ECONSTOR
Make Your Publications Visible.

A Service of
ZBW
Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Redmond, Paul; McGuinness, Seamus; Keane, Claire

Working Paper

The Impact of One Parent Family Payment Reforms on the Labour Market Outcomes of Lone Parents

IZA Discussion Papers, No. 13109

Provided in Cooperation with:
IZA – Institute of Labor Economics

Suggested Citation: Redmond, Paul; McGuinness, Seamus; Keane, Claire (2020) : The Impact of One Parent Family Payment Reforms on the Labour Market Outcomes of Lone Parents, IZA Discussion Papers, No. 13109, Institute of Labor Economics (IZA), Bonn

This Version is available at:
https://hdl.handle.net/10419/216421

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

I Z A Institute
of Labor Economics
Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 13109

The Impact of One Parent Family Payment Reforms on the Labour Market Outcomes of Lone Parents

Paul Redmond
Seamus McGuinness
Claire Keane

APRIL 2020

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 13109

The Impact of One Parent Family Payment Reforms on the Labour Market Outcomes of Lone Parents

Paul Redmond
ESRI

Seamus McGuinness
ESRI and IZA

Claire Keane
ESRI

APRIL 2020

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

The Impact of One Parent Family Payment Reforms on the Labour Market Outcomes of Lone Parents

This paper evaluates the impact of a reduction in the child qualifying age criteria for the One Parent Family Payment (OFP) in Ireland. From 2012 to 2015, the child qualifying age for OFP was reduced from 18 years to 7 years. Lone parents who no longer qualified for the payment, based on the age of their child, could avail of Jobseekers Transitional Payment (JST), which involves a labour activation component. While OFP recipients are subject to a maximum weekly earnings limit, there is no such limit for JST recipients, meaning that lone parents on JST had some capacity to increase their hours worked and thereby increase their income from employment. We find that these reforms led to an average increase in the hours worked of lone parents of between two and five hours per week. Two and a half years following the reform, lone parents impacted by the policy were 12 percentage points more likely to be working. In addition, we find an increase in household income of between 8 and 12 percent, and an increase of between 20 and 29 percent in earnings from employment. Finally, the policy was associated with a 10 to 13 percentage point reduction in the poverty rate of lone parents.

JEL Classification: H20, H31, J01, J68

Keywords: lone parents, policy reform, employment

Corresponding author:
Seamus McGuinness
Economic and Social Research Institute
Whitaker Square
Sir John Rogerson's Quay
Dublin 2
Ireland

E-mail: seamusmcguinness@esri.ie

1. Introduction

Single parents have been identified as a group that are at high risk of poverty and deprivation across many countries, with the deprivation rates being particularly high in Ireland (Regan et al., 2018; Watson et al., 2018). As such, increasing the labour market participation of single parents has been a major policy objective in a large number of countries. The aim of such policies is to reduce long-term welfare dependency, increase the incomes of lone parent families, and thereby improve the outcomes for parents and children (OECD, 2011; OECD, 2003). Previous research has found that in-work benefits and job search requirements can have significant impacts on the labour market behaviour of lone parents on welfare (see, e.g., Blundell, 2000; Avram et al., 2018).

Prior to 2012, lone parents in Ireland could receive one parent family payment (OFP) up until their youngest child was 18 years of age, or 21 years if in full-time education. The long duration of OFP available to lone parents, along with a lack of activation measures associated with the payment, attracted international criticism for being a contributory factor to the low employment rate among single parents (OECD, 2003). The need for reform was highlighted in a report by the Irish Department of Social and Family Affairs (2006), which was also critical of the duration and passive nature of the payment, noting "long term welfare dependency is not in the best interests of the lone parent, their children or society in general". Pressure for change ultimately culminated in the Troika attaching conditions to Ireland's financial assistance program relating to the reform of OFP (Regan et al., 2018). The reforms involved substantial reductions to the qualifying age for children, which was ultimately reduced to 7 years in 2015. Lone parents whose child was above this age limit had the option of transferring to another payment, called Jobseeker's Transition Payment (JST), which had some activation measures attached. Unlike OFP, lone parents transitioning to JST did not face an earnings limit.[1]

In this paper, we use a difference-in-differences approach to evaluate the impact of the OFP reforms on the labour market outcomes of lone parents in Ireland.[2] We find that the policy reforms led to a substantial increase in the hours worked, gross household income, employment income and probability of working among lone parents. Hours worked increased by between 2 and 5 hours per week, gross household income increased by 8 to 12 percent, earnings from employment increased by 20 to 29 percent and the probability of working increased by 12 percentage points. The reforms were

[1] While there is no explicit earnings limit for JST, the amount payable depends on the parent's earnings, which are assessable as means. Therefore, the JST payment will taper to zero as earnings increase.

[2] While OFP is available to both men and women and men make up 14 per cent of lone parent headed households, they account for less than 1 per cent of OPF recipients (Department of Employment and Social Affairs, 2019). In our analysis, which focuses on one-parent households with younger children, 95 percent of the sample are female.. Therefore, lone mothers are the focus of our analysis.

also associated with a 10 to 13 percentage point reduction in the poverty rates of lone parents impacted by the policy.

A survey of 3,600 lone parents, carried out by Indecon (2017), provided some preliminary evidence on the impacts of the OFP reforms by capturing the views of those affected by the policy change. The Indecon survey responses showed that 51 percent of affected lone parents reported looking for more hours as a result of the policy change. There was also a seven percentage point increase in the number of affected lone parents reporting that they were in employment. Therefore, our results are consistent with the Indecon (2017) survey evidence. We show that the hours, employment and earnings effects are strongly evident in the data, and have persisted for the two and a half year period following the policy change.

2. Previous Literature

Previous evidence has shown that reforms to lone parent policies can generate positive employment effects. However, the nature and type of reforms vary, as do the magnitude of the effects. The closest work to ours is Avram et al. (2018), who study the impact of a staggered roll-out of a UK reform which gradually decreased the age of the youngest child at which single parents lose the right to an unconditional cash benefit. The reform led to a ten percentage point increase in the probability that a welfare-receiving lone parent returned to work. However, it also led to an 18 percentage point increase in the probability of moving on to a health benefit or of transitioning to non-claimant unemployment. While Avram et al. (2018) provide reliable evidence on the effect of these reforms on the extensive margin, their data does not permit a detailed study of the intensive margin.[3] An advantage of our data is that we can look at impacts on hours worked, in addition to the probability of working, earnings and poverty rates.

Gong and Breunig (2014) examine the effect of lone parent family reforms in Australia, which includes a reduction in the child qualifying age for lone parent payment, from 16 to 8 years of age, and the introduction of a tax rebate for child care. Families who did not qualify based on age, could avail of a less generous jobseeker's benefit which included job search requirements. The combined effect of the tax rebate and the reduction in qualifying age was shown to substantially increase the participation rates of female lone parents by up to 12 percentage points. However, as noted by Gong and Breunig

[3] Their measure of employment omits instances where single parents worked fewer than 16 hours per week.

(2014), one qualification to their results relates to the use of childless women as a control group for lone parents.

Other policies that have been found to increase employment and earnings of lone parents include increasing the earnings disregard for single mothers on welfare in the Netherlands (Knoef and van Ours, 2016) and increased work requirements, welfare time limits and greater in-work benefit levels in Norway (Mogstad and Monzato, 2012). However, there is also evidence the Norwegian reforms led to increased poverty for some lone-mothers, especially over the long term (Mogstad and Monzato, 2012; Johnsen and Reiso, 2017). Although not targeted exclusively at lone parents, Fok and McVicar (2013) study reforms to the Australian Parenting Payment, which included a requirement of at least 15 hours of work-related activity from the child's seventh birthday. The results indicate that the reform led to substantial exit rates from welfare: however, the impacts were greater for partnered parents compared to lone parents.

The remainder of the paper is structured as follows. In Section 2, we describe the policy reform in detail. Section 3 outlines our difference-in-differences methodology and discusses the data used for the analysis, as well as presenting some descriptive statistics. In Section 4 we show our results and Section 5 concludes.

3. The Policy Reform

In 2011, the Irish government announced that the upper age limit of the youngest child for claimants of OFP was to be reduced from 18 years (or 21 years if the child was in full-time education) to 7 years on a phased basis from 2012 to 2015. The changes to the upper age limit from 2012 to 2015 are shown in Table 1. The initial changes were relatively modest, with the upper age limit reducing to 17 years in 2013 and 16 years in 2014. In these years, the age limit also depended on when the payment commenced. For example, in 2014, the upper age limit was 16 years, provided the OFP claim commenced before 27 April 2011. However, for newer claimants, the upper age limit was 10 years or 7 years. However, OFP claims are typically of a longer duration and therefore, relatively few recipients are likely to be new claimants affected by these lower age limits. The largest change took place in 2015, with the age limit decreasing from 16 years to 7 years. The impact of this change is evident from the claimant statistics published the Department of Employment Affairs and Social Protection (2016), which shows that from 2014 to 2016, the number of OFP claimants decreased by 42 percent, compared to just 18 percent from 2012 to 2014.

Table 1: Maximum Age of Child to Qualify for OFP

	Terminal Payment Age			
OFP payment commencement	2012	July 2013	July 2014	July 2015
Before 27 April 2011	18	17	16	7
Between 27 April 2011 and 3 May 2012	14	12	10	7
After 3 May 2012	12	10	7	7

Source: Joint Committee on Social Protection (2017).

In June 2013, a jobseeker's transitional payment (JST) was introduced for lone parents who do not meet the qualifying age criteria for OFP, and whose youngest child is between 7 and 13 years (inclusive). The aim of the JST payment is to support lone parents who do not qualify for OFP into the workforce. Each recipient of JST will receive a one-to-one meeting with a case officer to assist them in producing a personal development plan to guide them towards employment or education.[4] JST recipients are obliged to participate in any recommended course of education, training or employment programme. Failure to participate in activation measures may result in penalty rates being applied.[5] Unlike other jobseeker's who avail of welfare payments, recipients of JST do not have to be available for and genuinely seeking work, in recognition of caring responsibilities for young children. In addition, the JST recipient does not have to be fully unemployed for 4 out of 7 days.

Unlike OFP, which imposes an earnings limit of €425 per week on lone parents, there is no expressly stated earnings limit for lone parents on JST. The JST recipients can work any number of hours or days. However, recipients of JST are subject to a means test, as are recipients of OFP, so while the JST recipients face no expressly stated earnings limit, their JST will taper towards zero as their earnings increase. Therefore, a lone parent on OFP who is at the earnings limit of €425 and subsequently transfers to JST may increase their hours worked to earn more than €425. However, because of the means test, the marginal gains to increasing their hours is limited.[6]

An illustrative example, shown in Table 2, is useful to highlight the potential implications for single parents transitioning from OFP to JST. Column (1) of Table 2 shows a single parent on OFP who earns the maximum allowable earnings (of €425 per week) in 2017. The €110 earnings disregard means that

[4] Details of the provision of one-to-one meetings were detailed in a response to a parliamentary question by the form Minister for Social Protection in 2016. Details can be found here, https://www.oireachtas.ie/en/debates/question/2016-04-26/79/#pq-answers-79

[5] The most recent data indicates that 240 penalty rates were applied to JST claims in 2016. https://www.oireachtas.ie/en/debates/question/2017-01-24/294/.

[6] The earnings disregard for JST and OFP were harmonised in 2016. Both payments assess means at 50 percent.

€315 is assessed as means.[7] This is assessed at fifty percent, giving €157.50. The corresponding OFP payment, taking account of means is €43.[8] Therefore, the total income possible for lone parents on OFP was €468, which includes the €425 earnings from employment and the €43 OFP payment. If the lone parent transitions to JST, there is no earnings limit. In column (2) we show an example of a lone parent on JST who earns €50 more per week from employment (€475). Total income increases from €468 to €485.50 per week. While earnings from employment increased by €50, the marginal gain on total income was €17.50 per week, or approximately €75 extra per month. This is because each additional euro earned is assessed as means, which reduces the amount of benefit payable. Therefore, while there is no earnings limit expressly stated for JST, the amount payable will gradually approach zero as earnings increase.[9]

Table 2: Illustrative Example of OFP and JST

	OFP (€)	JST (€)
Earnings	425	475
Earnings disregard	110	110
Assessable earnings (at 50%)	315	365
Means	157.5	182.5
OFP/JST	43	10.5
Total Weekly Income	468	485.5

One potential barrier to employment for lone parents is the cost of childcare. Childcare costs may be of particular importance to lone parents as they are the sole carer and sole (potential) worker in the household, with childcare costs having to be paid from one income rather than two as is the case in two-parent households. There are childcare supports available to lone parents who find work. There are currently four schemes in place, but all four are currently being replaced by a streamlined subsidy known as the National Childcare Scheme (NCS).[10] This offers a non-means tested partial subsidy for children under the age of three and a means tested subsidy for children in the 3-15 age group.

[7] The earnings disregard subsequently increased to €150 in 2018. However, 2017 is our latest year of available data.

[8] OFP disregards mean below €7.60, which means that for a given level of earnings, the OFP will be slightly higher than the JST. For example, if a JST recipient had assessable earnings of €315 and means of €157.50, they would get €35.50, instead of the €43 for OFP.

[9] Note that in our hypothetical example, we are assuming that earnings from employment are the only income assessable as means. Furthermore, there is a qualified child increase of €29.80 in 2017 payable to lone parents that is not reflected in Table 2.

[10] Specifically the after-school childcare scheme (ASCC) provides subsidised after-school childcare to low-income individuals with children aged 4-13 years who find employment, or who increase the number of hours worked in their current employment. The Community Employment Childcare (CEC) programme provides childcare to the long-term unemployed who return to work via Community Employment schemes. The Childcare Education and Training Support (CETS) scheme provides childcare for those on vocational training courses and the Community Childcare Subvention (CCS) programme provides childcare to parents on low incomes.

Universal free pre-school for 15 hours per week is also available in Ireland via the Early Childhood Care and Education (ECCE) scheme. These types of policies are particularly important in light of existing evidence showing that activation can be relatively successful for lone parents with young children, so long as childcare supports are available (Martin, 2015).

.

4. Data and Methodology

The data used in this study comes from the Irish Survey of Income and Living Conditions (SILC). This is a household survey, administered by the Central Statistics Office in Ireland, which provides official statistics relating to income. The income data is drawn from administrative sources. We focus on the 2015 policy change, where the qualifying age went from 16 years to 7 years. There are two reasons for this. Firstly, as we are working with a restricted subgroup of the population, i.e. single parents, we are faced with relatively small sample sizes. Focusing on the 2015 change, which represents the biggest change to the qualifying age, allows us to evaluate the policy using relatively large sample sizes. Secondly, the 2015 qualifying age, of seven years, was the ultimate policy goal and therefore it makes sense to evaluate the ultimate impact of the policy. Moreover, prior to 2015, the OFP and JST earnings disregards were different, with JST having stricter regulations. However, from 2016 onwards, the earnings disregards were harmonised. Therefore, using the 2015 policy change avoids difficulties in disentangling age effects from effects due to differences in the earnings disregard. We utilise data from 2012 to 2017, which allows us to examine outcomes in a two and a half year period following the policy change. In doing so, we can evaluate whether the effects associated with this policy change were quick to emerge, and whether they persisted over time. We also have data for a three and a half year period before the policy change, which is useful for testing the validity of our estimator.

We estimate the impact of the policy using a difference-in-differences (DiD) approach. This involves identifying a control group, consisting of individuals who could qualify for OFP in all periods, both before and after the 2015 reform. We also identify a treatment group, consisting of lone parents who, based on the age of their youngest child, could qualify for OFP before the policy change, but not after. The difference in outcomes, pre- and post-policy change, among the control group is then subtracted from the difference in outcomes among the treatment group. If we observe a difference in the treatment group and a similar difference in the control group, then we cannot say the policy had a causal impact on outcomes. However, if we observe a difference in the treatment group, and no difference in the control group, this points towards a causal impact of the policy.

To identify treatment and control groups, we refer back to Table 1, which details the policy changes. The control group is relatively straightforward to identify; we include lone parents whose youngest child is aged under seven years. Therefore, our control group consists of lone parents who, based on the age of their youngest child, could qualify for OFP in all time periods (2012-2017), both before and after the policy change. We define two treatment groups. The first consists of lone parents with children aged 7-16 years. Based on the maximum qualifying ages shown in Table 1, this group could qualify for OFP in all years before the 2015 policy change, but not after. This group has the benefit of including a wide age range, and therefore generating a large sample size for the treatment group. However, a limitation relates to the fact that some lone parents in this treatment group may not actually meet the qualifying age criteria in the pre-treatment years. For example, consider a lone parent whose youngest child is 15 years old in 2014. Provided they commenced OFP before 27 April 2011, they meet the maximum qualifying age of 16 years and can qualify for OFP. However, if they started OFP after this time point, the qualifying age is lower and therefore they are not eligible for OFP, and as such should not be in the treatment group. To limit the possibility of this affecting our estimator, we define an alternative, more restrictive, treatment group. This consists of lone parents with children aged 7-9 years. We can guarantee that, based on the age of the youngest child, this group could qualify for OFP in 2012 and 2013. Moreover, it is highly probable that a lone parent in this group also qualified for OFP in 2014. In order not to qualify in 2014, payment would have had to commence after May 2012.

Throughout the paper, we will refer to the 7-9 years treatment group as TG1 and the 7-16 years group as TG2. In choosing a treatment group, TG1 appears to be the most appropriate option. In addition to the reasons discussed above, in terms of ensuring that we capture the relevant treatment group, the age of the children in the TG1 group are closer to the control group. In using TG1, we are comparing parents with children under 7 to parents with children between 7 and 9 years. This may be more appropriate than comparing under 7's to children aged 7 to 16 who are likely to have less intensive care requirements. While we typically focus on results using the TG1 treatment group, we estimate our models on both treatment groups (TG1 and TG2) and present both sets of results throughout the paper.

We implement our DiD estimator using the following regression,

$$Y_{it} = \beta_1 + \sum_{\tau=t2}^{T} \delta_\tau I_t^\tau + \beta_2 D_i + \beta_3 Post_t \text{ x } D_i + X_{it}' \beta_4 + \varepsilon_{it} \qquad (1)$$

where Y_{it} is the outcome variable for person i in time t. Our outcome variables include usual hours worked, the probability of working, earnings from employment, gross household income and being at risk of poverty. I_t^τ is a dummy variable for period τ and D_i is our treatment dummy variable which equals one for individuals in the treatment group (TG1 or TG2) and zero otherwise. $Post_t$ x D_i is the interaction of a dummy variable which equals one in the period after the policy change and zero before, $Post_t$, with the treatment dummy D_i. The coefficient on this interaction term, β_3, is the DiD estimate. We also include X'_{it}, which is a vector of the following additional covariates relating to the characteristics of the lone parent: educational attainment, age, number of children and nationality (Irish or non-Irish).

The validity of the DiD estimator is based on the assumption that the control group provides a valid counterfactual for the outcomes of the treated group in the absence of a policy change. Intuitively, this means that if no policy change occurred, the average change in the outcomes of the treated group should be similar to the average change in the outcomes of the control group. While the change in outcomes of the treated group in the absence of treatment are unobservable, we can test the validity of the estimator in two ways. Firstly, we graphically show the average outcome variables for both the treated and control groups over time, including several pre-treatment years. If both series behave in a similar way in the pre-treatment years, i.e. show parallel trends, but diverge following the policy change, then we can be reasonably confident we are observing causal effects relating to the policy. On the other hand, if both series were diverging pre-policy, and continued to diverge in the same way post-policy, then we cannot attribute this to a causal effect relating to the policy change. Secondly, we implement placebo analysis by estimating our DiD models on a time period where no policy change occurred. We designate 2014 as the "false" post-policy period and estimate the DiD models. If we detect a significant effect in the treatment year, but also detect an effect in the placebo year, then this calls into question the reliability of our results and in our ability to infer causality relating to the policy change.

4.1. Descriptive Statistics

In Table 3 below, we show summary statistics for lone parents in the treated (TG1) and control groups across all years. The average age of lone parents in the treatment group is five years older than the control group. This corresponds exactly with the difference between the midpoints of the age groups of children in the treated (8 years) and the control (3 years) groups. The average number of children

in both groups is two. The treatment group have slightly higher educational attainment, hours worked, income and probability of working.[11] Note that some of these are outcome variables that could themselves be affected by the policy change. In Table 4, we report the average hours worked, equivalised household income and probability of working for the treated and control groups in the pre- and post-policy change time periods. These preliminary descriptive statistics provide initial evidence of a policy impact. We see substantial increases in hours worked, the probability of working and household income for the treatment group after the policy change. However, the outcomes for the control group were relatively stable pre- and post-policy change. At its simplest, the difference-in-differences estimator is based on four means: pre- and post-policy mean outcomes for the control group and pre- and post-policy outcomes for the treatment group. Therefore, the descriptive statistics in Table 4 are informative as they directly correspond to the basic DiD estimator.

Table 3: Average Characteristics of Treatment and Control Group (2012 to 2017)

	Treatment Group (TG1)	Control Group
Age	37	32
Number of children	2	2
Tertiary Education (%)	35%	31%
Usual hours worked	12	11
Equivalised household income	€15,522	€15,201
Probability of working	46%	41%
Observations	447	965

Table 4: Average Characteristics of Treatment and Control Group Before and After the Policy Change

	Pre-policy change	Post-policy change
Hours Worked		
Treatment group	9	15
Control group	10	11
Probability of Working		
Treatment group	40%	58%
Control group	40%	44%
Equivalised Household Income		
Treatment group	€14,450	€17,576
Control group	€14,914	€15,578

[11] The statistic for hours worked includes lone parents who do not work as zeros.

5. Results

5.1 Hours Worked

We begin by looking at the effect of the 2015 reduction in the OFP qualifying age on the hours worked of lone parents. In this specification, we categorize lone parents who do not work as having zero hours. Figure 1 shows the average hours worked for both the control and treatment groups over time, using the TG1 (7-9 years) treatment group. A vertical line has been inserted to indicate when the policy change occurred (in 2015). This graph is supportive of a causal impact associated with the policy change. In the years before the policy change, the average hours worked of both groups were similar, and trending in the same direction. However, immediately after the policy change, a wide gap opened up, with the hours worked of the treatment group increasing far beyond that of the control group. Figure 1 indicates that the policy change led to an average increase in the usual hours worked of lone parents in the order of approximately four to five hours per week.

We estimate the corresponding DiD model (equation 1) for this hours specification and show the results in Table 5. Columns (1) and (2) show the results from the DiD specification for the TG1 group with and without additional covariates. Even after including the additional covariates, the results indicate that the hours worked of lone parents increased by approximately four hours per week following the policy change. We also implement our estimator using the alternative treatment group which includes the 7 to 16 years age range (TG2) and show our results in columns (3) and (4) of Table 5. The estimated impact, while still statistically significant, is lower than the TG2 group at just over two hours per week.

Figure 1 indicates parallel trends between the treated and control groups and thereby provides support for the validity of our estimator. From 2012 to 2014, the lines are almost identical. From 2014 to 2015, both groups trend upwards, however, the upward trend in the control group is slightly higher, such that a small gap appears in 2015. However this gap not statistically significant. As an additional validity test, we implement placebo analysis by designating 2014 as a "false" treatment year and implementing our difference-in-differences estimator.[12] The results are shown in column (5) of Table 5. The DiD estimate from the placebo analysis is not statistically significant, further reinforcing the validity of the estimator.

[12] In our placebo specification, we have two pre-treatment years (2012 and 2013) and one post treatment year (2014). We implement the placebo analysis using our baseline, TG1, treatment group.

Figure 1: Usual Hours Worked of Lone Parents

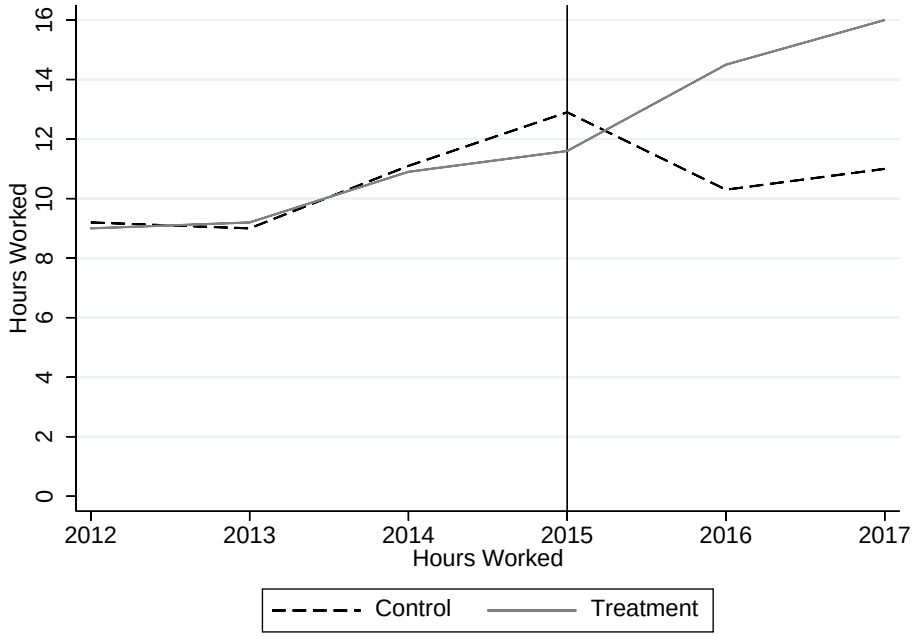


Table 5: Hours Worked of Lone Parents (DiD Estimates)

	TG1 (7-9 years)		TG2 (7-16 years)		Placebo
VARIABLES	(1)	(2)	(3)	(4)	(5)
D-i-D	4.861***	4.078**	2.325*	2.290**	-0.553
	(1.720)	(1.611)	(1.217)	(1.163)	(2.274)
D	-0.699	-2.525**	2.453***	0.036	-2.036
	(1.038)	(1.037)	(0.766)	(0.851)	(1.350)
Med education		2.864***		2.661***	1.379
		(0.859)		(0.720)	(1.159)
High education		9.212***		9.896***	7.528***
		(1.051)		(0.840)	(1.461)
Age		0.378***		0.238***	0.403***
		(0.058)		(0.046)	(0.077)
Number of children		-2.862***		-2.438***	-3.008***
		(0.352)		(0.290)	(0.505)
Irish		2.257**		1.061	1.095
		(1.123)		(0.959)	(1.590)
Year fixed effects	yes	Yes	Yes	Yes	Yes
Regional fixed effects	yes	Yes	Yes	Yes	Yes
Constant	11.299***	-3.533	11.912	1.445	-3.687
	(1.200)	(2.872)	(1.060)	(2.319)	(3.667)
Observations	1,348	1,338	2,216	2,205	728
R-squared	0.018	0.151	0.020	0.133	0.144

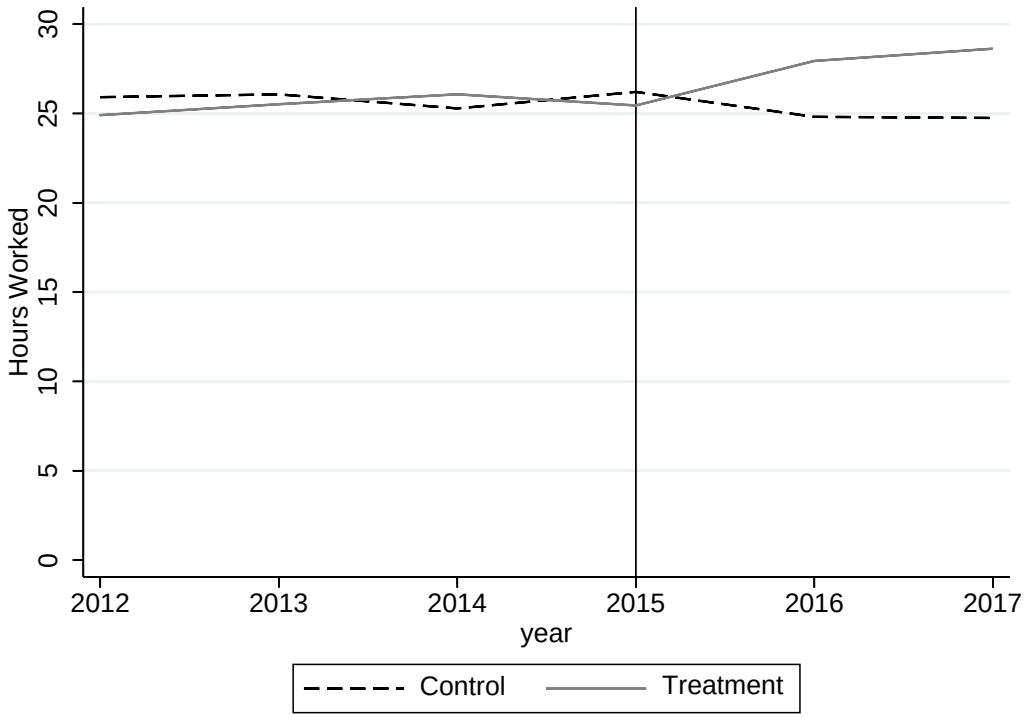
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Next, we look at the effect of the 2015 reduction in the OFP qualifying age on the hours worked of *working* lone parents.[13] Therefore, in this specification, we are conditioning on the hours worked of individuals who work some positive hours, excluding those lone parents who are unemployed or inactive, and hence work zero hours. When conditioning on lone parents who are working, we are dealing with a smaller sample size. As such, for this specification, we plot the yearly averages using the TG2 (7-16 years) group as the treated group. The reason is that there are a higher number of observations in this group, compared to the narrower TG1 (7-9 years) group. This is important when it comes to plotting yearly averages, due to reporting restrictions imposed by the Irish Central Statistics Office (CSO), from whom we access the data. There are restrictions when it comes to reporting averages based on less than 50 observations. When conditioning on *working* lone parents, which are a subgroup of the full sample of lone parents, and using the narrower TG1 (7-9 years) group, some of our yearly samples fall below the permitted criteria. However, note that this only matters for plotting yearly averages and therefore the implications only extend to the figure showing pre and post-treatment outcomes disaggregated by year. While the plot of yearly averages are restricted to the TG2 group, we can still report the results from our difference-in-differences models using both the TG1 and TG2 groups.

Figure 2 shows the hours worked of working lone parents over time using the TG2 treatment group. This graph is supportive of a causal impact associated with the policy change. In the years before the policy change, the average hours worked of both groups were almost identical and remained relatively unchanged. However, immediately after the policy change, a gap opened up, with the hours worked of the treatment group increasing, while the hours worked of the control group remained relatively stable. Figure 1 indicates that the policy change led to an average increase in the usual hours worked of working lone parents in the order of approximately three hours per week, or 12 percent.

[13] The OFP criteria allow for self-employment as well as employment. In our sample, only four percent of lone parents are categorised as self-employed.

Figure 2: Usual Weekly Hours Worked of Working Lone Parents



We estimate equation (1) using hours worked of working lone parents as our dependant variable and show the results in Table 6. The estimates that correspond to Figure 2, i.e., those using the TG2 group, are shown in columns (3) and (4). Consistent with Figure 2, the DiD estimates indicate that there was an increase in the average hours worked of working lone parents of approximately three hours per week following the policy change. When we estimate the model using the narrower (7-9 years) TG1 group, the coefficients are not statistically significant at conventional levels (columns (1) and (2) of Table 6). For example, while column (1) indicates an increase of 2.8 hours per week, the p-value is 0.138. However, it is important to restate that we are dealing with a much reduced sample size when looking at the TG1 group of working lone parents. The small sample size and limited variation in the interaction variable due to the relatively small size of the treated group (the 1's in *D*) compared to the control group (the 0's in *D*), means our standard errors will naturally be larger. This should be taken into account when interpreting the statistical significance of the coefficient in the TG1 model. Finally, we estimate our placebo model and show the results in column (5). These results, along with the graphical results in Figure 2, are consistent with pre-treatment parallel trends, further supporting the validity of the estimator.[14]

[14] We estimate the placebo model in this instance using the TG2 group, for reasons outlined in the text.

Table 6: Weekly Hours Worked of Working Lone Parents (DiD Estimates)

	TG1 (7-9 years)		TG2 (7-16 years)		Placebo
VARIABLES	(1)	(2)	(3)	(4)	(5)
D-i-D	2.833	2.063	3.245**	3.152**	-0.323
	(1.906)	(1.857)	(1.307)	(1.262)	(1.934)
D	-1.856	-2.541*	-0.458	-1.843**	-2.175
	(1.386)	(1.378)	(0.885)	(0.934)	(1.342)
Med education		0.901		-0.366	-0.827
		(1.253)		(0.994)	(1.300)
High education		4.874***		4.986***	5.462***
		(1.319)		(1.013)	(1.379)
Age		0.187***		0.182***	0.303***
		(0.072)		(0.053)	(0.074)
Number of children		-1.776***		-1.396***	-2.163***
		(0.558)		(0.424)	(0.570)
Irish		1.673		-0.875	-2.409
		(1.455)		(1.128)	(1.510)
Year fixed effects		yes	yes	yes	yes
Regional fixed effects		yes	yes	yes	yes
Constant	26.077	17.499***	25.546***	18.373***	16.812***
	(1.906)	(3.284)	(0.971)	(2.465)	(3.458)
Observations	579	575	1,062	1,057	541
R-squared	0.007	0.094	0.011	0.102	0.155

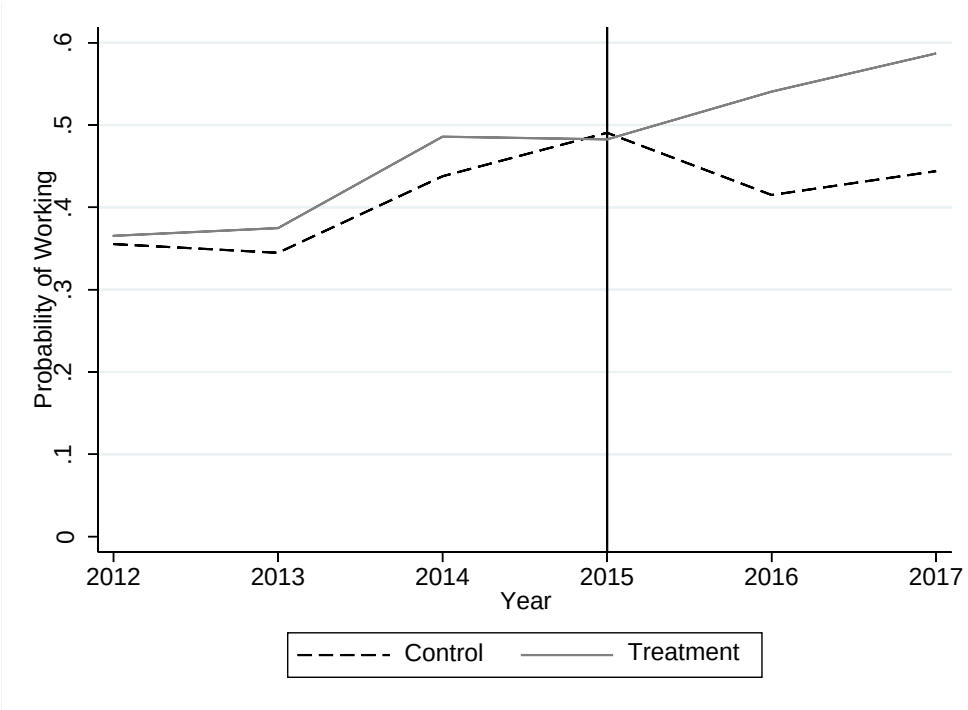
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.2 Probability of Working

We estimate the effect of the policy change on lone parents' probability of working. An individual is categorized as working if their usual weekly hours worked is greater than zero. The average probability of working for both the treatment and control groups across time is shown in Figure 3, and the DiD estimates are shown in Table 7.[15] Figure 3 shows that, following the policy change, there is a substantial increase in the probability of working among the treatment group relative to the control group. The corresponding estimates are shown in columns (1) and (2) of Table 7 and indicate a 12 to 14 percentage point increase in the probability of working among the treatment group relative to the control group, following the policy change.

[15] For the graph (Figure 3), we revert to our baseline TG1 treatment group as, unlike with hours worked of working lone parents, we are not constrained by a reduced sample size in this instance.

Figure 3: Probability of Working



The large positive impact on employment probabilities is notable, particularly given that lone parents are often considered to be further from the labour market compared to claimants in receipt of more standard forms of unemployment assistance. However, previous literature has highlighted significant impacts of activation and in-work benefit reform on the labour market outcomes of lone parents (see, e.g., Blundell, 2000; Avram et al., 2018). This is especially the case when support for childcare is made available (Martin, 2015). Card et al. (2017) provides a comprehensive analysis of 200 studies on active labour market programmes. They find that long-run (over two year) employment effects centre around five and twelve percentage points. Therefore, our finding of a 12 percentage point increase in employment in the two and a half year period following the policy change is at the upper end of these impacts.

However, note that when we implement our DiD estimator using the TG2 group (7-16 years) as the treated group, we do not find a statistically significant effect (columns (3) and (4) of Table 7). Viewing these results in combination with the hours results from Section 5.1, suggests that for the TG2 group, the increase in hours primarily came from an increase in hours worked of lone parents who were already working. However, for the TG1 group, it appears that the increase in hours was driven, at least to some extent, by lone parents transitioning into work from unemployment or inactivity. These results seem plausible given the fact that lone parents of older children will be more likely to work,

due to less intensive care requirements.[16] Therefore, parents with older children in the TG2 group (7-16 years) who are already working may respond by increasing their hours. However, for parents with younger children in the TG1 group (7-9 years), they may be more likely to respond by moving into employment.

Table 7: Probability of Working

	TG1		TG2		Placebo
VARIABLES	(1)	(2)	(3)	(3)	(4)
D-i-D	0.140**	0.120**	0.024	0.022	0.006
	(0.059)	(0.056)	(0.040)	(0.039)	(0.082)
D	0.002	-0.054	0.106***	0.037	-0.029
	(0.036)	(0.036)	(0.026)	(0.029)	(0.048)
Med education		0.113***		0.123***	0.094**
		(0.034)		(0.026)	(0.044)
High education		0.280***		0.285***	0.252***
		(0.038)		(0.028)	(0.052)
Age		0.011***		0.007***	0.010***
		(0.002)		(0.002)	(0.003)
Number of children		-0.090***		-0.074***	-0.086***
		(0.012)		(0.010)	(0.019)
Irish		0.060		0.052*	0.040
		(0.039)		(0.031)	(0.053)
Year fixed effects	yes	yes	yes	yes	yes
Regional fixed effects	yes	yes	yes	yes	yes
Constant	0.445***	0.009	0.462	0.147*	-0.022
	(0.041)	(0.100)	(0.035)	(0.077)	(0.125)
Observations	1,348	1,338	2,221	2,210	728
R-squared	0.020	0.123	0.018	0.098	0.111

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.3 Household Income

We examine annual equivalised household income, which includes all types of income, including social transfers and employee income. Yearly average income for the treatment (TG1) and control groups are shown in Figure 4. Prior to the policy change, average yearly income was similar in both groups. However, following the policy change, there was a pronounced divergence in income, with the income of the treated group increasing relative to the control group. Table 8 shows the estimates from the

[16] This has support in the data. The probability of working among our TG1 group of lone parents across all years was 46 percent, compared to 53 percent among the TG2 group.

DiD model using the log of equivalised household income as the outcome variable.[17] The estimate for the TG1 group is shown in column (1). For brevity, given that we will implement an additional specification using an alternative income measure, we focus on the results from the models that include covariates.[18] The estimates indicate that lone parents in the treatment group experienced an increase in income that was 12 percent higher than the control group following the policy change. The results for the TG2 group, in column (2) are lower at approximately eight percent. The placebo analysis, column (3), along with Figure 4 indicate parallel trends and support the validity of the estimator.

If the policy change results in lone parents taking up employment, or increasing their hours, it is possible that there may be a corresponding increase in childcare costs. This is of particular importance in Ireland. Despite the childcare subsidies discussed in Section 3, the OECD estimates that a lone parent in Ireland with two children on the average wage spends 33 per cent of their net household income on childcare costs, which is three times the OECD average.[19] Focusing on the standard measure of gross household income will not capture this. As such, we create an additional outcome variable that subtracts total childcare costs from equivalised household income. We then estimate our DiD specification using the log of income minus childcare as our outcome variable and show the results in column (4) of Table 8. The estimated impact is 10 percent, which is slightly lower than the estimated impact on our baseline income measure. However, this shows that even after taking account of additional childcare costs, lone parents in the treatment group experienced an increase in income that was significantly greater than the control group following the policy change.

[17] As there are no households with zero income, this model includes all lone parent households.
[18] The models without covariates produce very similar results.
[19] See https://stats.oecd.org/Index.aspx?DataSetCode=NCC

Figure 4: Annual Equivalised Household Income

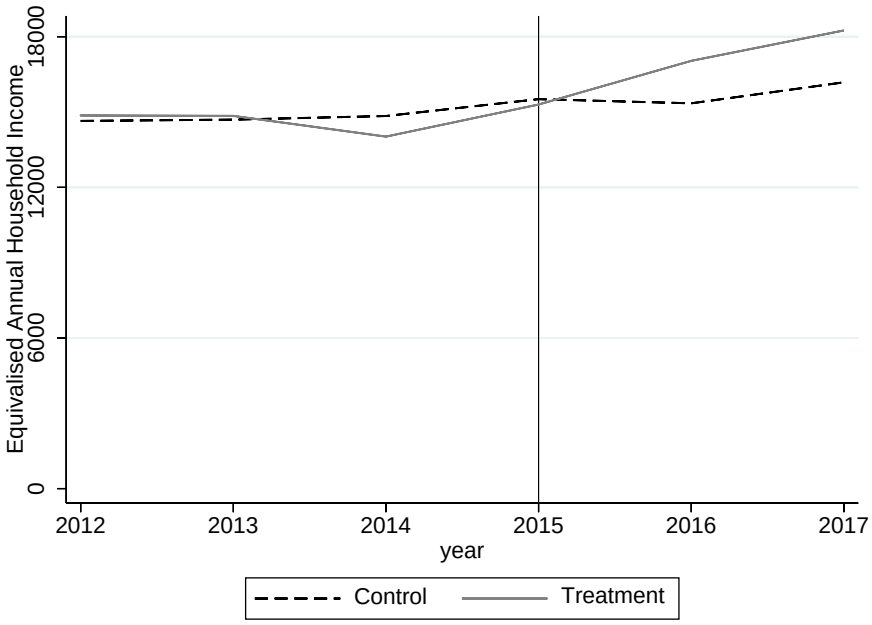


Table 8: Annual Equivalised Household Income

	TG1	TG2	Placebo	Minus Childcare
VARIABLES	(1)	(2)	(3)	(4)
D-i-D	0.115**	0.079**	-0.024	0.101**
	(0.046)	(0.034)	(0.071)	(0.046)
D	-0.087***	-0.095***	-0.071	-0.040
	(0.032)	(0.026)	(0.044)	(0.032)
Med education	0.031	0.048**	0.018	0.026
	(0.027)	(0.022)	(0.036)	(0.027)
High education	0.194***	0.215***	0.198***	0.143***
	(0.034)	(0.028)	(0.049)	(0.035)
Age	0.009***	0.003**	0.007***	0.007***
	(0.002)	(0.002)	(0.002)	(0.002)
Number of children	-0.142***	-0.120***	-0.131***	-0.143***
	(0.011)	(0.010)	(0.018)	(0.012)
Irish	0.169***	0.116***	0.130***	0.185***
	(0.039)	(0.032)	(0.049)	(0.041)
Year fixed effects	yes	yes	yes	yes
Regional fixed effects	yes	yes	yes	yes
Constant	9.284***	9.438***	9.261***	9.271***
	(0.091)	(0.075)	(0.107)	(0.089)
Observations	1,338	2,209	728	1,330
R-squared	0.193	0.128	0.175	0.178

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Related to the measure of household income is the *at risk of poverty* measure. Households are considered to be at risk of poverty if their income is below 60 percent of median income. Previous work has shown that the poverty rate among lone parents in Ireland is among the highest in Europe (Whelan and Maitre, 2010). Therefore, in addition to estimating the impact of the policy change on income, we also implement our DiD model using *at risk of poverty* as the outcome variable. The results are shown in Table 9. For the TG1 group, the policy is associated with a 13 percentage point reduction in the probability of being at risk of poverty relative to the control group. The estimate for the TG1 group is slightly lower at 10 percentage points. We detect no statistically significant effect for the placebo analysis (column (3)). The issue of in-work poverty among lone parents in Ireland has also been raised as an area of concern (Marx and Nolan, 2012). Holding a job may not be sufficient in itself to lift a household out of poverty, if the associated pay or the number of working hours is low. We condition on working lone parents and re-estimate our model. The results, shown in column (4) of Table 9, indicate that the poverty rates of working lone parents in the treatment group declined by 14 percentage points more than the control group. Therefore, the effect on the poverty rate of working lone parents was similar in magnitude to the overall poverty rate among all lone parents. This is consistent with previous results that showed working lone parents increased their number of hours following the policy change. This would result in an increase in income and a corresponding decrease in the poverty rate.

Table 9: At Risk of Poverty

	TG1	TG2	Placebo	Working Parent
VARIABLES	(1)	(2)	(3)	(4)
D-i-D	-0.134***	-0.099***	0.033	-0.143***
	(0.051)	(0.036)	(0.075)	(0.046)
D	0.101***	0.111***	0.073*	0.089**
	(0.034)	(0.026)	(0.044)	(0.036)
Med education	0.022	-0.004	0.045	0.047
	(0.034)	(0.026)	(0.045)	(0.032)
High education	-0.101***	-0.113***	-0.059	0.022
	(0.036)	(0.027)	(0.050)	(0.036)
Age	-0.006***	-0.002	-0.005*	-0.003
	(0.002)	(0.001)	(0.003)	(0.002)
Number of children	0.118***	0.106***	0.112***	0.072***
	(0.012)	(0.010)	(0.020)	(0.017)
Irish	-0.094***	-0.052*	-0.049	-0.093**
	(0.035)	(0.028)	(0.047)	(0.041)
Year fixed effects	yes	yes	yes	yes
Regional fixed effects	yes	yes	yes	yes
Constant	0.363***	0.132**	0.269**	0.089
	(0.090)	(0.066)	(0.119)	(0.095)
Observations	1,338	2,210	728	575
R-squared	0.109	0.076	0.100	0.118

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.4 Earnings from Employment

Finally, we examine gross monthly earnings from employment.[20] We include people who do not work as having zero employment earnings. Figure 5A shows the monthly earnings from employment over time for the treatment and control groups. Following the policy change, the monthly employee earnings for the treatment group increased relative to the control group. From Figure 5A, it appears that the earnings of the treatment group may have been increasing prior to the policy change. However, note that the policy occurred in July 2015. Therefore, the first half of 2015 is the pre-treatment period and the second half is a post-treatment period. Employee earnings is notable, as there appears to be an immediate, and sharp, increase for the treatment group directly following the policy change. Therefore, the first half of 2015 looks quite different to the second half. The markedly higher earnings in the second half of 2015 pulls the yearly average upward. To illustrate the impact of this, we show another graph (Figure 5B), in which we group the 2014 data with the first half of 2015, and group the 2016 data with the second half of 2015. Therefore, 2014 captures the 18 month pre-treatment period and 2016 captures the 18 month post-treatment period. This graph shows parallel pre-treatment trends, followed by a substantial divergence in the employee earnings among the treatment and control groups. Prior to the policy change, the employee earnings of the treatment group were slightly lower than the control group. However, two and a half years following the policy change, the monthly earnings from employment of the treatment group exceeded the control group by approximately €500 per month. Note that we could create graphs similar to Figure 5B for all of our outcome variables. However, they are virtually unchanged from the graphs in which each year is treated as a separate time period. Employee earnings is an exception due to the immediate and very pronounced increase in the second half of 2015.[21]

Table 10 shows the DiD estimates using the log of monthly employee earnings as the outcome variable. For the TG1 specification, column (1), the monthly earnings of lone parents in the treatment group were approximately 29 per cent higher than the control group following the policy change. Note that, while Figures 5A and 5B include non-workers as having zero earnings, the log specification used in Table 10 implicitly conditions on those with positive employment earnings. Therefore, Table 10 is informative as it gives additional information on top of Figures 5A and 5B, showing that there was a strong earnings effect even for lone parents in employment.[22] For the TG2 specification, the increase in earnings was lower, at 20 percent. Once again, no statistically significant impacts were found when

[20] Specifically, we utilise the SILC question which captures "gross monthly earnings for employees".
[21] The alternative graphs are available for all outcome variables upon request from the authors.
[22] If we estimate the DiD model on earnings (in euros) and include non-workers, the results indicate that the policy change led to a €530 per week increase in earnings, which corresponds with Figures 5A and 5B.

the model was re-estimated for the placebo period, suggesting that the observed impacts were driven by the policy reforms.

Figure 5: Gross Monthly Earnings from Employment

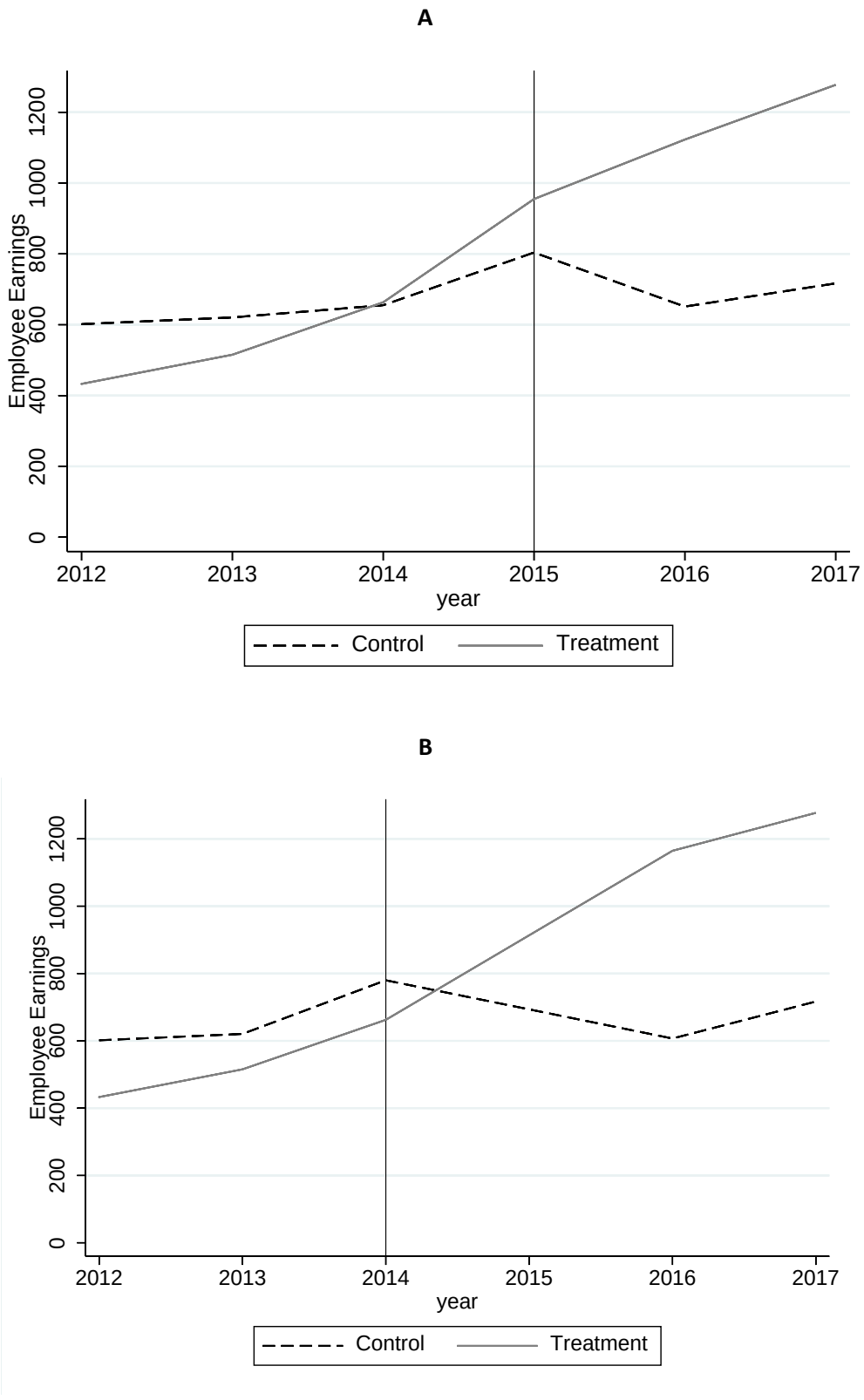


Table 10: Gross Monthly Employee Earnings

	TG1	TG2	Placebo	Minus Childcare
VARIABLES	(1)	(2)	(3)	(4)
D-i-D	0.287**	0.202**	-0.063	0.249**
	(0.120)	(0.081)	(0.196)	(0.124)
D	-0.267***	-0.217***	-0.324***	-0.198**
	(0.091)	(0.066)	(0.116)	(0.095)
Med education	0.028	0.098	-0.084	0.048
	(0.090)	(0.065)	(0.126)	(0.095)
High education	0.487***	0.617***	0.310**	0.449***
	(0.096)	(0.066)	(0.146)	(0.101)
Age	0.038***	0.031***	0.043***	0.041***
	(0.005)	(0.003)	(0.007)	(0.006)
Number of children	-0.162***	-0.110***	-0.206***	-0.212***
	(0.045)	(0.031)	(0.056)	(0.051)
Irish	0.339***	0.239***	0.234*	0.433***
	(0.091)	(0.068)	(0.123)	(0.120)
Year fixed effects	Yes	Yes	Yes	Yes
Region fixed effects	Yes	Yes	Yes	Yes
Constant	5.792***	5.723***	5.985***	5.629***
	(0.225)	(0.165)	(0.321)	(0.258)
Observations	554	1,014	269	548
R-squared	0.212	0.204	0.247	0.210

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

As with household income, we create an earnings variable that subtracts childcare expenditure from employee earnings. It is possible that an increase in hours, and hence employee earnings, may be somewhat offset by an increase in childcare costs. The results are shown in column (4). Even after accounting for childcare costs, employee earnings for the treatment group increase by 25 percent more than the control group following the policy change.

6. Conclusion

Lone parents have been identified as a group that are particularly at risk of poverty and deprivation. This is especially true in Ireland. Prior to 2012, policies relating to lone parent benefit in Ireland, called One Parent Family Payment (OFP), were criticised on the basis that they may have led to long term welfare dependency, potentially leading to adverse consequences for both parents and children. Following pressure for reform, both nationally and internationally, changes were introduced in 2012 to reduce the maximum qualifying age of the child from 18 years (or 21 years if in full-time education) to 7 years. Lone parents who could no longer qualify for OFP based on the age of their child, could apply for an alternative payment called Jobseeker's Transitional Payment (JST), which contained a labour activation component. In addition, there was no limit on the number of hours or days the lone parent can work while receiving JST.

We analysed the impact of the OFP qualifying age reductions on the labour market outcomes of lone parents. We found strong and statistically significant effects across a range of measures. Following the policy change, the hours worked of lone parents increased by between two and five hours per week. The probability of working also increased by approximately 12 percentage points following the policy change for parents of younger children (aged 7-9 years) that were impacted by the policy. The policy change was also associated with an increase in household income of between eight and twelve percent, and an increase in employee earnings of between 20 and 29 percent. Income and earnings were shown to increase even after accounting for potentially higher childcare costs. Finally, the policy was associated with a 10 to 13 percentage point reduction in the poverty rate of affected lone parents.

From a policy perspective, there are several components to consider when interpreting the effectiveness of the reforms. The first relates to the activation component, whereby lone parents who no longer qualified for OFP due to qualifying age restrictions, but wished to transfer to JST, had to attend one-to-one meetings with employment case officers to assist them in producing a personal development plan to guide them towards employment or education. However, despite this activation component, JST recipients did not face the same qualifying criteria as standard jobseeker's allowance recipients, in that they did not have to be available and actively seeking employment. The impact of such case officer meetings is likely to be particularly important to lone parents who were not previously in active employment, as it may have equipped individuals with potentially new key information regarding the work opportunities available to them in the labour market and the extent to which they could combine work and JST entitlements. It is also the case that wages have been rising in Ireland over recent years and an increased awareness of higher earnings opportunities, during the case officer meeting, may also have further incentivised claimants to take up employment.

The second component relates to the easing of the earnings limit. OFP has an earnings limit of €425 per week. Lone parents who no longer qualify for OFP, but qualify for JST, can earn in excess of this amount. However, as their additional earnings are assessed as means, the marginal gains are limited. While there is no expressly stated earnings limit for JST, the payment eventually tapers to zero as earnings increase. Nonetheless, there was scope for lone parents transitioning from OFP to JST to work more hours and thereby increase their earnings. Finally, rather than transitioning from OFP to JST, some lone parents who no longer qualified for OFP may have taken up employment instead of applying for JST.

Finally, it is important to interpret the positive findings associated with the policy change in the context of a strongly performing economy. The unemployment rate in Ireland had been decreasing steadily since 2013. Therefore, many lone parents who were impacted by the policy may have had the option of either increasing their hours or moving into employment, due to a strong labour market. However, if the policy had been implemented in a recessionary period of high unemployment, the outcomes of lone parents may have been different as increasing hours worked, or even finding work, would have been more difficult.

References

Avram, S., Brewer, M. and Salvatori, A. (2018). Can't work or won't work: Quasi-experimental evidence on work search requirements for single parents. *Labour Economics*, 51, pp. 63-85.

Blundell, R. (2000). Work incentives and 'in-work' benefit reforms: A review. *Oxford Review of Economic Policy*, 16 (1), pp. 27-44.

Card, D., Kluve, J. and Weber, A. (2017). What works? A meta analysis of recent active labor market program evaluations. *Journal of the European Economic Association*, 16 (3), pp. 894-931.

Department of Employment and Social Affairs (2019). *Statistical Information on Social Welfare Services Annual Report 2018*. Retrieved from https://www.gov.ie/en/publication/c63998-annual-report-2018/

Fok, Y.K. and McVicar, D. (2013). Did the 2007 welfare reforms for low income parents in Australia increase welfare exits? *IZA Journal of Labor Policy*, 2, pp. 1-21.

Gong, X. and Breunig, R. (2014). Channels of labour supply responses of lone parents to changed work incentives. *Oxford Economic Papers*, 66 (4), pp. 916-939.

Indecon (2017). *Indecon Independent Review of the Amendments to the One-parent Family Payment since January 2012*, Dublin: Indecon.

Johnsen, J.V. and Reiso, K.H. (2019). Economic effects of workfare reforms for single mothers: Benefit substitution and labour supply responses. *Scandinavian Journal of Economics*, forthcoming.

Knoef, M. and Van Ours, J.C. (2016). How to stimulate single mothers on welfare to find a job: Evidence from a policy experiment. *Journal of Population Economics*, 29 (4), pp. 1025-1061.

Martin, J.P. (2015). Activation and active labour market policies in OECD countries: Stylised facts and evidence on their effectiveness. *IZA Journal of Labor Policy*, 4 (1), pp. 1-29.

Marx, I. and Nolan, B. (2012). *In-Work Poverty*, GINI Discussion Paper 51, Amsterdam: Amsterdam Institute for Advanced Labour Studies.

Mogstad, M. and Pronzato, C. (2012). Are lone mothers responsive to policy changes? Evidence from a workfare reform in a generous welfare state. *The Scandinavian Journal of Economics*, 114 (4), pp. 1129-1159.

Regan, M., Keane, C. and Walsh, J.R. (2018). *Lone-Parent Incomes and Work Incentives*, Dublin: Economic and Social Research Institute.

Whelan, C. and Maitre, B. (2010). Poverty in Ireland in comparative European perspective. *Social Indicators Research*, 95 (1), pp. 91-110.