



PARENTAL LEAVE POLICIES:  
DESCRIPTIVE STATISTICS REPORT

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## 1. Introduction

The United Kingdom is currently facing an ageing population problem. This issue has increasingly become a key priority in the policy agenda of many developed countries in recent decades. The replacement level is the overall fertility rate required for a country's population to exactly replace itself from one generation to the next (assuming no migration flows). Thus, a fertility rate below the replacement level will mean that the country's population will shrink and grow older. An ageing population imposes a substantial economic burden on a country, as a smaller working population will not be able to meet the growing demands of an ageing population. This is currently the situation in the UK, which has a fertility rate of 1.6, well below the replacement fertility level of 2.1 (Office of National Statistics, 2021). For countries like the UK, achieving this replacement fertility level is imperative in order to ensure the long-term “natural” replacement of the population. Nevertheless, women are having fewer children. The total fertility rate in OECD countries has declined on average from 2.84 in 1970 to 1.59 in 2020 (OECD, 2020), and in the UK, the total fertility rate has been persistently below the OECD average for more than 45 years, since 1960.

With rising economic activity rates and employment rates for women over the last half century, less women are having children, and of these women, more women have been postponing childbirth to later in life. Increasing female labour force participation has led to a tension between labour market participation and childbearing, particularly in countries like the UK where gendered parenting norms prevail, and women still bear most of the care-giving responsibilities for young children. It is in this context that work-family reconciliation policies, such as parental leave, have become increasingly popular, and have been adopted by governments in numerous developed countries. The United Kingdom is one of many OECD countries that offer government-funded maternity and paternity leave that provides both mothers and fathers with the opportunity to take some time off work after the birth of a child without the risk of job loss.

This report will use data from the UK Household Longitudinal Survey, commonly known as the ‘Understanding Society’ dataset. This is a panel survey of households in the UK that are followed over time in order to gather a wide range of socio-economic information.

The aim of this report is to present broad descriptive statistics on leave-taking related to childbirth within the UK, and more specifically for Northern Ireland (NI) where possible. Data on maternity and paternity leave and a range of personal and household characteristics will be used to help us describe the data on leave-taking, along with other relevant variables. It will therefore be a preliminary analysis that will guide the next stage of the project, which is the econometrics analysis that will investigate the key determinants of parental leave-taking behaviour in the UK.

## **2. Understanding Society Dataset**

For the purpose of this study, we use the Understanding Society, a UK Household Longitudinal Study (UKHLS)<sup>1</sup> that builds on the British Household Panel Survey (BHPS). The UKHLS is a longitudinal study of approximately 40,000 households in the United Kingdom (England, Scotland, Wales, and Northern Ireland), with former participants of the British Household Panel Survey (BHPS) as part of Understanding Society from Wave 2. There are 12 waves available from 2009 to 2021, a wave consisting of a 24-monthly sample with participants interviewed face-to-face at regular 1-year intervals. The UKHLS provides detailed information about individuals' socio-demographic and personal characteristics, educational achievement, employment status, household structure, other objective and subjective measures about health and satisfaction with life, and questions regarding beliefs and values. The UKHLS study asks questions about maternity and paternity leave periods, but not specifically on shared parental leave as implemented by the 2015 SPL policy. From Wave 13 of UKHLS (available from November 2023) more comprehensive parental leave, including information on shared parental leave, will be included.

This study uses 10 consecutive waves of the UKHLS, covering more than a decade (2010 to 2021), to build up a picture of leave-taking related to childbirth in the UK and NI.

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<sup>1</sup> Institute for Social and Economic Research. (2022). Understanding Society: Waves 1-12, 2009-2021 and Harmonised BHPS: Waves 1-18, 1991-2009, User Guide, 14 November 2022, Colchester: University of Essex.

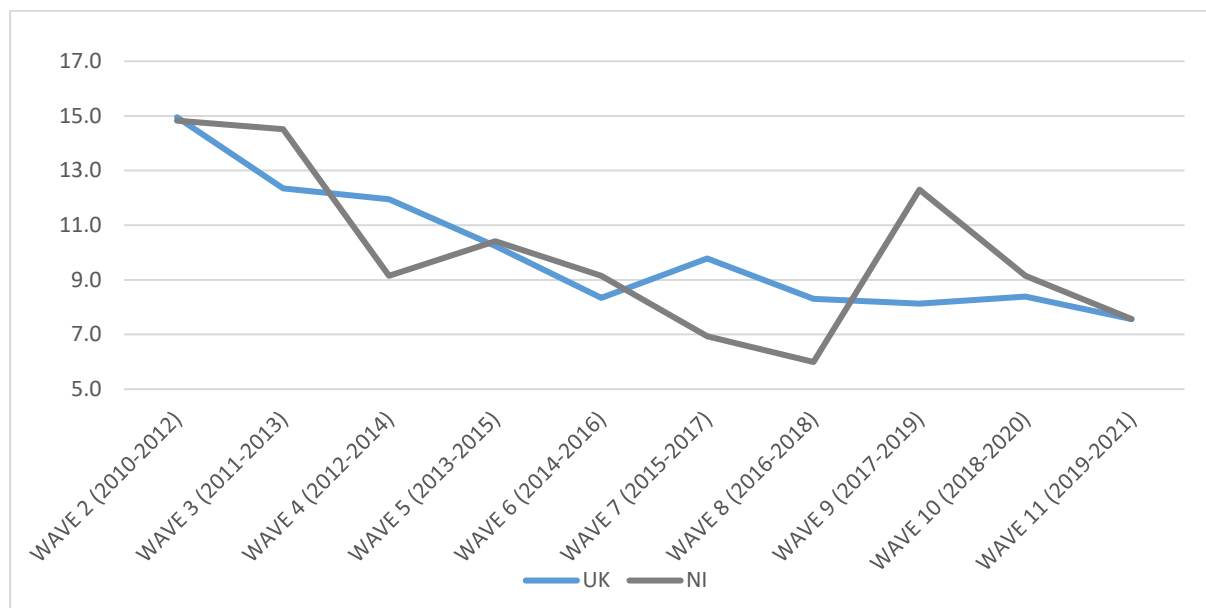
## 2.1 Key variables

Initially, we identify in our cohort, all couples that had children over the 12-year period of the study, then follow these individuals and their approach to maternal and parental leave over the life of the study. The descriptive analysis shows maternity and paternity leave levels by age group, gender, education levels, household size and number of children of school age (4 to 15 years of age), individual income and economic activity. Duration in weeks of maternity and paternity leave is estimated using the reported start and end date for everyone in our cohort that has reported taking maternity or paternity leave at any one point over the life of our study. It ranges from less than a week to more than 52 weeks.

## 3. Maternity/Paternity Leave

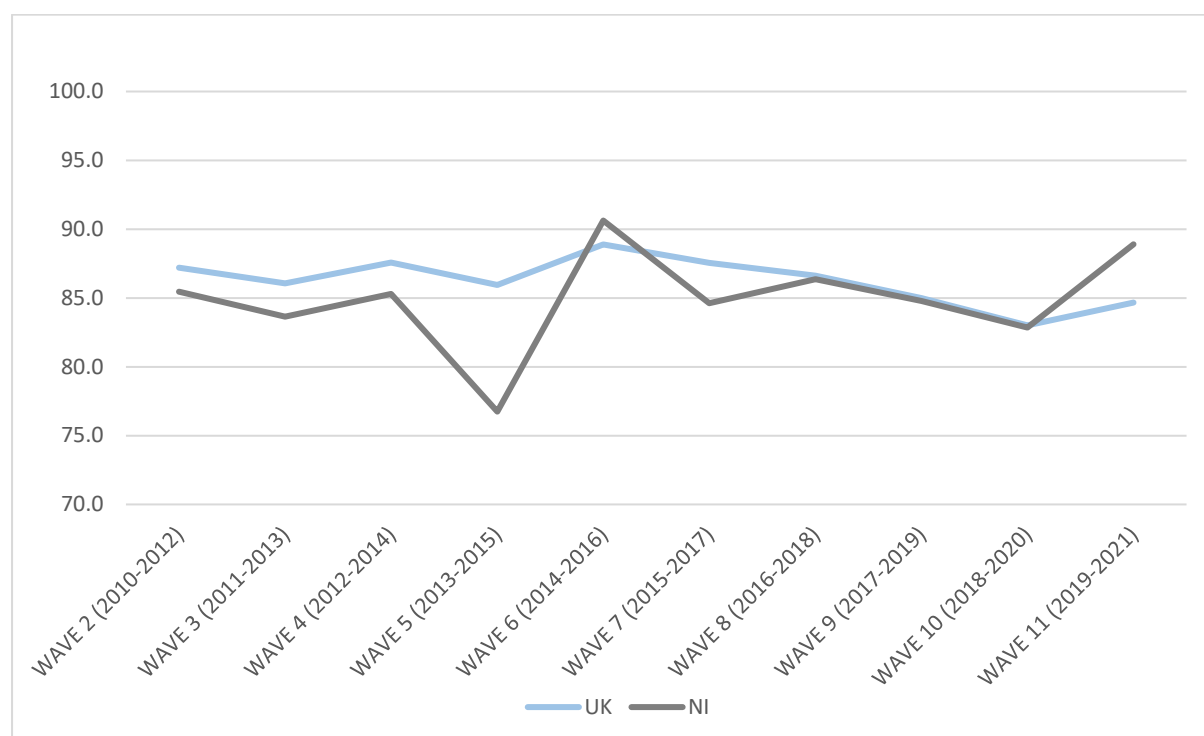
We begin by investigating the trend in leave-taking related to childbearing in the UK and NI. Figure 1 displays the trend in leave-taking over the study period of 2010-12 to 2019-21. The data reveals a downward trend in leave-taking for both NI and the UK. Firstly, for all leave-taking episodes that occurred across the time period in NI, 15% of leave-taking episodes took place in 2010-12 (Wave 2), with this falling to 7.6% by the last wave (2019-21). This is remarkably similar for the UK as a whole, where we observe a steady decline in leave-taking over the last decade.

**Figure 1: Maternity/Paternity leave over time (%): Wave 2 (2010-2012) to Wave 11 (2019-2021)**



Secondly, Figure 2 displays the proportion of women who had a pregnancy during each wave that took maternity leave. In the UK, between 85 - 89% of women who had a pregnancy took maternity leave. Similarly, in NI, the large majority of women who had a pregnancy took maternity leave (between 76% and 91%).

**Figure 2: Maternity leave over time, Women only (%): Wave 2 (2010-2012) to Wave 11 (2019-2021)**



### 3.1 Leave-taking by Age

Focusing on maternity/paternity leave by age reveals the expected distribution across age groups. The most common age range for those taking leave is early to mid-thirties. Less than 5% of leave-takers are in their early to mid-twenties, and less than 2% of leave-takers are in their mid to late-forties (Table 1).

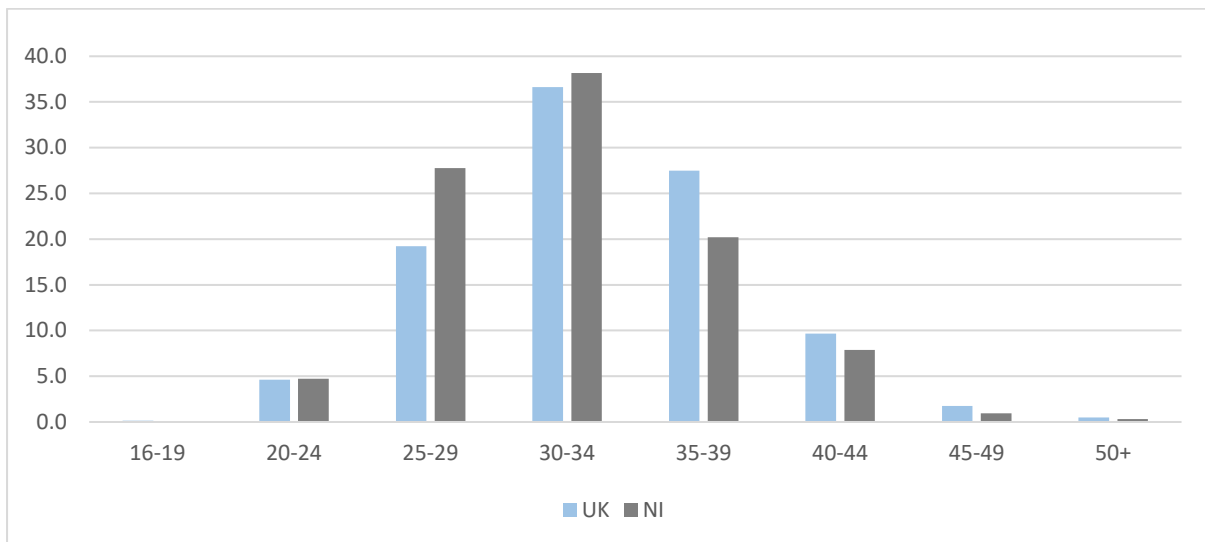
The average age of leave-takers is 33.3 years in the UK, and slightly younger for NI at 32.2 years. The most common age of a mother (at childbirth) has been increasing since the mid-1970s (in comparison to the previous generation, which had an average age at childbirth of 22 years).

**Table 1: Maternity/Paternity Leave by Age Group**

Age (years)	UK (%)	NI (%)
16-19	0.1	0.0
20-24	4.6	4.7
25-29	19.2	27.8
30-34	36.6	38.2
35-39	27.5	20.2
40-44	9.7	7.9
45-49	1.7	0.9
50+	0.5	0.3
Total	100.0	100.0
(No of Obs.)	(4,061)	(317)

The main difference between NI and the UK is the larger proportion of leave-takers in their late twenties and the smaller proportion in the late-thirties age range. This suggests that pregnancy and leave-taking occur earlier for households in NI compared to the UK (Figure 3).

**Figure 3: Maternity/Paternity Leave by Age Groups (%)**

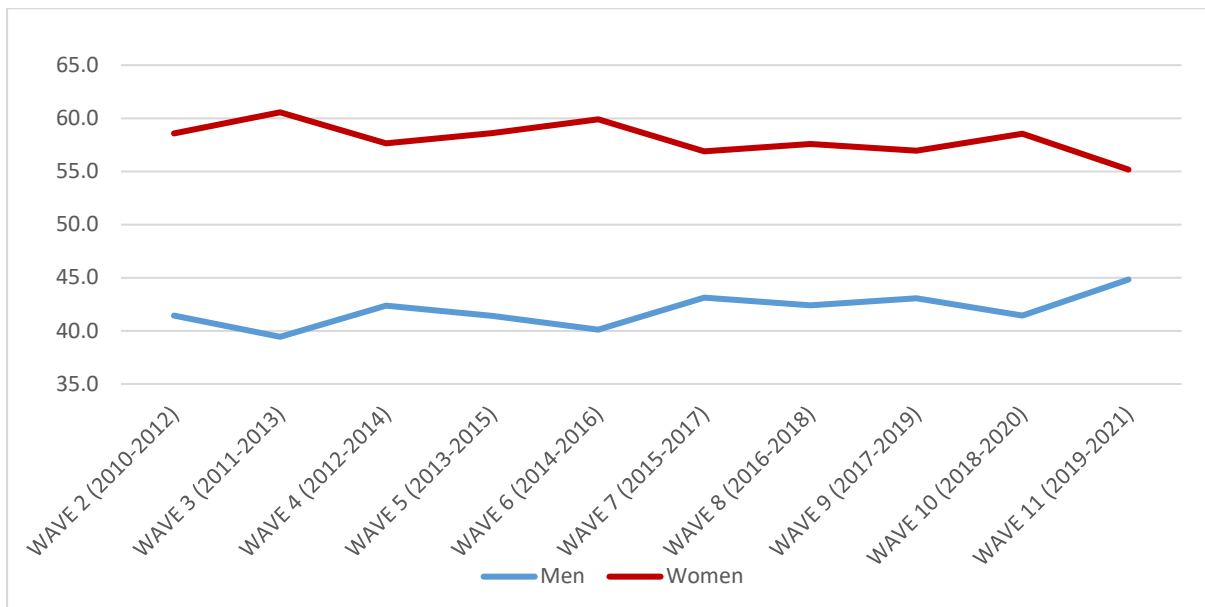


### 3.2 Leave-taking by Gender

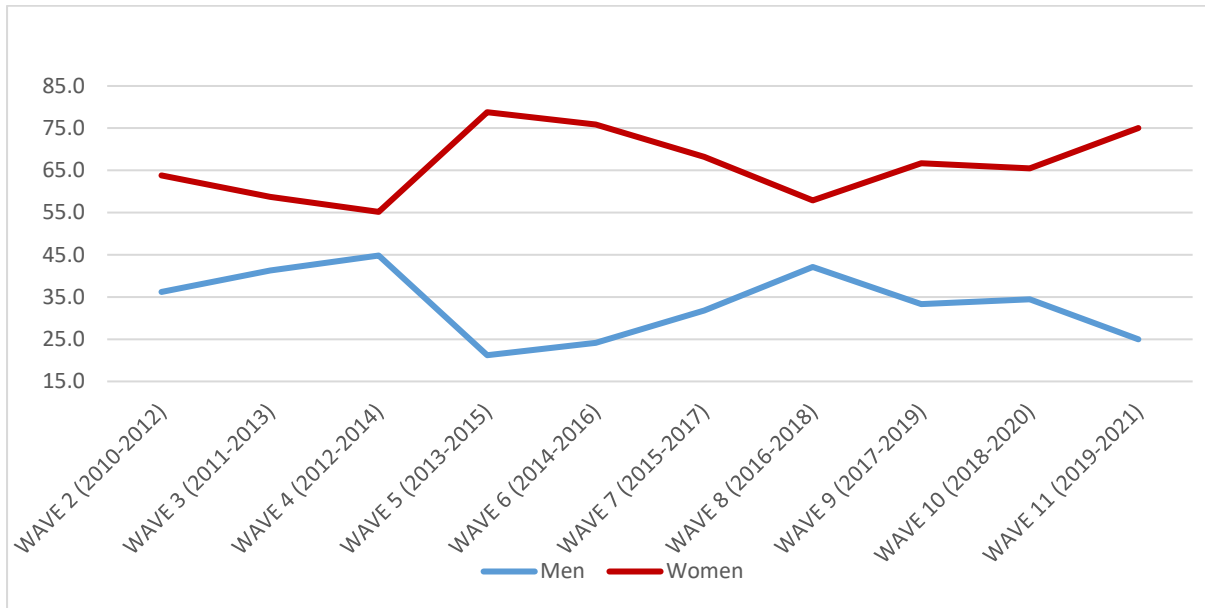
Across the study period of the Understanding Society dataset, the gender distribution of leave-taking has remained very stable for the UK (Figure 4). Between 40-45% of parental leaves have been taken by men with a slight increase in this proportion since 2015, when shared parental leave was introduced. In Wave 6 (2014-16), 40% of leaves were taken by men, and this has grown to 45% by Wave 11 (2019-21). This may be a very tentative indication that more households are taking advantage of the ability to share leave.

In contrast, there is a much lower proportion of leaves taken by men in NI, and there has been greater volatility in this trend (Figure 5). Across the time period, the proportion of male leave-takers in NI ranges from 21% to 45%. It is unclear why the trend is more volatile in NI, but the data does conclusively point to the majority of leave-taking in NI being taken by women, and therefore, there seems to be greater gender inequality in the caring responsibilities for new-born babies in NI relative to the UK.

**Figure 4: Maternity/Paternity leave by Gender in the UK (%): Wave 2 (2010-2012) to Wave 11 (2019-2021)**



**Figure 5: Maternity/Paternity leave by Gender in NI (%): Wave 2 (2010-2012) to Wave 11 (2019-2021)**



### 3.3 Leave-taking by Education

A common finding from the empirical literature on parental leave is the predominance of leave-taking amongst individuals with higher levels of education. This finding is replicated in the Understanding Society data, with a much higher proportion of leave-takers having completed higher level education. Approximately 46% of leave-takers in both NI and the UK have a university degree qualification (Table 2).

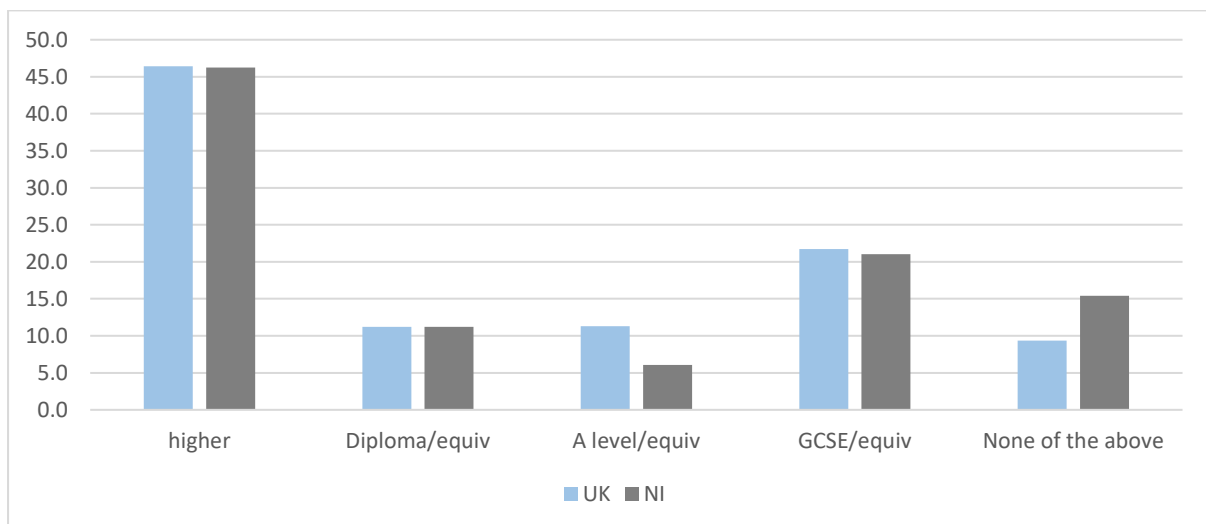
**Table 2: Maternity/Paternity Leave by Education**

Education level	UK (%)	NI (%)
Higher	46.4	46.3
Diploma	11.2	11.2
A level	11.3	6.1
GCSE	21.7	21.0
None of the above	9.3	15.4
Total	100.0	100.0
(No of Obs.)	(3,928)	(214)



However, leave-taking is much lower for those individuals with education qualifications between high school and higher education. Only 11.2% of leave-takers have education equivalent to diploma level. For high school graduates (those achieving ‘A’ level or equivalent qualifications), there is a noticeable difference between NI and the UK: while 11.3% of those taking leave were educated to UK high school level, this is the case in only 6.1% of leave takers in NI. For those leaving school at 16 years (with GCSE level qualifications or equivalent), just 21% of individuals have taken leave. The data seems to suggest that the distribution of leave-taking by educational level is, to a small extent, bimodal with leave-takers more likely to have either university qualifications or lower levels of school education (Figure 6).

**Figure 6: Maternity/Paternity Leave by Education (%)**



### 3.4 Leave-taking by Household Size

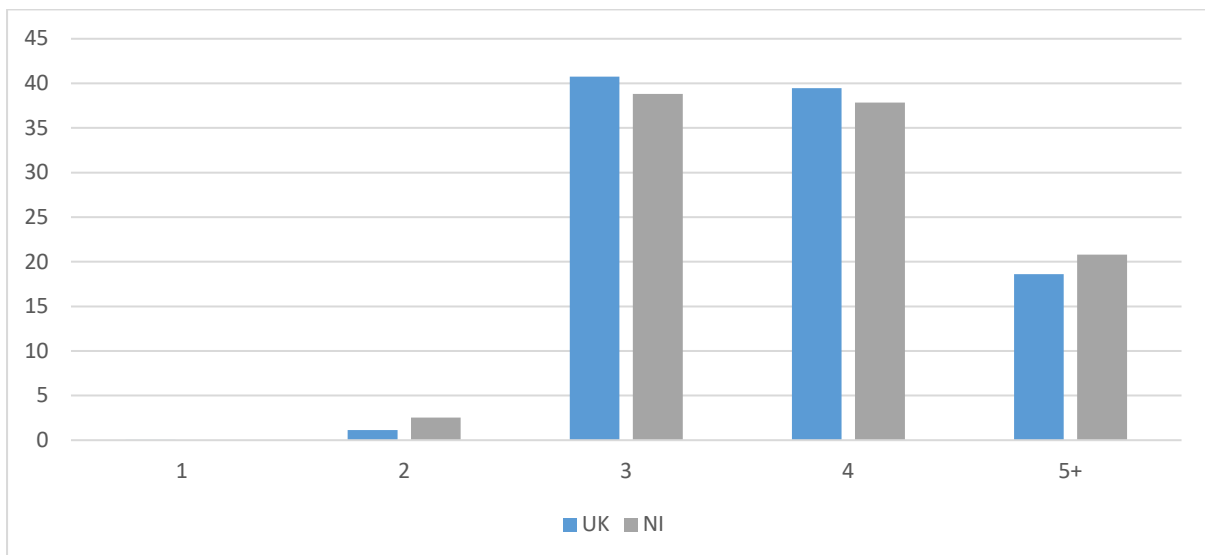
For households where parental leave has taken place, the average household size is 3.8 persons (for both the UK and NI). Less than 5% of households where leave-taking occurred have two persons living in the household (Table 3 and Figure 7). NI has a slightly higher proportion of leave-taking occurring within larger families (with 5 or more persons living in the household). This may be a reflection of the fact that NI has the highest average household size amongst the regions of the UK, at 2.57 persons per household in 2021, compared to 2.36 persons per household in the UK.

**Table 3: Maternity/Paternity Leave by Household size**

Household size	UK (%)	NI (%)
1	0	0
2	1.2	2.5
3	40.8	38.8
4	39.5	37.9
5+	18.6	20.8
Total	100	100
(No of obs.)	(4,601)	(317)

This majority of leave-taking occurring within households with three or four persons is in line with the data on marital status, where leave-taking predominantly occurs within married couples (for both NI and the UK, the large majority of leave-takers are married or equivalent: approximately 86% of leave-takers in the UK are married, and this is slightly lower at 83% for NI).

**Figure 7: Maternity/Paternity Leave by Household Size (%)**



A further aspect of household composition that is relevant for leave-taking is the number of children of school age that are present in the household. The large majority of leave-takers do not have school age children in the household (Table 4). This is in keeping with the average household size of 3.8 persons, and further points to the other children in the

household being below school age (under 4 years). This suggests that the large majority of households are choosing to space their children closer together instead of waiting until the first child is at school. This is in line with current World Health Organization guidelines that recommend an ideal interval of 24 months and no fewer than 18 months between giving birth and becoming pregnant again.

**Table 4: Maternity/Paternity Leave by Number of Children of school age**

<b>Number of children aged 4-15 years</b>	<b>UK (%)</b>	<b>NI (%)</b>
0	80.5	74.4
1	13.9	17.0
2	4.6	7.6
3+	0.1.0	0.9
Total	100	100
(No of obs.)	(4,601)	(317)

### 3.5 Leave-taking by Income

The average gross monthly pay of leave-takers is £2,150 in the UK, whereas for NI it is £1,778. Leave-takers in NI are therefore, on average, lower paid compared to their leave-taking counterparts in the UK. For both NI and the UK, leave-takers, on average, have lower gross monthly pay compared to those who don't take leave, with this difference between leave-takers and non-leave-takers being larger in NI (average gross monthly pay of non-leave-takers in NI is £2,324).

There is also a gender pay gap for leave-takers within the UK, with the average gross monthly pay of female leave-takers equal to £1,570, in contrast to that for male leave-takers of £2,856. The gender pay gap is greater between male and female leave-takers (a gap of £1,286) than it is between male and female non-leave-takers (a gap of £812).

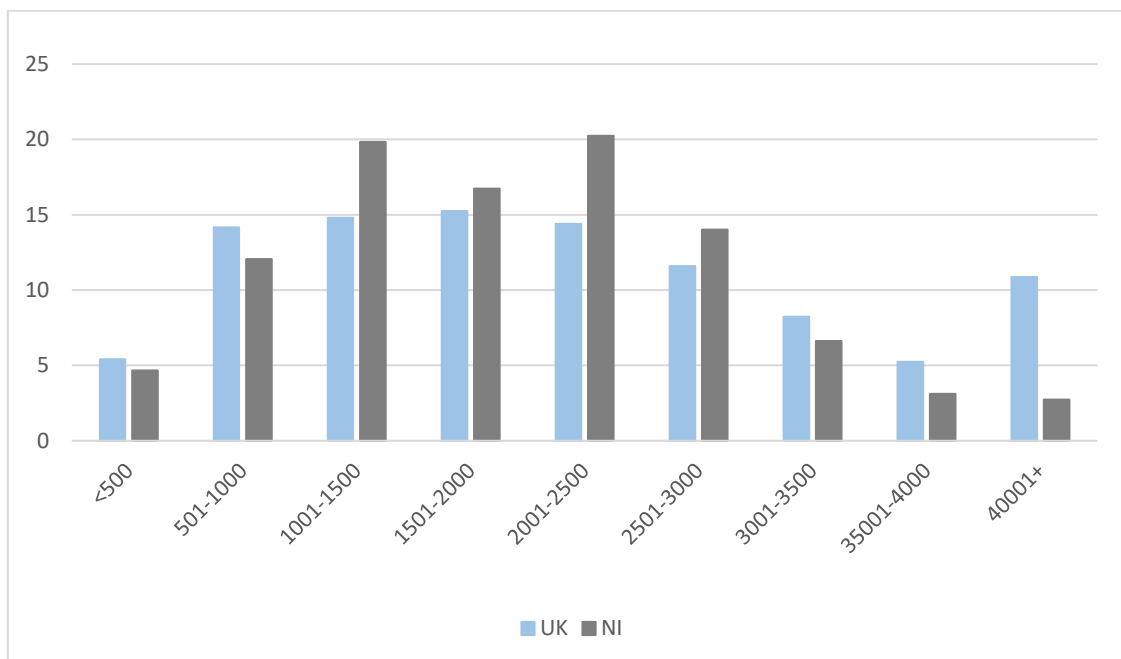
The distribution of parental leave across pay groups (based on gross monthly pay) displays a distribution that is reasonably close to symmetrical. For the UK, the most common pay group for leave-takers is £1,500 – 2,000 per month, and for NI it is slightly higher at £2,001 – 2,500 per month (Table 5 and Figure 8). A further noticeable

difference between NI and the UK is the greater proportion of higher-earning leave-takers in the UK: over 10% of leave-takers in the UK earn more than £4,000 per month, but this is much lower, at 2.7%, in NI. The pay distribution for leave-takers is, therefore, slightly more left-skewed in NI compared to the UK.

**Table 5: Maternity/Paternity Leave by Gross monthly pay (%)**

Leave-taker	UK		NI	
	Yes	No	Yes	No
<500	5.4	10.9	4.7	9.9
501-1000	14.2	30.5	12.1	26.8
1001-1500	14.8	16.1	19.8	26.8
1501-2000	15.3	14.2	16.7	12.7
2001-2500	14.4	9.9	20.2	14.1
2501-3000	11.6	6.6	14.0	5.6
3001-3500	8.2	4.4	6.6	4.2
35001-4000	5.2	2.5	3.1	0.0
40001+	10.9	4.8	2.7	0.0
Total	100.0	100.0	100.0	100.0
(No of obs.)	(3,585)	(956)	(257)	(71)

**Figure 8: Maternity/Paternity Leave by Gross Monthly Pay (%)**



### 3.6 The Duration of Leave-taking

Arguably the most hotly debated issue with regard to parental leave in Europe is the length of parental leave schemes. Leave episodes that are long will result in career interruptions that may penalise women’s entire careers through lower labour market attachment, lower probability of returning to employment, flatter pay profiles, less promotion and career progression, and lower pensions after retirement. The literature on parental leave does not offer any clear guidance on how long parental leave should last, and there is great variability within European countries. In the UK, statutory maternity leave entitles the mother to 26 weeks of Ordinary Maternity Leave and 26 weeks of Additional Maternity Leave, giving a total of 52 weeks of statutory maternity leave. For men, paternity leave currently consists of a choice of either 1 or 2 weeks of paid paternity leave, which must be taken in one go. The UK also introduced shared parental leave in 2015, where parents can share up to 50 weeks of leave and up to 37 weeks of pay between them. The leave and pay must be shared in the first year after the child is born.

**Table 6: Maternity/Paternity Leave by Number of Weeks Taken**

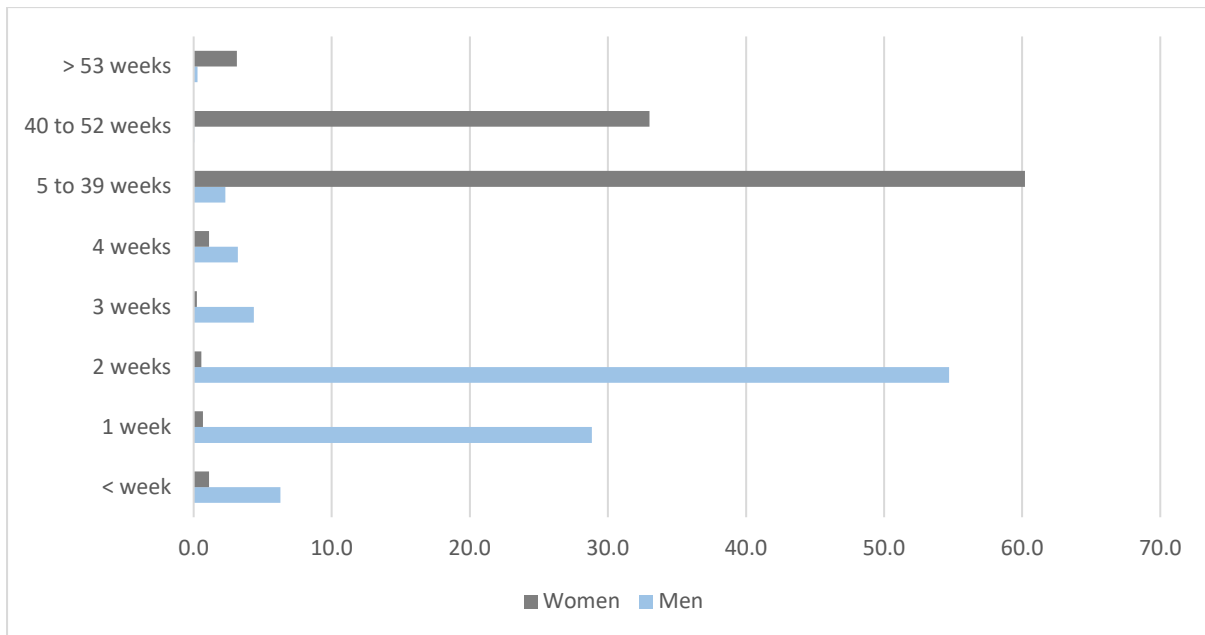
No. of weeks	UK		NI	
	Men (%)	Women (%)	Men (%)	Women (%)
< 1 week	6.3	1.1	16.3	0.0
1 week	28.8	0.7	26.5	0.0
2 weeks	54.7	0.6	46.9	0.0
3 weeks	4.4	0.2	6.1	0.0
4 weeks	3.2	1.1	2.0	3.8
5 to 39 weeks	2.3	60.1	0.0	72.5
40 to 52 weeks	0.1	33.0	2.0	23.8
> 53 weeks	0.2	3.2	0.0	0.0
Total	100.0	100.0	100.0	100.0
	(1,786)	(897)	(104)	(80)

Note: The sample for women is smaller as 38% (UK) and 33% (NI) that had had a pregnancy do not report the period of maternal leave (missing observations).

As expected, there are clear differences between the duration of leave-taking for men and women. For men, the average number of weeks of leave is 2 weeks in the UK and 2.5 weeks in NI. Almost 55% of men in the UK took 2 weeks of leave related to childbirth, with just under 29% taking 1 week of leave (Table 6 and Figure 9). This is slightly lower

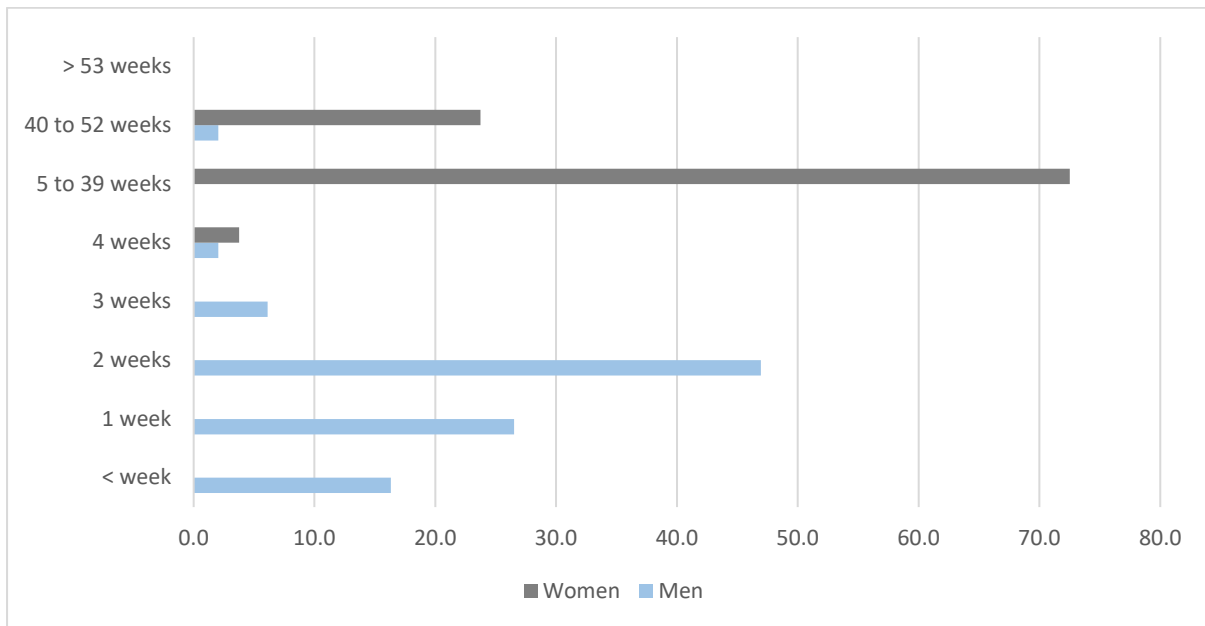
for men in NI, where 47% of men took 2 weeks of leave and 26.5% took 1 week (Figure 10). The main difference between men in NI and the UK is that more men in NI took less than 1 week of leave (16.3% compared to 6.3% for the UK).

**Figure 9: Duration of Maternity/Paternity Leave in weeks, UK**



For women, the average length of leave related to childbirth is 36 weeks in the UK and 32 weeks in NI. Within the first year after birth, the first 26 weeks of maternity leave is called Ordinary Maternity Leave, and the next 26 weeks are called Additional Maternity Leave. Out of these, 39 weeks also called Statutory Maternity Pay (SMP) is paid with the rest of 13 weeks unpaid. For the UK as a whole, 60% of women opted to take Statutory Maternity Leave of between 5 to 39 weeks, whereas a third of women chose to extend their leave-taking to up to 52 weeks (Table 6). This is similar to women in NI, with slightly more Northern Irish women stopping after Statutory Maternity Leave (72.5%) and fewer extending the leave to up to 52 weeks (23.8%).

**Figure 10: Duration of Maternity/Paternity Leave in weeks, NI**

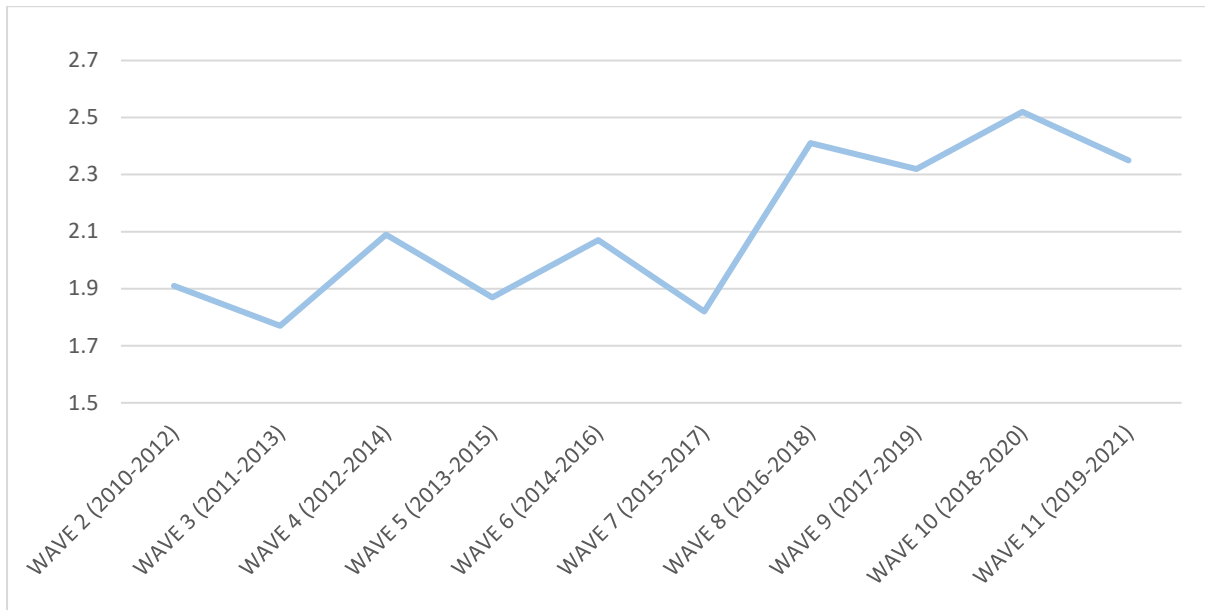


Across the study period, the average number of weeks of leave has fallen from just under 16 weeks to just under 10 weeks (Table 7). Interestingly, since the introduction of shared parental leave in 2015, the data does suggest a slight increase in leave duration for men (Figure 11), but there is still no clear indication that men have increased their leave-taking related to childbirth by more than half a week. Around the time of the introduction of shared parental leave, there was a slight decrease in the duration of leave-taking for women, by approximately 4-5 weeks, but this trend has not continued (Figure 12).

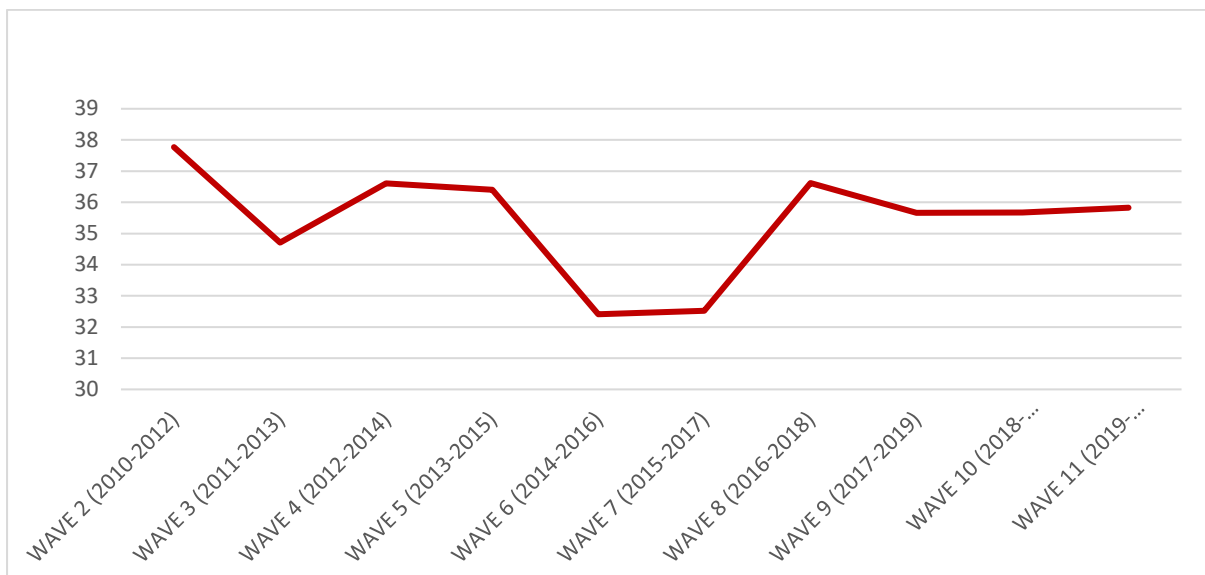
**Table 7: Average duration of leave (%)**

Wave	All	Men	Women
Wave 2 (2010-2012)	15.7	1.9	37.8
Wave 3 (2011-2013)	14.7	1.8	34.7
Wave 4 (2012-2014)	15.5	2.1	36.6
Wave 5 (2013-2015)	13.3	1.8	36.4
Wave 6 (2014-2016)	10.6	2.1	32.4
Wave 7 (2015-2017)	9.0	1.8	32.5
Wave 8 (2016-2018)	11.7	2.4	36.6
Wave 9 (2017-2019)	11.3	2.3	35.7
Wave 10 (2018-2020)	10.6	2.5	35.7
Wave 11 (2019-2021)	9.7	2.4	35.8

**Figure 11: Average Duration of Paternity Leave for Men**



**Figure 12: Average Duration of Maternity Leave for Women**



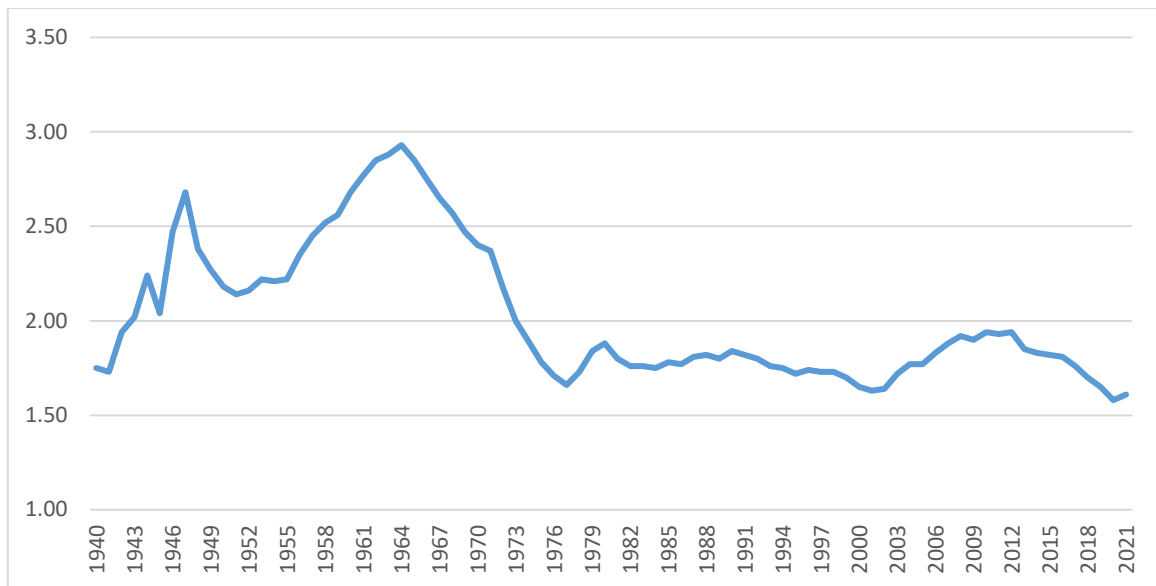
#### **4. Trends in Pregnancy across the UK**

While the primarily focus of this research project is on parental leave, the wider societal and economic context is the dramatic decline in fertility rates that are contributing to an ageing population problem in the UK. Figure 13 clearly demonstrates the dramatic fall in



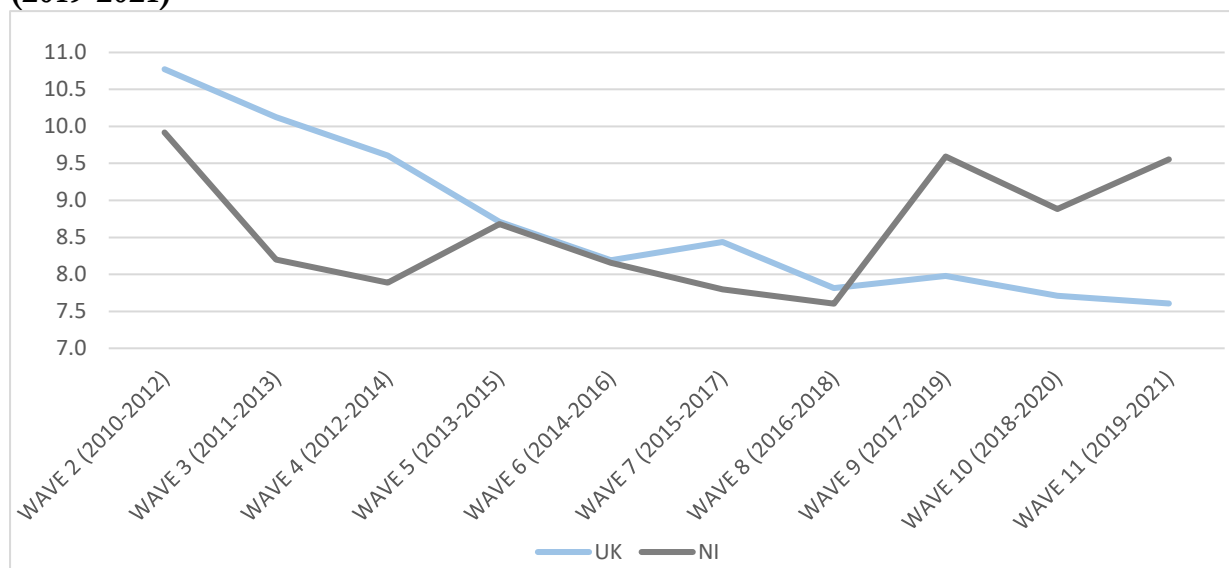
the total fertility rate for the UK that occurred between the late 1960s and mid-1970s. Since then, the fertility rate in the UK has persistently been below the replacement level required for the country to naturally replace its population from one generation to the next.

**Figure 13: Total Fertility Rate in the UK**



The declining trend in fertility in the UK is also evident in the falling trend in pregnancies. This downward trend is evident in Figure 14 using the Understanding Society data, which shows that the prevalence of pregnancy has declined over the study period. At the beginning of the period, 10.8% of women experienced a pregnancy, with this falling to 7.6% by the last wave of data.

**Figure 14: Prevalence in pregnancy over time: Wave 2 (2010-2012) to Wave 11 (2019-2021)**



## 5. Limitations

There are several limitations to this report that arise from the UKHLS dataset. Firstly, in the research project, we stated that we would investigate employment patterns and flexible working hours in the first 5 years after childbirth. However, due to the small numbers in the cohort, this would undermine the representative nature of the dataset at both NI and UK levels.

Secondly, the proposal also included that we would examine changes in employment status from the year before birth to the year after, and then in subsequent years for both parents. However, it is much more useful and appropriate to examine the changes in employment patterns and working hours after childbirth and leave-taking through a series of econometric models, and this will be undertaken in the next stage of the project.

Lastly, a key limitation of the dataset is the small numbers of people who have reported taking leave, especially for NI. This was anticipated from the beginning of the project, and consequently, the econometric analysis in the final stage of the project will be conducted at the UK leave, with separate analysis for NI being unviable.

## 6. Summary

In the context of rising labour market participation of women and falling fertility rates in the UK over recent decades, work-family policies are high on the political agenda. Within the broader framework of these family friendly policies, proponents of parental leave policies argue that parental leave will promote healthier children, improve the position of women in the workplace, help households address the increasing conflict between work and family, and promote within-family gender equality in terms of labour market attachment.

This report has provided a first exploration of the UKHLS data that pertains to leave-taking related to childbirth. The descriptive statistics have been guided by the literature review that was undertaken for Deliverable 1 of the project, and its primary usefulness will be to inform and guide the forthcoming econometric analysis (Deliverable 3). While descriptive analyses are important to better understand the dataset, and to identify interesting associations between leave-taking and relevant personal and household characteristics, it is only a first step in exploring the relationship between parental leave and labour market outcomes (since descriptive statistics cannot, by themselves, reveal any causal relationships between leave-taking and labour market outcomes). This will be the aim of the final part of the project: to undertake more sophisticated regression analysis to help us better understand who is more likely to take parental leave, who is more likely to take longer leave, and how does parental leave impact upon labour market outcomes.

## **Acknowledgments**

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