There is no universally agreed upon definition of what constitutes a zero hours contract (ZHC), but the UK government has defined ZHCs as follows: Zero hours contracts are employment contracts where the employer does not guarantee the individual any work and the individual is not obliged to accept any work offered (DBIS, 2013). The preferred definition of the Office for National Statistics (ONS) is: Contracts that do not guarantee a minimum number of hours. The use of these contracts – which in principle offer flexibility to both workers and to employers in the face of volatile demand or uncertainty over service contracts – has led to concerns about job insecurity, low wages, lack of access to other work-related benefits and entitlements, and lack of opportunity for career development. This has made them highly controversial.¹

Here I consider the following questions. First, what do we know about the prevalence of ZHCs? Specifically, what do we know about ZHC growth, who are the ZHC workers and where do they work, and what do we know about ZHC prevalence in NI? Second, what do we know about the quality of ZHC jobs? Specifically, is there a wage penalty or premium for ZHC jobs and do ZHC workers report lower job satisfaction? Given measurement issues long recognised by the ONS, and given the comparative lack of research on ZHCs, these are surprisingly difficult questions.

The Growth of ZHCs

The ONS publishes aggregate data on ZHCs – drawn from the Quarterly Labour Force Survey (QLFS) – every six months. Figure 1 below draws on these data to show the number of people in the UK reporting that they work in a ZHC job. The chart shows that ZHCs have been around for a long time; they are not a recent invention. The chart also shows that there’s no clear cyclical pattern in their use. The most striking feature of the chart, however, is the apparent rapid and

¹ Although I only consider ZHCs here, other contracts that guarantee very few hours but whose workers tend to work longer hours are likely to share some of the good and bad properties of ZHCs as far as workers are concerned.
ongoing growth in the prevalence of ZHCs over the last few years, rising from just over 200,000 workers in 2000 (0.8% of people in employment) to 900,000 workers in 2016 (2.9% of people in employment).

**Figure 1: Number in employment on a zero hours contract (thousands), UK**

![Figure 1: Number in employment on a zero hours contract (thousands), UK](image_url)

Source: ONS (QLFS)

The ONS warns us to be cautious in interpreting these data as showing actual growth in the prevalence of ZHCs, however, because of serious issues to do with the measurement of ZHCs. These figures come from the LFS which asks people about the nature of their employment, i.e. they are self-reported. The number of people who are shown as on a ZHC will therefore be affected by whether people know they are on a ZHC and how aware they are of the concept. In particular, the ONS has raised the concern that increased media coverage of ZHCs in the latter half of 2013 may have affected the response to the relevant LFS question (see ONS 2015). This leaves us uncertain as to the extent to which increased awareness versus increased use of ZHCs is driving the apparent growth we see in the chart.

We can get a sense of increased awareness / interest in ZHCs from trend data on Google searches for ‘zero hours contracts’. Further, if we put the two series together – the Google search data and the reported ZHC prevalence data from the LFS – we can get some indication of what came first and when. This is shown in Figure 2. We see that some of the recent growth in reported ZHC prevalence, specifically from 2010Q4-2012Q4, appears to precede increased awareness of ZHCs. The most rapid growth in reported ZHC prevalence (during 2013) does however coincide with the first peak in awareness of ZHCs, and therefore may have been driven by (or may have driven) increased awareness. There was no increase in the rate of growth of reported ZHCs following the second peak in awareness in April 2015 (during the 2015 UK General Election campaign).

**Figure 2: Awareness of ZHCs and reported ZHC growth, UK**

![Figure 2: Awareness of ZHCs and reported ZHC growth, UK](image_url)
The ONS have also shown that some of the growth in reported ZHC numbers in 2013 came from people who said they’d been in their job for more than a year – suggesting they are reclassifying themselves rather than switching jobs – and some came from people in new jobs. This too suggests the growth in reported ZHC prevalence is driven both by increased awareness and ‘real’ growth in prevalence. Anecdotally we hear of workers being shifted onto ZHCs in their current job, but it seems unlikely this is the main explanation for this pattern in the data.

What we do know is that these estimates of the prevalence of ZHCs are more likely to be underestimates than overestimates, although they probably underestimate by less now than earlier. For example, when LFS estimates are compared with administrative data for the domiciliary care sector (see Bessa et al., 2013), they fall well short of the numbers of ZHC workers in that sector suggested by the latter. When the ONS surveys employers to examine the prevalence of such contracts – it has been doing so twice yearly for a couple of years now - it tends to find considerably higher numbers of ZHCs, e.g. 1.7 million ZHCs in November 2015 (6% of all employment contracts), up from 1.4m in January 2014. Note these figures are for GB only and there may be some double counting if some ZHC workers hold more than one contract.

**Who are the ZHC workers and in which industries do they work?**

Data for the UK from the QLFS for 2016Q2, as reported by the ONS, show a clear gender pattern in the prevalence of ZHCs; they are more common among women (3.4% of those in employment are on a ZHC) than men (2.4% of those in employment are on a ZHC). There is also a clear age pattern; ZHC workers are found at all ages but are particularly concentrated among the young (20% of people on ZHCs are in full-time education, compared to 2% of people in employment not on ZHCs) and to some extent among workers aged 65+ (see Figure 3). There are also clear concentrations of ZHC workers by occupation; almost 60% of ZHC workers are found in just two occupational classes (elementary occupations, and care and leisure occupations). But also note we see plenty of ZHCs in ‘higher-level’ occupations too; in 2016Q2 the LFS suggests around 140,000 ZHC workers were in the top 3 occupational categories, who we might describe as ‘knowledge workers’.

**Figure 3: Per cent of those in employment who are on a ZHC, by age, UK, 2016Q2**
Knowledge Exchange Seminar Series 2016-17

Source: ONS (QLFS)

**Figure 4: In employment on a ZHC, by industry, UK, 2016Q2 (thousands)**

LFS data for the UK 2016Q2, as reported by the ONS, also show clear concentrations of ZHCs in particular industries, with almost half of all ZHC workers found in just two sectors (accommodation and food, health and social work) (see Figure 4). As for overall LFS figures on ZHC prevalence these are likely to be under-estimates. In terms of proportion of workers in each industry that are ZHC workers, the highest proportions are in accommodation and food (13% of all in employment) and health and social work (4.5%). Concentrations in some finer industrial groups are higher. For example, Bessa et al. (2013) suggest that over half (56%) of domiciliary care workers in England (a subset of SIC88) were employed on ZHCs in 2011-12.

**ZHC Prevalence in Northern Ireland**

What do we know about ZHC prevalence in NI? It turns out not much, at least not much with any reasonable degree of certainty. The ONS has been providing LFS estimates of the number of ZHCs in each UK region for a couple of years now, but because of sample size at the regional level these estimates come with a large degree of uncertainty, particularly for smaller regions. In the case of NI no estimate was returned at all in 2015 because of concerns over disclosure given the small numbers of people reporting themselves as being on ZHCs in the region. When the Department for Employment and Learning looked into ZHCs in 2013/14, they did so without an estimate of how many people were working under ZHCs beyond a simple extrapolation of the UK prevalence rate to the population of NI, which suggested 28,000-35,000
people working on ZHCs at the time. There was something of a breakthrough in October 2016, however, when for the first time the ONS presented an LFS estimate of the number of ZHC workers in NI (see Table 1). Given the small sample size, however, this estimate comes with a big health warning in terms of its margin for error, and in isolation we cannot draw any firm conclusions from it.

### Table 1: ZHC Prevalence by UK region, 2016Q2

<table>
<thead>
<tr>
<th>Region</th>
<th>In employment on a zero hours contract (thousands)</th>
<th>Per cent of people in employment who are on a zero hours contract</th>
<th>Statistical Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>903</td>
<td>2.9</td>
<td>*</td>
</tr>
<tr>
<td>England</td>
<td>768</td>
<td>2.9</td>
<td>*</td>
</tr>
<tr>
<td>North East</td>
<td>34</td>
<td>2.8</td>
<td>****</td>
</tr>
<tr>
<td>North West</td>
<td>102</td>
<td>3.0</td>
<td>***</td>
</tr>
<tr>
<td>Yorkshire and The Humber</td>
<td>87</td>
<td>3.4</td>
<td>***</td>
</tr>
<tr>
<td>East Midlands</td>
<td>83</td>
<td>3.6</td>
<td>***</td>
</tr>
<tr>
<td>West Midlands</td>
<td>79</td>
<td>3.0</td>
<td>***</td>
</tr>
<tr>
<td>East of England</td>
<td>72</td>
<td>2.3</td>
<td>***</td>
</tr>
<tr>
<td>London</td>
<td>95</td>
<td>2.1</td>
<td>***</td>
</tr>
<tr>
<td>South East</td>
<td>127</td>
<td>2.8</td>
<td>***</td>
</tr>
<tr>
<td>South West</td>
<td>90</td>
<td>3.3</td>
<td>***</td>
</tr>
<tr>
<td>Wales</td>
<td>42</td>
<td>2.9</td>
<td>***</td>
</tr>
<tr>
<td>Scotland</td>
<td>78</td>
<td>3.0</td>
<td>***</td>
</tr>
<tr>
<td><strong>Northern Ireland</strong></td>
<td><strong>16</strong></td>
<td><strong>1.9</strong></td>
<td>****</td>
</tr>
</tbody>
</table>

Source: ONS (QLFS). Notes: The stars are interpretable as follows: * Estimates are considered precise, ** Estimates are considered reasonably precise, ***Estimates are considered acceptable, ****Estimates are considered too unreliable for practical purposes.

We can also extrapolate from UK LFS estimates, but weighting by industry mix, recognising that ZHC prevalence is very different across industries and that industry mix in NI is different to that in GB. Using ZHC data by (1-digit) industry for the UK from LFS 2016Q2, and using industry mix data for NI (June 2016) from the Quarterly Employment Survey (QES), you get an estimate of 22,500 ZHC workers in NI. Of course this is very back-of-the-envelope, and is itself based on LFS estimates by sector which are likely to be under-estimates and even then come with a large margin for error.

**ZHCs, wages and job satisfaction**

Most people on ZHCs work part-time hours, so earn less than FT workers. But what about hourly wages? A study has recently been conducted by the Resolution Foundation\(^2\) using LFS data to assess the factors that determined real hourly pay over the period from 2011 to 2016. In line with earlier research from the TUC, the study shows that ZHC workers earn 38% less per hour than permanent employees, on average. The real contribution of the Resolution Foundation study, however, is that it uses regression analysis to account for the fact that people on ZHC jobs are different (e.g. younger) than people on other sorts of employment contracts, and that ZHC jobs tend to be concentrated in low-paying sectors like catering and care work. It turns out that four fifths of the 38% wage gap is explained by factors such as age, gender, experience, education, occupation, industry and tenure. That leaves one fifth of the gap – 6.6 per cent,

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or 93p per hour – which is not explained by these factors, which they interpret as the pay penalty for being on a ZHC. For a typical ZHC worker, working 21 hours per week, this wage penalty amounts to £1000 per year.

What does this tell us? One interpretation is that on average ZHC workers like the flexibility – this after all is one reason why workers might take such jobs in the first place – and are willing to accept lower wages in order to get the flexibility over hours. This is possible – consider the fact that many of those in ZHC jobs are in full-time education or may be secondary earners with caring responsibilities. An alternative interpretation, however, is that the flexibility (or uncertainty) over hours is not something ZHC workers are choosing to ‘pay for’ with lower wages, but that ZHC workers have restricted access to other job types, e.g. because of caring/studying responsibilities, because their skills and experience are mostly in a part of the labour market where ZHCs predominate, or because there aren’t enough other jobs available. It could be that some ZHC workers get ‘stuck’ with low-paying and insecure ZHC jobs.

This brings us to the question of whether ZHC jobs are – overall – inferior jobs, and the related question of whether policy makers should be particularly concerned about their apparent growth. If lower wages and higher job insecurity in ZHC jobs are compensated by a desire on the workers’ part for flexibility, say, then the answer to both questions may be ‘no’; workers are trading off security and pay for flexibility and (perhaps) experience. If this is the case we’d expect ZHC workers to be no less satisfied in their jobs than other (similar) workers. But if many workers in ZHC jobs are not there from choice but because they have limited other options, and if they are not happy in such jobs, then the answer to the first and perhaps the second question may be ‘yes’. We need to look beyond anecdotal evidence here.

Researchers across the world have looked at this question in relation to other job types (e.g. temporary jobs in European countries like Spain, casual jobs in Australia, and also to some extent in the UK) by looking at the job satisfaction scores that workers in various surveys give under different types of job contract, and taking a regression-type approach to control for other differences. Such surveys typically ask those in employment to rate their overall job satisfaction on a scale of 0 (very unsatisfied) to 10 (very satisfied). For example a recent Australian study found that men (but not women) in casual jobs – which have similar contractual terms to ZHC jobs, albeit with the big difference that employers are required by law to pay a 20% hourly wage premium to casual workers – were a lot less satisfied with their jobs than men in permanent jobs (see Buddelmeyer et al., 2015). A wider review of the international literature on this suggested a similar penalty, albeit smaller in magnitude (see Wilkin et al., 2013). For the UK, Booth et al. (2002), Bardasi and Francesconi (2004) and Green and Heywood (2011) all use the BHPS to demonstrate that workers in contingent employment, particularly casual and seasonal workers, tend to report lower levels of job satisfaction, although the differences are in some cases small in magnitude. None of these studies identify ZHCs separately.

So what about job satisfaction and ZHCs? Here evidence is very thin, in part because we just don’t have great data to answer the question. A recent report by the CIPD suggested no difference in job satisfaction between ZHC and permanent contract workers, but this conclusion was based on comparing sample proportions in a small-sample survey (the CIPD Employee Outlook survey) using a simple dichotomous measure of job satisfaction, and without conditioning on any other observable factors (see CIPD 2013). Colin Green at the University of Lancaster and I recently ran some preliminary analysis of BHPS data for 1999-2008 which suggests a small job satisfaction penalty for workers in ZHC jobs, but not as large as the job satisfaction penalty for workers in agency jobs, or doing shift work. But these are old data with serious measurement issues; even fewer people identify themselves as ZHC workers in the BHPS than in the LFS. The bottom line is we don’t really know the answer to this question, yet.

Conclusion
These questions about ZHCs matter for employers (who want flexibility to cope with volatile demand for their services) and for workers (who may also want flexibility, but also job security, decent pay, and opportunities for career progression). They also matter for government, including here in NI. In particular consider Outcome 6 (to have more people working in better jobs) of the draft Programme for Government and the proposed “Better Jobs Index”. The number of workers on ZHCs in NI and the nature and impacts of ZHC jobs on workers are likely to have implications for all of the suggested indicators that might make up the proposed Better Jobs Index, although without better information and further research on ZHCs it’s difficult to make more specific predictions. We know enough about ZHCs to know that we don’t yet know enough about ZHCs.

I conclude with three questions, which may help to point to a possible (and plausibly inexpensive) way forward on these issues in NI. First, can we make better use of existing data, e.g. by pooling across several years of the LFS? Second, can we add question(s) about ZHCs and other non-standard job types to existing surveys, such as the QES? Third, can we learn more about the quality of ZHC jobs and their impacts on workers, even if only by viewing relevant UK and international research through a NI ‘lens’, in order to build the evidence base that policy makers here will need? The answer to all three questions is a tentative yes.

Further References