

Socio-Economic Variation in the Impact of the Irish Recession on the Experience of Economic Stress among Families

DOROTHY WATSON

The Economic and Social Research Institute, Dublin

CHRISTOPHER T. WHELAN

University College Dublin

BERTRAND MAITRE*

The Economic and Social Research Institute, Dublin

JAMES WILLIAMS

The Economic and Social Research Institute, Dublin

Abstract: In this paper we draw on the *Growing Up in Ireland* (GUI) data to examine the impact of pre-recession socio-economic characteristics on the economic stress levels of households with children. Our results provide some support for the polarisation argument, with the largest increases in absolute percentage point terms occurring towards the bottom of the socio-economic hierarchy. However, this was accompanied by sharp attenuation of socio-economic inequalities in stress and a dramatic increase in the heterogeneity of economically stressed households. The analysis shows that the reality is more complex than either the “class polarisation” or “middle class squeeze” hypotheses would suggest. The results create a new set of challenges for policy that require a careful balancing of issues of legitimacy, the need to meet very broad-based needs for services and the more traditional targeted assistance to vulnerable groups.

Acknowledgements: *Growing Up in Ireland* has been funded by the Department of Children and Youth Affairs (DCYA) in association with the Central Statistics Office (CSO) and the Department of Social Protection (DSP). The data were collected in accordance with the Statistics Act, 1993. The project has been designed and implemented by the joint ESRI-TCD *Growing Up in Ireland* Study Team.

We also wish to acknowledge the helpful comments of the anonymous referees for the constructive comments on an earlier draft of this paper.

* Corresponding author: bertrand.maitre@esri.ie

I INTRODUCTION

There has been considerable debate as to whether the Great Recession of 2008-2012 led to a polarisation of inequality, had an equally detrimental impact on all groups or resulted in a “squeezed middle” (Whelan *et al.*, 2016a, O’Connor and Staunton, 2016, Social Justice Ireland, 2016). Ireland constitutes a particularly interesting case for an examination of the impact of the recession. The so called “Celtic Tiger” boom period was followed from 2008 onwards by an economic crisis which had a more negative impact on national output in Ireland than in any other OECD country. Ireland’s remarkable macro-economic fluctuations contribute to the considerable disagreement that continues to exist regarding the degree to which the costs of the recession have been distributed in an equitable manner (Whelan and Nolan, forthcoming). The distinctive nature of the recent Irish economic experience has meant that conventional measures of relative income poverty and inequality have a limited capacity to capture the impact of the scale and diversity of economic and social change. The volatility of absolute income levels in Ireland in the boom and bust phases has meant that the relative income results need to be interpreted with caution. For the period 2004-2010, encompassing both phases, there was no clear trend in overall income poverty or income inequality (Nolan *et al.*, 2014, Savage *et al.*, 2015, Nolan and Maître, forthcoming; Watson *et al.*, 2016 forthcoming).

Recent efforts to understand the impact of the economic crisis in Ireland have sought to go beyond income to take into account the distinctive role of debt in the current recession. The economic crisis resulted in a situation whereby the scale of debt problems experienced by Irish households is exceptional in European terms (Russell *et al.*, 2012; Kelly, 2009). The CSO (2015) Household Finance and Consumption Survey 2013 showed that percentage of households reporting debt in Ireland is the fifth highest in the Eurozone. Consistent with this scale of debt, and reflecting the wide ranging impact of the economic crisis, McCarthy (2014) has shown that far from “mortgage distress” being largely a consequence of increased unemployment, the Head of Household was in employment in 85 per cent of the cases where arrears were reported.

In this context, several recent analyses of the impact of the economic crisis have focused on economic stress as a key outcome that is intended to capture the impact of reduced income levels, reductions in living standards, objective debt problems and subjective responses to such pressures. Economic stress is understood to be influenced not only by debt problems but also by coping capacities and variability in the reference points from which such pressures are evaluated. Employing data from the European Union Survey of Income and

Living Conditions (EU-SILC), recent work has examined the changing distribution of economic stress across income and social classes in relation to both “boom” and “bust” periods and “peak” to “trough” comparisons. The findings indicate that, rather than the evidence supporting a clear-cut choice between class polarisation and middle class squeeze, it points to the need to take into account specific forms of both (Whelan and Maitre, 2014, Whelan *et al.*, 2016, Whelan *et al.*, 2016a).

In addition, Whelan *et al.*, 2016b have emphasised the value of taking into account both life course variation and class differentiation and the manner in which they interact. Employing EU-SILC data, they conclude that a clear age gradient in relation to economic stress was evident in 2008. Households headed by a younger Household Reference Person (HRP) experienced significantly higher levels of stress. Over time this gradient became sharper. This finding is consistent with the analysis of household consumption patterns by Gerlach-Kristen (2013) indicating that the main burden of the Irish crisis was borne by younger households. Similarly a CSO (2013) survey on financial effects of the downturn also found that households headed by a person aged less than 55 were much more likely to have made cutbacks in expenditure in the previous 12 months. Whelan *et al.* (2016b), in line with earlier critiques of the life course perspective (Vandecasteele, 2007, 2010; Whelan and Maitre, 2008), concluded that it was not possible to understand the impact of the Great Recession in Ireland by focusing on relativities in relation to income class unless one allowed for its varying impact across the life course.

The findings to date employing EU-SILC suggest that our understanding of the impact of the crisis in Ireland can be enhanced by a more in-depth focus on families with children, as this is the group that experienced the greatest impact. In this paper we draw on the *Growing Up in Ireland* (GUI) database. The longitudinal data allow an assessment of changing stress levels for a fixed set of households characterised on the basis of socio-demographic status in the first wave. This focus differs from those associated with earlier analyses comprising a comparison of the socio-economic distribution of stress at two cross-sectional time points (e.g. Russell *et al.*, 2012). Our concern here is specifically with the manner in which socio-economic status prior to the recession moderated the impact of the economic crisis on stress levels.

II DATA AND METHODS

The *Growing Up in Ireland* (GUI) survey is a large longitudinal study of children in Ireland (Williams *et al.*, 2009; Murray *et al.*, 2010). It tracks the development and wellbeing of two nationally representative cohorts of children:

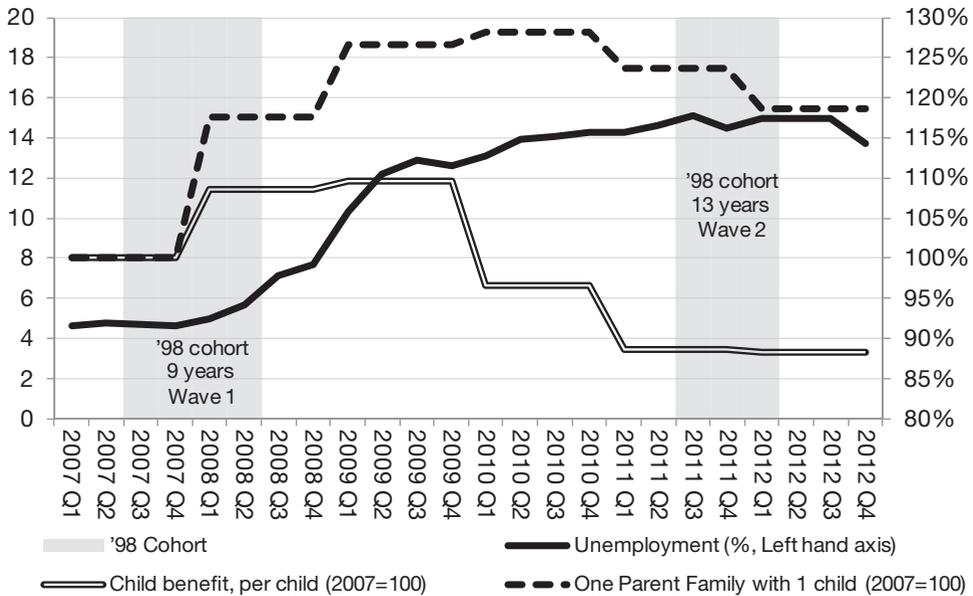
the 1998 cohort and the 2008 cohort (born in 1998 and 2008, respectively). The samples were strict probability samples. We focus here on the 1998 cohort, because they were first interviewed before the start of the recession and its effects can be seen most clearly by comparing the first two waves of the survey for this cohort. The 1998 cohort of children at 9 years of age was selected following clustering at the level of the school. Interviews were conducted via Computer-Assisted Personal Interview (CAPI) with the primary caregiver (PCG, usually the mother), the resident secondary caregiver (SCG, usually the father), the teachers at Wave 1 and with the children themselves. In the present analysis we rely on data provided by the PCG.

The children in the 1998 Cohort were nine years old in the first wave and thirteen years of age in the second wave. The sample was reweighted to ensure that it was nationally representative, in both cross-sectional and longitudinal terms. The present analysis includes the 7,423 families who responded in both waves. The large sample size, the probability sample and the calibration to ensure representativeness means that the results can be generalised to the families of children in middle childhood.

The timing of the GUI surveys in relation to the onset of “The Great Recession” is important. The first wave of interviewing with the 1998 cohort was conducted with the families of the nine-year-olds between August 2007 and June 2008, slightly before the major shocks of the recession later in 2008, as shown in Figure 1. The second wave, when the children were aged 13, took place between August 2011 and March 2012. This corresponded to the deepest point of the recession, before any growth in employment was evident.

Figure 1 also gives an indication of the timing of changes in some key social protection payments. The axis to the right shows the changes in the value of Child Benefit and One Parent Family Payment (assuming one child) in real terms between 2007 and 2012, with the 2007 value taken as 100 per cent. The universal Child Benefit payment had increased in real terms between 2007 and 2008 by about 10 per cent and it was maintained at that level in 2009 before being cut in 2010 and again in 2011 so that it was below 90 per cent of the 2007 rate by mid-recession. The One Parent Family Payment had been increased by over 15 per cent in real terms for a parent with one child between 2007 and 2008. It was increased further in 2009, reaching almost 30 per cent above the 2007 figures in real terms by 2010. It was then cut in 2011 and again in 2012 but remained almost 20 per cent above the 2007 rate by 2012. Unemployment payments, apart from Non-Contributory payments to young adults which were cut sharply, followed a similar pattern to those for One Parent Families. The cuts in Child Benefit would have affected all families. For families dependent on Social Protection, this would have been balanced by the increase in the basic rates of payment and the rate payable for qualified dependent children, leaving them roughly 18 per cent better off in real terms by 2012 than in 2007.

Figure 1: *The Timing of the Recession and Growing Up in Ireland Fieldwork*



Source: Central Statistics Office (CSO) for consumer price index and unemployment rate. Department of Social Welfare Rates Booklets for each year for amount of benefits.

The indicator of economic stress is based on a question to the primary caregiver (usually the mother) on the extent to which the family experienced difficulty in making ends meet. Those responding “great difficulty” or “difficulty” were categorised as experiencing economic stress. In the analysis that follows, economic stress is measured in Waves 1 and 2. Characteristics of the families are measured at Wave 1 (social class, family type and income quartile).

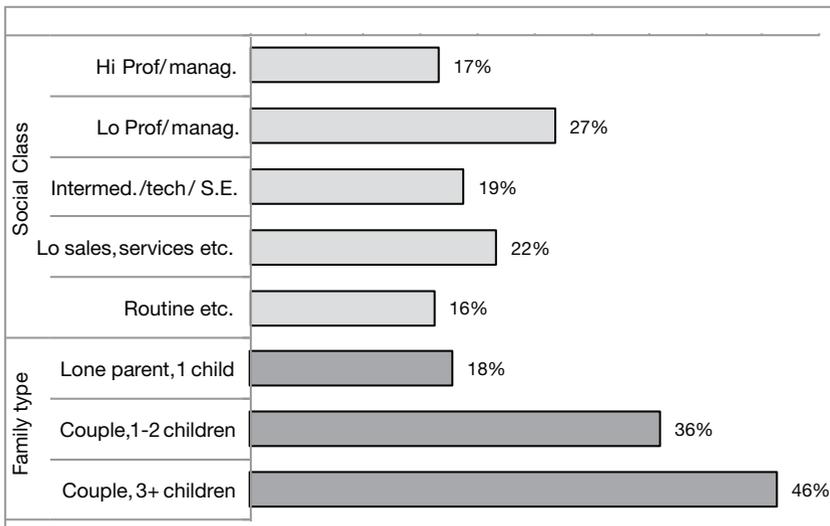
The social class scale is based on the European Socio-economic Classification (ESeC), which draws on the work of Goldthorpe (2006). ESeC is a classification designed to identify groups with broadly similar life-chances related to their occupational position (Goldthorpe, 2006; Rose and Harrison, 2007). We take the social class position of the parent’s current or previous occupation. In couple families, the higher of their social classes is likely to be most consequential for the life chances of the household, and this is used. In the *Growing Up in Ireland* data, self-employment is underestimated as it is

only available if the mother is currently self-employed (i.e. not for a previous job or the partner's occupation). We therefore combine the self-employed/farm social class with the intermediate/technical social class. The resulting categories are:

- Higher professional/managerial: professionals such as doctors, solicitors, accountants, engineers; senior officials and managers and large employers.
- Lower-professional/managerial: teachers, nurses, junior managers.
- Intermediate/technical/self-employed: includes clerical workers such as clerks, bookkeepers; includes technical occupations such as precision metal workers, safety and quality inspectors; includes supervisors of lower services/manual workers; also includes self-employed and farmers.
- Lower services, sales and skilled manual employees: includes shop assistants, cashiers, receptionists, train drivers, carpenters, plumbers.
- Routine and never worked: includes semi-skilled occupations such as van drivers (employees), and includes unskilled occupations such as labourer, cleaner, porter/messenger and also those who never worked.

Figure 2 shows the social class composition and family type distribution of the 9-year-olds at Wave 1, pre-recession. In terms of social class, a somewhat higher proportion of children are in families in the lower professional/managerial social class (27 per cent) and in the lower services/sales/manual

Figure 2: *Social Class, Income and Family Type: Sizes of Groups*



Source: *Growing Up in Ireland Survey, 1998 Cohort at age 9*, analysis by authors.

social class (22 per cent) with roughly equal numbers (between 16 and 19 per cent) in each of the remaining three social classes (higher professional/managerial, intermediate/technical/self-employed and routine. When it comes to family type, we see that couple families dominate and nearly half of the children are in couple families with three or more children. Couples with one or two children account for 36 per cent of the families of 9-year-olds and 18 per cent of the children are in lone parent families. By definition, one quarter of children are in each of the four income quartiles.

In the analysis that follows, taking into account their starting points in relation to social class, income quartile and family type, we will provide details of the changing situation of the families. This analysis will include details of increased absolute levels of economic stress, changing patterns of risk relativities between groups and the changing socio-economic composition of those households experiencing economic stress. In so doing we will seek to show that grasping the scale and implications of the impact of the economic crisis in Ireland requires taking all three aspects into account.

III CHANGE IN ECONOMIC STRESS OVER TIME

We begin by examining the extent to which the families report being affected by the recession and the effects they experienced. The very general nature of the impact of the recession on families is documented elsewhere (e.g. Watson *et al.*, 2015). The rate of household joblessness rose sharply for couple families from 4 per cent to 10 per cent but remained relatively stable for lone parent families but at a rate that was already high in the first wave (about 40 per cent). There was a dramatic rise in welfare dependency with the recession, with an increase from 12 to 17 per cent in the percentage of families depending on welfare for at least half of their incomes. The percentage of families lacking two or more of eleven basic goods and services (such as adequate food, clothing, heating for the home and basic social activities) rose from 4 per cent to 14 per cent (*Growing Up in Ireland*, 2012; Watson *et al.*, 2015).

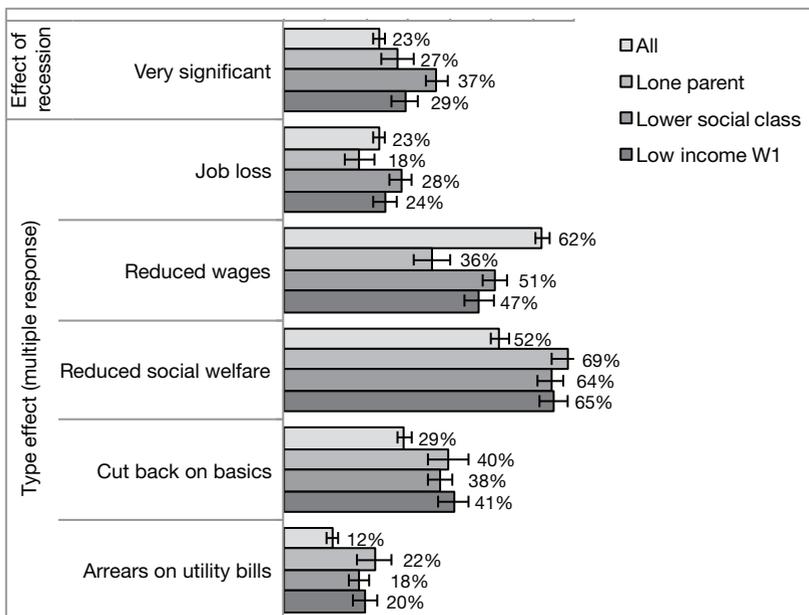
Figure 3 shows the significance of the recession and the type of impact for all the families and for the most vulnerable groups: lone parents, the lower social classes (the lower services/sales/ technical and the routine social classes) and the bottom income quartile in the first wave. Overall, 23 per cent of families report being affected “very significantly” by the recession with a figure that is significantly higher than this for those in the lowest social classes in Wave 1 (37 per cent). The figure for lone parents and those in the bottom income quartile were within the margin of error compared to the overall figure.

The 94 per cent of families who said that the recession had an effect on them (ranging from a “very significant” effect to “a small effect”) were asked to

indicate the nature of those effects, from a list of ten pre-coded options, and five of these are shown in the second panel of Figure 3. Note that families may have reported more than one of these different types of effect.

A little less than one quarter of families had experienced redundancy or job loss of either partner (23 per cent). Again, the figure was slightly higher for families in the lower social classes (28 per cent) but was not significantly different from the overall figure for lone parents or low-income families (which had a lower proportion at work in the first wave).

Figure 3: *Effects of the Recession on Families of the 1998 Cohort*



Source: *Growing Up in Ireland Survey*, 1998 Cohort at ages 9 and 13, analysis by authors. Error bars show the 95 per cent confidence interval.

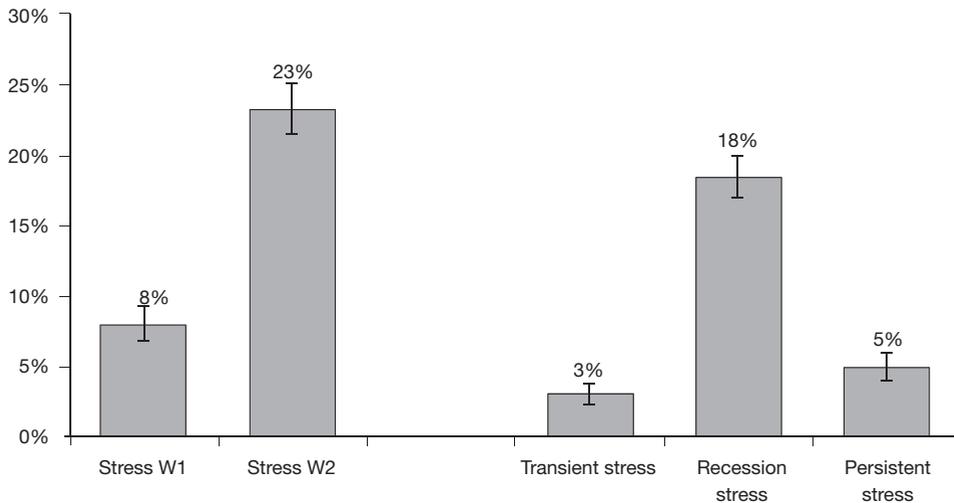
Whether the impact of the recession took the form of a reduction in earnings or a reduction in social welfare payments differed across groups, with the vulnerable groups more affected by the latter. Overall, 62 per cent of families had a reduction in wages, but with figures that were significantly lower than this for the vulnerable groups, especially lone parents (36 per cent), who were less likely to have been working. On the other hand, the vulnerable groups were more likely to report a reduction in social welfare payments (64 to 69 per cent) compared to the figure for all families (52 per cent). Note that all families would have been affected by the cuts in child benefit but if they had income from

earnings, this is likely to be less significant as a proportion of total income. Although other types of social welfare income (such as Jobseeker payments and One Parent Family Allowance) had increased in 2008 and 2009, it was the later cuts in 2011 and 2012 (see Figure 1) that were more salient for the vulnerable groups at the time of interview.

The vulnerable families are also more likely to report having to cut back on expenditure of basic items such as food and clothing (38 to 41 per cent compared to 29 per cent overall) and to have had problems with arrears on utility bills (18 to 22 per cent compared to 12 per cent overall).

As we might expect, these widespread impacts of the recession led to a dramatic increase in economic stress levels, as shown in Figure 4. There was a tripling of the pre-recession stress levels, as the percentage of families with difficulty making ends meet rose from 8 per cent pre-recession to 23 per cent in mid-recession.

Figure 4: *Economic Stress Dynamics in First and Second Waves*



Source: *Growing Up in Ireland Survey*, 1998 Cohort at ages 9 and 13, analysis by authors. Error bars show the 95 per cent confidence interval.

Given the large increase in economic stress over the period, it is clear that many families that had not experienced economic stress in the first wave were drawn into such stress in the recession. The longitudinal nature of the data allows us to distinguish three groups on the basis of their economic stress dynamics: persistent stress refers to being stressed in both waves; transient stress refers to being stressed in the first wave but not in the second wave and “recession” stress refers to becoming economically stressed in the second wave

in mid-recession. Figure 4 shows that 5 per cent experienced persistent stress and 3 per cent transient stress but by far the largest group was those exposed to recession stress (18 per cent). As a result, while almost two-thirds of those who were stressed in Wave 1 were also stressed in Wave 2, almost four out of five of those stressed in Wave 2 had not been stressed in Wave 1.

IV CHANGING RISK PATTERNS AND PROFILES OF ECONOMICALLY STRESSED FAMILIES BY PRE-RECESSION SOCIO-ECONOMIC CHARACTERISTICS

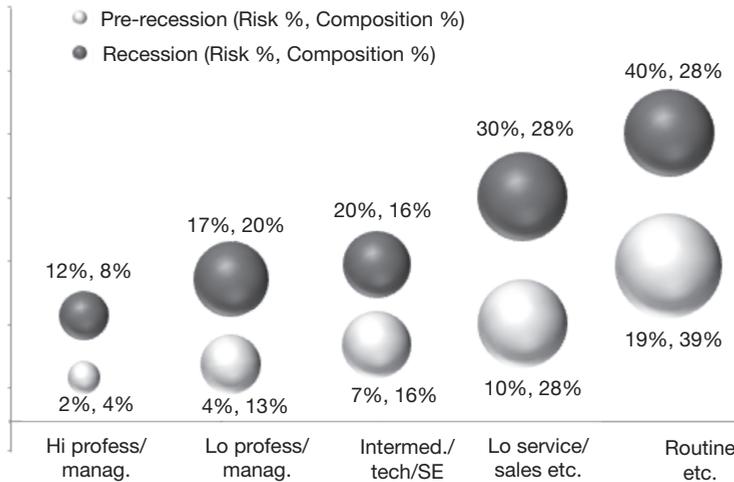
Earlier research relating to the population as a whole and employing the EU-SILC data found that increasing economic stress and vulnerability associated with the economic crisis were accompanied by significant changes in the profile of those experiencing such outcomes. Whelan and Maître (2014) focusing on economic vulnerability, measured in terms of low income, material deprivation and economic stress, found that the level of vulnerability substantially increased over time while at the same time it became more widely distributed across the social class spectrum. Whelan *et al.* (2016b) found that changes in association between social class position and economic stress varied significantly by life course stage.

In Figure 5 we show the changing patterns of risk level and composition for economic stress by social class of the household. In this chart, the height of the bubbles and the first number shown for each represent the level of risk; that is the probability of a child being found in a household experiencing economic stress. The area of the bubbles and the second number, on the other hand, represents the share of families reporting economic stress that is drawn from this group. For example, four per cent of economically stressed families were in the higher professional/ managerial social class in Wave 1 (the lighter coloured bubble) but this had increased to eight per cent by Wave 2 (the darker coloured bubble). This figure is determined by the risk level for the group compared to the level of risk for other groups and the overall size of the group (see Figure 2).

From Figure 5 we can see that the risk of economic stress among those in the higher professional/managerial social class rose from 2 per cent in Wave 1 to 12 per cent in Wave 2, but this social class accounted for only 8 per cent of economically stressed families in Wave 2, mainly because the level of risk was considerably higher for the other social classes but also because less than one-fifth of children are in higher professional/managerial families.

A number of points are worth noting in relation to Figure 5. First, comparing the pre-recession wave to the recession wave it is clear that the risk of economic stress increased very substantially for all social classes.

Figure 5: Risk and Composition of Economic Stress by Social Class in Wave 1 and Wave 2



Source: *Growing Up in Ireland Survey*, analysis by authors. The height of the bubbles (and the first percentage) shows the risk of economic stress for each class. The area of the bubble (and the second percentage) shows the share of economically stressed families in each social class.

Second, if we focus on the absolute level of increase, it is clear that the largest increases were experienced by the classes at the lower end of the hierarchy. For the higher professional/ managerial class, the stress level increased by 10 percentage points while for the two classes at the bottom of the hierarchy the absolute increase was approximately double that level. For the intermediate classes the increase was about 13 percentage points. Thus, viewed in absolute terms, we see an accentuation of social class differentials with, for example, the percentage point difference between the higher professional/ managerial class and the bottom class increasing from 17 to 28 percentage points.

Third, if we focus on change in relative terms we see a different picture. This is true whether we focus on the Wave 2 relative to Wave 1 comparison within classes or the gap between social classes within wave. Among the higher professional/managerial class, stress levels increased six-fold from 2 per cent to 12 per cent. For the lower professional and managerial class a fourfold increase from 4 per cent to 17 per cent occurred. For the routine manual class a doubling of stress levels was observed while for the intermediate classes a tripling of stress rates was observed. Thus the change over time, in relative terms, was greater for the higher social classes. As a result, the gap between

social classes expressed in relative terms was reduced. In the pre-recession wave, the economic stress rate was about nine times higher for the routine/never worked social class than for the higher professional/managerial social class (19 per cent and 2 per cent, respectively). This relative gap had dropped to just over three times higher by the recession wave (40 per cent and 12 per cent, respectively).

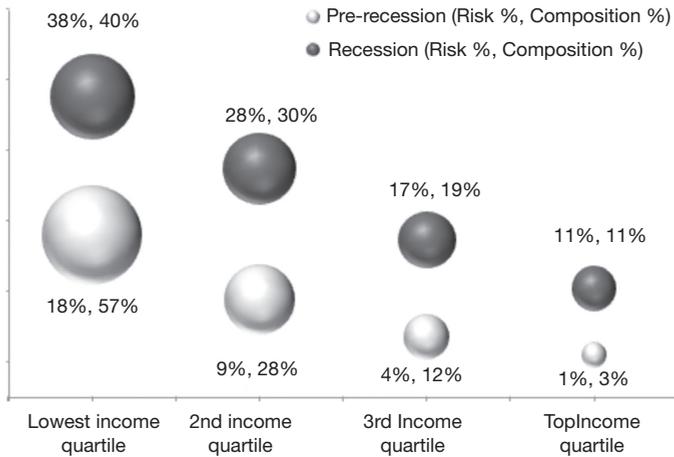
Finally, if we focus on the composition of economically stressed families (the area of the bubbles and the second percentage figure next to each), we find that change was concentrated at either end of the social class hierarchy. For the higher and lower professional and managerial classes the share of the economically stressed drawn from this group rose from 17 per cent to 28 per cent. At the other end of the social class hierarchy, the share of economically stressed households in the routine/never worked social class fell from 39 per cent to 28 per cent. In the first wave, economically stressed households were over twice as likely to be drawn from the routine manual classes as the combined higher and lower professional and managerial classes. By the second wave stressed households were equally likely to be drawn from opposite ends of the spectrum.

Figure 6 shows the risk and composition of economically stressed families by their income quartile in the pre-recession wave. Again, it is clear that economic stress increased very markedly for all income groups. As with social class, the largest absolute increases in stress levels were observed at the lower end of the distribution with increases of approximately 20 percentage points for the two lowest quartiles. This falls to 13 and 10 percentage points for the third and fourth quartiles.

Once again, if we focus on the relative position of the groups, we see the reverse pattern. For the bottom quartile, the level more than doubles (from 18 to 38 per cent). For the second quartile we observe a tripling from 9 to 28 per cent. For the third quartile a close to fourfold increase from 4 per cent to 17 per cent is observed. Finally for the top quartile the figure goes from 1 per cent to 11 per cent. Focusing on composition – the percentage of economically stressed families found in each of the Wave 1 income quartiles – we find that the percentage accounted for by those in the bottom income quartile fell from 57 per cent to 40 per cent. On the other hand, the percentage drawn from the top income quartile increased from 3 per cent to 11 per cent. The change for the two middle quartiles was more modest.

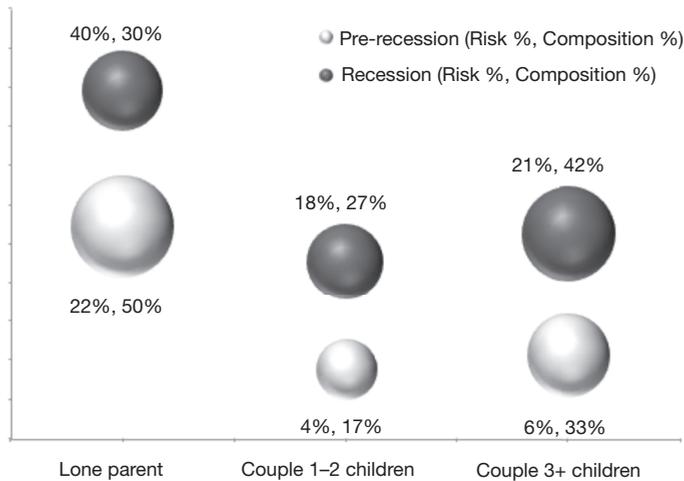
In Figure 7 we see the risk and composition patterns for economic stress by family type. In Wave 1 the major contrast was between lone parents and couple families. For the former the stress level was 22 per cent while for couple families the figure ranged from 4 per cent to 6 per cent for couples with 1-2 children and couples with three or more children, respectively. The absolute increase in risk

Figure 6: *Risk and Composition of Economic Stress by Income Quartile in Wave 1 and Wave 2*



Source: *Growing Up in Ireland Survey*, 1998 cohort Waves 1 and 2; analysis by authors. The height of the bubbles (and the first percentage) shows the risk of economic stress for each quartile. The area of the bubble (and the second percentage) shows the share of economically stressed families in each income quartile.

Figure 7: *Risk and Composition of Economic Stress by Family Type in Wave 1 and Wave 2*



Source: *Growing Up in Ireland Survey*, analysis by authors. The height of the bubble (and the first percentage) shows the risk of economic stress for each family type. The area of the bubble (and the second percentage) shows the share of economically stressed families of each type.

was roughly comparable for lone parents and couples with three or more children, at 18 and 15 percentage points respectively. It was slightly lower at 14 percentage points for couples with 1-2 children. The relative increase, coming from a lower base, was higher for couple families. The increase was fourfold and fivefold, respectively, for couples with 1-2 and couples with three or more children, compared to a doubling of risk for lone parents. In the first wave the composition of families experiencing economic stress was equally divided between lone parents and couples but by the second wave only 30 per cent were drawn from lone parent families.

V MULTIVARIATE ANALYSIS OF THE CHANGING SOCIO-ECONOMIC DISTRIBUTION OF RISK OF ECONOMIC STRESS

At this point we focus on a formal analysis involving logistic regression of the changing socio-economic distribution of risk of stress. Family type, social class and income quartile are measured in the pre-recession wave. The models in Table 1 are based on analysis of the data in “long form” (i.e. each row in the dataset is a family/year; each family has two entries, one for Wave 1 and one for Wave 2). This form allows us to look at the interaction between wave and other factors in explaining stress. The analysis is based on a logistic regression model using a survey analysis technique that allows the analysis of weighted data while providing standard errors that are adjusted for weighting and clustering (StataCorp, 2013a, 2013b).

In Models 1 to 3 we present the bivariate analysis for family type, social class, income and wave. The coefficients reported in Table 1 are odds ratios. Thus in Model 1 the figure of 4.014 indicates that the odds of being economically stressed for lone parents were over four times higher than for couples with one or two children (the reference category) while for couples with three or more children the differential was only 1.3. This represents an average figure across the two waves. There was a substantial increase in economic stress between waves (odds of 3.7). Models 2 and 3 show the parallel patterns for social class and income quartile. There are even more substantial differences by social class, with the odds of financial stress being 6.6 times higher for the routine/never worked class than for the higher professional/managerial class. The differential by income quartile is on a similar scale, with the odds of economic stress being about 6.9 times higher for the bottom income quartile than the top income quartile.

In Models 4 to 6 we introduce interaction terms that allow the impact of family characteristics to vary across waves. Consequently, the odds ratios in the top panel of the table show the group differences in Wave 1. Thus in Model

Table 1: Long Form Logit Models for Economic Stress (Odds Ratios)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
<i>Family</i>									
Lone parent	4.014***		7.201***				5.167***	4.349***	3.839***
CCouple, 1-2 children (Ref)	1.000		1.000				1.000	1.000	1.000
Couple, 3+ children	1.302**		1.505*				1.532*	1.223	1.265
<i>Class</i>									
Hi Prof/manag. (Ref.)		1.000			1.000		1.000		1.000
Lo Prof/manag		1.686***			2.270**		1.959*		1.453
Intermed. /tech/SE		2.203***			4.291***		2.970**		1.904
Lo service etc.		3.790***			6.670***		4.912***		2.681***
Routine etc.		6.581***			13.951***		8.295***		3.595***
<i>Income</i>									
Lowest						20.470***		14.138***	8.965***
Q2			6.862***			9.129***		7.056***	4.878***
Q3			3.806***			3.542***		3.344***	2.684**
Highest (Ref.)			1.948***			1.000		1.000	1.000
			1.000						
<i>Wave</i>									
1. Pre-recession (Ref.)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2. Recession	3.732***	3.752***	3.792***	5.446***	7.590***	10.938***	9.148***	13.198***	15.685***
<i>Wave 2 Interactions</i>									
<i>Family</i>									
Lone parent			0.423***				0.463***	0.490***	0.513**
Couple, 1-2 children (Ref)			1.000				1.000	1.000	1.000
Couple, 3+ children			0.835				0.830	0.895	0.894

Table 1: Long Form Logit Models for Economic Stress (Odds Ratios) (Contd.)

Class	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Hi Prof/manag. (Ref.)					1.000		1.000		1.000
Lo Prof/manag					0.707		0.778		0.904
Intermed. /tech/SE					0.434*		0.540		0.646
Lo service etc.					0.500*		0.602		0.779
Routine etc.					0.372**		0.497*		0.691
<i>Income</i>									
Lowest						0.252***		0.307***	0.351***
Q2						0.354***		0.411**	0.458*
Q3						0.506		0.523	0.565
Highest (Ref)						1.000		1.000	1.000
Constant	0.053***		0.026***	0.040***	0.017***	0.011***	0.012***	0.008***	0.005***
N. observations	14,835	14,835	14,835	14,835	14,835	14,835	14,835	14,835	14,835
F-adjusted test stat.	F(5,621) 4.062	F(7,619) 2.086	F(8,618) 5.533	F(5,621) 0.000	F(8,618) 0.000	F(8,618) 0.000	F(9,617) 1.175	F(9,617) 0.514	F(9,617) 0.792
Prob. > F	0.001	0.043	0.000	1.000	1.000	1.000	0.308	0.865	0.624

Source: *Growing Up in Ireland Survey*, analysis by authors.

Note: *** p<0.001, ** p<0.01, * p<0.05.

4 the figure of 7.201 indicates that in Wave 1, the odds of experiencing economic stress were over seven times higher for lone parents than couples with one or two children (the reference category), while for couples with three or more children the differential was only 1.5. By Wave 2 the odds of being economically stressed had increased fivefold for couples with one or two children (5.446). However, for lone parents the odds ratio increased by 2.3 (5.446×0.423). For couples with three or more children the increase was similar to that for couples with one or two children (the interaction term is not statistically significant). The analysis confirms that, while the risk of economic stress increased for all family types, the rate of increase was significantly lower for lone parents when expressed in relative terms.

We see a similar trend over time for social class and income quartile in Models 5 and 6. The group differentials were larger in Wave 1 and although economic stress rose for all groups, the increase from a lower Wave 1 base for the groups that had been initially more advantaged (the higher income and social class groups) had the effect of narrowing the social class and income gaps (expressed in relative terms) in economic stress.

In Models 7 to 9 we extend our analysis to take into account the simultaneous effect of family type and social class, then the family type and income class and finally all three. From Model 7 we can see from the top panel of the table that in the first wave the inclusion of social class leads to a modest reduction of odds ratio for lone parenthood from 7.2 in Model 4 to 5.2 in Model 7 and almost no change in the odds ratio for couples with three or more children. The inclusion of family type leads to a reduction in the social class gradient with the range of odds ratios being reduced from 14.0 in Model 5 to 8.3 in Model 7. Thus at this point the lone parent and social class effects are clearly correlated but each has a significant independent effect and their cumulative impact can be estimated by multiplying their respective odds ratios (8.3×5.2). Focusing on the outcomes in the second wave (lower panel of Model 7), we find that the inclusion of social class has no effect on the estimate of the declining effect of lone parenthood: the interaction coefficient at 0.46 remains statistically significant. The pattern of changing effects relating to social class remains broadly similar but with the inclusion of family type, only the wave interaction for the routine class remains significant.

A not dissimilar pattern emerges in relation to the joint effect of income quartile and family type. From Model 8 we can see that the inclusion of income quartile reduces the odds ratio for lone parenthood from 7.2 to 4.3, and that for a couple with three or more children from 1.5 to 1.2. Correspondingly the inclusion of family type reduces the impact of income quartile with the odds ratio for the lowest to highest quartile dropping from 20.5 to 14.1. In the bottom panel of the table we see that the odds ratios capturing the diminution over

time in the impact of the two bottom quartiles relative to the top quartile remain highly significant.

Finally, Model 9 examines the patterns of all three groups simultaneously: family type, social class and income quartile. As before, the differences by family type, social class and income quartile in Wave 1 remain substantial, but the fall in the odds ratios for social class are more noticeable. This suggests that it is class differences in income that account for much of the pattern with respect to economic strain. Nevertheless, even with income quartile controlled, the Wave 1 odds ratio for the routine/never worked social class relative to the higher professional/managerial class is 3.6 and statistically significant. The wave interaction in the bottom panel of the table shows that the narrowing over time of the gap between family types and income quartiles remains statistically significant. However, the wave interaction is no longer statistically significant for social class. This suggests that it is the social class differences in income in Wave 1 (rather than other social class differences, such as in career trajectory) that were most consequential in accounting for the narrowing over time of the social class gap in economic stress. An important caveat here is that we have not been able to satisfactorily distinguish the self-employed in the GUI data, and the self-employed social class is likely to have suffered disproportionately in the recession due to the large numbers working in construction during the boom years.

The fit statistics shown at the bottom of the table are the F-adjusted test statistics (Archer and Lemeshow, 2006). This represents a test of the model against the saturated model with all possible interactions between the variables in the model. We see from the significant F statistics for Models 1 to 3 that the fit could be improved by adding an interaction with period, as we do in Models 4 to 6. The satisfactory fit of Models 7 to 9 suggests that there is no need for further interactions in order to improve model fit (e.g. between family type and class or family type and income in Model 9).

VI CONCLUSIONS AND IMPLICATIONS

In this paper we drew on the GUI data to go beyond an analysis of the impact of the economic crisis on family incomes. We examined the way in which pre-recession socio-economic characteristics moderated the consequences of the recession for the economic stress levels of families.

Since we focused on the families of 9-year-olds (pre-recession) here, it is useful to set the results in the context of findings based on analyses of SILC data for the population as a whole. Earlier analyses using EU-SILC data had shown the existence of a pre-crisis pattern of sharp life course differentiation,

with children occupying the least favourable and the elderly the most favourable positions. The economic crisis led to a sharpening of this gradient which was due to substantial cross-class increases in stress levels, rather than an increased level of stress affecting only the most disadvantaged. So while the overall situation of children deteriorated, the pervasive impact of the economic crisis led to an attenuation of income class differences between children and an increasing degree of income class heterogeneity among those exposed to economic stress (Whelan *et al.*, 2016b).

Overall our findings in this paper are broadly in line with the results based on EU-SILC, although here we have been able to look in more depth at the situation of families with children and at the consequences of the recession for initial social class and family type distinctions. This analysis allowed us to draw out the different implications of the recession for change viewed in absolute terms versus change viewed in relative and compositional terms.

Viewed in absolute terms, our results provide some support for the polarisation argument: while stress levels increased substantially across the board, the largest increases in absolute percentage point terms were observed towards the bottom of the social class and income hierarchies and for lone parents. Clearly the absolute increase in the levels of economic stress for the most disadvantaged households reflects a significant reduction in their living standards. Given evidence of the consequences of childhood poverty (Duncan *et al.*, 2012; Waldfogel, 2013), this raises serious concerns not just about its immediate impact but also its long-term consequences.

However, the picture of change over time is different when viewed in relative terms. The increases for the more favoured group were from a much lower base. Consequently the pattern of relativities was transformed over time with a sharp reduction in inequalities by social class, income quartile and family type. Related to these shifts, we observed a dramatic increase in the socio-economic heterogeneity of economically stressed households. As a result of the recession, economic stress became a distinctly more pervasive phenomenon among households with children.

Clearly, then, the concept of class polarisation is of limited value in accounting for changing patterns of stress levels for household with children. The reduction in gaps based on socio-economic characteristics and family type and the unprecedented widespread increases in stress associated with the economic crisis are important parts of the story. The implications of these changing relativities will depend to some extent on the manner in which they are experienced. It is an open question as to whether economic stress is more traumatic for those groups who have been unaccustomed to experiencing it.

In any case, given the range of factors that have contributed to such change – including job losses, reduction in earnings, reductions in social protection and

wider debt issues – the sources of the change go well beyond the functioning of the social welfare system as an automatic stabiliser in a period of economic crisis. The increasing socio-economic diversity of households experiencing economic stress points to the relevance of more broadly-based policy responses, incorporating supports for housing, debt relief, childcare costs and improvements in the quality of public services.

During the boom, the trade union movement was able to engage with the government to secure a deal supporting welfare expansion accompanied by tax cuts and rising disposable income (Dellepiane and Hardiman, 2011, 2012). However, recent efforts to achieve consensus in relation to wage bargaining and working conditions in the public sector have come under considerable criticism. Among the most vocal critics of government efforts in this regard have been the administrative and professional groups who have found themselves exposed to unprecedented levels of economic stress. In that context, as the recent electoral outcome has indicated, dealing with the political pressures arising from the pervasive impact of the recession, while sustaining the welfare arrangements that have been focused on protecting the economically vulnerable, presents formidable challenges in terms of maintaining social cohesion and political legitimacy.¹

REFERENCES

- Archer, K. J. and S. Lemeshow, 2006. “Goodness-of-fit Test for a Logistic Regression Model Fitted Using Survey Sample Data”. *The Stata Journal*, Vol. 6,, No. 1, pp. 97-105.
- Central Statistics Office, 2013. *Quarterly National Household Survey: Effect on Households of the Economic Downturn*, Quarter 3 2012, Dublin: Central Statistics Office.
- Central Statistics Office, 2015. *Household Finance and Consumption Survey, 2013*, Dublin: Central Statistics Office.
- Dellepiane, S. and N. Hardiman, 2011. “Governing the Irish Economy: A Triple Crisis,” pp. 83-109 in N. Hardiman (ed.), *Irish Governance in Crisis*. Manchester: Manchester University Press.
- Dellepiane, S. and N. Hardiman, 2012. “The New Politics of Austerity: Fiscal Responses to the Economic Crisis in Ireland and Spain”, Geary Discussion Paper no. 2012/07, 29 February, Dublin: University College Dublin.
- Duncan, G. J., K. Magnuson, A. Kalil and K. Ziol-Guest, 2012. “The Importance of Early Childhood Poverty”, *Social Indicators Research*, Vol. 108, pp. 87-98.
- Gerlach-Kristen, 2013. “Younger and Older Households in the Crisis”, *Research Notes RN2013/1/4*, The Economic and Social Research Institute.

¹ For further discussion of these issues see Whelan and Maitre (2014).

- Goldthorpe, J. H., 2006. "Social Class and the Differentiation of Employment Contracts", in J. H. Goldthorpe (ed.), *On Sociology*, Second Edition, Vol. 2: Illustration and Retrospect, pp. 101-24, Stanford, CA: Stanford University Press.
- Growing Up in Ireland*, 2012. The Family and Financial Circumstances of 13-year-olds. (GUI Key Findings, 13-year-olds, # 3), Dublin: Department of Children and Youth Affairs.
- Kelly, M., 2009. "The Irish Credit Bubble". University College Dublin Centre for Economic Research, Working Paper WO09/32, University College Dublin.
- McCarthy, Y., 2014. "Dis-entangling the Mortgage Arrears Crisis: The Role of the Labour Market, Income Volatility and Negative Equity", Dublin: Barrington Lecture, Statistical and Social Inquiry Society.
- Murray, A., C. McCrory, M. Thornton, J. Williams, A. Quail, L. Swords, E. Doyle and E. Harris, 2010. *Growing Up in Ireland, National Longitudinal Study of Children: Design, Instrumentation and Procedures for the Child Cohort*, Dublin: Department of Health and Children.
- Nolan, B., C. T. Whelan, E. Calvert, D. Healy, T. Fahey, A. Mulcahy *et al.*, 2014. "Ireland: Inequality and Its Impact in Boom and Bust", in W. Salverda, B. Nolan, D. Checchi, I. Marx, A. McKnight, I.G. Töth, *et al.* (eds.), *Changing Inequalities and Societal Impacts in Thirty Rich Countries*, pp. 346-68, Oxford: Oxford University Press.
- Nolan, B. and B. Maitre, forthcoming. *Children of Austerity*, Oxford: Oxford University Press.
- O'Connor, N. and C. Staunton, 2016. *Cherishing All Equally*, Dublin: Think Tank for Action on Social Change (TASC).
- Rose, D. and E. Harrison, 2007. "The European Socio-economic Classification: A New Social Class Schema for Comparative European Research", *European Societies*, Vol. 9, No. 3, pp. 459-490
- Russell, H., C. T. Whelan and B. Maitre, 2012. "Economic Vulnerability and Severity of Debt Problems: An Analysis of the Irish EU-SILC 2008", *European Sociological Review*, Vol. 29, No. 4, pp. 695-706.
- Savage, M., T. Callan, B. Nolan and B. Colgan, 2015. "The Great Recession, Austerity and Inequality: Evidence from Ireland", ESRI Working Paper No. 499, Dublin: The Economic and Social Research Institute.
- Social Justice Ireland, 2016. "Poverty, Deprivation and Inequality, Dublin. Policy Briefing", July 2016, Dublin: Social Justice Ireland. July 2016
- StataCorp, 2013a. Stata: Release 13, Statistical Software, College Station, TX. StataCorp LP.
- StataCorp, 2013b. Stata Survey Data Reference Manual, Release 13, College Station, TX. StataCorp LP.
- Vandecasteele, L., 2007. "Dynamic Inequalities. The Impact of Social Stratification Determinants on Poverty Dynamics in Europe", Unpublished PhD Thesis, Faculty of Social Sciences, Katholieke Universiteit Leuven, Belgium.
- Vandecasteele, L., 2010. "Poverty Trajectories After Risky Life Course Events in Different European Welfare Regimes", *European Societies*, Vol. 12, No. 2, pp. 257-278.
- Waldfoegel, J., 2013. "Socio-economic Inequality in Childhood and Beyond: An Overview of Challenges and Findings from Comparative Analyses of Cohort Studies", *Longitudinal and Life Course Studies*, Vol. 4.3, pp. 268-275.

- Watson, D., C. T. Whelan, B. Maître and J. Williams, 2015. "Family Economic Vulnerability and the Great Recession: An Analysis of the First Two Waves of the *Growing Up in Ireland Study*". *Longitudinal and Life Course Studies*, Vol. 6, No. 3, pp. 230-244.
- Watson, D., B. Maître, C. T. Whelan and H. Russell, 2016, forthcoming. *Poverty and Quality of Life of Social Risk Groups and Social Classes: An Analysis of the Central Statistics Office (CSO) Survey on Income and Living Conditions for Ireland, 2004 to 2013*. (ESRI Research Series), Dublin: The Economic and Social Research Institute.
- Whelan, C. T. and B. Maître, 2008. "New and 'Old' Social Risks: Life Cycle and Social Class Perspectives on Social Exclusion in Ireland", *The Economic and Social Review*, Vol. 39, No. 2, pp. 31-156.
- Whelan, C. T. and B. Maître, 2014. "The Great Recession and the Changing Distribution of Economic Vulnerability by Social Class: The Irish Case", *Journal of European Social Policy*, Vol. 24, No. 5, pp. 470-485.
- Whelan, C. T., H. Russell and B. Maître, 2016. "Economic Stress and the Great Recession in Ireland: Polarization, Individualization or 'Middle Class Squeeze'?" *Social Indicators Research*, Vol. 126, pp. 230-244.
- Whelan, C. T., B. Nolan and B. Maître, 2016a. "Polarization or 'Squeezed Middle' in the Great Recession?: A Comparative European Analysis of the Distribution of Economic Stress", *Social Indicators Research*, DOI10.1007/s11205-016-1350-.
- Whelan, C. T., B. Nolan and B. Maître, 2016b. "The Great Recession and the Changing Intergenerational Distribution of Economic Stress across Income Classes in Ireland: A Comparative Perspective", *Irish Journal of Sociology*, DOI: 10.1177/0791603516657346.
- Whelan, C. T., B. Nolan, forthcoming. "Austerity and Inequality in Ireland", in Moore-Cherry, N, McHale, J. and Heffernan, H. (eds.), *Debating Austerity*, Dublin: Royal Irish Academy.
- Williams, J., S. Greene, E. Doyle, E. Harris, R. Layte, S. McCoy, C. McCrory, A. Murray, E. Nixon, T. O'Dowd, M. O'Moore, A. Quail, E. Smyth, L. Swords and M. Thornton, 2009. *Growing Up in Ireland: The Lives of 9-Year-Olds*, Dublin: Office of the Minister for Children and Youth Affairs.