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# The effects of non-standard forms of employment on worker health and safety

Michael Quinlan

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Inclusive Labour Markets, Labour Relations  
and Working Conditions Branch

***The effects of non-standard forms of employment on  
worker health and safety***

**Michael Quinlan\***

\* School of Management, University of New South Wales, Sydney

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# 1. Introduction

The past 40 years have witnessed significant changes to work arrangements globally. These changes include:

- Widespread and often repeated rounds of restructuring/downsizing by large private and public sector employers
- Changes to employment status, especially a growth of fixed-term, on-call, casual/temporary workers and ‘conversion’ of employees to self-employed subcontractor status
- A growth of undeclared work (also known as the black economy) and the informal sector.
- Outsourcing/subcontracting (including multi-tiered subcontracting) of activities by employers (including international outsourcing often referred to as ‘off-shoring’). The outsourcing of activities also includes the provision of labour on a temporary basis by a growing number of firms (some international) specialising in this activity, namely temporary employment agencies or leased labour firms
- A growth in remote/mobile, tele-work and home-based work
- Privatisation of public sector activities and adoption of private sector management techniques in the public sector
- A decline in job security/tenure
- Changes to working hours arrangements including the growth of night-/afternoon work, extended shifts, part-time and irregular working hours
- Changes to work intensity and psychosocial conditions at work

Overall, the changes have been characterised by less contract duration and job security, more irregular working hours (both in terms of duration and consistency), increased use of third parties (temporary employment agencies), growth of various forms of dependent self-employment (like subcontracting and franchising) and also bogus/informal work arrangements (i.e. arrangements deliberately outside the regulatory framework of labour, social protection and other laws). The factors underpinning these changes are complex but include shifts in business/employment practices, weakening union influence and government policies/regulatory regimes to promote labour market ‘flexibility’ and weaken collectivist regimes (where these existed).<sup>1</sup> The growth of international supply chains means that work has often been relocated to countries where union presence and regulatory protection is weak or non-existent.

A number of terms have been coined to try to encapsulate the changes just described notably non-standard work, precarious employment and contingent work. For the purpose of this report the term non-standard work will be used that includes temporary employment, temporary employment agency work, part-time work, dependent self-employment and undeclared work/informal sector work.<sup>2</sup> While a categorical approach has value in understanding the nature and implications of changes to work a number of caveats need to be made.

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<sup>1</sup> See Benach & Muntaner (2013).

<sup>2</sup> ILO (2015a).

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First, changes to work arrangements should be viewed in terms of a spectrum rather than simply the growth of particular categories. For example, global changes to business practices including repeated rounds of downsizing/restructuring by large private and public sector employers), privatisation, outsourcing/offshoring and ‘converting’ employees into self-employer subcontractors have not only increased the number of workers holding shorter contract duration work. These changes have also increased job insecurity amongst those workers continuing to hold ongoing/permanent jobs, adversely affecting their health, safety and well-being.<sup>3</sup> Further, the growth of temporary, agency and self-employment in combination with the presence of vulnerable immigrant groups (especially undocumented workers) appears to have increased the scope for bogus/informal work, especially in traditionally poorly regulated sectors like agriculture and construction. In sum, different categories of work interact and this can flow on to health and safety effects so that simply comparing non-standard to what is deemed as standard work (as many studies do) will not capture the full impact of changes to work, which may also include impacts on the health and safety of customers and clients. Further, different categories of non-standard work are more effectively understood when viewed in the context of the elaborate subcontracting networks and supply chains in which they are commonly found rather than as stand-alone entities.

Second, different dimensions of non-standard work overlap and interact in complex ways. For example, there is commonly a significant overlap between temporary and part-time work and in some industries like construction and homecare, workers may move between employment and self-employment on a regular basis. Multiple jobholding (common in industries like hospitality) can further complicate an assessment of health and safety effects. Typically many studies only compare two or three different categories of work rather than the full spectrum of work arrangements. Further, temporary employment is quite a diverse category (including on-call, casual, seasonal, fixed-term contract and agency work); workers are often uncertain as to whether their job is temporary; and some studies have failed to control for exposure (ie temporary workers often work fewer hours than permanent workers).<sup>4</sup> The employment status of some workers, like some home-based work, is often ambiguous and in some industries (like hospitality and construction) workers may move from employment to self-employment or from being directly employed to working through an agency on a regular basis. Further, the categories themselves may overlap, with the degree of overlap varying between countries. In Colombia for example (which like Peru has a very level of fixed term contracts) there is a significant overlap between workers on fixed term contracts and informal employment. About 30 per cent of workers on fixed-term contracts are employed informally because deregulation has enabled companies to hire workers on fixed term contracts without restrictions.<sup>5</sup> These complexities make meta reviews of global research difficult as well as highlighting the need for more carefully designed studies – not always easy given problems of access inherent with many non-standard forms of work.

Before examining the evidence it is also critical to recognise that the growth of non-standard work has coincided with significant changes in the workforce of most countries including greater female participation, an ageing of the population (mainly in rich countries but also some middle income countries, notably China) and perhaps most important historically unprecedented use of migrant workers (including internal migrants) including those on temporary visas (guest workers, tourists and students) and undocumented workers.

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<sup>3</sup> See Kivimaki et al. (2007), Quinlan & Bohle (2009), Kaewanuchit et al. (2015 and Brenner et al. (2014).

<sup>4</sup> See Pavlopoulos & Vermunt (2015).

<sup>5</sup> ILO (2015a), 27.

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These workers are typically concentrated in weakly unionised and poorly regulated sectors (like agriculture), and their vulnerability to exploitative practices is commonly exacerbated by language, ignorance of local laws and weaker regulatory entitlements/protection (the latter even applies to internal migrants in some countries).<sup>6</sup> Undocumented migrants in particular are often found in the most precarious jobs and the informal sector. Of course, the categories just mentioned are not mutually exclusive with, for example, government reports pointing to the vulnerability of young immigrant workers in particularly hazardous industries like construction.<sup>7</sup>

Notwithstanding these complexities there is now a large body of evidence pertaining to the occupational safety and health (OHS) effects of the growth of non-standard work.<sup>8</sup> Researchers began to give attention to the issue from the 1980s onwards and from the mid-1990s governments in Europe, North America and elsewhere also began producing reports examining the implications of changing work arrangements for OHS.<sup>9</sup> The next section of this paper will summarise some of this evidence.

## **2. Evidence on the health effects of non-standard work**

### **2.1 Temporary work**

Temporary work encapsulates an array of different work arrangements (eg on-call and seasonal work) with very different employment conditions and regulatory entitlements/protections even within the same country and the public sector.

Reviews of international research suggest temporary employment is associated with a number of adverse OHS outcomes, being most consistent with regard to injury rates.<sup>10</sup> For example, a Spanish study by Artiles and Alos-Moner (1999) found the occupational injury rate among temporary workers was almost three times that of permanent workers and similarly a number of Italian studies have found temporary workers had higher injury rates than permanent workers in similar jobs, and that their accident severity levels were greater.<sup>11</sup> An Indian study of welders found that those on contract were at greater risk of injury.<sup>12</sup> Finnish researchers also found that workers on fixed-term contracts experienced higher injury rates even after adjusting for age, socio-economic status and industry.<sup>13</sup> A New Zealand study of seasonal food processing workers found the injury frequency rate was over twice that of permanent workers even though many worked at the same processing plant over successive years.<sup>14</sup>

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<sup>6</sup> See Sargeant & Tucker (2009).

<sup>7</sup> See Flynn et al. (NIOSH, ASSE (2015).

<sup>8</sup> For a useful review of this evidence see Benach, Vives, Amable, Vanroelen, Tarafa & Muntaner (2014).

<sup>9</sup> See for example, Health & Safety Commission (1996) and Hakansson et al.(2013).

<sup>10</sup> See Virtanen, Kivimaki, Joensuu, Virtanen, Elovainio, & Vahtera (2005) and Benach et al. (2014).

<sup>11</sup> See Fabiano et al. (2008) and Bena et al. (2011).

<sup>12</sup> See Maheshrengaraj & Vinodkumar (2014).

<sup>13</sup> See Saloniemi & Salminen (2010).

<sup>14</sup> See Schweder (2009).



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There is also some research linking temporary work to poor physical health and hazard exposures. For example, a study of Japanese manufacturing workers found that those on fixed term contracts, despite having a lower body mass index, had greater health risks than permanent workers including poorer blood pressure and lipid and glucose metabolism.<sup>15</sup>

At the same time a number of complicating factors need to be recognised. For example, a study of chilli farmworkers in Thailand found that permanent workers received exposures to herbicides.<sup>16</sup> One explanation of this is that temporary workers (like those engaged in seasonal harvesting) are less exposed because they have less contact time. In some countries regulatory controls (product quality and safety) and timing of herbicide application mean that the work is more likely to be done by permanent workers although harvest workers can still be exposed due to short re-entry following spraying, poor hygiene facilities or residual exposures in harvest-worker accommodation.<sup>17</sup> A number of studies point to the dependence on harvest on workers on short-term visas or undocumented immigrants supplied by subcontractors/labour agencies. A study that compared horticulture workers in Australia and the UK found that the former were mainly young backpacker tourists, well-educated and often from countries with high OSH standards while those working in the UK were mainly from Eastern Europe with less education. However, these differences in education or country of origin in terms of OSH standard had no effect on the capacity of workers to raise or resolve OSH concerns. Indeed, the requirement to show evidence of 80 days employment to obtain a one year extension of their visa placed backpackers in a particularly vulnerable position. On the other hand, while it might be expected that harvest workers would be more socially isolated in the vast terrain of Australian farming if anything the workers in the UK were more isolated being more likely to being accommodated on site and bussed to their workplace and to and from the local village for shopping.<sup>18</sup>

There is also research linking temporary employment to poor mental health. The insecurity of these workers appears to make them more susceptible to bullying and harassment, including unwanted sexual advances. A Japanese survey (2384 respondents) found that temporary employees were at significantly higher risk of experiencing bullying (Odds Ratio 2.45 95 per cent confidence after controlling for age and gender) while an Australian study found temporary workers, part-time workers and those on fixed term contracts were at significantly greater risk of being subjected to unwanted sexual advances.<sup>19</sup> Other studies undertaken in a range of countries including Republic of Korea have linked temporary employment and other types of precarious employment to depressive symptoms and even suicide.<sup>20</sup> A Finnish study found temporary work was a risk factor for work disability due to depressive disorders and delayed return to work.<sup>21</sup> There is research indicating that intermittent work – jobs interspersed with bouts of unemployment – can be especially damaging to worker wellbeing due to the corrosive effects of ongoing job insecurity.<sup>22</sup> While the ‘flexibility’ of temporary work is sometimes portrayed as more family-friendly a number of studies have found the exact opposite with a greater adverse burden on

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<sup>15</sup> See Inoue et al. (2014).

<sup>16</sup> See Kachaiyaphum et al. (2010).

<sup>17</sup> See Quandt et al. (2006) and Bamford (2015).

<sup>18</sup> See Bamford, A. (2015).

<sup>19</sup> See for example Tsuno et al. (2015) and LaMontagne et al. (2009).

<sup>20</sup> See Jang et al. (2015) and Min et al. (2014).

<sup>21</sup> See Ervasti et al. (2014).

<sup>22</sup> See Malenfant et al. (2007).

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women.<sup>23</sup> Indeed, far from assisting ‘family needs’ a recent Italian study pointed to a reverse form cross-subsidisation where family financial support helped temporary workers to survive and those individuals unable to access this economic support experiencing the worst mental health outcomes.<sup>24</sup>

It has been suggested that the association between temporary employment and adverse health could reflect a selection or ‘healthy worker’ effect whereby workers with pre-existing health conditions are more likely to end up in temporary work. However, a number of studies that have tested both directions of causation have concluded that the work to health causal path is by far the more significant one. For example, a recent longitudinal study in Italy using data for the years 2007-10 found that the selection of healthier workers for permanent work was trivial when compared to the work to health causal connection; that these adverse health effects intensified over time; and were strongly harmful to women.<sup>25</sup>

The health inequalities of temporary employment are compounded by their more limited capacity to access medical treatment and compensation following injury or to make claims for exposure to hazardous substances. While, as employees, they are entitled to workers’ compensation in most countries there is evidence that ignorance, fear of losing work, intimidation and the response of employers and government agencies inhibits their access or prospects of returning to work. For example in Australia a study of temporary workers in the fast food industry found that almost 40 per cent believed they were not covered by workers’ compensation (and those aware of being covered were often seriously misinformed about their entitlements) while another study found temporary employment agency workers were significantly less likely to return to work after injury than those directly engaged by employers.<sup>26</sup> A study of farmworkers in the USA found that contingent workers had significantly less access to workers compensation than their non-contingent counterparts (63 per cent compared to 75 per cent) and that differences in the laws of various states only explained a fraction of this gap.<sup>27</sup> As with other types of non-standard work, gaps in knowledge or effective coverage have significant implications for the accuracy of worker’s compensation claims based OSH surveillance data in industries where such employment forms are pervasive although the effect on other OSH data sets may even be greater.<sup>28</sup>

The low or erratic income associated with temporary employment can have other effects, including lower living standards and the taking of second jobs even where this is illegal. An Egyptian study of temporary nurses found their subordination compromised their capacity to defend their rights at work and maintain professional standards regarding their patients.<sup>29</sup>

## **2.2 Triangular/temporary agency work**

Temporary agency work also known as leased labour, or labour hire (and as labour brokering in South Africa and Namibia) which now covers a wide range of industries,

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<sup>23</sup> See for example Callea et al. (2012).

<sup>24</sup> See Carrieri et al. (2014).

<sup>25</sup> See Pirani & Silvani (2015).

<sup>26</sup> See Mayhew & Quinlan (2002) and Underhill (2008).

<sup>27</sup> See Asfaw (2014).

<sup>28</sup> See Foley et al. (2014).

<sup>29</sup> See Gheith (2014).

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involves a triangular or three-party relationship to work (the host employer, the agency supplying a worker and the worker). While temporary agency work is the best known example of a triangular working arrangement is not the only form. Franchising and other types of structured subcontracting can also take on this form. Further, agency workers are not always employees with some being self-employed (this is the case with some homecare workers).

Research suggests temporary agency work may be more hazardous than direct-hire temporary employment and the multiple parties involved certainly present a more complex challenge to regulators. For example a French study found the injury rate amongst temporary agency workers was 13.3 per cent compared to 8.5 per cent for all workers.<sup>30</sup> Research also points to poor OSH management practices. A British study found that around half of the recruitment agencies surveyed did not have measures in place to ensure that they were fulfilling their legal obligations, that there was widespread ignorance as to their shared legal obligations and agencies were frequently unaware whether host employers carried out risk assessments, and that the exchange of health and safety information between agencies and host employers was often poor.<sup>31</sup> This and other studies have also indicated that workers supplied by agencies tended to be inexperienced young people, placed in lower-skilled occupational areas, often in production and construction firms and particularly manufacturing. There is also evidence that along with temporary workers, agency workers are more likely to be allocated to less desirable tasks and working periods/shifts, including night work.<sup>32</sup>

Health and safety problems with regard to temp agency work have been identified in a wide array of industries including hospitality and shipping. It has commonly associated with changes to work organisation, wages and work intensity which in combination have undermined OSH. A number of studies have examined these changes. For example, an Australian study of hotel cleaners (predominantly recent immigrants supplied by temporary employment agencies) found the most important factor predicting injury was the payment system, notably a piece rate system based on the number of rooms cleaned.<sup>33</sup> Similarly, a North American study of hotel cleaners by Siefert and Messing found the combination of flexible employment practices, a predominantly immigrant and female workforce, and outsourcing was, of itself, sufficient to intensify workloads.<sup>34</sup>

In the shipping industry, crewing agencies (essentially acting like temporary employment agencies) provide seafarers predominantly from low and middle income countries like the Philippines to the major shipping lines. A number of studies have found that the combination of low and insecure pay, long hours of work, the subordinate status of workers, cost-cutting (including using older ships) and tight scheduling exacerbate the OSH risks of already hazardous working conditions at sea.<sup>35</sup>

Consistent with studies in other countries a recent Canadian report found that temporary agency workers were at greater risk because it often entailed the outsourcing of more hazardous activities (and the current regulatory regime unwittingly induced this), deficiencies in risk assessment (including worker/task mismatch) were common, the parties involved were often unsure as to their legal obligations and agency workers were commonly

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<sup>30</sup> Cited in ILO (2015a) NSFE Report, 28.

<sup>31</sup> See Wiseman & Gilbert (2000).

<sup>32</sup> See Rotenberg et al. (2008).

<sup>33</sup> See Oxenbridge & Moensted (2011).

<sup>34</sup> See Siefert & Messing (2006) Sanon (2014).

<sup>35</sup> See Dacanay & Walters (2011) and Bhattacharya & Tang (2012).

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too vulnerable (poorly paid, young, inexperienced, migrant or female) to raise or pursue safety issues. The study also identified significant limitations in injury prevention management (including a reliance on workers reporting problems they were ill-trained to do) and in the return to work prospects of agency workers following injury.<sup>36</sup>

Agency work can also present serious problems in terms of managing hours of work and fatigue. Workers may register with several agencies in order to provide a steady stream of work while others may use agency work to supplement income from their main job. Both can result in multiple jobholding, extended hours, back to back shifts and clashes of schedules. For example, a South African study of nurses found about 40 per cent of those surveyed reported ‘moonlighting’ (i.e. taking a second job with an agency) in the preceding year and this in turn was linked to fatigue, additional sick leave and inattention at work.<sup>37</sup> The latter point highlights how readily non-standard work arrangements can have spill over effects of the health and wellbeing of others including patients. In this regard it is worth noting that there is now a body of international research which has found an association between downsizing/reduced staffing levels in healthcare facilities and errors, infections and poor hygiene practices.<sup>38</sup>

Like other forms of non-standard work, research across a number of countries has repeatedly identified significant flaws in the regulatory framework governing temporary agency work, both in terms of OSH laws and workers compensation/social security entitlements.<sup>39</sup> In practice outcomes for workers (including return to work after injury) are often far worse than what the regulatory framework prescribes. Return-to-work outcomes following injury are commonly poor because host-employers are under no obligation to offer work and injury to agency workers frequently results in unemployment.<sup>40</sup> Licensing requirements for agency firms, where they exist, have generally weakened over time, enforcement is limited, and the combination of fierce competition and the ongoing proliferation of new small agency firms in some countries undermine the capacity of the industry to learn from its mistakes.

Finally, it needs to be recognised that the line between agency work and informal/undeclared work can become blurred by illegal employment practices. For example, a report undertaken for the European Commission found evidence that in a number of countries gang masters or informal labour contractors provided workers onto construction sites and other workplaces at below minimum wages and conditions, with work groups and the labour provider being based on a particular ethnic group.<sup>41</sup> This arrangement utilised informal hiring networks and exploited ignorance of legal entitlements on the part of the immigrant workers involved and more closely resembled a patron-client relationship than employer-employee relationship.<sup>42</sup> Similar practices have been identified in other countries.<sup>43</sup> In short, beyond the formal temporary agency industry is an informal industry which trades on the vulnerability of particular groups of workers. Illegal practices occur even within some

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<sup>36</sup> See MacEachen et al. (2014).

<sup>37</sup> See Rispel & Blaauw (2015).

<sup>38</sup> See for example Stegenga et al. (2002), West et al. (2002) Andersen et al. (2002).

<sup>39</sup> See Lippel et al. (2011).

<sup>40</sup> See Audhoe et al. (2015).

<sup>41</sup> See Cardiff University et al. (2011).

<sup>42</sup> See McKay et al. (2005).

<sup>43</sup> See Guthrie & Quinlan (2005).

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temporary agency firms, with some international operators providing foreign labour requiring workers to sign contracts that include provisions that they will not join a union.

## 2.3 Home-based work

One major area of growth in non-standard work is the shift of work away from formalised workplaces including the worker's home or the home of others (i.e. homecare). Aside from cases where workers holding full-time jobs take additional work home, home-based work typically involves a subcontracting arrangement (in homecare workers are often provided by a temporary employment agency). As with subcontracting (see below) reviews of international research on home-based work have found that the vast majority of studies find this work arrangement is associated with worse OSH outcomes, including increased risk of injury, exposure to hazardous substances (including infectious materials) and occupational violence.<sup>44</sup>

In the expanding area of homecare including aged care, health care, troubled youth programs, disability services (including half-way/community houses) and a wide range of other activities, research has identified a number of hazards including greater susceptibility to work overload (including unrecognised additional or 'invisible' tasks), infection/hazard exposures, strain injuries and physical assault due to working in isolation and poor ergonomic circumstances.<sup>45</sup> A French study of home healthcare workers pointed to the emotional demands on workers as well as their isolation and incapacity to interact.<sup>46</sup> An Israeli study found that household members using migrant live-in aged care workers and the workers themselves had limited awareness of the legal rights of these workers.<sup>47</sup> A Canadian study found that the irregular hours and job insecurity of homecare workers was associated with both stress and musculoskeletal disorders.<sup>48</sup> An Australian study identified similar issues while also pointing to particular problems where homecare services were outsourced (often by government departments) to temporary employment agencies leading to more disarticulated management of OSH. Further, the cost-savings that drove the process were effectively achieved in part by compromising OSH (in terms of reduced staffing levels, extended working hours, lower wages and the use of less qualified staff).<sup>49</sup>

The growth and wider dispersion of home-based work raises serious challenges for regulators both in terms of formal coverage and in practical terms because, for example, it makes inspecting the workplace manifestly more difficult logistically. Relatively little research has been undertaken into the OSH of home-based telework although available evidence suggests it raises some issues similar to other home-based work including ergonomic problems, work intensification, ignorance of or inability of workers to access their rights/entitlements, gaps/ambiguities in regulatory coverage and little if any inspectorate enforcement.<sup>50</sup>

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<sup>44</sup> See Quinlan & Bohle (2008).

<sup>45</sup> See Zaroni et al. (2007) and Cloutier et al. (2008).

<sup>46</sup> See Van De Weerd & Baratta (2012).

<sup>47</sup> See Green & Ayalon (2015).

<sup>48</sup> See Zeytinoglu et al. (2015).

<sup>49</sup> See Quinlan, Bohle & Rawlings-Way (2015).

<sup>50</sup> See Montreuil & Lippel (2003) and Robertson et al. (2012).

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Home-based work represents a re-emerging challenge in rich countries – a return to issues that were confronted over a century earlier. In low and middle income countries home-based work is commonly a more pervasive form of work organisation, often forming part of the informal sector but one often linked to the production of well-known goods through global supply chains. While there is limited research into OSH in home-based work in poor and middle income countries the evidence suggests these workplaces are typically disorganised, with few measures for managing hazards (and often employing children).<sup>51</sup>

## 2.4 Part-time work

In most countries there is a considerable overlap between part-time and temporary work a significant minority of part-time jobs are ongoing. There is less research into the OSH effects of part-time work (ongoing) than temporary work. While the benefits of part-time work in terms of its ‘hours-flexibility’ and helping workers (especially women) balance work and family commitments is frequently promoted by policy-makers and others, evidence paints a more complex picture suggesting the perceived benefits differ significantly between occupations and depends on the extent to which workers are able to influence the timing of work. Overall, evidence from Europe, North America and Asia paints a more complex picture.<sup>52</sup>

On the one hand, some studies point to a number of health and well-being benefits of part-time work. For example, a study of service sector workers in five Western European countries found part-time workers were more satisfied with their work-life balance, especially those with shorter hours (there were no significant gender differences), but differed significantly according to occupation with professionals profiting least from reduced working hours.<sup>53</sup> A Swedish study found part-time nurses were at a lower risk of experiencing a back injury.<sup>54</sup> A number of Dutch studies have also found part-time workers were less exposed to hazards like noise (even after controlling for total hours at work), harmful ergonomic conditions and were less likely to report emotional exhaustion.<sup>55</sup> The Dutch findings may owe something to the flexicurity regime in that country (though this and the concept of flexicurity more generally has been the subject of some debate<sup>56</sup>) or the occupations surveyed.

On the other hand, other research suggests part-time work shares some of the negative aspects of temporary work. A US study found low paid part-time workers were most likely to work rigid and unpredictable schedules.<sup>57</sup> In Europe and elsewhere there is evidence a considerable number of those holding part-time jobs (including many women) would actually prefer more hours to supplement their income.<sup>58</sup> A South Korean study found part-time work was associated with poorer mental health outcomes.<sup>59</sup> Similarly, a study based on the European Workforce Survey found that part-time work was associated with poorer psychosocial working conditions, especially for men and those of them undertaking ‘mini

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<sup>51</sup> See Tipple (2006).

<sup>52</sup> See Oishi et al. (2015).

<sup>53</sup> See Beham et al. (2012).

<sup>54</sup> See Engkvist et al. (2001).

<sup>55</sup> Cited in Fagan et al. (2013).

<sup>56</sup> See Tsarouhas & Ladi (2013).

<sup>57</sup> See Swanberg et al. (2014).

<sup>58</sup> See Eurostat (2015).

<sup>59</sup> See Kim et al. (2006).

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jobs' under southern European welfare regimes.<sup>60</sup> A large survey undertaken in Quebec found both temporary workers and part-time workers were at greater risk of sexual harassment and occupational violence than their full-time permanent counterparts – a finding consistent with studies undertaken in other countries.<sup>61</sup> Like temporary workers, the economic pressures on part-time workers can place them in a situation where they are especially vulnerable to supervisory abuse.<sup>62</sup> Several studies have also linked part-time work intensity to drug use amongst young workers.<sup>63</sup>

## 2.5 Dependent self-employment and subcontracting

Increased use of outsourcing is a feature of most countries and elaborate subcontracting networks to secure goods and services, commonly called supply chains, operate at both the national and international level. In many countries a growing number of self-employed workers, including micro businesses, are employed within multi-tiered subcontracting networks in a wide range of industries (including construction, cleaning services, road transport, maintenance, harvesting, information technology and services). In countries like the USA employees have been 'reclassified' as self-employed' subcontractors, leading to protracted regulatory struggles as this classification effectively excludes workers from minimum wage law protection as well as workers' compensation coverage if they are injured at work. Similar struggles can be identified in Europe and elsewhere.

The use of subcontractors and especially multi-tiered subcontracting has been associated with fractured OSH management and corner cutting on safety that was a significant causal factor in catastrophic incidents like the AZF factory fire in France in 2001 (30 killed), the sinking of the Brazilian Petrobras 36 oil rig (claiming 11 lives) in the south Atlantic in the same year, and the Soma mining disaster in Turkey in 2014 (claiming 311 lives) to name but three examples. Similarly, the outsourcing/offshoring of heavy aircraft maintenance was linked to three fatal air crashes and a larger number of 'near misses' in the USA between 1995 and 2009.<sup>64</sup> The use of subcontractors has also been linked to higher levels of exposure to hazardous substances in industries as diverse as nuclear power stations to agricultural harvesting.<sup>65</sup>

Subcontracting has been linked to poorer OSH indices across a range of industries. In road transport subcontracting chains driven by cost cutting pressures from powerful freight users with dependent owner/drivers at the bottom have been linked to corner cutting on safety (excessive hours, drug use, speeding and reduced maintenance) in a number of countries, including New Zealand.<sup>66</sup> In some cases subcontracted workers remain employees, but are engaged for another firm which is typically (though not always) smaller than the host. However, even as employees the cost and time pressures associated with subcontracting still applies as does evidence of poorer OSH outcomes. For example, a Korean study found subcontracted workers faced a higher risk of work-related disease and higher absenteeism rate

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<sup>60</sup> See Bartoll et al. (2014).

<sup>61</sup> See Vézina et al. (2011) and LaMontagne et al. (2009).

<sup>62</sup> See Dupre et al. (2006).

<sup>63</sup> See Bachman & Schulenberg (1993).

<sup>64</sup> See Quinlan, Hampson & Gregson (2013).

<sup>65</sup> See Thebaud-Mony (2011).

<sup>66</sup> See Tedestedt et al. (2015).

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than those engaged in the parent firm.<sup>67</sup> Similarly, a European study found that self-employed metalworkers were far less likely than employees to use local exhaust ventilation (Odds Ratio 0.37), mobile extraction (Odds Ratio 0.23) or on-tool extraction (Odds Ratio 0.39) when welding or soldering.<sup>68</sup> There is also some research linking outsourcing/subcontracting to riskier health behaviours, including the use of drugs.<sup>69</sup>

The outsourcing of tasks to usually smaller firms via subcontracting chains brings with it a fracturing of the labour market into smaller units. There is substantial evidence that OSH outcomes in terms of injuries and fatalities in particular tend to be worse in smaller firms.<sup>70</sup> Recent research also points to sickness presenteeism also being prevalent in small business.<sup>71</sup> While much of this research literature ignores the fact that many small firms are subcontractors (and the pressures that result from this) it does point to their limited resources/logistical capacity and the competitive environment in which many operate as factors contributing to poorer OSH.<sup>72</sup>

The outsourcing/subcontracting of activities can alter the applicable labour standards, especially where an activity like cleaning is moved from government to private providers or where an activity is moved to a different region or country. There is also evidence of substantial differences in the level of regulatory oversight.<sup>73</sup> At a global level elaborate supply chains have become a conduit for harmful labour practices including child labour because the complexity can disguise those actually responsible for producing garments and other goods.<sup>74</sup>

In most countries self-employed workers are largely excluded from accessing workers' compensation and often have limited forms of personal insurance. As a result injury or illness can have a severe financial impact on them and their families, especially in the case of permanent disability or fatalities.<sup>75</sup> Even where subcontracted workers are employees they can experience difficulties accessing workers' compensation especially where they are recent migrants or where workers shift regularly between employment and self-employment as occurs in industries like construction, homecare, cleaning and road transport.

## **2.6 Bogus/undeclared work and the informal sector**

In Africa, Central and South America informal employment commonly constitutes over half the non-agricultural workforce. While precarious work has grown in many of these countries so too has the informal sector of work that is essentially unregulated and thus without the worker protections and entitlements found in the formal sector. Informal employment is also common in Eastern Europe and there is also evidence that the informal or black economy has become increasingly significant in the European Union, North America

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<sup>67</sup> See Min et al. (2013).

<sup>68</sup> See Mirabelli et al. (2007).

<sup>69</sup> See Cheng & Cheng (2015).

<sup>70</sup> See Holizki et al. (2015).

<sup>71</sup> See Holt & Powell (2015).

<sup>72</sup> See Masi & Cagno (2015).

<sup>73</sup> See Holley (2014).

<sup>74</sup> See Phillips et al. (2014).

<sup>75</sup> See Quinlan, Fitzpatrick, Matthews, Ngo & Bohle (2015).



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and Australasia.<sup>76</sup> Undeclared work is essentially another term to describe work arrangements that seek to evade regulatory requirements and can include a wide range of activities including construction, agriculture and sweatshop manufacturing. In many instance recent and undocumented immigrants are concentrated in such jobs, exacerbating OSH risks because these workers are both financially desperate and have no practical capacity to raise safety concerns with their employers or labour inspectors.<sup>77</sup>

The informal sector is dominated by small firms/self-employment. As a recent Nigerian study demonstrated those working in the informal sector are generally low paid and worked extended hours.<sup>78</sup> The informal sector in poor to middle income countries also entails significant use of child labour with all the attendant health and safety risks long known to be associated with this.<sup>79</sup> Even in high income countries the re-emergence of extensive home-based work in areas like garment-making and assembly has also encouraged the use of children as part of family based production.

There is longstanding research pointing to the hazardous nature of informal work - in terms of injuries, physical and mental health –in Africa and South America.<sup>80</sup> These studies, like Lowenstein's study of Zimbabwe, point to the intense economic pressures and disorganisation of work settings that are conducive to serious safety risks as well as poor physical and mental health outcomes.<sup>81</sup> A recent survey of 8,823 informal workers in Central America found that 34 per cent of women and 27 per cent of men reported poor health, and 30 per cent of women and 26 per cent of men reported poor mental health. Absence of social security coverage was associated with poor self-perceived and poor mental health in both sexes, with the authors concluding that informal employment was a significant factor in social health inequalities.<sup>82</sup>

Studies examining informal work in particular industries have reached findings that parallel those of precariously employed workers doing the same jobs in high income countries, albeit the situation is worse because they have no regulatory protection whatsoever. A Brazilian study found informal employment was significantly associated with obstructive sleep apnea amongst truck drivers (along with body mass and poor sleep quality).<sup>83</sup> This is consistent with findings in the USA, Australia and elsewhere that subcontracted/owner drivers or those paid by piecework are at greater risk of injury, fatigue, drug use and ill-health.<sup>84</sup>

At the same time, the absence of regulatory coverage in terms of OSH, wages, hours of work, collective bargaining, and worker's compensation/social security makes the situation of informal workers, especially women and children more dire than other non-standard workers. As a recent review by Lund argued, the remedy is not one of treating informal workers as a vulnerable population but rather providing an effective regulatory framework for this work,

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<sup>76</sup> See ILO (2009) and Williams (2015).

<sup>77</sup> See Seixas et al. (2008).

<sup>78</sup> See Akinwale (2014).

<sup>79</sup> See ILO (2015c) World Report on Child Labour 2015.

<sup>80</sup> For a useful compilation/review see Benach & Muntaner (2013).

<sup>81</sup> See Lowenson (1998) and Santana & Loomis (2004).

<sup>82</sup> See López-Ruiz et al. (2015).

<sup>83</sup> See Lemos et al. (2009).

<sup>84</sup> See Thompson & Stevenson (2014).

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both in terms of OSH but also social security/welfare.<sup>85</sup> In countries like Brazil some efforts have been made at regional or national level to organise informal workers, campaign for regulatory protections like access to compensation for injuries, to procure community-based support for injured informal workers, or to initiate more comprehensive occupational health care systems.<sup>86</sup> While important, as yet these campaigns have gained little traction in other parts of the world.

Work in the informal sector arguably constitutes the single most important hazardous form of non-standard work in most poor to middle income countries. This applies not just to countries in Africa, Asia and Central and South America but also parts of Europe and elsewhere. For example, Woolfson who has conducted detailed research on the Baltic States (Estonia, Latvia and Lithuania) of Eastern Europe has contended that illegal/undeclared work constitutes the single largest risk factor for occupational injuries and ill-health.<sup>87</sup> The growth of informal labour/undeclared work has weakened unions and the collective determination of working conditions not only within newer EU member states but more generally.<sup>88</sup> This has ‘knock-on’ effects to OSH because reduced union presence affects the likelihood that workplaces will have safety committees or health and safety representatives as well as the capacity of workers to raise OSH concerns.

A report undertaken for the European Commission found that while the extent of undeclared work varied considerable amongst EU members there were a number of common themes including its concentration in particular and predominantly seasonal activities like construction, agriculture and some services (like cleaning), that were both hazardous and often poorly managed in terms of OSH. Other commonalities included a heavy reliance on immigrants (especially undocumented immigrants and ‘guest workers’ for within or outside Europe) and the poor accommodation and domestic arrangements of the workers involved. The situation is made more challenging because informally engaged day labour and subcontractors (including undocumented workers) can be engaged on formal worksites alongside other workers provided by temporary employment agencies. This blurring of the divide between declared and undeclared work has been identified in the USA, the Gulf States and elsewhere.<sup>89</sup> The combination of the dispersed (and in some cases shifting) nature of workplaces in these industries, elaborate and opaque subcontracting chains and the ‘invisibility’ of the workforce present a considerable challenge to already under-resourced labour inspectorates.

In practice, workers in the informal economy, like their counterparts in Africa and Central America, lack regulatory protection or the support of unions and their vulnerable residency status makes it unlikely that they will report OSH problems.<sup>90</sup>

## **2.7 The nexus between non-standard work and vulnerable workers**

As noted earlier the OSH challenges of non-standard work are compounded by the concentration of vulnerable workers in many of these jobs including immigrants, the young, old and women. Immigrants have come to dominate agricultural harvesting and construction

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<sup>85</sup> See Lund (2012).

<sup>86</sup> See Benach & Muntaner (2013).

<sup>87</sup> See Woolfson (2006) and (2011).

<sup>88</sup> See Woolfson (2007).

<sup>89</sup> See Mehta & Theodore (2006).

<sup>90</sup> See Cardiff University et al, (2011).

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workforce as well as undeclared work in many countries, including young and undocumented immigrants who are especially at risk due to their economic dependence, lack of support and fear of making complaints to regulatory authorities.<sup>91</sup> Immigrants are commonly over-represented in jobs and industries that are not only hazardous but where non-standard work arrangements are pervasive.<sup>92</sup> Many studies fail to fully explore these interconnections but there are exceptions such as the study of hotel housekeepers referred to in the subsection on agency work.<sup>93</sup>

In a number of countries there is evidence of large firms using elaborate subcontracting networks to secure foreign workers under wages and other conditions that breach legal requirements. For example, a 2015 report by the Australian Fair Work Ombudsman found that Baiada Group (engaged in poultry processing) used an elaborate network of labour suppliers to obtain workers under short-term work (s417) visas and that many of these workers were not paid their lawful entitlements.<sup>94</sup> This is not an isolated case with similar problems being uncovered in the hospitality and service sector, some involving national and global corporations. There is evidence that other practices can put immigrant workers in a very vulnerable situation. Singapore foreign workers introduced under ‘phantom worker’ scams (where firms inflate the number of local workers on their books to justify more foreign engagements) are unlikely to report concerns relating to their employment because detection of the arrangement will result in them losing their legal right to work.<sup>95</sup>

### **3. The hazardous characteristics of non-standard work**

From a policy perspective it is important not only to identify a connection between non-standard work and poorer OSH outcomes but also to understand the underlying reasons for this in order to inform remedial interventions. At one level, as the ILO’s decent work campaign has long emphasised one way of improving OSH outcomes would be measures to limit the extent of non-standard work. It is a point made by a number of studies examined in this report which advocate, for example, engaging workers on a permanent rather than short-term contract basis.

Understanding the harmful features of non-standard work reinforces the need to limit non-standard work as well as pointing to additional policy levers. In the confines of this chapter it is only possible to summarise a number of key points. Nonetheless, the various types of non-standard work examined above tend to share a number of features that are harmful to worker health, safety and wellbeing.

#### **3.1 Economic insecurity and reward pressures**

One health damaging feature of many non-standard jobs is that they are insecure and there is a large body of global evidence pointing to adverse health effects (both mental and physical) of job insecurity, even when compared to short-term unemployment.<sup>96</sup> Research

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<sup>91</sup> See for example, McLaurin & Liebman (2012).

<sup>92</sup> See Rizvi (2015).

<sup>93</sup> See Siefert & Messing (2006). See also Sanon (2014).

<sup>94</sup> See Fair Work Ombudsman (2015).

<sup>95</sup> See Ong (2014).

<sup>96</sup> See Idris et al. (2011) and Griep et al. (2015).

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indicates that the health effects of job loss may differ for those holding different types of employment contract and the effect on long term career trajectories also need to be considered.<sup>97</sup> The growth of non-standard work has contributed to great labour market volatility including making it easier to dispense with workers during economic downturns. Greater labour market volatility means more workers are experiencing periods of unemployment with, as an Icelandic study found, more vulnerable and financially groups of workers being hardest hit.<sup>98</sup>

The growth of job insecurity has had spill-over effects on workers holding permanent jobs who retain their jobs including long hours and presenteeism. There is a solid body of international research linking long working hours to an increased risk of injury and adverse health effects including depression/anxiety and stress, cumulative sleep deprivation, and coronary heart disease.<sup>99</sup> Research has also pointed to a connection between sleep deprivation, unhealthy eating habits and obesity.<sup>100</sup> A US study pointed to the pervasiveness of short sleep if not outright sleep deprivation. Using data from the 2010 National Health Interview Survey the Centers for Disease Control and Prevention found that over 30 per cent of employed adults (or 40.6 million US workers) reported an average of six or less hours of sleep with the incidence of sleep deprivation being higher amongst manufacturing workers (34.1 per cent) and more especially night workers (44 per cent) particularly those in healthcare/social assistance (52.3 per cent) and transportation/warehousing (69.7 per cent). Insufficient sleep was also more prevalent amongst older workers (aged 45-64 years), those working more than 40 hours per week or holding a second job, Hispanic and Asian workers.<sup>101</sup>

Job insecurity and weaker bargaining power amongst workers has encouraged widespread presenteeism in many countries – both sickness presenteeism (when workers go to work when ill) and long hour presenteeism (when additional unpaid hours are worked because it is ‘expected’ or workers fear losing their job). A study of Chinese factory workers found both types of presenteeism were widespread and were a significant contributor to work-related stress.<sup>102</sup> Similarly, a Korean study found 19 per cent of the wage earners surveyed (being higher amongst women) had experienced presenteeism in the past 12 months and presenteeism was significantly associated with occupational stress.<sup>103</sup> There is also some evidence that presenteeism increases the risks of injury at work and is a compounding factor in long term morbidity.<sup>104</sup> Presenteeism, especially sickness presenteeism, also has wider health effects (for example by exposing other workers and members of the community to infections like the flu).

Workers in non-standard work commonly experience low or irregular levels of payment (when paid hours change on a daily basis) and in some industries like hospitality and homecare unpaid work (including trials/internships, travel-time, unpaid training or cleaning up after closing) is common. Low pay not only encourages excessive hours of work (or multiple jobholding) and fatigue related hazards but also health problems associated with poor nutrition and accommodation. Workers with insufficient pay or paid hours (more prevalent

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<sup>97</sup> See Virtanen, Vahtera, Kivimaki, Liukkonen, Virtanen & Ferrie (2005).

<sup>98</sup> See Snorradottir et al. (2013).

<sup>99</sup> See Liu & Tanaka (2002) and Dembe et al. (2005).

<sup>100</sup> See Buxton et al. (2009).

<sup>101</sup> See Centres for Disease Control and Prevention (2012).

<sup>102</sup> See Sang (2013).

<sup>103</sup> See Jeon et al. (2014).

<sup>104</sup> See Jacobson Frey et al. (2015).

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amongst those holding temporary, part-time jobs and some types of self-employment) may cobble several jobs together in an effort to ‘make ends meet’. Research undertaken in a number of countries indicates that multiple jobholding is associated with an increased risk of injury, including fatalities.<sup>105</sup>

There is also research directly linking low pay to poor OSH, as measured by injuries and other indices across a range of industries and countries, including high income countries like the USA.<sup>106</sup> Research has also found irregular earnings impose a health-burden on workers, making it hard to budget, meet family commitments and inducing workers to take on too much work or to work too hard when it is available.<sup>107</sup> The use of tip-based payment systems in industries hospitality has also been found to be conducive to emotional burden on workers and sexual harassment from customers.<sup>108</sup> In many types of non-standard work workers are paid under some form of performance-based payment regime (including piecework, bonuses and tips). There is extensive global evidence (both population and industry-based) linking such payment regimes to a higher incidence of injuries.<sup>109</sup> There is also evidence linking such payment regimes to worse mental health outcomes. At a wider level the growth of poorly paid non-standard work has been linked to increasing inequality and the adverse health effects associated with this, including poor housing/accommodation and eating practices/nutrition.<sup>110</sup>

### 3.2 Disorganisation

Another recurring theme in non-standard work is disorganisation. The growth of non-standard work has undermined the management of OSH by encouraging the use of more inexperienced and lesser trained workers; fracturing responsibilities amongst a more complex array of parties (including multiple employer workplaces with different teams of workers where there is an increased risk of safety-critical communication breakdowns); and making it harder for workers to organise to represent and safeguard their interests.<sup>111</sup> As a number of studies demonstrate, high levels of labour turnover within a workplace or significant seasonal fluctuations in the workforce present a significant challenge in terms of injury prevention, all too often resulting in serious gaps with regard to hazard exposures, basic safety measures (like emergency procedures) and weak/non-existent avenues for worker involvement.<sup>112</sup> It also means workers are at greater risk of injury due to shorter job tenure.<sup>113</sup> With regard to informal work the situation is even more extreme, with highly disorganised work settings being the norm. There are, on the one hand, no regulatory or other incentives whatsoever to provide training, supervision or other OSH management practices. On the other hand, cost pressures (including those emanating from the formal sector through subcontracting/supply chains) encourage the use of child labour, long hours and other practices anathema to safeguarding workers’ health, safety and wellbeing.

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<sup>105</sup> See Bush et al. (2013) and Marucci-Wellman et al. (2014).

<sup>106</sup> See Rodriguez et al. (2006).

<sup>107</sup> See Aronsson et al. (2005) and Underhill & Quinlan (2011).

<sup>108</sup> See Matulewicz (2015).

<sup>109</sup> See for example Lacey et al. (2007) and Artz & Heywood (2015).

<sup>110</sup> See Block (2013); Dixon, Woodman, Strazdins, Banwell, Broom & Burgess (2014) and Keim-Malpass et al. (2015).

<sup>111</sup> See Marca et al. (2015).

<sup>112</sup> See for example, Parejo-Moscoso et al. (2013).

<sup>113</sup> See Bena et al. (2013).

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The growth of non-standard work has, as already mentioned, weakened the capacity of workers to safeguard their own health and well-being – a trend accelerated in some countries by changes to industrial relations laws to promote such work arrangements and weaken union ‘voice’.<sup>114</sup> The growth of non-standard work arrangements including undeclared work and job insecurity (affecting workers holding nominally permanent jobs) has weakened union coverage and their capacity to raise or negotiate over working conditions affecting OSH. One example of this is the incapacity of workers to prevent or minimise working hour arrangements that are unsafe, unhealthy and infringe increasingly on family and other non-work activities, despite a growing body of evidence that the ability of workers to influence work-time arrangements has a significant effect on health outcomes.<sup>115</sup> At a broader level the decline of union density in many countries has undermined the capacity of workers to safeguard their health both directly and indirectly via the critical logistical support unions provide for worker health and safety representatives and workplace OSH committees. Non-standard workers are not simply concentrated in industries and workplaces where union coverage is especially weak if not non-existent (as is the case for much undeclared/informal work), rather it is extending into a growing array of industries and sectors or employment. Even in workplaces where a core of permanent workers remains, the presence of temporary workers in conjunction with the threat of further job losses through outsourcing/privatisation or downsizing/restructuring has often weakened union presence and made it harder for OSH issues to be raised.

### **3.3 Regulatory failure and social welfare gaps**

As a recent ILO report has observed global changes in work arrangements present a significant challenge to regulatory regimes.<sup>116</sup> Regulatory failure with regard to non-standard work occurs at a number of levels. First, an absence of legal protections (or protections that are enforced) affecting the working conditions of those holding non-standard jobs (including hours of work, wages, OSH standards, work injury insurance and the like). A series of studies have demonstrated that the growth of non-standard work has weakened regulatory protections and posed a series of complex and resource-intensive challenges for inspectorates.<sup>117</sup> For example, the European working time directive (which sets amongst other things a maximum of 48 hours work per week) does not apply to self-employed workers – a gap also found in most other countries – and there are also ‘opting out’ provisions even with regard to employees that have led to significant divergences between different countries, with localised determinations leading to excessive hours and fatigue.<sup>118</sup> In the European Union, a report prepared for the European Commission found even in the best cases inspectorates were only addressing a fraction of the challenges posed by changes to work organisation – and then often by targeting symptoms rather than underlying causes.

The problem is not confined to regulatory gaps but rather the challenges posed by changes to working hours arrangements associated with the push for labour market flexibility. Non-standard work has been linked to extended or unpredictable hours of work as well as night work, all of which have been shown to have harmful effects on health in a wide range of

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<sup>114</sup> See Walters et al. (2011).

<sup>115</sup> See Ala-Mursula et al. (2005); Albertsen et al. (2007) and Boivin et al. (2007).

<sup>116</sup> See ILO (2015d).

<sup>117</sup> See Walters et al. (2011).

<sup>118</sup> See Eurofound (2015).

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different countries and occupations.<sup>119</sup> There is also evidence linking irregular or changing shifts – a common feature of non-standard work- and night work to an increased risk of injury.<sup>120</sup> Notwithstanding this, the trend is to expose more not fewer workers to these hazards. As a recent review concluded:

The labour market flexibility agenda appears to be operating as a time re-distributive device: it has supported the removal of regulations that governed ‘the when’ of working time and removed limits over the amount of working time, thus extending by many hours the notion of the ‘standard’ working week and forcing employees to adapt their shared or social times as well as their time for health.<sup>121</sup>

Second, the absence of an adequate social security/welfare safety net to offset or minimise the adverse consequences of low pay, work-related disability etc. associated with non-standard work on workers and their families. In recent years, research and government agency reports have repeatedly pointed to a strong connection between non-standard work and poverty – with all the health and other social consequences this has.<sup>122</sup> Further, these workers are doubly disadvantaged if they are injured at work given their limited access or exclusion from workers’ compensation or health insurance and concentration in hazardous industries like agriculture, road transport and construction.<sup>123</sup> In addition those studies already cited several others provide further evidence of this problem. A study of the construction of Denver International Airport found that a single workers’ compensation covering the whole site, on site medical clinic and designated medical providers yielded injury rates in construction significantly higher than those previously reported. The study highlighted the number of injury involving contract workers that were typically missed and where in many instances workers’ compensation was not provided. The situation is commonly more problematic for immigrant workers, especially those on short-term visas, and in some countries undocumented immigrant workers have no or very problematic access to workers’ compensation if injured.<sup>124</sup> In countries like South Africa and Chile with extensive informal sectors, most workers have no effective access to compensation or other forms of support following injury.<sup>125</sup>

If, as it appears, those holding non-standard jobs are more likely to be injured or suffer illness through work and they also have fewer resources to deal with the impact of this. This may, for example, have adverse effects on diet, nutrition or the risk of obesity.<sup>126</sup> There is relatively little longitudinal research into the long term health effects of non-standard work. However, one US study found that for women ‘inconsistent labour force participation across mid-life and loss of access to employer-provided health insurance in midcareer remain

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<sup>119</sup> See for example these studies undertaken in Canada, Iran and India: Wong et al. (2014); Farzianpour et al. (2015); Haldar & Sahu (2015); Bao et al. (2015).

<sup>120</sup> For a recent review see Reinberg et al. (2015).

<sup>121</sup> See Dixon, Carey, Strazdins, Banwell, Woodman, Burgess, Bittman, Venn & Sargent (2014).

<sup>122</sup> See for example Benach & Muntaner (2013) and Lewchuk et al (2015).

<sup>123</sup> See Asfaw (2014).

<sup>124</sup> See Guthrie & Quinlan (2005).

<sup>125</sup> See Benach & Muntaner (2013).

<sup>126</sup> See Temple Newhook et al. (2013).

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associated with a relatively high risk of mortality, net of temporally proximate correlates of death.<sup>127</sup>

Third, the more volatile labour market conditions associated with non-standard work (including shorter duration jobs, irregular working hours and the use of temporary foreign workers) has undermined the capacity of surveillance systems with regard to hazardous exposures and work-related diseases like cancer.<sup>128</sup> Research has also found that increases in job insecurity have an adverse effect on injury reporting. A study of 786 employees in 24 US organisations and 563 employees in 20 Italian organisations found that job insecurity not only affected the likelihood of experiencing an injury at work but also that the degree of job insecurity was inversely related to the preparedness to report injury to the firm. In other words, the most insecure workers felt inhibited in reporting an injury for fear it would affect their ongoing employment prospects.<sup>129</sup> Further, as a number of researchers have observed, the growth of non-standard work has weakened the reliability of workers' compensation data as an indicator of OSH performance even when it comes to work-related injury because many workers in these arrangements fall between the legal cracks in these regimes.<sup>130</sup> In countries where informal sector employment is extensive there are even greater challenges in implementing a surveillance system to record even the most basic types of work-related injury.<sup>131</sup>

There is also evidence that non-standard work imposes hidden costs on the community. For example, a Swedish study found persons who were socially isolated and held a 'peripheral work position' were at greater risk of having to rely on a disability pension.<sup>132</sup> Other studies across a range of countries point to other flow-on effects of non-standard work, including effects on children's education, nutrition and health.<sup>133</sup> In countries with little in the way of a social welfare net the adverse health effects of non-standard work not only places a significant burden on individuals but there are significant and cascading flow-on effects onto the families/dependents of these workers and the communities where they live.

While there is a growing recognition of work-related health problems, interventions are often more focused on symptoms than underlying causes. A study of policy responses to work-related stress in Taiwan found that these orientated towards individuals and ignored important contextual factors, notably low levels of public social expenditure, unionization and collective bargaining power amongst workers, and female and old-age labour participation rates as well as very long working hours.<sup>134</sup> Consistent with this, a more broadly-based study based using the World Health Survey of 2002 to examine gender and depression emphasised the influence of welfare regimes in both medium and high income countries.<sup>135</sup> There have also been efforts to develop regulatory standards and inspection regimes that better address

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<sup>127</sup> See Raymo et al. (2013).

<sup>128</sup> For a study of this in relation to France see Walters et al. (2011).

<sup>129</sup> See Probst et al. (2013).

<sup>130</sup> See Cox & Lippel (2008).

<sup>131</sup> See Noe et al. (2004).

<sup>132</sup> See Gustafsson et al. (2015).

<sup>133</sup> See Benach & Muntaner (2013).

<sup>134</sup> See Cheng (2015).

<sup>135</sup> See Chung et al. (2013).



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the psychosocial hazards associated with changes at work in countries like Denmark and the ILO has produced a guide for labour inspectors with regard to psychosocial hazards.<sup>136</sup>

One challenge that has been identified with regard to addressing the OSH problems associated with non-standard work is that these arrangements are increasingly part of global supply chains, extending beyond the jurisdiction of predominantly nation-based regulation. It has also been suggested that the multinational corporations that typically are the peak of supply chains can exercise only limited controls over their suppliers. However, a recent study of international framework agreements in construction in South Africa found multinationals were highly interventionist when it came to quality issues but not labour standards.<sup>137</sup> In short, the problem here wasn't one of capacity but rather one of interest and the degree of willingness to intervene.

In sum, the growth of more complex and dynamic work arrangements has presented a serious challenge to labour inspectorates in terms of accessing and seeking to ensure minimum standards are enforced, including serious breaches of OSH standards. While government reports demonstrate some recognition of the problem inspectorate resourcing has typically failed to keep pace with this and in some cases has been cut back since the onset of the GFC. The growth of the informal sector in both rich and lower to middle income countries represents a particular challenge, especially as government concerns in this area are sometimes more concerned with the loss of tax revenue than OSH and other labour standards. Further, changes to industrial relations regulatory regimes that favour flexibility or are explicitly de-collectivist have exacerbated these challenges by making it harder to ensure minimum wages are paid or to ensure working hour arrangements are not harmful to health. They have further undermined unions and their capacity to help workers with regard to OSH.

## 4. Policy responses and recommendations

The growth of non-standard work has been associated with adverse effects on OSH as well as weakening the regulatory regimes tasked with protecting workers. In a number of countries and regions unions have tried to draw attention to these problems and propose remedies. For example, the European Trade Union Institute has highlighted the problem in a number of its publications and policy statements, as has the Trades Union Congress in the UK through its *Hazards* magazine and reports.<sup>138</sup> In Australia and the USA nurses unions have campaigned on maintaining adequate staff patient ratios and in the former they have also mounted 'test cases' to enable temporary workers to convert to full-time, drawing on OSH evidence to support their cases. The Congress of South African Trade Unions (COSATU) has called for a complete ban of labour brokering (agency labour) arguing it undermines working conditions while in other countries unions have pushed for tighter regulation or licensing of temporary employment agencies or subcontracting.<sup>139</sup> International trade union federations like the International Transport Federation have also begun to mount campaigns around the need to regulate supply chains.

Government agencies like the European Agency for Occupational Safety and Health have also produced reports highlighting the challenges posed by changes to work

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<sup>136</sup> See ILO (2015b).

<sup>137</sup> See Williams et al. (2015).

<sup>138</sup> See TUC (2008).

<sup>139</sup> See COSATU-NACTU (2012).

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organisation. The predominant response of governments to these challenges have been provide employers, unions and workers with information and guidance material, codes and directives pertaining to the risks, to clarify legal obligations of various parties and to engage targeted enforcement. These measures include guidance material on temporary workers/temporary agency labour and psychosocial hazards, strengthening general duty provisions pertaining to the responsibilities of principal contractors and information/enforcement campaigns targeting contractors, temporary employment agencies and undeclared work. Examples include 2006 amendment of the Labour Code in Chile making the principal firm jointly liable with subcontractors (with parallel provisions for temporary agency firms) and the 2014 Uruguayan Decree (No.125/014) approving OSH regulations in the construction industry which provided for subsidiary liability. The 2008 EU Directive on Temporary Agency Work (104/EC) is another example of a growing number of regulatory responses to the problems posed by non-standard work.<sup>140</sup> In many cases these initiatives have been reinforced by strategic enforcement by inspectorates like a number of campaigns in Australia and elsewhere that have targeted principal contractors at the top of subcontracting networks.

While not without value there are a number of limitations with current responses.

- The scale of responses have varied substantially between countries and even in those countries most engaged in this regard, responses have mostly been ad hoc and reactive, concentrating on symptoms rather than underlying causes and leaving substantial gaps. For example, there have been relatively few measures to deal with the OSH problems posed by downsizing/restructuring and supply chains.
- The sheer scale of the changes has tended to overwhelm the capacity of often already resource-constrained inspectorates to respond effectively.
- The challenges posed by supply chains increasingly require a co-ordinated global response by regulators, unions and employers but such collaboration remains exceptional
- The large informal sector in many poor to middle income countries has been barely touched by regulatory measures.

At the wider social level a more effective approach would be to weaken inducements for non-standard work and to better protect those workers holding these jobs. This requires a major shift in policies. Until recently changes to labour regulation, including industrial relations laws, in many rich countries in particular sought to facilitate non-standard work arrangements (including removing licensing arrangements for temporary employment agencies) and weakened union capacity to resist these measures. In many poor and middle income countries the absence of a comprehensive set of regulated labour standards and weak union presence made such measures unnecessary. In recent years a number of countries have introduced some countervailing measures. For example a number of European countries including Germany, Croatia, Romania and the Czech Republic have introduced restrictions on the use of temporary agency and fixed term contract workers. Others like Italy have 'strengthened safeguards to combat disguised employment and increased protection for the newly created categories of dependent self-employed workers. The Netherlands introduced a flexicurity regime that tries to balance flexibility with employment security while in Norway a law enables unions to prosecute firms who have made unlawful recourse to temporary agency workers. In Asia a number of countries, including China, have responded to the rise of dispatched work by amending their labour laws to restrict the use of such workers to non-core

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<sup>140</sup> See ILO (2015a), 49.

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activities in a firm's business.<sup>141</sup> The degree to which these measures are being enforced, and their overall effects, is a yet unclear.

History suggests more fundamental shifts in policies and regulation are required. Historically, full-employment policies discouraged precarious/non-standard work by increasing the bargaining power of labour, especially when aligned with regulatory regimes that encourage unions and collective determination of working conditions.<sup>142</sup>

Regulatory protection regimes could be configured to cover dependent self-employment and thereby removing the incentive to 're-badge' employees as self-employed workers in order to save costs in terms of workers' compensation, wages and the like. Further, labour and OSH inspectorates need to be adequately resourced and with the powers to effectively carry out their tasks. This is a particular challenge in countries where regulation and enforcement has been accorded a low priority in the past. However, unless such measures are taken one likely consequence is to be ongoing catastrophic events like a number already referred to in this paper.

At the same time, limits to the capacity of OSH prevention and welfare regimes to mitigate the health inequalities arising from work arrangements needs to be recognised.<sup>143</sup> In other words, while enhancing protection and welfare regimes is essential it needs to be combined with other direct measures aimed at restricting non-standard work arrangements and enhancing the role of organised labour in OSH.<sup>144</sup>

With regard to undeclared work and the informal sector the only long term solution is to ensure that all paid work falls within the scope of regulatory protection. In several countries including Brazil, there have been efforts to unionise informal workers and social mobilisations to campaign for the extension of regulatory protections, like worker's compensation. However, success has been limited. As long as labour standards and affording basic regulatory protection are not an integral and enforceable part of the framework of global trade, including various trade agreements, it is difficult to see how this situation will change.

As with informal workers, immigrant workers irrespective of their residency status - should be entitled to the full array of regulatory protections accorded to other workers.<sup>145</sup> The abuse of global labour supply networks and regulatory regimes to exploit workers should also be investigated and revisions made to these programme.

Given the problems non-standard work and job insecurity pose for injury and disease surveillance identified in the previous section there is a need to reconsider and develop enhanced measures for tracking injuries and hazard exposures. Surveys of working conditions, like the European Workforce Survey, the use of hospital-based emergency treatment records and community-based studies of cancer and hazardous substance exposures are potential options in this regard.

Other measures requiring serious consideration including licensing all temporary employment agencies. Without such a measure the start-up of new agencies means that

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<sup>141</sup> See ILO (2015a), 47-48.

<sup>142</sup> See Quinlan (2012).

<sup>143</sup> See Bambra et al. (2014).

<sup>144</sup> See ILO (2015d), 36-40.

<sup>145</sup> See Clibborn (2015).

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enforcement activities have limited capacity to instil learning with regard to more effective OSH management practices.

As this report has already noted, much non-standard work occurs in the context of elaborate subcontracting networks and supply chains and so this represents a more effective intervention point that simply trying to address particular categories of work arrangement in isolation. With regard to supply chains, a number of voluntary codes and corporate social responsibility (CSR)-type initiatives have been tried but in general these lack the coverage or enforcement mechanisms to ensure compliance. A review on the evidence on supply chains found that instances where they were used to safeguard rather than undercut OSH relied significant on external and community pressure, including reputation damage.<sup>146</sup>

In highly competitive industries such pressures are less likely to be found. However, there is evidence that subcontracting networks and supply chains at the national level can be reshaped – principally through mandatory regulation - in ways that promote better OSH outcomes.<sup>147</sup> In Australia mandatory supply chain regulation has been introduced in garment making and road transport that compels those at the peak of the supply chain to take responsibility, establishes enforceable minimum standards applying to pay, OSH and workers' compensation entitlements (including workers who might otherwise be deemed to be self-employed) and includes contract tracking mechanisms (with union and community involvement) to facilitate compliance. In road transport a specialist federal tribunal has been established to address remuneration related safety issues for truck drivers, including owner/drivers – in essence recognising that minimum standards need to be set for all workers. Unions and community groups played a pivotal role in achieving these regulatory measures. These mandatory approaches are innovative and avoid some of the limitations of voluntary schemes in terms of coverage and non-compliance. These measures and ways of translating them to global supply chains warrant close attention. As a review of supply chains and OSH concluded that 'if policy-makers wish to see supply chains used more widely to improve standards of health and safety standards, then they need to do more than merely encourage voluntary action in this regard.'<sup>148</sup> In addition to mandatory supply chain regulation (with compliance tracking devices) governments need to play a more active role in determining labour standards through their procurement policies.<sup>149</sup>

At the global level efforts by multinational corporations to initiate codes with their suppliers have received some prominence in policy circles, although evidence as to their effectiveness is, at best, mixed.<sup>150</sup> The negotiation of international framework agreements with unions could constitute one means of extending the coverage of OSH and other labour standards and providing more effective means of overseeing compliance. However, progress in this regard has been limited (by 2007 there 62 international framework agreements).<sup>151</sup> A study of the conduct of 30 companies involved in International Framework Agreements (IFA) benchmarked against 38 multinational corporations in comparable industries found IFA codes addressing OSH were more likely amongst firms in the European Union (the leading region in

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<sup>146</sup> See Walters & James (2011).

<sup>147</sup> See Rawling & Kaine (2012); Diugwu & Baba (2013) and Nossar et al. (2015).

<sup>148</sup> See Walters & James (2011).

<sup>149</sup> See Ravenswood & Kaine (2015).

<sup>150</sup> See Locke et al. (2007).

<sup>151</sup> See Papadakis (2008).

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terms of ratifying ILO conventions). The authors concluded that there appeared to be a relationship ‘between home country regulation and international supply chain strategy’.<sup>152</sup>

In 2005 the collapse of a knitwear factory in Bangladesh (built on a swamp) supplying clothing into Europe killed 64 workers leading to efforts by the International Textile, Garment and Leather Workers’ Federation (ITGLWF) to establish workplace-based systems of industrial relations. However, the collapse of the Rana Plaza building (due to the most basic breaches of building codes) six years later, which killed 1129 workers (most of them employed in producing clothing for retailers based in Europe and elsewhere) indicated how little progress had actually been made. However, the incident was also the catalyst for international unions being able to negotiate an accord on safety conditions in Bangladesh factories with a number of major garment purchasers in North America, Europe and Australia, which included review of the implementation process.

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<sup>152</sup> See Van Tulder et al. (2009).

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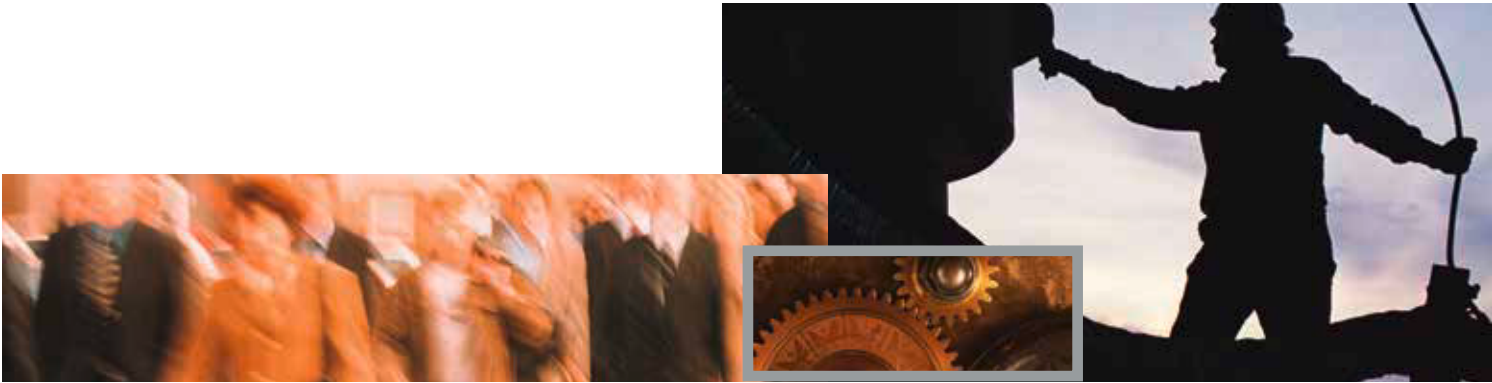
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[inwork@ilo.org](mailto:inwork@ilo.org)

International Labour Office,  
Inclusive Labour Markets, Labour Relations and Working Conditions Branch  
4, route des Morillons  
CH-1211 Geneva 22  
Switzerland

[www.ilo.org/inwork](http://www.ilo.org/inwork)