case of becoming unemployed or sick).

In 2016, less than six in 10 employees in the EU have an open-ended contract (ESA, EP 2016) and this trend towards 'non-standard' employment has been identified across the EU (Eurofound 2013). The European Commission (2014) found the incidence of 'working poor' to have increased in two thirds of member-states between 2010 and 2014 with the level at about 8% of EU workers in 2007. Temporary agency work rose by 40% in Ireland between 2004 and 2007 (Eurofound 2009). About 9% of the EU workforce are 'marginal' part-time workers (less than 20 hours a week), a growing trend mainly due to the increasing participation of women who often enter or re-enter the labour market as part-time workers. This can sometimes offer opportunities for work-life balance and flexibility though positions are mostly of lower quality with less opportunity for progression. These arrangements are often promoted through policy e.g. the Minijob in Germany.

It is important to note that depending on the details of the profession itself short-term contracts or low pay or even lack of access to entitlements do not necessarily translate into a precarious position for an employee. For example, fixed-term contracts are standard in some higher skilled occupations that are quite well paid such as in I.T or in television and film production and may be a genuine lifestyle choice of these workers who enjoy more autonomy to manage work-life balance. These workers then tend to be self-employed, though not always, which means (in Ireland at least) they will not be entitled to jobseekers allowance in periods between contracts. Though they lack secure employment and supportive entitlements this category of highly skilled worker is arguably 'less precarious' than workers who do not choose to be employed on temporary contracts and/or are paid at menial rates.

At the same time, one out of four part-term employees in Europe are involuntarily underemployed. The rate is higher in some member-states than in others. Positions of involuntary underemployment tend to offer less opportunity for career progression and have been found to be correlated with worse overall health (ESA, EP 2016).. Ireland is included in a list of countries (Bulgaria, Cyprus, Greece, Ireland, Italy, Portugal and Spain) which show high incidence of involuntary part-time work (ESA, EP 2016).

Identifying and differentiating between workers who prefer to work less and those who do so because no better options are available to them is important as societal implications and policy responses will differ with growth in either group. Precariousness can be considered a relative concept and is very often a politicized term. Thus in the interest of analytical precision and conceptual clarity much of the recent research on the topic has tended to focus on different aspects of precariousness separately as well as trends within different sectors.

Considering both of these issues, this paper will investigate precarious work in the elementary professions. Data collection bodies such as Eurostat, the OECD and the CSO in Ireland use occupational codes to categorize workers by general skill level for use in crosscountry labour market analysis. These codes can be used loosely as a measure for socioeconomic status. There are nine ISCO categories separated into four skills levels for which issues such as pay and conditions can be compared across countries. 'Professionals' is one example of an ISCO category as is 'craft and related trade workers' (see annex 1 for a comprehensive list of ISCO-08 categories). 'Elementary occupations' is the category which will be the focus of this paper. Elementary positions require the lowest skill level of all the occupational groups and are therefore among the least well-paid jobs in an economy. According to qualitative research by the TUC (2008), these workers are particularly at risk of poverty and deprivation, more likely to be in receipt of supplementary social supports and often fall into the category of the 'working-poor'. They represent somewhere between 170,000 and 205,000 workers in the Republic of Ireland or around 10% of the workforce. Jobs in this category involve routine tasks for the most part, which might require physical effort and/or the use of hand tools. Examples include door-to-door and telephone salespersons, cleaners, caretakers, messengers, porters, doorkeepers, garbage collectors, sweepers, farm-hands, building construction labourers, manufacturing labourers, transport labourers and freight handlers. Many of these occupations are also in sectors identified as having particularly prevalent precarious work: hotel & catering, construction, health & care, agriculture, cleaning, retail, security and food (McKay et al 2012). The classification also encompasses some of the newer jobs related to the 'gig-economy' and dependent selfemployment such as delivery cyclists which have been a cause of concern in recent years in Ireland and further afield (Goldrick 2016).

This paper will examine the prevalence of non-standard work contracts among elementary workers as well as the prevalence of the working-poor in these occupations from 2004-2015. The paper will also consider specific groups that have been found in the literature to be

particularly vulnerable to precarious employment: young people, women and immigrants.

2. LITERATURE REVIEW

2.1 Conceptualizing precarious work

Precarious work has been a notable topic of concern in recent years for economists, international organizations, NGO's and the trade union movement. The term is often used interchangeably with low-paid work, working-poor, non-standard employment or insecurity. The term also appears in debates on the future of work, decent work, job quality, the race to the bottom, enforced flexibility and dependent or "bogus" self-employment.

Rodgers (1989) conceptualizes precarious employment as having four dimensions: (i) the degree of certainty of continuing employment: (ii) the degree of control over working conditions, wages and the pace of work; (iii) the degree of labour protection (e.g. against discrimination, unfair dismissal, unacceptable working conditions, social protection); and (iv) the income level. More recently a paper commissioned by the European Parliament's Committee on Employment and Social Affairs (2016) conceptualizes precarious employment as an intersection between three separate components; Insecure employment (e.g. fixed-term contract, temporary agency work), unsupportive entitlements (i.e. entitlement to little support in the event of unemployment or illness) and vulnerable employees (i.e. low-paid with few other means of subsistence, such as wealth or a partner with a significant income). The International Labour Organization (2016) show the proportion of standard employment (open-ended, full-time positions and a bilateral and dependent relationship with an employer) is steadily decreasing across the developed world. Non-standard employment (NSE) is conceptualized as made up of four categories: temporary employment, part-time or on-call employment, multi-party employment and disguised or dependent self-employment.

Precarious work is often a theme in the debate on the future of work and the role of policymakers in preparing labour markets to meet the challenges of globalization and advances in technology. Research has attempted to forecast the level of displacement and the extent to which workers will be vulnerable to replacement by automation in the near future (Arntz et al 2016; Frey & Osborne 2017) and work on the winners and losers of trade liberalization has continued for decades (Harrison et al 2003; Heckscher & Ohlin 1991). Related is the policy debate on decent work and the protection and promotion of decent work against countervailing forces through government policy. Decent work has many critical components: equality for all workers (both men and women), opportunities for

productive work, fair income, security in the workplace, social protection for families, prospects for personal development and social integration, freedom of expression and organisation in the workplace and participation in decision-making (ILO 2016). The idea of decent work is also closely related to that of job quality (OECD 2014). Eurofound (2015) conceptualizes job quality as made-up of four components: earnings, prospects (job security and opportunities for advancement), working time quality and intrinsic job quality.

2.2 Categories of worker at risk of precariousness

Different categories of workers have different levels of risk of precariousness associated with their employment. Even some *low-wage full-time positions* with open-ended contracts are precarious if wages are not sufficient to bring workers' income or consumption up past certain poverty or deprivation thresholds (ESA 2016).

Part-time work, although considered the most secure form of non-standard employment (NSE), often still has low social security coverage, less on-the-job training, less worker representation and less likeliness of promotion. There is ample evidence of a permanent wage penalty associated with part-time work (Jepsen, Dorchai & Plasman 2005; Fernández-Kranz, & Rodríguez-Planas 2011). As part-time work is voluntary and suits particular individuals, part-time work in itself is not precarious. One in five workers in the EU are part-time workers. Two categories of part-time worker are considered particularly at risk of precariousness: *involuntary part-time workers and marginal part-time workers*. Involuntary part-time workers are those who want to work full-time but cannot find a full-time job and marginal part-time work are those who work less than 20 hours a week (EP 2016; IZA 2013). Underemployment is comparable to unemployment in many respects due to the associated risks of poverty and deprivation due to insufficient work.

Fixed-term or temporary contracts are insecure forms of employment and often considered particularly precarious as workers usually have a low expectation of continued employment and transitions to permanent employment tend to be quite low. In 2013, 22.8 % of temporary employees in the EU managed to secure a permanent job within a year, compared to 27.3 % recorded in 2007. In Ireland, the rate fell even further between 2006 and 2009, the latest year for which data is available, from 58% to 29% (Eurofound 2016). Earnings are also lower on average for the same work. DaSilva & Turini (2015) estimate a wage difference of about 15% on average across the EU holding other relevant variables constant. Many studies have identified this difference on a country level and an associated permanent wage

penalty (this is likely due to the greater bargaining power of permanent employees). Some research suggests that there is a permanent wage penalty to having entered the workforce on a temporary contract throughout a workers life (Booth et al. 2002) whilst several papers have shown that the probability of securing a standard contract decreases with the number of temporary contracts an individual has been forced to take (Amuendo-Dorantes 2000; Gagliarducci 2005).

For some workers, temporary agency work may actually impede the transition to a regular job. Other research casts doubt on whether temporary contracts are indeed a stepping-stone to open-ended contracts and whether they even improve employment rates and earnings in the medium and long term (Houseman 2014). The short tenure of these contracts also prevents workers in some countries from meeting contribution requirements for social security benefits and therefore entitlements to assistance in unemployment and retirement (ILO 2016). The growth in these forms of employment relationship shifts more and more of the entrepreneurial risk away from employers and onto workers, often the low-paid and vulnerable and by extension onto the state as workers earning beneath a certain threshold are entitled to income supplement as well as other supports, such as a medical card in Ireland. On-the-job training is low for temporary workers as employers have less incentive to provide it especially if the use of temporary workers is central to the business' labour cost strategy. Temporary contracts and their conditional renewal are often used as a disciplinary tool by management. Qualitative research has identified this in the hospitality sector in Ireland where these workers are much less likely to be represented by a union due to a fear that being seen to be would likely result in non-renewal of their contracts (Wickham & Bobek 2016). In Ireland, zero hours contracts are widespread in retail and domestic-care (Broughton 2010). Social and health risks tend to be functions of economic circumstances and insuring against sickness, unemployment or old age is more difficult for those without permanent contracts. Evidence suggests that temporary agency workers are more likely to suffer from depression and consume more alcohol and nicotine (Kompier et al 2009). González and Jurado-Guerrero (2006) show that the uncertainty surrounding temporary employment effects relationships and workers tend to become parents later. Duntgen & Diewald (2008) found that self-employed men are less likely to become fathers.

Casual and day work, some forms of agency and subcontracted work and dependent or disguised self-employment have the highest risk of precariousness and the poorest job quality according to the European Parliament (ESA 2016). Workers with project-based contracts are generally not covered by collective agreements or represented by a trade union and due

to the lack of contact with other employees are less likely to be in a position to voice concerns regarding working conditions (or questions of liability in the event of an accident or work-related illness). Casual and day workers have no guarantee of remaining employed by the same employer from one day to another and they rarely have the right to any compensation if the work contract is terminated prematurely. For them, rates of transition to standard employment status are also the lowest. The unpredictability of this employment goes hand-in-hand with uncertainty of future wages which results in people living pay check to pay check and unable to secure a loan. Training and career options are less common than for those on fixed-term contracts and this category of worker have most issues in terms of occupational safety and well-being and health outcomes (ILO 2016).

A worker is classed as dependent self-employed if they are formally self-employed but work under the same conditions as dependent employees and generally are not paid any more. As legislation for the protection of employees does not apply, these workers do not benefit from employment regulations on working time, breaks, paid leave, minimum wage or termination (ESA 2016). Neither do they benefit from employer social contributions. Evidence suggests that some employers favour these arrangements to evade the labour and social protection associated with employing someone (Wickham & Bobek 2016a). Choosing to employ workers on temporary contracts, employers can avoid the costs of terminations and social contributions and the financial risk associated with the possibility of a worker falling ill is transferred to the worker (IZA 2013). Workers who are forced down this route are not entitled to social security protection unless they contribute as independent self-employed, requiring a higher level of contributions. This is likely difficult as these 'bogus' self-employed positions tend not to be well paid. The same is true for pension entitlements. Similarly, dependent self-employed workers do not benefit from disability coverage. Health and safety prevention then becomes their responsibility, even though they likely have no control over their work environment (IZA 2013). This is one of the main issues of concern for Deliveroo drivers. This category of worker has the lowest income and the most household financial difficulty of any category of worker (ESA 2014). As these workers only have one employer they are subordinate, have no presence on the external market and thus have no alternatives for other 'business' contracts and no autonomy over the manner in which they fulfil their side of the contract. They also have no option to employ their own staff, as genuine selfemployed individuals would making the relationship an employer/employee one in everything but name (IZA 2013). These employment arrangements also have a disciplinary function as the worker is dependent on the employer. In the case of deliveroo workers in the UK, evidence suggests that delivery professionals are not free to work when they please (one of the apparent perks of the job) and that flexibility on deliveroo's terms is enforced (Geraghty 2016). Dependent self-employment is mainly found in construction, transport, insurance, business services, architecture, and creative industry and Wickham & Bobek (2016a) present evidence of growth in 'bogus' self-employment or dependent self-employment in the Irish construction industry since the crash. These practices also encourage work in the informal economy, which effects revenue receipts. Due to the nature of fake self-employment, any estimates of the cost to revenue will have an element of guesswork. One estimate for the UK in 2011 was around £2 billion (Insley 2012).

There are also important issues to consider for the firms where these employment arrangements are central to their business model. For firms, the short-term gains from flexible arrangements might actually be outweighed by longer-term losses to productivity associated with long-term and loyal staff who have benefitted from training over years (ILO 2016). For society, the risks associated are through labour market segmentation (the creation of a permanent underclass of workers) and economic instability (Standing 2016).

2.3 Drivers of precariousness

The prevalence of non-standard employment in an economy is not only driven by economic conditions but is also a reflection of the historical institutional evolution of labour-market legislation in that country and the sectoral composition of the labour market.

From an economic standpoint, the recession has shifted bargaining power from employees to employers as unemployment remains high and more workers compete for fewer jobs. Although in some countries, such as Poland and Spain temporary employment has long been a prominent feature of the labour market, in other countries it rose with the shock of the financial crisis. In 2014, 62% of temporary workers in the EU could not secure an openended contract though they wanted to. In a more uncertain economic climate, employers are less likely to offer permanent contracts and workers are more likely to accept less palatable working arrangements as the only alternatives are unemployment or emigration.

Some argue that this trend began years before the financial crisis and is part of a general international push for the deregulation and 'flexibilization' of labour markets since the 'end of history' and the emergence of the US as the singular hegemon promoting a market-centred development model. International Organizations such as the IMF and WTO have been pushing some aspects of this development model based on the 'Washington-consensus', particularly in the developing world for decades. In a European context, pressure for labour

market reform in the midst of the financial and fiscal crises was also exerted by supranational and international organizations such as the European Commission, The European Council and the IMF. Depending on a country's development model the growth of non-standard employment was more or less prevalent pre-crisis as was the rate of acceleration of NSE in response to it. In 2008, Ireland and the UK were the bottom of the list of ten European countries in the Employment Protection Law index (OECD 2008)¹. The decline in union density has given opportunities to employers in the US, the UK and Ireland to promote practices that are not illegal but reverse traditional conventions and employment arrangements that go back for decades (ILO 2016).

Differences in labour market regulations informed by different development models produce different outcomes. Institutional context matters. In Ireland, though much of the labour protection legislation applies to a proportion of temporary contract workers, most does not when it comes to temporary agency workers. McKay et al (2012) found Ireland to be one of the countries with the most problematic institutional environments in terms of protecting the growing number of vulnerable employees in non-standard employment. The absence of representation rights (in part due to declining trade union density), limited legislation ensuring representation rights and the absence of collective bargaining in certain sectors are facilitating factors of precariousness in Ireland. For example, a Joint Labour Committee system of collective wage bargaining for workers in many low-paid sectors was found to be unconstitutional in 2011 further eroding conditions for many low-income and vulnerable earners, particularly in terms of over-time for unsociable hours (Turner & O'Sullivan 2013). Other notable issues include; a lack of collective agreement coverage in relation to those in precarious (defined as non-standard) work; a lack of regulation over the employment conditions in care work generally; outsourcing as a risk to terms and conditions in the public sector; work permits (specifically for migrants) which unfairly favour employers giving little flexibility to employees (McKay et al 2012). Neo-liberal austerity measures have also incentivized more undeclared work than more social democratic approaches to austerity (Eurofound 2013).

McKay et al (2012) find that growing forms of NSE are resulting in more and more workers finding themselves outside the scope of labour regulations (which are generally based on the standard contract). Regulatory regimes may provide incentives for firms to hire more temporary workers and sometimes to make them a central feature of their business strategy.

¹ Source: OECD. To find out more about the methodology used to calculate the OECD employment protection indicators, see www.oecd.org/employment/protection .

The Anglo-Saxon development model of flexibility, high levels of employment and an acceptance of a degree of in-work poverty promotes some of these trends (ESA 2016). For instance, deregulation may provide opportunities or incentives for employers to cut costs and exploit legal loopholes to increase market share where they may be unable to in other countries (ESA, EP 2016). The ILO (2016) found that certain regulatory regimes incentivise a "core" and "secondary" workers strategy in some lower-skilled sectors such as hospitality. This strategy provides secure employment for a minority of relatively well-paid 'core' workers whilst the majority of 'periphery' workers are replaced at the end of their temporary contracts or their temporary contracts are renewed repeatedly. This has an added bonus for employers as it tends to enforce flexibility and compliance on workers on issues from unpaid overtime to variable timetables that make it impossible to keep a second job. This is particularly the case if termination costs differ widely between different types of contract and if there are legally set thresholds for social security. Qualitative research has found that these arrangements are a fact of life for many in certain sectors in Ireland (Wickham & Bobek 2016).

The more social democratic model tends to put relatively more onus on tighter labour market regulation and employment protection. For instance, in response to stagnation around the turn of the century, Germany (at the time dubbed 'the sick man of Europe') introduced legislation to exempt marginal part-time workers (<20 hours a week) from income tax and obliged employers to pay social contributions on these jobs, thus promoting this type of employment by making it less precarious as part of a wider macro-strategy. 'Mini-jobs' are now more of an attractive option for many workers. This is not to say that this approach is ideal, as many workers in mini-jobs are in that position involuntarily and are not well paid. Rather it is simply to illustrate the different outcomes with differences in employment legislation.

At the same time however, a more regulated national labour market can actually create perverse incentives for the spread of dependent self-employment, particularly in an environment of high non-labour costs, strong dismissal laws and regulated temporary employment (IZA 2013). The prevalence of voluntary and involuntary dependent self-employment depends on the sector and the regulatory regime and incentives to register as either are also driven by institutional context. Muchlberger (2007) argues that the incentives to voluntarily move from employment to self-employment depend on the social security and employment protection afforded the various labour market statuses. In Ireland for instance, the move to self-employment comes with it a risk of not being covered

by unemployment allowance should the business be unsuccessful.

3. MEASUREMENT

The International Standard Classification of Occupations (ISCO) is used in labour market research to classify workers based on the job itself and the general skill requirements for comparison across datasets. These codes correspond loosely to a workers socioeconomic status. A job is defined as a set of tasks to be executed. Skills are the abilities to execute the tasks and responsibilities of the job. Skills have two dimensions: domain specialisation and skill level which relates to the level of educational attainment. There are nine ISCO categories separated into four skill-levels². 'Professionals' is one example of an ISCO category at the highend of the skills spectrum, requiring qualifications at the second stage of tertiary education whilst 'craft and related trade' are in the second category requiring lower secondary to post-secondary but non-tertiary education. 'Elementary occupations' is the category which will be the focus of this paper and is the sole occupational category at skill-level 1. ³

Individual's examined in this paper will be those who identify as 'at work' as their principle economic status. Students who work part-time or on temporary contracts are not considered and therefore do not influence the figures for precariousness. Pensioners who may still identify with a given occupation are also not considered here. Unless 'employee' is specifically stated, measurements of income and employment status will also include the self-employed.

Trends in precariousness are measured through two different aspects of precariousness:

1) security and sufficiency of contract and 2) in-work poverty. To examine trends in the security of working contracts this paper will examine trends in the prevalence of temporary workers in the workforce and within certain societal groups between 2004 and 2015 (the latest year for which data is available) using the Quarterly National Household Survey compiled by the Central Statistics Office. The paper will pay particular attention to workers in working arrangements that are insufficient to meet their needs, namely those who are involuntarily in part-time or temporary jobs to filter out those who are happy in such arrangements that suit their lifestyle.

² See Appendix 1 for the full list.

³ In 2008 there was a slight change to the ISCO skill level categorization process. For elementary professions this meant that coverage of informal employment improved with an associated increase in sub-major groups. These changes included some modest reassignment of occupations between categories mostly at the top end of the skill spectrum but should not influence the trends under consideration in this paper.

To measure the income side of precariousness or the level of 'working-poor' this paper will examine summary statistics in deprivation rates for elementary and temporary workers as well as a subjective measure of income level where respondents are asked about their own personal difficulty in making ends meet. These trends are examined relative to trends in the labour market as whole.

Material deprivation is a resource or consumption measure that has some advantages as an indicator of quality-of-life over other poverty indicators based on income and is increasingly used in European and International research on poverty. The widely used 'at-risk-ofpoverty' indicator is measured at 60% of the median income but is difficult in comparative research and thus several indicators to supplement it have been agreed by the international research community. Income is only an indirect indicator of living standards, as it does not include differences across countries in terms of services provided by the state like education or healthcare. Income as a stand-alone measure also does not take account of capacity to borrow, debts, gifts and the value of the family home. In addition, depending on the income distribution in a country the median might be low or high relative to other countries making comparisons of living standards difficult. For example, the proportion of those in richer European countries with income under the at-risk-of-poverty threshold that are also in material deprivation is much smaller compared to some less wealthy member-states. This applies to comparisons of the same economy over time as the median income of an economy from which the at-risk-of-poverty-threshold is set changes over-time. Therefore, if the median income fell by 10%, the threshold would also fall by 10% resulting in a similar loss in real purchasing power but no corresponding change in the at-risk-of-poverty rate. For this analysis, a focus on consumption-based indicators is more appropriate.

A person is considered to be in relative involuntary or enforced deprivation if they do not have the resources to acquire a list of items considered as normal and essential in a given society. In Ireland, 11 items make up this index:

- Inability to afford two pairs of strong shoes
- Inability to afford a warm waterproof overcoat
- Inability to afford new (not second-hand) clothes
- Inability to afford meat, chicken or fish (vegetarian equivalent) every second day
- Inability to afford a roast joint or its equivalent once a week

- Have been without heating at some stage in the last year through lack of money
- Inability to afford to keep the home adequately warm
- Inability to afford to buy presents for family or friends at least once a year
- Inability to afford to replace any worn out furniture
- Inability to afford to have family or friends for a drink or meal once a month
- Inability to afford a morning, afternoon or evening out in the last fortnight for entertainment.

In addition to trends in the deprivation rate, this paper examines a very simple indicator of financial position; what level of difficulty an individual workers household has to make ends meet. Possible answers are on a six-point scale from 1=With great difficulty to 6=Very easily. Results show the bottom half of the distribution or all of those who answered with great difficulty, with difficulty and with some difficulty. Obviously, this is a subjective measure and ends meet will mean different things to different people. However, with such a large dataset trends over time in a given society should still be informative.

Along with workers in the elementary professions this paper will also give special attention to groups already identified in the literature to be particularly vulnerable to precariousness within these professions; namely women, foreign nationals and young people.

4. DATA

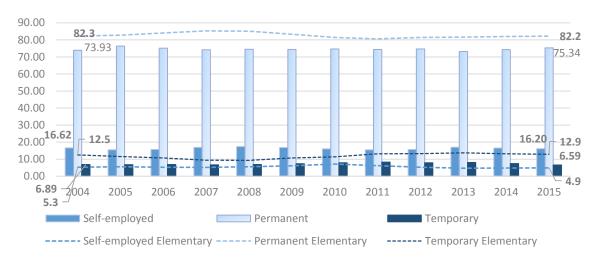
The nature of precarious work is such that much of it occurs in the informal economy. This presents problems for accurate measurement as noted by many of the major research organisations dealing with the topic (Eurostat 2013/2015; ESA 2016). Quinlan (2012) presents evidence that the informal economy has likely been growing in recent years. This is also likely the case in the elementary professions though as stated earlier there have been positive developments in data collection techniques in identifying some of those in the informal economy. Thus, the data is likely to understate the incidence of precarious work.

The data for this paper is sourced from two different data sets 1) The Quarterly National Household Survey (QNHS) and 2) the Survey on Income and Living Conditions (SILC). QNHS is published quarterly and collects data on employment contracts and SILC provides information on income and consumption trends.

5. FINDINGS

5.1 Employment Structure

Chart 5.1 Employment Structure in the Elementary Professions



Source: CSO (2016a) and author calculations.

The share of temporary contracts in the elementary professions is almost double the rate for the economy as a whole (12.9% compared to 6.6%). However, as is the case for the structure of the overall labour market there has been little change in the structure of elementary professions since 2004. Around 83% are permanent employees, 13% are temporary staff and 5% are self-employed. The proportion of permanent jobs is actually larger as a proportion of all employment in 2015 than it was in 2004. Self-employment as a proportion of all employment is much lower in the elementary professions than in the economy as a whole (16.2% compared to 4.9% in 2015) with a slight decline in both over the past decade.

Chart 5.2 Temporary Contracts in Elementary Professions



Source: CSO (2016a) and author calculations.

As a proportion of employees, elementary employees are more than 50% more likely to be on a temporary contract than the average Irish employee (13.5% to 8.7%) with little change since 2004. A slight decline, rise and decline again is apparent in temporary contracts coinciding with similar trends in the economy as a whole before the financial crisis and during it.

Chart 5.3 Part-time as a proportion of the workforce (%)



Source:

CSO (2016a) and author calculations

Part-time employment has risen as a proportion of the labour market over the past ten years as well as in each category of employment (the self-employed, permanent workers and those on fixed-term contracts). A part-time employee in Ireland is defined as "an employee whose normal hours of work are less than the normal hours of work of an employee who is a comparable employee in relation to him or her". The trend for permanent employees began before the financial crisis and was accelerated during the worst years of the recession. It is likely that the trends are at least in part due to more women entering the workforce, especially before the recession. Employers that wanted to hold on to employees but were forced to reduce hours due to economic conditions would also be a factor in this trend, as would changing preferences for employers in terms of full-time/part-time new hires. Similar trends are noticeable for the self-employed, many of whom were forced into parttime work as the recession continued (it is difficult for the self-employed in Ireland to change employment status as welfare supports are not available to them in the event of a failing business, thus many would have been forced into a situation of trying to 'ride-out' the recession). The structure of part-time/full-time for the self-employed is likely to revert to levels pre-crisis. There has been a slight decline in permanent part-time workers since 2012, the year in which the economy began to turn around but less so in temporary contracts.

5.2 Involuntary working arrangements in the elementary professions

As noted before, not all part-time work is precarious as very often part-time suits individuals for work-life balance. There should be concern however at rising levels of those who would rather work more hours than the amount currently offered to them or the rising levels of those with no choice but to accept temporary employment with no future prospects. Underemployment is similar in many respects to unemployment as the insufficient amount of work carries with it the same risks of poverty and deprivation.

Chart 5.4 Involuntary part-time workers and employment status (% of part-time workers)



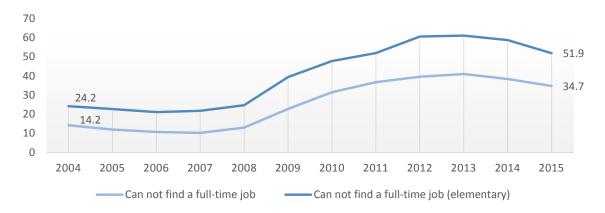
Source: CSO (2016a) and author calculations

Involuntary part-time workers as a proportion of all part-time workers has risen dramatically in all three employment categories by a factor of at least four⁴. The incidence of involuntary underemployment in 2004 was quite rare even for those on temporary contracts. In 2015, for part-time self-employed and part-timers on permanent contracts almost one in four would rather work more hours. Almost 2 in 5 part-time workers on temporary contracts would prefer to work longer. A similar peak in involuntary part-time work is evident at the height of the recession.

Overall, the latest figures show that as a proportion of part-time workers in the Republic of Ireland over 1 in 3 would be happier with a full-time job, over double the rate in 2004 when the proportion of part-time workers in the labour force was considerably less. In absolute terms, there are about 100,000 more workers in Ireland in 2015 in this type of forced precariousness than in 2004 (148,000 compared to 43,000 approx.).

⁴ Respondents were asked the reason they work part-time. Results refer to those who answered 'Could not find a full-time job). The incidence of 'because I don't want a full-time job' has fallen dramatically over the past decade.

Chart 5.5 Involuntary part-time workers (% of part-time workers)



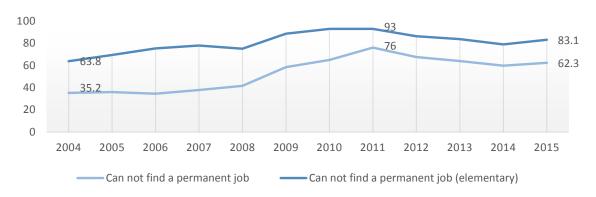
Source:

CSO (2016a) and author calculations

The incidence of involuntary part-time work in the elementary professions is worse still with more than half of part-time workers underemployed, again over double the rate in 2004.

It is much less common as a matter of lifestyle choice to prefer a temporary contract than a part-time contract though similar trends coinciding with developments in the wider economy in involuntary temporary positions are clear in the data. There is also a definite trend pre-crisis, that of those on temporary contracts more and more were in that position involuntarily, both in the wider economy but particularly for those in elementary employment. The percentage of those on fixed-term contracts who are in that position involuntarily is over 70% higher in 2015 than in 2004. In absolute terms, this is a rise of about 45,000 workers from 55,000 to 100,000. In the elementary professions, the latest data shows that over four out of five temporary workers would rather be in a job with a secure open-ended contract, an absolute rise from around 12,700 to 18,000 workers. The decline in this figure since the return to growth is less evident than for part-time staff.

Chart 5.6 Involuntarily temporary (% of temporary workers)



Source:

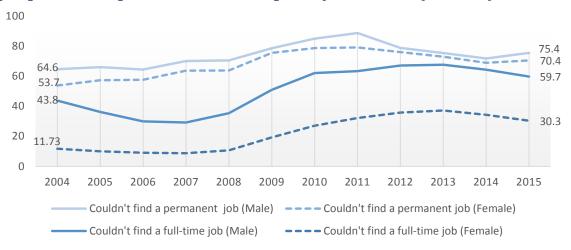
CSO (2016a) and author calculations

5.3 At risk groups

Evidence from the international literature identifies three groups that are particularly vulnerable to precarious employment: women, young people and foreign nationals. Trends in Ireland are broadly similar.

5.3.1 Women

Chart 5.7 Involuntary part-time and temporary work as a proportion of part-time and temporary workers. (Gender)

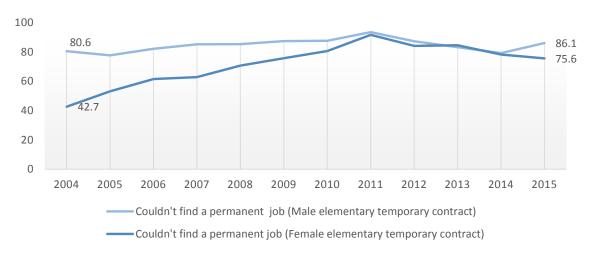


Source: CSO (2016a) and author calculations

Growth in involuntary employment arrangements on the part of the worker has been higher in percentage terms for women than for men though the incidence has grown across the board, both in part-time work and temporary contracts. The higher base for men at the beginning of this time-series is not surprising considering traditional gender roles but that gap is narrowing. Women are much more likely to be part-time than men (32% of workers compared to 11% in 2015) and almost one in every three female part-time workers cannot find a full-time job though they would like to. Women are also more likely to be on temporary contracts (8.1% of workers compared to 6.4% in 2015) and over 70% of women on fixed-term contracts would rather have a secure job. Roughly translated this equates to 11% of female workers being underemployed compared to 6% of male workers and 6% of female workers are on temporary contracts when they would prefer a permanent positions compared to 4.5% of male workers.

The share of workers in these categories that are involuntarily in precarious positions is larger for elementary workers in every case and as already mentioned the share of workers on temporary contracts in the elementary occupations is also significantly higher than in other occupational categories. 75% of women on fixed-term contracts in the elementary professions would prefer a permanent position compared to around 70% in the economy as a whole and 86% of men in the same professions, almost twice the level in 2004.

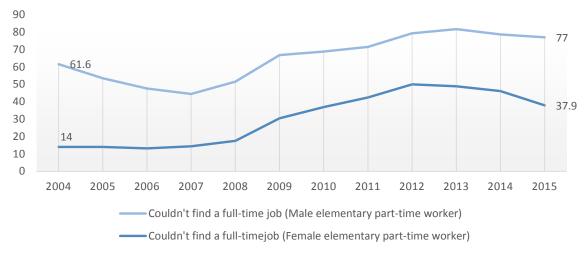
Chart 5.8 Gender: Involuntary temporary contracts (Elementary)



Source: CSO (2016a) and author calculations

Similarly, 38% of female part-timers in elementary professions could not find a full-time job though they wanted one in 2015, over two and a half times the rate in 2004. This has also risen for men (62%-77%). Although women seem to be relatively 'less-precarious' according to these measurements it is important to note that these figures are for shares of those on part-time or temporary contracts and that in the first place, women are far more likely to be working part-time (32% compared to 11% in 2015).

Chart 5.9 Gender: Involuntarily part-time (Elementary)

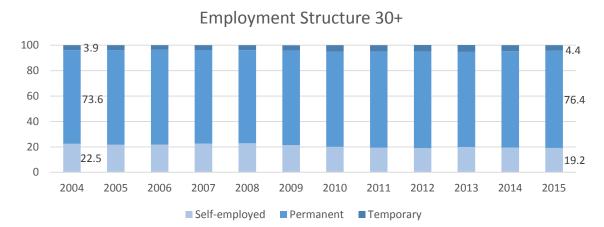


Source: CSO (2016a) and author calculations

5.3.2 Young People

Chart 5.10 Intergenerational differences





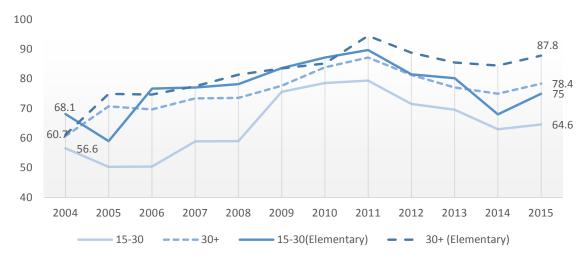
Notes: These figures include only those who self-identify as 'at work'. Students, the unemployed and

retirees are therefore not included.

Source: CSO (2016a) and authors calculations.

Although the figures show no dramatic growth in the economy of precarious fixed-term employment contracts they do show a large intergenerational gap in workers forced to accept these contracts with significant growth for young people. The prevalence of temporary contracts has hardly changed for workers over thirty over the past decade and a drop in the numbers of self-employed can explain most of the rise in permanent contracts as a proportion of overall employment within this cohort. Less than 1 in 20 workers over thirty work on fixed-term contracts, just 4.4%. On the other hand, over 1 in 5 workers under the age of 30 are on temporary contracts, a rise of almost 40% since 2004. Self-employment amongst this group has also fallen by around a quarter. These figures represent only those whose primary economic status is working, thus students working part-time are not influencing the figures here.

Chart 5.11 Young workers: Involuntarily temporary (Elementary)

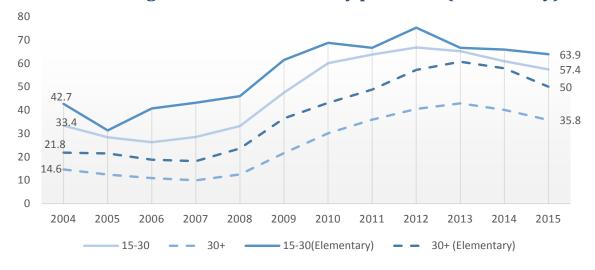


Source:

CSO (2016a) and author calculations

Almost 90% of elementary workers over the age of 30 would rather have a secure job but cannot find one, almost 10 percentage points more than the rate for the wider labour force and almost 50% more than the rate in 2004. The same figure for under-30's on fixed-term contracts has also risen by over 10% in the elementary professions in the same period to 75% (significantly above the economy-wide rate for the same employees at 65%). Roughly translated, about 13% of all working 15-30 year olds are in temporary jobs they would rather trade for a permanent position whilst 15% of all 15-30 year olds in elementary professions are in the same position. For over thirties the corresponding figures are around 3% and 4% respectively.

Chart 5.12 Young workers: Involuntarily part-time (Elementary)



Source:

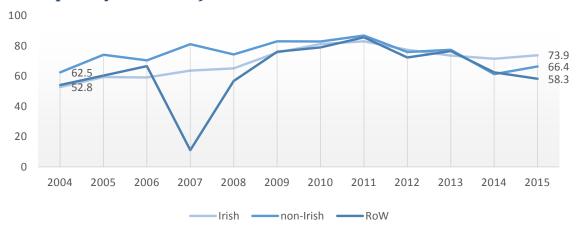
CSO (2016a) and author calculations

Of part-time workers under the age of 30, over 57% would rather have a full-time position, around 70% higher than in 2004. The share is even higher in elementary professions at 64% a rise of 50% in the same period. These trends show a stark gap between generations. Involuntary underemployment is over 60% higher for under-30's than for older workers and over 25% higher within elementary occupations. As a proportion of all workers under the age of 30, 20% are underemployed compared to 9% for over 30's.

5.3.3 Foreign Nationals

Almost 1 in five foreign national employees in Ireland work in an elementary profession compared to about 7% of Irish employees. 27% of all workers in elementary occupations in 2015 were foreign nationals.

Chart 5.13 Foreign nationals: Involuntary temporary contracts (% of temporary contracts)

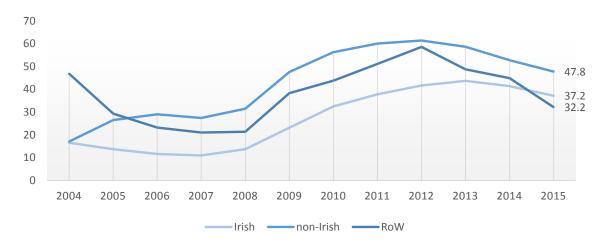


Source: CSO (2016a) and author calculations

Note: Non-Irish includes everyone that is not an Irish citizen. RoW includes everyone that is not an EU citizen.

Due to sampling issues, a reliable examination of foreign nationals in temporary contacts or involuntarily part-time is not possible in this paper though trends on an economy wide scale can give some insight. Although the proportion of those on temporary contracts involuntarily is actually lower for foreign nationals than for Irish nationals (still about 2 out of 3 workers in 2015) foreign nationals are more likely to work on temporary contracts in the first place so the incidence of involuntary temporary work is higher for this group. In the economy as a whole, about 15% of foreign nationals would prefer to work more hours, compared to about 10% of Irish employees. Almost 50% of foreign nationals working part-time in 2015 would have preferred to have full-time positions but could not secure them, compared to 37% of Irish part-timers.

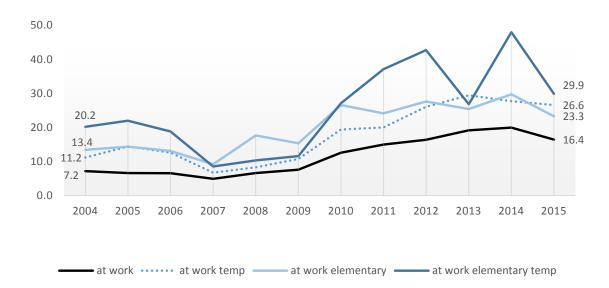
Chart 5.14 Foreign nationals: Involuntarily part-time



Source: CSO (2016a) and author calculations

5.3Working poor in Elementary professions

Chart 5.15 Deprivation rates for elementary & temporary workers



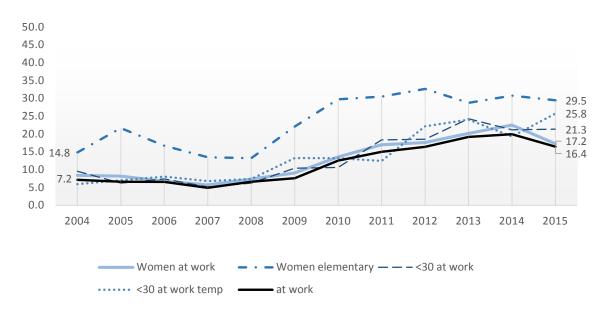
Source: CSO (2016b) and author calculations

Note: An individual is in material deprivation if they cannot afford 2 or more from a list of 11 basic necessities.

Taking deprivation rates as a measure for poverty, we see that the proportion of 'working-poor' in Ireland more than doubled between 2004 and 2015 to 16.4%. This is actually a reversal of a trend that saw in-work poverty drop to under 5% the year before the financial crisis. However, unlike some of the other indicators that have been examined which have

broadly ebbed and flowed in line with macroeconomic indicators, deprivation rates continued to rise for workers up until 2014, with a slight drop in 2015. Similar trends are clear for temporary and elementary workers. 23.3% of temporary workers were in material deprivation in 2015, almost three times as many as in 2007 and almost 27% of workers in the elementary professions were in deprivation, more than three times the rate that existed before the crisis. For elementary workers this is a rise of about 75% and for those on fixed-term contracts the rate has risen by 130% in the same period. Almost 30% of temporary workers in elementary occupations cannot afford the very basics.⁵

Chart 5.16 Deprivation rates for women and young people in elementary professions



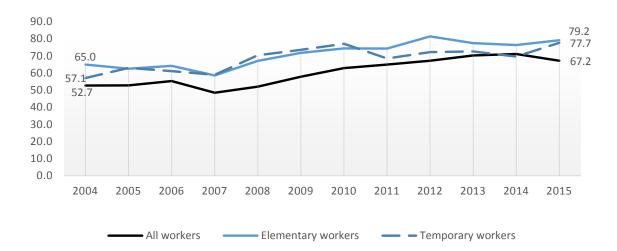
Source: CSO (2016b) a

CSO (2016b) and author calculations

Women in the elementary professions have some of the highest levels of deprivation of any group under consideration here with almost 30% unable to afford two or more items from a basket of eleven necessities, such as a winter coat or a second pair of shoes. The rate for all working women is 17.2% compared to the national average of 16.4%. Over 1 in 5 workers under the age of 30 are in material deprivation as are over 1 in 4 of the same age group if they happen to be on a temporary contract. The deprivation rate for foreign nationals in elementary professions is 16.7%.

⁵ Though the sample size was sufficiently large in SILC for each year for elementary workers in temporary contracts there seem to be unexplainable swings between years in deprivation rates. Therefore, figures should be interpreted with care.

Chart 5.17 Making ends meet



Source: Note:

CSO (2016b) and author calculations

Concerning your household's total or monthly income, to which degree of ease or difficulty is the household able to make ends meet? 1) With great difficulty 2) With difficulty 3) With some difficulty 4) Fairly easily 5) Easily 6) Very easily. The chart shows the proportion that answered 1,2 or 3.

Finally, a more subjective measure of in-work poverty shows similar trends over the past decade or so. Respondents were asked what level of difficulty they had in paying the bills every month. What might be surprising at first is the proportion of workers in Ireland who feel that they struggle financially, over 2 in 3 in 2015. This is up from just over half in 2004. Almost 4 in 5 elementary professionals have at least some difficulty in meeting monthly bills and basic upkeep (79.2%). The figure is similar for workers on temporary contracts. Less than one per cent of elementary workers as well as workers on fixed-term contracts find that they make ends meet very easily.

6 CONCLUSION

Although the share of temporary employment in elementary professions as well as the wider labour force has not changed significantly over the previous decade, the incidence of involuntary contract precariousness has skyrocketed by about 45,000 workers from 55,000 to 100,000 or about 35% to 63% of all temporary workers. The proportion of involuntary temporary workers is even higher in elementary professions. More than four out of five temporary workers in elementary occupations would rather have an open-ended contract. Moreover, the share of part-time workers has increased from about 17% to about 22% and the share of involuntary part-time workers within this larger group is twice as big as it was before the financial crisis (51% compared to 24%). In absolute terms, there are about 100,000 more workers in Ireland in 2015 in this type of forced precariousness than in 2004 (148,000 compared to 43,000 approx.). A majority of part-time workers in the elementary professions are unable to secure the full-time positions that they would prefer. Both categories of worker are at risk of precariousness: temporary workers through contract insecurity and part-time workers through low income. These levels have receded slightly since the return to growth in 2012.

There has also been a huge rise in working-poor in elementary professions since 2007 as measured by the deprivation rate (13%-23%), a consumption-based indicator of poverty with an equally dramatic rise in workers having difficulty making ends meet (65%-79%). Similar levels of working-poor and trends apply to employees on fixed-term contracts. There has been minimal reversal in these trends since the return to growth in 2012.

For women, the trend of increasing participation as well as a corresponding shift in preferences from part-time to full-time work complicates the analysis somewhat. Working women are three times more likely to be part-time than men and though the share of involuntary underemployment is smaller for part-time working women it is much higher as a proportion of all working women and has grown significantly over the past decade. The amount of this change attributable to societal forces and changing gender roles or due to economic necessity is unclear but both are likely to be factors. For instance, the proportion of female part-time workers asked as to why they work part-time and answered that they 'don't want a full-time' job has fallen dramatically over the time-period in question (85% in 2004 compared to 39% in 2015). It is clear however that a significant proportion of women entering the workforce are doing so in positions that do not meet their basic requirements in terms of working hours and/or security of contract. Another issue in explaining the gender gap between involuntarily part-time workers is that about 20% of female part-time

employees in 2015 answered that they worked part-time to juggle responsibilities related to child rearing. This compared to less than 2% of male respondents. Whether or not this is always a voluntary arrangement is a matter for debate. The cost of childcare is likely to have a strong impact on cost/benefit assessments and by extension preferences here in Ireland with most part-time jobs, especially in elementary professions unable to cover the basic cost of provision. It is likely that preferences for many may be that they could both work full-time and afford childcare, an issue that this particular dataset does not address and an option that is impossible for many in Ireland in 2015.

Although the data does show higher incidence of precariousness for foreign nationals in terms of involuntary part-time work, some of the other indicators addressed for other groups in this paper are not possible here due to an insufficient sample of foreign nationals in the data. The manner in which data is collected and derived also makes policy-centred analysis difficult as workers from developed economies such as the UK and US (which make up a significant proportion of immigrants to Ireland) are bundled with labour from developing economies. The profile of each group will tend to be different with imported labour from the UK and US more likely to be highly skilled and labour from the developing world or Eastern European EU member-states more likely to be in more exploitative low-wage elementary professions. The fact that the groups cannot be separated makes identifying and analysing at-risk groups more difficult. Deprivation rates and the numbers having difficulty in making ends meet are therefore relatively quite low for foreign nationals as a homogenous group be they on temporary contracts or in elementary professions, often even lower than for Irish nationals. This area merits closer attention.

For young workers, temporary contracts are much more prevalent and as a proportion of employment grew by about 40% between 2004 and 2015. The proportion of involuntary part-time work and involuntary temporary contracts are much higher as a proportion of all workers under-30 than for those older than 30 (20% to 9% and 13% to 4% respectively). The incidence of underemployment and forced fixed-term contracts are even higher for young people in elementary professions. Deprivation rates are also high for this group. The one-year transition rate from temporary to permanent employment between 2005-2006 and 2008-2009 (the latest dates for which Irish data is available), fell from about 60% to 30% in Ireland (Eurofound 2015a). More recent figures provided by other EU member-states suggest that temporary contracts are becoming less likely to advance an individual in his or her career and are often far from the stepping-stone into permanent employment they are often claimed to be. Transition rates were as low as 10% in Spain and under 20% in

Poland in 2014 (EC 2014). Although figures are not directly available, considering the trends here and in other international research as well as qualitative research on the Irish job market, it is highly likely that transition rates are lower for elementary workers than others and that the rates have dropped further since 2009. Evidence also suggests a permanent wage-penalty for beginning a career on a temporary contract. These figures are in addition to dramatically higher unemployment and NEET (neither in employment, education or training) rates for this cohort and supports the contention that a disproportionate burden of the adjustment related to the financial crisis has fallen on the youngest Irish workers (Hardiman et al 2016; Nugent 2017).

Although this paper has not addressed the third element of precariousness in much detail it is important to note that as well as facing higher rates of precariousness in terms of low-pay and contract security, young Irish people are relatively more precarious than other groups in terms of supports for unemployment or underemployment having had unemployment benefit cut to about 55% of the standard rate during the recession. The bargaining position of these younger workers is therefore diminished making them more likely to accept lower pay and conditions. This rate puts young people at particular risk of poverty and deprivation, makes independent living impossible and likely acts as a barrier to employment for many young people, especially from rural areas who have no prospect of moving to a city in search of work.

These worrying trends are not just a matter of low-pay, inequality and decent work but also a matter of revenue and expenditure. The state has to subsidize the wages of many precarious workers on behalf of employers who do not offer a living wage and provide supports paid through general taxation to bring them up to subsistence living standards. Just over 20% of all workers in Ireland have a medical card. This figure is almost twice that for elementary workers at 38% in 2015. The figure is over 40% for temporary workers and over 60% for temporary workers in elementary positions. As a share of the entire population including the unemployed, disabled and retired the figure is in the region of 43%. Other entitlements for workers earning below subsistence levels include supplementary jobseekers benefit and allowance and the part-time job incentive scheme. There is also likely to be further strain on the health services due to the well-established health and well-being issues surrounding precarious work.

It is yet to be seen whether some of the trends identified here are structural and the level of segmentation currently in the Irish labour market likely to last or whether precarious work

will decline as employment grows and the bargaining position of labour improves. By some measures precariousness has already slightly declined whilst in others the level has remained almost steady since its peak in 2012, the year that Ireland turned the corner. For many, particularly those who entered the Irish labour market between 2009 and 2014 the effect of precariousness could last a lifetime.

REFERENCES

Amuedo-Dorantes, C., (2000). 'Work Transitions Into and Out of Involuntary Temporary Employment in a Segmented Market: Evidence from Spain.' Industrial and Labor Relations Review, Volume 53, Issue 2, pp 309-325.

Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries: A comparative analysis. OECD Social, Employment, and Migration Working Papers, (189), 0_1.

Berg, J. (2016). Non-standard employment: challenges and solutions. IusLabor, (3).

Broughton, A., Green, M., Rickard, C., Swift, S., Eichhorst, W., Tobsch, V., & Ramos Martín, N. E. (2016). Precarious Employment in Europe. Employment and Social Affairs.

Broughton, Andrea, Isabella Biletta, and Mats Kullander (2010). Flexible forms of work: 'Very atypical' contractual arrangements. European Working Conditions Observatory,

Central Statistics Office (2016a), Quarterly National Household Survey (2004-2015), Dublin

Central Statistics Office (2016b), European Union Survey on Income and Living Standards (2004-2015), Dublin

da Silva, A. D., & Turrini, A. (2015). Precarious and less well-paid? Wage differences between permanent and fixed-term contracts across the EU countries (No. 544). Directorate General Economic and Financial Affairs (DG ECFIN), European Commission

Düntgen, A., Diewald, M. (2008), Auswirkungen der Flexibilisierung von Beschäftigung auf eine erste Elternschaft, in: Szydlik, M. (Hrsg.), Flexibilisierung. Folgen für Arbeit und Familie, Wiesbaden, 213-231.

Eurofound (2009) Temporary agency work and collective bargaining in the EU

Eurofound (2013a). Tackling undeclared work in 27 EU Member States and Norway. Approaches and measures since 2008. Available at: http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1324en3.pdf.

Eurofound (2015) Sixth European Working Conditions Survey: Overview report

Eurofound (2016). Recent developments in temporary employment: Employment growth, wages and transitions.

European Transport Safety Council (ETSC). 2001. The role of driver fatigue in commercial road transport crashes (Brussels).

Eurostat. 2015. Being young in Europe today – labour market – access and participation. Available at:

http://ec.europa.eu/eurostat/statisticsexplained/index.php/Being young in Europe today - labour market - access and participation [Apr. 2017].

European Commission (2014). Communication: Taking stock of the Europe 2020 strategy for smart, sustainable and inclusive growth (COM)

Fairris, D., Runsten, D., Briones, C., & Goodheart, J. (2015). Examining the evidence: The impact of the Los Angeles living wage ordinance on workers and businesses.

Fernández-Kranz, D. and Rodríguez-Planas, N. (2011). The part-time pay penalty in a segmented labour market. Labour Economics, 18(5), pp. 591-606.

Frey, C. B., & Osborne, M. A. (2017). The future of employment: how susceptible are jobs to computerisation?. Technological Forecasting and Social Change, 114, 254-280.

Gagliarducci, S., (2005) 'The Dynamics of Repeated Temporary Jobs', Labor Economics, Volume 12, Issue 4, pp 429-448.

Geragthy, B (2016) Deliveroo and Victimization, Financial Times. Available at: https://ftalphaville.ft.com/2016/12/13/2181231/guest-post-deliveroo-and-victimisation-in-the-gig-economy/

Glickman, L. B. (1999). A living wage: American workers and the making of consumer society. Cornell University Press.

González, M. J., & Jurado-Guerrero, T. (2006). Remaining childless in affluent economies: a comparison of France, West Germany, Italy and Spain, 1994–2001. European Journal of Population 22(4), 317-352.

Goldrick, J (2016). A Taste of the Future. Retrieved from: http://www.rabble.ie/2016/07/20/a-taste-of-the-future/

Hardiman, N., Blavoukos, S., Dellepiane-Avellaneda, S., & Pagoulatos, G. (2016). *Austerity in the European periphery: the Irish experience* (No. 201604). Geary Institute, University College Dublin.

Harrison, G. W., Rutherford, T. F., & Tarr, D. G. (2003). Trade liberalization, poverty and efficient equity. Journal of Development Economics, 71(1), 97-128.

Heckscher, E. F., & Ohlin, B. G. (1991). Heckscher-Ohlin trade theory. The MIT Press.

Insley, J., 'Self-employment switch saves construction industry millions in tax', 2012 available at: http://www.guardian.co.uk/business/2012/dec/03/self-employmentswitch-saves-construction-industry-millions-tax

Jepsen, M.; O'Dorchai, S.; Plasman, R. (2005). "The wage penalty induced by part-time work: The case of Belgium", in Brussels Economic Review/Cahiers Economiques de Bruxelles, Vol. 48, No. 1/2, pp. 73–94.

Kompier, M., Ybema, J. F., Janssen, J., & Taris, T. (2009). Employment contracts: cross-sectional and longitudinal relations with quality of working life, health and well-being. Journal of occupational health, 51(3), 193-203.

McKay, S., Jefferys, S., Paraksevopoulou, A., & Keles, J. (2012). Study on precarious work and social rights. Working Lives Research Institute, London Metropolitan University.

Nugent, C (2017). Intergenerational Inequality in Ireland. http://www.nerinstitute.net/research/neri-research-inbrief-intergenerational-inequality-in-ireland/

Quinlan, M. (2012). The 'pre-invention' of precarious employment: the changing world of work in context. The Economic and Labour Relations Review, 23(4), pp. 3-24.

Rodgers, J., & Rodgers, J. (Eds.). (1989). Precarious jobs in labour market regulation: the growth of atypical employment in Western Europe (pp. 1-16). Geneva: International Institute for labour studies.

SERIES, T. (2013). Social Protection Rights of Economically Dependent Selfemployed Workers. IZA no.54.

Standing, G. (2016). The precariat: The new dangerous class. Bloomsbury Publishing.

TUC Commission on Vulnerable Employment (2008). Hard Work, Hidden Lives: The Short Report of the Commission on Vulnerable Employment.

Turner, T., & O'Sullivan, M. (2013). Economic crisis and the restructuring of wage setting mechanisms for vulnerable workers in Ireland. The Economic and Social Review, 44(2, Summer), 197-219.

Wickham, J., & Bobek, A. (2016). Enforced Flexibility? Working in Ireland Today. Dublin: TASC

Wickham, J., & Bobek, A. (2016a). Bogus Self-Employment in the Irish Construction Industry. Dublin: TASC

Annex

MAJOR AND SUB-MAJOR GROUPS: ISCO-08

| 1 | Managers | |
|----|------------------|---------------|
| 11 | Chief Evenutives | Canian Office |

- 11 Chief Executives, Senior Officials and Legislators
- 12 Administrative and Commercial Managers
- 13 Production and Specialized Services Managers
- Hospitality, Retail and Other Services Managers

2 Professionals

- 21 Science and Engineering Professionals
- 22 Health Professionals
- 23 Teaching Professionals
- 24 Business and Administration Professionals
- 25 Information and Communications Technology Professionals
- 26 Legal, Social and Cultural Professionals

3 Technicians and Associate Professionals

- 31 Science and Engineering Associate Professionals
- 32 Health Associate Professionals
- 33 Business and Administration Associate Professionals
- 34 Legal, Social, Cultural and Related Associate Professionals
- 35 Information and Communications Technicians

4 Clerical Support Workers

- 41 General and Keyboard Clerks
- 42 Customer Services Clerks
- 43 Numerical and Material Recording Clerks
- 44 Other Clerical Support Workers

5 Services and Sales Workers

- 51 Personal Services Workers
- 52 Sales Workers
- 53 Personal Care Workers
- 54 Protective Services Workers

6 Skilled Agricultural, Forestry and Fishery Workers

- 61 Market-oriented Skilled Agricultural Workers
- 62 Market-oriented Skilled Forestry, Fishery and Hunting Workers
- 63 Subsistence Farmers, Fishers, Hunters and Gatherers

7 Craft and Related Trades Workers

- 71 Building and Related Trades Workers (excluding Electricians)
- 72 Metal, Machinery and Related Trades Workers
- 73 Handicraft and Printing Workers
- 74 Electrical and Electronic Trades Workers
- 75 Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers

8 Plant and Machine Operators and Assemblers

- 81 Stationary Plant and Machine Operators
- 82 Assemblers
- B3 Drivers and Mobile Plant Operators

Elementary Occupations

- Cleaners and Helpers
- Agricultural, Forestry and Fishery Labourers Labourers in Mining, Construction, Manufacturing and Transport Food Preparation Assistants
- Street and Related Sales and Services Workers
- Refuse Workers and Other Elementary Work

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