No Country for (Migrant) Children? The Great Recession and Multidimensional Disadvantage of Children in Spain(*)

Rosa Martínez-López
Universidad Rey Juan Carlos (Madrid) & CIRANO (Montréal)

Jesús Ruiz-Huerta
Universidad Rey Juan Carlos (Madrid) & CIRANO (Montréal)

Abstract

Spain has been one of the countries most affected by the global economic crisis, with a huge impact on unemployment, real incomes and economic inequality. This paper analyses to what extent the current recession has affected poverty and exclusion among children, using different approaches and paying special attention to the gap between migrant and native children. We find that the rise in child poverty has been far more intense than official EU-2020 indicators suggest, especially among migrant families paying off a mortgage and low-income native households living in rented accommodation. Our analysis also underlines the inadequacy of current Spanish safety nets to protect children from multidimensional deterioration in living conditions during recession, and warns against potential consequences of recent trends for the future prospects of children in low resource families.

(*) The authors wish to acknowledge the funding provided by the Ministry of the Economy and Competitiveness (ECO2010-21668-C03-01). We would also like to give special thanks to Geranda Notten for extremely useful comments on a very preliminary version of this paper.

Spain stands out as being one of the countries most affected by the economic downturn, with huge impacts in terms of real incomes and job losses, especially in the case of youth and immigrant-headed households. Unemployment, low wages, job insecurity and high housing costs have reduced the standard of living of many families which had managed to make ends meet during the previous period of strong economic growth. This deterioration has been especially pronounced for working-class households, but has also affected middle-class families with reduced incomes, dependent children and high rental or mortgage costs. As a result, Spain is currently one of the worst performers among OECD countries in terms of income inequality and financial child poverty.

This trend has important and troubling implications in terms of equity and social cohesion, given the widespread evidence on the link between childhood experiences and adult outcomes. Growing up in an economically disadvantaged household has been shown to have long-lasting effects on children's well-being, educational attainment and health, significantly increasing the risk of poverty and social exclusion in later life (Duncan y Magnusson 2013, Ermisch, Jäntti y Smeeding [eds] 2012, Corak 2006, Duncan and Brooks-Gun [eds.] 1997). In countries with significant immigrant flows, child poverty can also have a negative impact on the long-term success of immigrant integration policies, eroding the economic prospects of the second generation and reducing social cohesion in the long term.

Against this background, this paper looks into the risk of child poverty and social exclusion in Spain in recent years and pays special attention to the crisis's differential effects on immigrant and native families. Taking the official indicator laid down to monitor the poverty reduction objective in the so-called Europe 2020 Strategy as a starting point, the constraints of this measure are discussed and other useful approaches are put forward

and applied to complement the analysis of children's economic position and the gap linked to being of immigrant origin.

The study makes various contributions. On the one hand, it contributes to recent advances in the multidimensional poverty literature by showing how different measures affect the assessment of levels and trends of economic disadvantage. On the other, this paper adds empirical evidence on the gap between immigrant and native families in Spain, a major new pole of immigration in Europe. Furthermore, it also adds evidence on the social consequences of the current economic crisis in a country which has been particularly hard hit, focusing on one of the most vulnerable groups: the children. This aspect is highly relevant in terms of policy in Spain at a time when the government has just approved the first plan aimed at combating child poverty, which has been allocated scarce funding from the budget in the midst of a fierce debate on how to share out the funds among the regions.

The document is structured as follows. First, the background is set out, together with some initial reflections on the relationship between economic crises and child poverty and a description of Spain's economic and institutional context. The paper's objectives and strategy are then described, with an explanation of the definitions and data employed. The third block presents the results obtained. The paper ends with some brief conclusions.

Background

Several reports by international organisations and independent studies have revealed the special vulnerability suffered by children in a context of economic crisis. Apart from the negative impact on consumption due to a fall in income, it is interesting to note that economic recession seems to generate a loss of families' net wealth as a result of asset value losses and an increase in debts, a worse emotional climate in the household

leading to more conflicts and domestic violence, and pressures favouring child or teenage labour, depending on the social class and institutional setting (Kalil 2013, Jones, McKay and Espey 2009). Likewise, some studies suggest that crises lead to negative effects in terms of child malnutrition (García-Rada 2013, Taylor-Robinson et al. 2013), academic performance (Steven and Schaller 2011, Pinger 2013) and the general state of health (Karanikolos et al. 2013, Oberg 2011).

Since most children live in households supported by people of working age, who are highly dependent on wages, it is understandable that economic crises should have significant negative effects on their living conditions. Nonetheless, the magnitude and intensity of such changes depend on factors that may vary according to the context. At an aggregate level, similar amounts of GDP reduction are compatible with very different evolutions in the unemployment rate, as international experience has repeatedly shown. Likewise, the duration and distribution of intra-family unemployment can play a significant role which goes beyond the aggregate unemployment rate (Ayala, Cantó and Rodríguez 2011).

Although some studies suggest that parents' unemployment has in itself negative consequences for the well-being of children (Yoshikawa, Aber and Beardslee 2012), the impact's magnitude clearly depends on the income replacement mechanisms of a public (social transfers) or private (savings, credit, or family help) nature available to families. Changes in the supply of work of household members and a fall in consumption, especially spending on durable goods, are also important reaction mechanisms in the face of adverse shocks suffered by work income (Blundell et al. 2008). The room for manoeuvre households have to adjust housing costs downwards is possibly a decisive element in this scenario, as income after discounting such costs is the disposable income households really

have to meet their children's needs, as emphasized by a recent UNICEF report (UNICEF 2012, 9).

The above-mentioned factors can vary significantly from country to country, depending on their socio-economic structure or welfare state model, but also among social groups. In most cases, but not always (Jenkins et al. 2012), the effects of crises tend to be asymmetric, punishing low-income working class families more than high-income households. Newly landed immigrants' position can be particularly weak in this context, due to the disadvantages they encounter in the labour market, worse access to contributory benefits and less protection from previous wealth or family and social networks. And there is some evidence that this is what is happening in the current economic crisis (Collett 2012, Papademetriou et al. 2010, Papademetriou and Terrazas 2009), although the long-term impacts on integration outcomes are yet unknown.

The Spanish Context

Global Trends

The "Marvellous Decade". Between the mid-nineties and 2007, a period of intense economic growth with average rises in the GDP rate amounting to 3.5% took place in Spain. This period of expansion was exceptional in both historic as well as comparative terms. The period represented an experience which, though not unique (other countries like Ireland underwent even higher growth rates), was certainly outstanding in the European context. During the so-called "marvellous decade" of the Spanish economy, the unemployment rate fell from values of around 20-25% at the beginning of the 1990s to a minimum of 8% in the second quarter of 2007. This reduction turns out to be even more

significant if we take into account that it came about in a context of intense growth in the working population. Consequently, the number of employed people, which had remained steady at around 12 million since the start of the democratic transition, increased without interruption from the mid-nineties to above twenty million in 2007.

This exceptional period of expansion in Spain was characterised by some features that should be highlighted. The most significant is without doubt the leading role played by the building industry and other labour-intensive sectors needing only poorly qualified workers (such as catering, agriculture and domestic services). The consequence of this bias was that the rise in employment was mainly concentrated in low-productivity jobs with medium-low salaries. This perhaps helps to explain why Spain had such a high in-work at risk-of-poverty rate in 2007 at the peak of the economic boom (it was the fourth highest in the EU-28 after Romania, Greece and Poland), and why economic inequality had not fallen significantly after a decade-long economic miracle.

The migratory boom. The decade before the beginning of the economic crisis was also the decade in which one of the most significant migratory booms in recent history took place. In a little over ten years, Spain's population increased by more than five million people due to the arrival of people born abroad, accounting for approximately a third of the net immigration received by the European Union in the period. The immigrant population's percentage rose from less than 3% at the end of the 1990s to more than 13% in 2009, thus taking a path other countries had followed over several decades in just a few years. The main countries of origin of these flows were Morocco, Romania, Bulgaria, Ecuador, Colombia and other Latin American countries, along with China.

There is widespread consensus among experts on the key role immigration played in the expansionary period's exceptionally good economic results. The continuous influx of

immigrant workers allowed demand for labour in numerous productive sectors to be filled, providing essential services to families and improved public finance balances. Inevitably, however, it also served to fuel the expansion of an economic model that was barely sustainable in the long term.

Changes after the Big Recession. The start of the international economic crisis was aggravated in Spain by the bursting of the real estate bubble. It supposed a radical shift with regard to the preceding scenario, leading to negative GDP growth rates from 2009 and a rise in unemployment to reach 27% in the first quarter of 2013. Job losses were uneven across the population. During the first few years, they affected males more than females, younger people more than older people, immigrants more than native Spaniards and those with lower educational attainment levels more than university graduates. The fall in the employment rate was directly linked to the collapse of the building industry (which had employed more than 20% of immigrants in 2007) and was particularly serious and early among foreign workers, with a reduction from 68% in 2006 to 54% at the end of 2009[1].

Average household income fell in real terms, especially in the lower part of the distribution. A recent OECD study which compares more than thirty nations shows that Spain is the country that experienced the greatest increase in income inequality before and after tax between 2007 and 2011, and the one where disposable income in the lowest decile decreased the most (OECD 2014, 1-2). The at-risk-of poverty rate increased only moderately in overall terms due to the lowering of the poverty threshold and an improvement in the relative situation of the elderly. However, living conditions worsened significantly for the working age population and their dependants.

[1] According to the Labour Force Survey (http://www.ine.es/jaxiT3/Tabla.htm?t=4222).

With regards to immigration, the main repercussion of the change in the economic context was the slowing down of entry flows and a stabilisation of the population of foreign origin at around 13% of the total population, along with an increase in departures. It should be underlined, in any event, that the migrant repatriation programmes put into place by the government did not achieved the expected results. This is particularly true in the case of families with young children who have established social and emotional bonds with their peers trough the school system, as well as due to the need in many cases of having to continue repaying mortgages for houses which were impossible to sell since the start of the crises (Martí, Serafí and Viruela 2011).

Institutional Features

Social structure and social policies. Spain belongs to a group of European countries characterised by high levels of economic inequality and limited income redistribution through the tax and transfer system. After two decades of a certain improvement in distribution during the 1970s and 1980s, which was related to the implementation of tax and welfare mechanisms already in place in other countries, inequality remained steady in the 1990s until the beginning of the crisis. The expansionary phase led to a significant increase in consumption capacity and absolute living conditions for a growing number of people (the country's total population rose from around 40 million in 1998 to 46 million in 2008), but the gap between rich and poor was not reduced in overall terms.

A significant institutional trait that is important to understand the Spanish context is the weakness of welfare policies aimed at the working population, particularly family policies. Unlike other developed countries, Spain does not have any significant welfare

benefits targeted at families with children (although there are some child-related fiscal deductions) and the timid efforts to implement child support measures have mostly been cancelled or rolled back during the crisis[2]. Hence, families with children that enter into difficulties due to situations of unemployment or low wages cannot rely on specific social welfare elements, other than a certain adjustment for family burdens in certain welfare benefits.

Migrant integration. Unlike other countries which have traditionally been open to immigration like Canada or Australia, which have well-defined policies to attract immigrants, Spain has not planned for the entry of foreign nationals since the 1990s. Rather, immigration simply "happened" (Arango 2014, Izquierdo 1996). There was no long-term strategy, but instead a mere attempt at adjusting to the growing and changing "needs" of the economy. As a consequence, the phenomenon's regulation tended to come about with a delay and many times towed by reality, as can be clearly seen in the frequent regularisations carried out at the end of the 1990s and the first few years of the 2000s and the late implementation of integration policies.

Despite this, the process of accommodating the immigrant population had mixed results just before the crisis in 2008. Its positive results included high labour force participation rates among immigrant workers and the absence of any significant social conflicts, as well as access to a range of basic rights and social services, which included access to obligatory education and also healthcare based on *de facto* residence regardless of legal status. This aspect was important in a country where most foreign workers had to

[2]The only universal birth/adoption benefit existing in Spain was thus withdrawn after being in force a little over three years, and the amounts of dependent child benefits were cut even more to almost irrelevant amounts (Cantó and Ayala 2014). Furthermore, student grant programmes and textbook and school meal subsidies were reduced in many regions (González-Bueno, Bello and Arias 2012).

go through a period of irregularity before being granted regular work and residence permits, as was also the case in other southern European countries.

Two aspects should be underlined among its negative results. Firstly, the inclusion of foreign nationals into the labour market came about disproportionately through precarious, badly paid, low-quality jobs, which offered almost no chance for professional promotion. These jobs represented a particularly "sticky" floor in Spain and greatly limited upward mobility in the country after arrival, especially in the case of workers from non-EU countries (Aysa-Lastra and Cachón 2013, Simón, Sanromá and Ramos 2014)[3].

Secondly, the period characterised by the greatest influx of migrants was also the time when house prices increased the most, above salaries and the Consumer Price Index. New residents found housing to be one of their main difficulties to settling down in Spain, with an expensive and diminutive rental market, an almost total lack of public housing and a property market fully immersed in a boom (González-Enríquez 2010, 27). As in the case of the United States, many families with insecure jobs and low wages purchased a home with the consent of the banks, thereby taking out mortgage loans which became a significant economic burden after the recession.

The final impact of the economic crisis on the integration trajectories of migrants is yet to be analysed. There is, however, clear evidence of a worsening in living, working and housing conditions in Spain linked to the destruction of many of the jobs they had held during the expansionary phase (Ballester, Velazco and Rigall-i-Torrent 2014, Rinken, Bermúdez-Torres and Cortés-Sánchez 2012, González-Enríquez [coord.] 2010).

[3]In this regard, Spain would represent a model of segmented or downward assimilation rather than the U-shaped pattern (degradation before recovery) suggested by classical assimilation theory. A typical limited upward trajectory would be from irregular work in domestic service or labour-intensive agriculture to a regular job in the building or catering industries.

Child outcomes. Over the last few decades, children in Spain have suffered a risk of poverty slightly above the average figure for the country, but which was high in terms of international comparisons. According to Eurostat data, Spain was the country with second highest child poverty rate in 2012 (nearly 30%), only behind Romania. It also has comparatively high values for the at-risk of poverty or social exclusion indicator included in the Europe 2020 strategy, resulting from the combination of a high risk of monetary poverty and a high unemployment rate. After the increase linked to the crisis, the percentage of children living in low work intensity households in Spain is the third highest after Ireland and Croatia[4].

The situation of children in Spain improves considerably if poverty in terms of severe material deprivation is analysed (less than 8% suffered it in 2013, a value similar to the figure for France or Belgium and lower than the EU-15 average). This result should be nuanced as regards two points. On the one hand, this favourable situation is not maintained if deprivation indices that give a greater weighting to financial strain and a lower weighting to durable goods are used (Guio and Museux 2006, Martínez and Navarro 2008). On the other, Spain is a country with high levels of inequality with regard to the material deprivation borne by families, and many studies have highlighted the especially vulnerable situation of specific groups of children.

Child poverty has traditionally been greater among both large and single-parent families, as well as among jobless households (Cantó and Mercader 1998). Some studies using longitudinal data have detected a high recurrence of child poverty in Spain, which is linked to the high temporary work levels in the labour market (Gradín and Cantó 2012, Cantó, del Río and Gradín, 2007).

[4] It is worth pointing out that children had better values than the EU average for this indicator before the crisis.

The impact of the recent migratory boom on the level and structure of child poverty has yet to be analysed in depth. Some recent studies have stressed the significant disadvantage of children of migrant households in Spain and the increasing proportion of children of immigrant origin among the poor (Martínez 2014, De Neubourg et al. 2012). However, the question of how the Great Recession has modified the gap between native and migrant children remains yet unclear. The economic crisis has hit both foreign and local families, but the unemployment and income impacts have been of different magnitude throughout the crisis, with native children much more affected after 2012 than over the period 2009-2011. Moreover, financial poverty and material deprivation levels were already much higher for immigrant children before the crisis, which makes it difficult to compare the worsening in relative terms. One of the goals of this paper is precisely to contribute to shed light on these questions, using the available data within the EUSILC framework.

Research Outline

The rest of this paper investigates the crisis's impact on the risk of poverty and the living standards of children in Spain. It takes as a starting point the three dimensions included in the poverty reduction objective of the Europe 2020 Strategy (low income, material deprivation and low work intensity) and adapts these indicators to enhance their analytical capacity. Special attention is paid throughout the paper on the role played by having a migrant background as a factor for special economic and social vulnerability. It examines the extent to which the gap between migrant and native children has changed and the role played in such changes by the work situation and differences in the types of tenure and costs of the main residence.

Measurement

Measuring multidimensional disadvantage. There is growing demand in the social sciences for a methodology that would allow the multidimensionality of concepts like poverty, social integration or well-being to be broached. Though the idea is not new, a clear practical expansion of multidimensional approaches has only come about in the last decade through the rapid development of principles, measures and data sources. In some cases, emphasis has been placed on a multi-indicator or dashboard perspective, which first aggregates within each dimension and then (as appropriate) among different dimensions. In others, measures have been proposed which aggregate each individual's different dimensions first, to generate an overall index based on individual scores subsequently. Whenever possible, this latter approach is used in this study, as it allows one to take into account the extent to which the different situations of disadvantage or deprivation coincide among the same individuals, an aspect which is relevant from the standpoint of social policy. This of course requires using a single database that provides information on the different dimensions, a fact which to some extent limits the aspects to be considered.

Aside from the limitations that may arise from the available data, the choice of relevant dimensions and indicators is no easy task. As Whelan and Maitre rightly point out, the fact that poverty or exclusion are multidimensional phenomena does not necessarily mean that their measurement should be so, or that including more dimensions in the analysis is necessarily better than including less. Rather, choosing a multidimensional approach should be justified on both theoretical and empirical grounds (Whelan and Maitre 2012, 252). In this study, the at-risk-of-poverty-and social exclusion indicator included as a target in the Europe 2020 Strategy is taken as a starting point and its possibilities and

constraints as a tool to analyse the impact of the crisis on the situation of children in Spain are analysed. The interrelationship between the three dimensions which form part of the index (low income, material deprivation and low household work intensity) are explored and different identification and aggregation strategies are compared, using the indices developed by Sabina Alkire and James Foster (Alkire and Foster, 2011a,b). Additional indicators are then included, taking advantage of the more extensive information available in the 6th and 10thwaves of the EUSILC data.

Focusing on children. Significant proposals to convert children into the true unit of measurement in studies on child poverty and well-being have been developed in recent years (World Bank 2011, Roelen and Gassmann 2008). This requires adopting an approach in which children's rights and needs guide the choice of relevant dimensions and indicators, thus overcoming the perspective which deals with child poverty as a mere subset of poverty as a whole. This would ideally require using child level indicators rather than household indicators, with or without a specific child focus (De Neubourg et al. 2012, 16).

Though we essentially share this viewpoint, this study basically follows the traditional approach, which takes the household as the basic reference, due to the fact that this is the level of reference of most of the indicators available in the data sources we use[5]. An array of material deprivation variables which refer directly to the scarcity suffered by children, though assessed by adults, is only available for 2009. Although this information do not allow us to assess changes after the crisis, it could be useful to analyse the relationship between general household deprivation and child deprivation just before the crisis, and has been used to do so in the paper.

[5]The survey also provides individual data on income, education, employment, health and other aspects, but only for household members above the age of 15 years.

Definitions and data source. The data source is the Living Conditions Survey ("Encuesta de Condiciones de Vida"), which has been conducted by the Spanish National Statistics Institute (INE) since 2004 and is aimed at providing comparable income and social inclusion data within the EUSILC framework. We use data from the 2nd-10th waves, corresponding to the period 2005-2013[6], as well as the special material deprivation 2009 module.

Following the most common criterion in international studies, all people under the age of 18 at the end of the reference year are defined as children. In order to determine the immigrant status, the information on the place of birth appearing in the survey for all people above the age of 15 is used[7]. Applying this criterion, the percentage of the population of foreign origin above the age of 15 increased from 9.2% in 2005 to 13.8% in 2010 and remained steady at around this figure between 2011 and 2013. These values are slightly lower than the figures provided by the Census for the same age group, but the difference does not exceed one percentage point on any of the dates (Table A.1, Appendix). Lastly, any children who live in households whose reference person[8] is an immigrant according to the above-mentioned criterion are defined as migrant children. Thus, the analysis includes truly immigrant children (born abroad) as well as the incipient second generation.

A significant constraint of the source is that the micro-data only identify large areas of origin, which do not allow for a detailed analysis of foreigners' national origin. At most, it is possible to differentiate between migrants of EU origin and non-EU origin, but not in a

[6]The version used includes revised weightings after the publication of the definitive 2011 Census results. Additionally, it should be pointed out that the income data gathering methodology changed as from ECV-2013 by combining the survey with the use of administrative data, making it difficult to compare said survey's income figures with all previous surveys.

[7]In line with other national and international studies, the place of birth criterion has been preferred over nationality to identify immigrants, and also due to the fact that the requirements for granting nationality in Spain vary greatly depending on the country of origin.

[8]The person holding responsibility for the accommodation is considered as the reference person.

perfectly comparable fashion throughout the period (see note to Table 1)[9]. Though results have been calculated separately for children residing in households headed by a non-EU migrant in some preliminary analyses, the increase ~~seen~~ in sample error advises against employing this breakdown with this data source.

Table 1. % Distribution of Children according to Migrant Status of Household Reference Person

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Native	85	83	81	79	78	78	78	78	79
Immigrant	15	17	19	21	22	22	22	22	21
EU	3	3	4	5	6	6	6	5	5
Non-EU	12	14	15	16	16	16	16	17	16
Total	100	100	100	100	100	100	100	100	100
(Million)	*7.6*	*7.8*	*7.9*	*8.1*	*8.2*	*8.3*	*8.3*	*8.4*	*8.4*

Source: Own research using ECV data, 2nd-10th waves.

Note: EU includes other countries belonging to the EU-27 between 2010 and 2013. Between 2005 and 2009, this category includes people born in an EU-25 country, along with those born in other European countries.

Applying the above-mentioned criteria, more than twenty out of every one hundred children currently live in households headed by an immigrant. Of these, more than fifteen out of every one hundred are of non-EU origin. An initial analysis of basic sociodemographic traits reveals there are some significant differences between native and migrant households. More specifically, immigrant children tend to live more in households of a greater size, with more children and younger reference persons with lower educational attainment levels (Table A.2, Appendix). On the contrary and in contrast with other countries, there are no significant differences according to immigrant status in the percentage of children living with single parents (less than one out of every ten in both cases).

[9] The population from other EU countries resident in Spain is equally divided (data for 2012) between those coming from richer Western European countries (United Kingdom, Germany, France, Portugal or Italy) and those born in Eastern Europe (mainly Romania, Bulgaria and Poland). Nevertheless, focusing the analysis on families with children greatly reduces the group's heterogeneity, as the mobility linked to tourism by retired Europeans is essentially excluded.

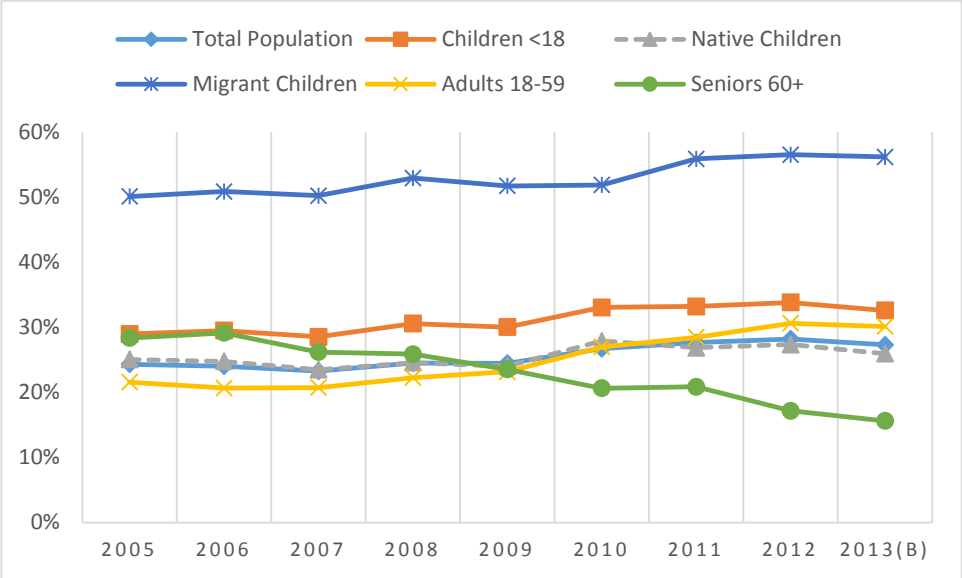
Results

The Europe 2020 Target Indicator

Figure 1 shows the average at-risk-of-poverty or social exclusion rates for the entire population and for different socio-demographic groups (native and immigrant children, adults and seniors aged sixty and over). According to the EU2020 target indicator, the overall risk of poverty and social exclusion has increased from around 24% during the period 2005-2008 to 28% in 2012[10]. This increase, though high in comparative terms within the European context, turns out to be surprisingly modest in a country with an unemployment rate that has increased by more than three times and where income of the poorest households has fallen by more than ten per cent in real terms. As will be seen further below, this is mainly due to the significant weight of the at-risk-of-poverty rate, which is calculated on a purely relative income threshold, within the overall indicator.

[10]The data for 2013 is not fully comparable with previous data due to the change in methodology used to obtain income (see note to Figures 1 and 2).

Figure 1. At-Risk-of Poverty or Exclusion Rates in Spain, 2005-2013



Source: Own research using ECV data, 2nd-10th waves.

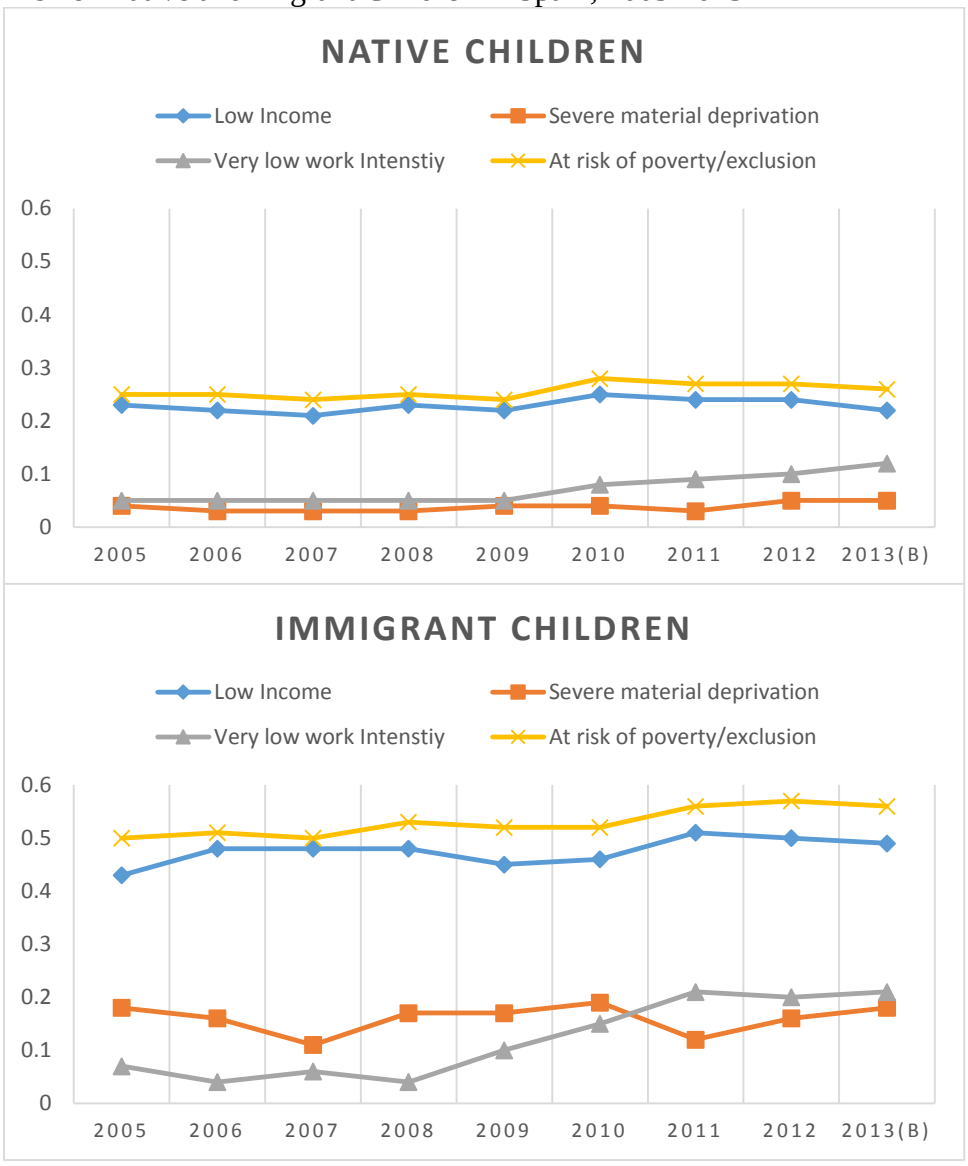
Note: (B) Break in the series due to the implementation of a new methodology to estimate income data in the ECV, combining survey and administrative data.

By groups, the worsening of the at-risk-of-poverty or exclusion rate has been more severe for working age adults, while seniors have significantly improved their relative situation since the crisis began. Throughout the period, children have maintained risk rates 20% above the population as a whole, distancing themselves from seniors during the period of crisis. The breakdown according to the household head's place of origin makes it clear that differences between children and the total population are basically driven by immigrant children outcomes. Native children are similar to the population as a whole, while migrant children differ greatly, with risk rates above 50% even before the beginning of the crisis.

A differentiated analysis of the three dimensions which make up the Europe 2020 indicator helps to sketch out these disparities and the changes which have come about in recent years. On the one hand, it should be pointed out that, in Spain, low income rates and trends determine around 90% of the level and evolution of the Europe 2020 poverty or

exclusion indicator. The contribution made by the other two dimensions is small. In both cases, Spain recorded better values than the EU15 average before the crisis. After the crisis, this positive position was maintained in the case of severe material deprivation. However, it was severely eroded for the work intensity indicator, which recorded the third worst result in the EU-28, thereby reflecting the intense destruction of employment.

Figure 2. Low Income, Severe Material Deprivation, Very Low Work Intensity and Total Risk of Native and Migrant Children in Spain, 2005-2013



Source: Own research using ECV data, 2nd-10th waves.

Note: (B) Break in the series due to the implementation of a new methodology to estimate income data in the ECV, combining survey and administrative data.

In any event, Figure 2 shows that the risk structure is different among immigrant and native children. Two aspects are well worth highlighting. On the one hand, children living in migrant households have low income rates which are two times higher than those of children living in native households. However, their levels of severe material deprivation are more than three times higher in all the years under study. On the other, the problem of very low work intensity was of a low magnitude for the two kinds of household before the crisis (the differences are not significant for a 95% confidence level[11]) and tended to rise during the years of crisis. The rise, however, was much more intense for immigrant children. Thus, although the gap in the overall risk indicator has not varied significantly during the crisis, the years of recession have added a further disadvantage for migrant children (greater parents' unemployment) to already pre-existing disadvantages (lower household income and greater severe material deprivation).

Deconstructing AROPE

The indicator chosen as the official target to monitor poverty reduction within the Europe 2020 Strategy has strengths and weaknesses, which were analysed in a previous study (Martínez and Ruiz-Huerta 2014). One of the main constraints is the use of an aggregation methodology based on a simple head-count union approach, thereby ignoring differences in the degree of overlap among the three dimensions mentioned above. This kind of measure is neither sensitive to the number of deprived dimensions of those identified as poor nor to the size of the gaps within each domain. The index will therefore not change if, for instance, a household having only low income in year *t* begins to suffer

[11] To compute confidence intervals we have followed the procedure recommended by Goedemé 2010.

material and/or employment deprivation in year *t+1*, since it has been already counted as a household at risk. A second questionable aspect concerns the specific choice made of the indicators and thresholds used, as this entails combining an indirect, relative viewpoint on poverty linked to each country's internal inequality (low income) with a direct viewpoint which is more associated to a low absolute standard of living (severe material deprivation), along with a possible causal factor for poverty (low work intensity). Though the work intensity indicator could be supported by the notion of reflecting the exclusion associated to the loss of employment, its theoretical and empirical justification has caused much debate among experts[12].

All this has important implications, because the same overall index level can conceal very different at-risk profiles in different territories or social groups, which in turn has clear implications on policy design. Thus, even if we are willing to accept that a simple union approach serves the aim of providing an estimate of the size of the "at-risk" population well, other complementary measures based on an "intersection" or and "intermediate" approach could be useful to analyse differences in deprivation profiles in a meaningful way for social policy.

Table 2 takes a first step in this direction by performing a sequential overlapping deprivation analysis based on current AROPE dimensions and indicators for two points in time, 2008 and 2012. The choice of the second date was conditioned by the difficulty of directly comparing 2013 income with that of previous years due to the change in the methodology used to obtain income data as of said year. For two and three-dimensional

[12]As Nolan and Whelan (2011, 18) put it, "At a conceptual level, the argument for including in the target population persons living in households that are jobless but are neither on low income (relative to their own country's median income) not materially deprived (relative to a common EU wide standard) is unclear. Joblessness might be better thought of as a factor leading to income poverty or material deprivation than as an indicator of poverty. Empirical analysis then shows that the group added to the target population by the inclusion of the joblessness/low work intensity criterion has a relatively high proportion from the professional and managerial classes and a relatively low proportion from the working class, and that being in this group is not associated with high levels of economic stress".

analyses, the table shows head-count ratios (H) for both the union and the intersection approaches, as well as the Alkire-Foster M_0 measure for different dimensional cut-offs.

Table 2. AROPE Based Sequential Overlapping Deprivation Analysis, 2008 and 2012

	Native Children		Immigrant Children		All Children		Whole Population	
Dimensions/Measures	2008	2012	2008	2012	2008	2012	2008	2012
One dimension								
Low income	22.8	24.1	48.3	50.4	28.2	29.9	20.8	22.2
Material deprivation	2.6	5.1	16.5	16.3	5.5	7.6	3.6	5.8
Low work intensity	4.5	10.3	3.9	20.2	4.4	12.7	5.3	11.4
Two dimensions								
Low income- Material deprivation								
H Union	23.4	25.4	52.4	55.4	29.6	32.1	22.4	24.5
H Intersection	1.9	3.7	12.4	11.3	4.1	5.4	2.0	3.5
M_0 Cut-off=1	12.7	14.6	32.4	33.4	16.9	18.7	12.2	14.0
Low income-Low work intensity								
H Union	23.9	26.3	48.8	51.6	29.2	31.9	23.1	26.3
H Intersection	3.4	8.1	3.5	19.0	3.4	10.5	3.0	7.2
M_0 Cut-off=1	13.6	17.2	26.1	35.3	16.3	21.2	13.0	16.8
Material deprivation-Low work intensity								
H Union	6.3	12.7	20.1	28.9	9.2	16.3	8.3	14.9
H Intersection	0.8	2.8	0.4	7.6	0.7	3.8	0.6	2.4
M_0 Cut-off=1	3.6	7.7	10.2	18.3	5.0	10.1	4.4	8.6
Three dimensions								
H Union (AROPE)	24.6	27.4	52.9	56.5	30.6	33.9	24.6	28.3
H Intersection	0.8	2.5	0.4	7.6	0.7	3.6	0.5	2.1
M_0 Cut-off=1	10.0	13.2	22.9	29.0	12.7	16.7	9.9	13.1
M_0 Cut-off=2	3.2	7.2	10.4	17.8	4.8	9.6	3.2	6.7

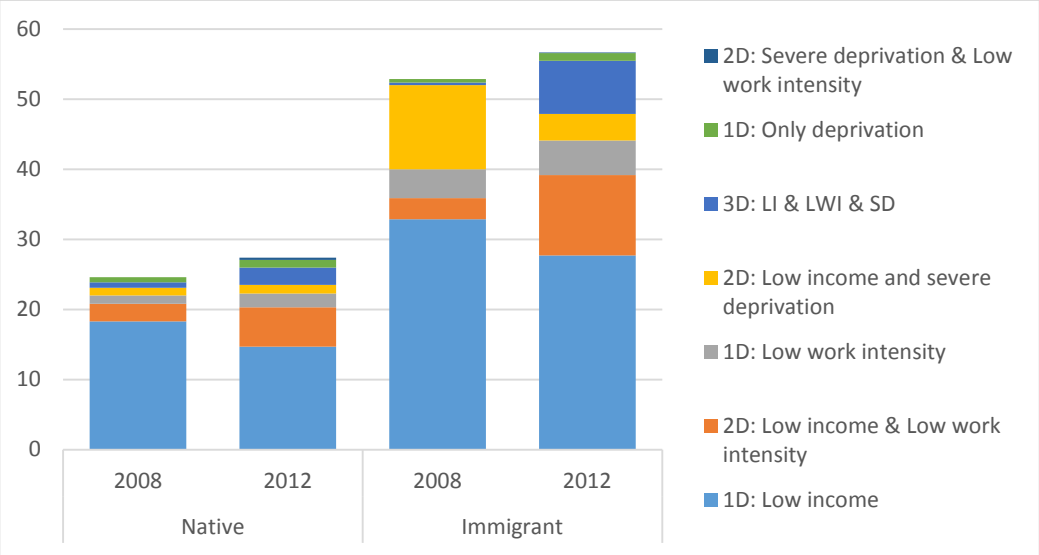
Source: Own research with ECV data, 5th and 9th waves, using DASP Stata package version 2.3 developed by Araar Abdelkrim and Jean-Ives Duclos.

Note: (B) Break in the series due to the implementation of a new methodology to estimate income data in the ECV, combining survey and administrative data.

Several conclusions are worth pointing out. First, the most common at-risk profile on both dates is that of children living in low-income families, not severely deprived and not classified as low work intensity households. This predominance is much more common among native families than among immigrants (according to 2008 data, 74% of all native

children at risk were situated in this group, as opposed to 62% of migrant children). This figure fell in both cases during the crisis (to 54% and 49% respectively). Figure 3 below, which reflects the percentage of children in the different at-risk profiles in 2008 and 2009[13], allows us to easily grasp this fact.

Figure 3. Different AROPE Profiles for Native and Immigrant Children, 2008 and 2012



Source: Own research using ECV data, 5th-9th waves.

Second, the weight of the remaining profiles varies depending on the year and group. Before the crisis, the second most frequent profile for immigrant children was the low income and severe material deprivation without low work intensity profile (one out of every four children at risk). Severe material deprivation even without low income or low work intensity was the third most frequent profile. For native children, however, the second most relevant profile was low income and low work intensity (without severe material deprivation), which accounted for about one out of every ten children at risk. After the crisis, this profile became twice as frequent. In addition, the number of children living in households suffering the three kinds of scarcity, which were statistically irrelevant

[13]Two profiles which are barely significant are left out, as is explained in the note at the foot of the figure.

in 2008, doubled and included 3% of children of Spanish origin. In the case of migrant family children, the crisis led to an even more intense rise in the risk of being deprived at the same time in the three dimensions (8% of immigrant children), or combining low income and low work intensity (12% of immigrant children). On the other hand, the low income and material deprivation without low work intensity profile fell by eight percentage points.

Third, the above-mentioned differences necessarily mean that the magnitude of changes in the risk of suffering poverty or exclusion depends on the specific measure used. If the official Europe 2020 indicator is used, the increases are moderate and of the same magnitude (in relative terms) for both migrant and native children. On the other hand, if an intersection approach is used, the rise in the risk of suffering poverty was intense during the crisis and has had a disproportionate impact on migrant children when simultaneously considering all three dimensions, as well as in the two-by-two analyses (except in the case of the low income and material deprivation combination). Given the low number of dimensions, it should also be noted that the differences between the union and intersection approaches are much more decisive than the differences resulting from using a head-count type index or the Alkire-Foster M_0 measure.

This conclusion, though important, is of limited scope due to the restrictive nature of the notion of severe material deprivation included in the Europe 2020 indicator, which is barely suitable to assess the true extent of the economic difficulties encountered by families in a country like Spain. This is partly due to the high weighting given to durable goods (television, telephone, dish washer and car), which are almost universally owned by most Spanish households and whose ownership is not very sensitive to the economic cycle[14], as well as because of the low total number of indicators and the scale's low overall

[14]As difficulties only become evident at the moment such goods are renewed. This question is analysed in more detail in Martínez and Navarro (2014), where alternative measures are also developed.

reliability. At an aggregate level, this excessive severity entails that severe material deprivation affects a little more than 6% of the population, even after five years of crisis, as opposed to the more than 20% receiving low incomes. This obviously limits the usefulness of the intersection approach to identify the at-risk population.

Lastly and apart from the changes resulting from the crisis, the differences in low income levels and especially (severe) material deprivation among Spanish and migrant families, even before the beginning of the recession and despite similar levels of work intensity, are striking, though not unexpected. Although low work intensity undoubtedly turns out to be a factor for exclusion, the data presented above reveal that work did not provide a sure path to escape from poverty and material deprivation for a significant number of migrant families with children in either 2008 or 2012.

Material Deprivation

Overall results. Of the three dimensions included in the official Europe 2020 indicator, material deprivation is undoubtedly the most direct poverty indicator and the one which best reflects to what extent things that we usually assume that "could happen" (Micklewright 2002, 3) if a household has low work intensity and/or insufficient income do really come about in practice. The previous analysis suggests that the negative consequences on the standard of living are, as a matter of fact, much more intense among immigrant families than among native families before and after the crisis.

This issue is thus analysed in greater detail in this section, using the richer information on material deprivation contained in the surveys conducted in 2009 and 2013. An aggregate index based on the thirteen general indicators suggested by Guio, Gordon and Marlier (2012) is first constructed to replace the current severe material deprivation

index (Table 3). These thirteen indicators form a scale whose reliability, as measured by Cronbach's alpha, reached 0.8143 in 2009 and 0.8469 in 2013, well above the acceptability threshold.

Table 3. % Material Deprivation Using a Wider Set of Indicators, 2009 and 2013

	Native Children		**Immigrant Children**		**All Children**		**Whole population**	
	2009	2013	2009	2013	2009	2013	2009	2013
(H) Meat, chicken, fish every second day	1	3	7	8	2	4	2	3
(H) One week holiday away from home	40	45	66	69	45	50	42	48
(H) To heat the home adequately	5	5	19	20	8	9	7	8
(H) A car/van for private use	3	5	18	18	7	8	6	6
(H) To face unexpected expenses (amount=monthly national poverty threshold)	32	40	74	73	41	47	37	42
(H) To avoid arrears (mortgage or rent, utility bills or hire purchase instalments)	12	14	33	31	17	17	11	12
(H) To replace worn-out furniture	37	45	64	67	43	49	38	45
(H/A) A computer and an internet connection	5	4	19	13	8	6	5	5
(A) To replace worn-out clothes by some new (not second-hand) clothes	5	14	13	30	6	18	5	16
(A) Two pairs of properly fitting shoes	2	3	6	7	3	4	2	3
(A) To spend a small amount of money each week on oneself without having to consult anyone	15	27	38	50	20	32	17	26
(A) To get together with friends/family for a drink/meal at least monthly	8	11	20	30	11	15	10	13
(A) To have regular leisure activities	13	23	33	45	18	28	15	23
% living in households reporting deprivation of:								
4+ items	19	29	53	64	27	36	22	30
5+ items	13	22	39	52	18	28	15	23
6+ items	10	16	30	38	14	21	10	17

Source: Own research using ECV data, 6th and 10th waves.

Notes:(H) items are gathered at the household level, whereas (A) items are gathered for all household members aged 16 or over. For the latter, we consider a household as deprived if there is at least one member lacking the item. The same criterion was followed in the case of Internet connection, which was gathered at an individual level in 2013 and at a household level in 2009.

It can be seen that material deprivation clearly rose between 2009 and 2013 for the population as a whole, though its magnitude depends on the threshold taken into consideration. When the intermediate threshold (five or more items) is chosen, the percentage of the deprived population rose from 15% in 2009 to 23% in 2013, an increase of just over 50%. If we focus our attention on children, the great differences between children living in migrant families and the rest are confirmed: native children have values similar to or slightly lower than those of the population as a whole, while immigrant children have rates which are two or three times higher, depending on the threshold and year considered.

The crisis has clearly worsened the situation of both groups, especially with respect to the indicators on replacing worn-out clothes, spending money on oneself, having regular leisure activities and getting together with family or friends for a drink or meal. Among native families' children, the indicators on the ability to face unexpected expenses and to replace worn-out furniture have also worsened, clearly revealing increased vulnerability as a result of the crisis. In the case of immigrant children, the frequency of these problems greatly exceeded 60% already in 2009.

In aggregate terms, the *relative* deterioration for the three thresholds included in the table was slightly greater for native children than for migrant children, who already had very high levels at the onset of the crisis. This conclusion should, in any case, be treated with caution, as the crisis had already begun to erode the situation of migrant families in terms of employment, poverty and living standards in 2009 (Martínez 2010). Moreover, relative variations can offer a misleading yardstick to evaluate the impact of the crisis when initial absolute values are so different.

Household versus child-specific items. The above-mentioned results assess the situation of children on the basis of the overall deprivation suffered by the household they belong to, which was measured according to the items included in Table 3 above. Fourteen additional indicators focused on the needs of children are also available for 2009 (but not for 2013). We have made an effort to verify the extent to which children identified as deprived through one or other set of items coincide with a reasonable degree of certainty. In order to do so, we designed a material deprivation index based solely on indicators with a child focus (Table 4). Of the fourteen items initially available, the indicators referring to the ability to offer children at least three meals a day and the availability of an open-air space in the neighbourhood where they can safely play were excluded due to the poor item-test and item-rest correlation of both variables (and particularly of the latter). The scale containing the remaining twelve indicators has an overall reliability (Cronbach's alpha) of 0.8425.

Table 4. Material Deprivation Using Child-Specific Items, 2009

	All Children	**Native Children**	**Immigrant Children**
New clothes (not second hand)	5	3	13
Two pairs of properly fitting shoes	2	1	6
Fresh fruits & vegetables daily	2	0	6
Meat, chicken, fish daily	1	0	3
Suitable books	2	1	6
Outdoor leisure equipment	5	2	16
Indoor games	3	1	10
Leisure activities	6	3	18
Celebrations	7	4	17
To invite friends	5	3	13
School trips	6	4	16
Suitable place to study at home	5	2	14
% living in households reporting deprivation:			
1+ items	16	9	40
2+ items	10	5	29
3+ items	7	3	20
4+ items	5	2	16
5+ items	4	1	12

Source: Own research using ECV data, 6th wave.

The results of Table 4 lead to two interesting conclusions. On the one hand, when considering *solely* these indicators, child deprivation levels are relatively moderate and affect 16% of children at most when using the lowest possible threshold, and only 4% whith the "five or more items" threshold. On the other, there are great differences between migrant and native children, with a significantly wider gap than the one seen in Table 3, which is based on household and adult-level items. Only 9% of native children lack at least one item of the list included in Table 4, as opposed to 40% of migrant children. In the case of the threshold set at three or more items, the percentage fell to 3% of native children, but remained above 20% for children of foreign origin. This seems to suggest that the margin migrant families have to avoid situations of deprivation among children is significantly lower.

The second relevant issue is, of course, the degree of consistency or discrepancy between the two measures when identifying children suffering deprivation. If the children being deprived according to child-specific indicators are essentially a subset of the children detected through household indicators, as Whelan and Maitre have verified in the case of Ireland (Whelan and Maitre 2012), having both measures available is not so vital than if they had delimited clearly distinct sets –though knowing the characteristics of this subset is obviously relevant in social terms.

Our analysis shows that the Spanish data broadly support a conclusion similar to the one obtained for Ireland, especially when using the "three or more items" threshold. More than 90% of the children considered as being at risk with this threshold belong to households lacking five or more items in list contained in Table 3. The percentages are somewhat lower (79% and 66% respectively) for the two lower thresholds. However, the

great majority of those not included in these cases belong to households which would be deprived using also slightly lower thresholds (three or four items) for the general list.

Table 5. Child-Specific Material Deprivation According to Migrant Status and Household Deprivation Level, 2009

	All Children		**Native Children**		**Immigrant Children**	
	Deprived household (5+ items)	Not deprived household	Deprived household (5+ items)	Not deprived household	Deprived household (5+ items)	Not deprived household
Clothes	23	1	17	0	29	2
Shoes	12	0	9	0	16	0
Fruits	8	0	3	0	14	0
Meat	5	0	4	0	7	0
Books	9	0	4	0	14	1
Outdoor	21	2	13	0	31	7
Indoor	13	0	6	0	22	2
Leisure	27	2	17	1	38	6
Parties	29	2	21	1	38	3
Friends	24	1	20	1	28	3
Trips	25	2	19	1	32	6
Study	17	2	11	1	25	8
% living in households reporting deprivation:						
1+ items	57	7	46	4	71	21
2+ items	43	3	31	1	57	12
3+ items	34	1	23	0	47	3
4+ items	27	0	16	0	39	2
5+ items	19	0	10	0	30	0

Source: Own research using ECV data, 6th wave.

Table 5 allows us to view this question from another angle, as it shows the child-specific material deprivation rates of children living in households with and without household material deprivation, breaking it down according to migrant status. A close relationship between both kinds of deprivation evidently exists, especially among migrants. Thus, 71% of the migrant children detected by the overall deprivation index were deprived of at least one child-specific indicator and a notable 30% were deprived of five or more items. The comparable values for native children are 46% and 10%.

The role of work. Table 6 shows how the level of material deprivation among children changes (using the general index and also the index based on child-specific items for 2009) depending on the level of work intensity of the household in which they live. It also shows at-risk of poverty rates before and after welfare benefits, as well as the levels of "consistent" poverty (children simultaneously suffering from low income and material deprivation).

On the one hand, it is clear that low work intensity is associated to higher levels of material deprivation among children of both migrant and native Spanish families (Table 6). According to the data for 2009, 56% of native children and 62% of immigrant children living in low work intensity households were deprived. In addition, a very significant proportion of these children also suffered deprivation according to child-specific indicators, especially among those living in immigrant families.

A second fact worth pointing out is that, though material deprivation rates are much higher among immigrant children irrespective of work intensity levels. In fact, the greatest differences in percentage terms were not recorded among households with low, but rather with high work intensity, with rates four times higher for immigrants. In the case of the child-specific indicators available for 2009, no children of native families with a high work intensity was deprived of three or more items. This, however, was the case for 11% of migrant children in the same situation.

The above-mentioned difference also affects "consistent" poverty: only 1% of children in high work intensity Spanish families suffer low income and deprivation simultaneously, both before and after the crisis. However, approximately one out of every ten immigrant children find themselves in this situation in 2013, despite coming from "hard working" households. As for native families, consistent poverty is three times less

frequent than for immigrant families, and it is limited to a greater extent to low work intensity households.

Table 6. Material Deprivation and "Consistent Poverty" According to Work Intensity Level and Migrant Status, 2009 and 2013

	%	Low income (before transfers)	Low income (after transfers)	Material deprivation	"Consistent" poverty	Child specific deprivation
2009						
Native Children						
High WI	53	11	9	5	1	0
Intermediate WI	42	44	31	18	8	4
Low WI	5	95	79	56	50	20
Total	100	29	22	13	7	3
Migrant Children						
High WI	42	24	20	24	8	11
Intermediate WI	48	66	57	47	29	23
Low WI	10	96	90	62	62	42
Total	100	51	45	39	23	20
2013						
Native Children						
High WI	46	8	5	7	1	..
Intermediate WI	41	45	26	25	10	..
Low WI	12	96	75	64	51	..
Total	100	34	22	22	11	..
Migrant Children						..
High WI	23	37	21	30	10	..
Intermediate WI	56	60	46	50	30	..
Low WI	21	98	87	83	73	..
Total	100	63	49	52	35	..

Source: Own research using ECV data, 6th and 10th waves.

Notes: (..) Not available.
Low income and consistent poverty rates are not fully comparable between 2009 and 2013, due to the implementation of a new methodology to estimate income data in the ECV-2013, combining survey and administrative data. Material deprivation: 5+ items lacked out of thirteen general items. Child specific deprivation: 2+ items lacked out of twelve child specific items. Work intensity levels defined as follows: Low= 20% or less. Intermediate= 21-74%. High: 75%-100%.

The patterns mentioned above do not seem to have changed significantly with the crisis, though a direct comparison of income and consistent poverty data has to be taken with caution due to the change in the methodology used to gather income data.

Nonetheless, the weighting of each profile has changed, especially in the case of migrant families and risks have become more acute in some cases. Only 23% of immigrant children lived in high work intensity households in 2013, a figure almost 20 percentage points lower than in 2009. At the same time, there was a rise in the percentages of children living in medium and low work intensity households (to 56% and 21% respectively). Material deprivation (and consistent poverty) grew between 2009 and 2013 in the three categories, particularly in very low work intensity households: 83% of migrant children included under this group were materially deprived, and 73% was consistently poor. We lack data to know how many of these children also suffer deprivation of the specific needs contained in Table 5 above, but there is no reason to think that the situation is any better than in 2009, but rather otherwise.

Changes in the level of work intensity have been lower in the case of native children's families. They are, however, significant as well: the number of children in high work intensity households fell by seven percentage points and the number of children in low intensity households rose by the same amount, while material deprivation rates increased for all levels of work intensity. Given that material deprivation among native families is much more linked to problems of employment and sub-employment than among immigrant families, the relative worsening was intense between 2009 and 2013 also for this group.

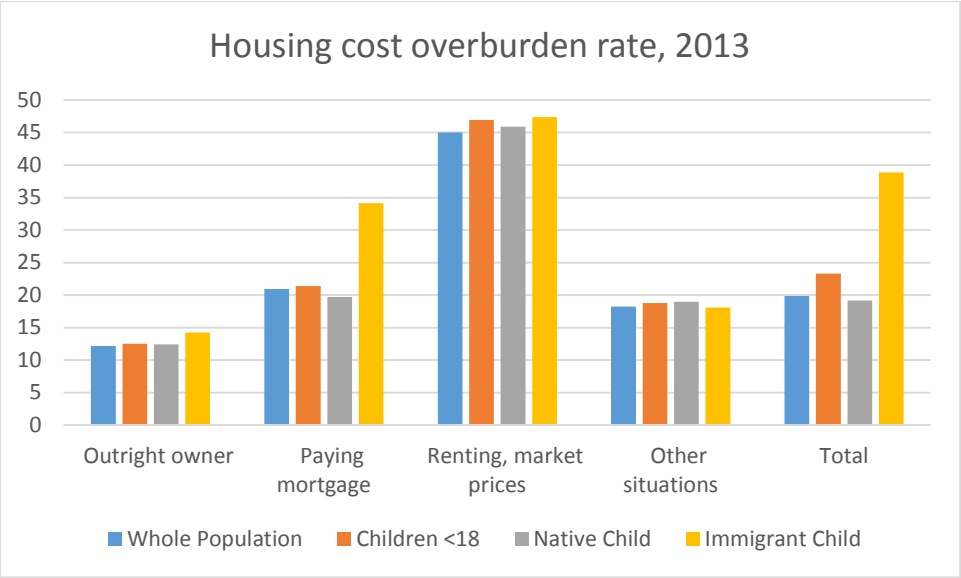
One last aspect which is worth commenting on is the role played by benefit transfers in the reduction of monetary poverty, which is modest in general terms, but especially so in the case of migrant families. Focusing on the data for 2013 – which offer more reliable results due to the use of administrative and tax records to correct the survey data –, the set of welfare benefits reduces child poverty by about one third for native children (from 34% to 22%), but only by about one fifth in the case of migrant children

(from 63% to 49%). The benefits' inability to take children out of poverty is more obvious among low work intensity households: 75% of native children and 87% of migrant children still have income levels below the threshold, even with benefits.

The role of housing costs. The difficulties encountered to cover housing costs have been a distinctive feature in Spain in recent years, particularly since the sharp rise in housing prices since 2000. This trend is worrying, as there is ample evidence on the relationship between housing costs and poverty[15]. Situations of being overburdened by housing costs, using the EU definition (rental, bill or mortgage interest costs exceeding 40% of a household's disposable income), were already on the rise before 2009 and have continued rising during the crisis to reach one of the highest values in the European Union (the second highest after Greece in 2012 for children under the age of 18). Only Ireland recorded a similar increase in this indicator between 2004 and 2012 among EU Member States, though with lower absolute values. The rise has been particularly notable for low-income groups: 17% of people in the first quintile were overburdened in 2004 as opposed to 52% in 2012. After the methodological break caused by the new income data gathering procedure, the figure for 2013 was almost 40%.

Figure 4. Housing Cost Overburden Rate According to Type of Housing Tenure and Migrant Status, 2013

[15]An interesting recent review of this topic focusing on Britain is provided by Tunstall et al. (2013).



Source: Own research using ECV data, 10th wave.

The risk of being overburdened by housing costs is clearly linked to the type of tenure held (Figure 4). The highest values correspond to households paying rent at market prices, with an overburden rate of around 45% for both migrants and native Spaniards – though very few of the latter actually live in rented homes. Overburdening is also very high among migrant families paying a mortgage, even if only mortgage repayments corresponding to interest repayments are taken into consideration[16]. It is much lower, on the other hand, for outright owners in the case of both native as well as migrant families. In aggregate terms, these differences adversely affect children compared to older population, and migrant children compared to native children, given the significant weight of rental costs and the low presence of outright ownership among families of foreign origin (Table 7). Thus, four out of every ten immigrant children live in households with "excessive" housing costs, doubling the figure for native children.

[16]Because mortgage principal repayments are not considered as an expense, but rather as an investment. Nonetheless, such repayments have also been a significant burden for many families during the crisis, as they have been unable to lower their repayments or sell their homes in a context of falling house prices. It should be noted that, unlike in other countries, mortgage debt in Spain is not extinguished when the keys of the mortgaged home are handed over if its value is lower than that of the loan.

Table 7. Distribution According to Housing Tenure, 2013

	Whole population	**Children**		
		All	Native	Migrant
Outright owner	46	25	30	5
Paying mortgage	32	48	54	27
Renting, market prices	13	17	6	57
Other situations	9	10	10	11
Total	100	100	100	100

Source: Own research using ECV data, 10th wave.

All the above is highly relevant to understand the gap in terms of material deprivation, given that the same level of income may serve to escape poverty or not depending on housing costs. It is also important when assessing the effects of the crisis on children's living standards, as being in debt worsens the negative impact of losing a job, while accumulated wealth or savings cushion it. At the beginning of the crisis, a majority of immigrant households and also many native families had very little accumulated wealth and high housing costs, which were difficult to adjust in the short term. An extreme consequence of this has been evictions, which have increased during the crisis and especially in 2013, as the deadlines renegotiated with financial institutions at the beginning of the crisis ran out.

Table 8. Low Work Intensity, Material Deprivation and "Consistent Poverty" Among Children According to Housing Tenure and Migrant Status, 2009 and 2013

	Low work intensity		**Material deprivation**		**Child specific deprivation**	**Consistent poverty**	
	2009	2013	2009	2013	2009	2009	2013
Outright owner	5	14	9	16	5	4	8
Paying mortgage	3	8	14	24	7	5	10
- Native Children	3	6	11	19	4	4	7
- Migrant Children	3	21	33	62	25	12	34
Renting, market prices	11	23	40	50	28	27	36

- Native Children	13	22	26	41	10	18	29
- Migrant Children	10	23	43	54	33	29	39
Other situations	19	25	33	40	14	26	28
Total	6	14	18	28	10	10	16

Source: Own research using ECV data, 6th and 10th waves.

Table 8 shows the work situation of households where children live, together with material deprivation and consistent poverty levels in 2009 and 2013 according to the type of housing tenure. Although the low work intensity rate rose for all groups, the increase was particularly striking for migrant families immersed in purchasing a property (from 3% to 21%). During the same period, their material deprivation rate rose from 33% to 62%, while their consistent poverty rate increased from 12% to 34%. In the case of native families with mortgages, material deprivation and consistent poverty also increased in the period, but levels remained below the national average both before and after the crisis.

The children of families living in rented homes have also high and growing deprivation and consistent poverty rates, though the worsening in this group has been more severe (in relative terms) for the minority of native Spaniards who have a rented home. This group is mainly comprised of very young low-income families holding precarious jobs, which had been unable to initiate the process of purchasing their own home and whose work and financial situation have further deteriorated during the crisis.

Conclusions

After a decade of expansion which combined high economic growth rates and a significant boom in immigration, Spain is currently one of the countries hardest hit by the crisis. It has suffered successive falls in real family income, significant rises in unemployment and an increase in economic inequality. This paper has analysed the impact

of these changes on the risk of poverty and exclusion among children, using different approaches and paying special attention to the gap between migrant and native children.

According to the official indicator included in the Europe 2020 Strategy, children under the age of 18 in Spain suffer a risk level approximately 20% higher than the overall figure both before and after the crisis. It has been shown that this disadvantage among children is basically driven by immigrant children outcomes, with low income and, particularly, severe material deprivation levels which greatly exceed the figures for native children, even before the crisis.

Furthermore, the at-risk of poverty or exclusion rate rose by approximately 10% for children during the period of crisis. This figure is in keeping with the evolution recorded for the population as a whole, though not for people over the age of 60, who clearly improved their relative situation throughout the period of crisis. The increase was similar for immigrant and native children in relative terms, though the former started off with much more unfavourable levels.

The above-mentioned indicator, however, suffers from certain limitations. On the one hand, it is not sensitive to the degree of overlap among the three dimensions it considers or to the size of the gaps in each dimension. Additionally, as a result of the indicators chosen, the contribution made by the work intensity and, especially, the material deprivation indices is very limited. It therefore shares many of the drawbacks the low income rate has as a poverty measure.

A sequential overlapping deprivation analysis of the three dimensions that make up the indicator shows that the risk profiles of immigrant and native children differed significantly before the crisis, with a much greater weight for situations combining low income and severe material deprivation among the former for similar levels of work intensity. The crisis led to a more significant increase in unemployment among migrant

families, especially in the first few years, which resulted in an increase of the risk profile including the three disadvantages (low income, severe deprivation and very low work intensity), which was much higher in the case of immigrant children. Thus, if a risk measure based on an "intersection approach" is used, the rise in the risk of suffering poverty or exclusion turns out to be much higher throughout the crisis than the figure suggested by the official measure, especially for the children of migrant families.

This conclusion, though important, is of limited scope due to the restrictive nature of the notion of severe material deprivation included in the Europe 2020 indicator, which is barely suitable to assess the true extent of the economic difficulties encountered by families in a country like Spain. That is the reason why the changes caused by the crisis are analysed in much more detail in the second part of the paper using broader information on material deprivation, which is only available for 2009 and 2013. These data allow us to build a material deprivation index having enhanced properties and a much greater degree of reliability, which gives a lower weighting to durable goods and a greater weighting to the impossibility of sharing in daily consumption activities due to a scarcity of resources.

The material deprivation of children rose from 18% in 2009 to 28% in 2013 according to this index, taking an intermediate threshold (five or more items) as a reference. In the case of immigrant children, the absolute increase was of thirteen percentage points (from 39% to 52%) and of nine percentage points (from 13% to 22%) in the case of native children.

The above-mentioned index is only based on thirteen indicators showing the disadvantages suffered by the household and its adult members, as the indicators referring to the specific needs of children (being able to afford adequate food, buying books and toys, holding birthday parties and similar) are only available for 2009. The data for this year has allowed us to verify the hypothesis that child deprivation measured through these

child-specific indicators is highly correlated to the general household deprivation, though the ability of households to prevent their children from suffering disadvantages is significantly lower in the case of immigrant families.

Lastly, we have analysed the relationship between material deprivation and consistent poverty (low income with material deprivation) with low work intensity and households' housing costs. It has been shown that low work intensity is associated to higher material deprivation levels among children of both immigrant and native Spanish families both before and, above all, after the crisis. According to the data for 2013, 83% of migrant children whose parents had low work intensity suffered from material deprivation and 73% of them suffered from consistent poverty. Moreover, although immigrant children have higher material deprivation and consistent poverty rates for all household work intensity levels, the greatest differences in relative terms were recorded among households with high (rather than low) work intensity. One out of every ten children in these "hard working" families lacked three or more child-specific items in 2009, a fact which did not occur among virtually any Spanish working families.

The type of housing tenure and housing-related costs are a significant explanatory factor for the differences mentioned above. Unlike native children, most migrant children live in rented homes, which have high housing costs overburden rates, or in mortgaged homes with high outstanding repayments, as they were purchased in the years leading up to the bursting of the housing bubble. Our analysis shows that it is this last group – mortgaged migrant families – which has undergone the most severe erosion during the crisis due to the abrupt rise in unemployment and the little margin they had to renegotiate mortgage loans or sell their homes after the crisis began. More than six out of every ten children in these families suffered material deprivation in 2013, a figure which almost doubles the figure recorded only four years before.

To conclude, the crisis has aggravated the situation of a (progressively immigrant) working class that had already found itself in a precarious situation at the peak of the economic boom. In particular, it worsened the prospects of families in the process of consolidating their migratory projects which had being earning sufficient income to finance the purchase of a home due to the fact that several family members were employed. However, it has also punished many children living in native families, especially those in young, low-income families hardest hit by unemployment and living in rented homes.

Although the crisis has obviously triggered a fall in living standards among many children, it is of interest to highlight that the ultimate cause of the effects observed lies in certain structural and institutional features. Apart for being unsustainable in the long term, the growth model which fed the economic boom was incapable of generating sufficient quality jobs to ensure firm prospects of upward mobility among the most vulnerable classes– mainly young people with low educational attainment levels and immigrant households facing high housing costs. Moreover, the weakness of welfare policies targeted at families and children, which were incapable of preventing the risk of financial poverty for two-thirds of native children and four-fifths of immigrant children having family income levels below the threshold, constitutes a "political" issue that merits thorough reflection. If the way children are treated is a measure of civilisation that also shapes the future of a society, as the first UNICEF report on child poverty in rich countries affirmed almost fifteen years ago (UNICEF 2000, 23), Spain still has a very long way to go to improve outcomes in this critical domain.

References

Abdelkrim, Araar and Jean-Yves Duclos, "DASP: Distributive Analysis Stata Package", PEP, World Bank, UNDP and Université de Laval, 2007.

Alkire, Sabina and James Foster, "Counting and Multidimensional Poverty." *Journal of Public Economics* 95(2011): 476-487.

Alkire, Sabina and James Foster, "Understandings and misunderstandings of multidimensional poverty measurement." *Journal of Economic Inequality* 9(2011): 289-314.

Arango, Joaquín. "Del boom a la crisis: la inmigración en España de la primera década del siglo XXI." In *Crisis e inmigración: reflexiones interdisciplinares sobre la inmigración en España*, coordinated by Francisco J. Matia and Ignacio Álvarez-Rodríguez. Barcelona: Tirant Lo Blanch, 2012.

Ayala, Luis, Olga Cantó, and Juan G. Rodríguez, "Poverty and the business cycle: The role of the intra-household distribution of unemployment." ECINEQ WP 2011-222, 2011.

Aysa-Lastra, M. and Lorenzo Cachón, "Movilidad ocupacional segmentada: el caso de los inmigrantes no comunitarios en España." *Revista Española de Investigaciones Sociológicas*, 144 (2013): 23-47.

Ballester, Ramon, Jackeline Velazco, and Ricard Rigall-I-Torrent. "Effects of the Great Recession on Immigrants' Household Consumption in Spain." *Social Indicators Research* (2014): 1-27.

Blundell, Richard, Luigi Pistaferri, and Ian Preston, "Consumption Inequality and Partial Insurance." *American Economic Review* 98 (2008), no. 5, 1887–1921.

Bradshaw, Jonathan, Bruno Martorano, Luisa Natali, and Chris de Neubourg, "Children's subjective well-being in rich countries." *Child Indicators Research* 6 (2013), no. 4, 619-635.

Bradshaw, Jonathan, Yekaterina Chzhen, Chris de Neubourg, Gill Main, Bruno Martorano, and Leonardo Menchini, "Relative Income Poverty among Children in Rich Countries", Innocenti Working Paper 2012-01, UNICEF Innocenti Research Centre, Florence, 2012.

Cantó, Olga, Coral del Río, and Carlos Gradín, "What helps households with children in leaving poverty? Evidence from Spain". In Bishop, John, and Yoram Amiel [eds.], *Inequality and poverty (Research on Economic Inequality, Volume 14),* Emerald Group Publishing Limited, 2007.

Cantó, Olga, and Magda Mercader, "Child poverty in Spain: what can be said?", Innocenti Occasional Papers, EPS 66, 1998.

Collett, Elizabeth, *Immigrant Integration in Europe in a Time of Austerity*. Washington, DC: Migration Policy Insitute, 2012.

Corak, Miles, "Do Poor Children Become Poor Adults? Lessons from a Cross-Country Comparison of Generational Earnings Mobility". In Creedy, John, and Guyonne Kalb [ed.] *Dynamics of Inequality and Poverty (Research on Economic Inequality, Volume 13)* Emerald Group Publishing Limited, pp.143-188.

De Neubourg, Chris, Jingqing Chai, Marlous de Milliano, lze. Plavgo and Ziru Wei, "Step-by-Step Guidelines to the Multiple Overlapping Deprivation Analysis (MODA)", Working Paper 2012-10, UNICEF Office of Research, Florence, 2012.

De Neubourg, Chris, Jonathan Bradshaw, Yekaterina Chzhen, Gill Main, Bruno Martorano and Leonardo Menchini, "Child Deprivation, Multidimensional Poverty and Monetary Poverty in Europe". UNICEF Innocenti Research Centre, 2012.

Duncan, Greg, and Katherine Magnuson, "The long reach of early childhood poverty". In *Economic Stress, Human Capital, and Families in Asia* (pp. 57-70). Springer Netherlands, 2013.

Duncan, Greg, and Jeanne Brooks-Gunn [ed.] (1997), *Consequences of growing up poor*, Nueva York, Russell Sage Foundation.

Ermisch, John, Markus Jäntti, and Timothy Smeeding [ed.]. *From Parents to Children: The Intergenerational Transmission of Advantage*, New York, Russell Sage Foundation, 2012.

Gábos, András, Erhan Özdemir, and Terry Ward, "Material deprivation among children", Research Note 7/2011, Luxembourg, European Commission, 2011.

García-Rada, Aser, "Child poverty and malnutrition rise in Spain as austerity measures bite." *British Medical Journal* 347 (2013): f5261.

González-Bueno, Gabriel, Armando Bello, and Marta Arias, *La infancia en España 2012–2013: El impacto de la crisis en los niños*. Madrid: UNICEF España, 2012.

González-Enríquez, Carmen [coord.], *Inmigración: balance de una década y propuestas para un nuevo período.* Informes Elcano, nº 12, Madrid. Real Instituto Elcano, 2010.

Goedemé, Tim, "The standard error of estimates based on EU-SILC. An exploration through the Europe 2020 poverty indicators", Working Paper No. 10 / 09, Centre for Social Policy, 2010.

Gornick, Janet C., and Markus Jäntti. "Child poverty in comparative perspective: Assessing the role of family structure and parental education and employment", No. 570. LIS Working Paper Series, 2011.

Gradín, Carlos, and Olga Cantó, "Why are child poverty rates so persistently high in Spain?". *The Manchester School* 80, No. 1,(2012): 117-143.

Guio, Anne-Catherine, and Jean-Marc Museux, "The Situation of Children in the EU: Comparison between Income Poverty and Material Deprivation Approaches", Paper

prepared for the 29th General Conference of the IARIW, Josuu, Finland, August 20-26 2006.

Guio, Anne-Catherine., David Gordon, and Erik Marlier, "Measuring material deprivation in the EU: Indicators for the whole population and child-specific indicators", Eurostat Methodologies and Working Paper, Publications Office of the European Union, Luxembourg, 2012.

Jenkins, Stephen P., Andrea Brandolini, John Micklewright, and Brian Nolan, *The Great Recession and the Distribution of Household Income*. Oxford: Oxford University Press, 2012.

Jones, Nicola, Andy McKay, and Jessica Espey, *Children in Times of Economic Crisis: Past Lessons, Future Policies*. UK: Overseas Development Institute, 2009.

Izquierdo, Antonio, *La inmigración inesperada. La población extranjera en España (1991-1995)*. Madrid, Trotta, 1996.

Kalil, Ariel. "Effects of the Great Recession on Child Development." *The ANNALS of the American Academy of Political and Social Science* 650.1 (2013): 232-250.

Karanikolos, Marina, Philipa Mladovsky, Jonathan Cylus, Sarah Thomson, Sanjay Basu, David Stuckler, Hohan P. Mackenbach, and Martin McKee, "Financial crisis, austerity, and health in Europe." *The Lancet* 381.9874 (2013): 1323-1331.

Martí, Bernat, Joan Serafí and Rafael Viruela, "The economic crisis and immigration: Romanian citizens in the ceramic tile district of Castelló (Spain)." *Journal of Urban and Regional Analysis* 3, no. 1(2011): 45-65.

Martínez, Rosa, "Baja renta y privación material de la población inmigrante en España." *Presupuesto y Gasto Público* 61(2010): 311-336.

Martínez, Rosa and Jesús Ruiz-Huerta, "Multidimensional poverty of immigrant households: a comparative analysis within the Europe 2020 framework", Centre Interuniversitaire de Recherche en Analyse des Organisations, Série Scientifique 2014s-18, Montréal, 2014.

Martínez, Rosa, and Carolina Navarro, "Baja renta y privación material en España: ¿Qué factores explican las diferencias en el perfil de los grupos de riesgo?", Paper presented to the XVII Encuentros de Economía Aplicada, Gran Canaria, 5th-6th June 2014.

Martínez, Rosa, and Carolina Navarro, "Pobreza y condiciones de vida". In Ayala, L. [coord.], *Desigualdad, pobreza y privación*, Madrid, Fundación FOESSA, 2008, 225-290.

Micklewright, John, *Social exclusion and children: a European view for a US debate.* CASEpaper, CASE/51. Centre for Analysis of Social Exclusion, London School of Economics and Political Science, London, UK, 2002.

Nolan, Brian, and Whelan, Christopher T., "The EU 2020 Poverty Target", GINI Discussion Paper 19, November 2011.

Oberg, Charles N., "The Great Recession's impact on children." *Maternal and child health journal* 15.5 (2011): 553-554.

OECD, "Rising inequality: youth and poor fall further behind", Insights from the OECD Income Distribution Database, June 2014, http://www.oecd.org/els/soc/OECD2014-Income-Inequality-Update.pdf.

Papademetriou, Demetrios G., Madeleine Sumption, and Aaron Terrazas, with Carola Burkert, Steven Loyal, and Ruth Ferrero-Turrión, *Migration and Immigrants Two Years after the Financial Collapse: Where Do We Stand?*, Washington, DC: Migration Policy Institute, 2010.

Papademetriou, Demetrios G., and Aaron Terrazas, *Immigrants and the Current Economic Crisis: Research Evidence, Policy Challenges, and Implications*, Washington, DC: Migration Policy Insitute, 2009.

Pinger, Pia R., "Intergenerational effects of economic distress: Paternal unemployment and child secondary schooling decisions." Job Market Paper, University of Mainnhem (2013).

Rinken, Sebastian, Anastasia Bermúdez-Torres, and María Pilar Cortés-Sánchez, *El impacto de la crisis sobre el proceso de asimilación económica de los inmigrantes en España*. Paper presented at the VII Congress in International Migrations in Spain, Bilbao, 11-13 April 2012.

Roelen, Keetie, and Franziska Gassmann. "Measuring child poverty and well-being: A literature review." Maastricht Graduate School of Governance Working Paper Series, 2008.

Roelen, Keetie, and Geranda Notten, "The Breadth of Child Poverty in Europe: An investigation into overlap and accumulation of deprivations". UNICEF Innocenti Research Centre, 2011.

Simón, Hipólito, Esteban Sanromá and Raúl Ramos, "Immigrant occupational mobility: Longitudinal evidence from Spain." *European Journal of Population* 30, no. 2 (2014): 223-255.

Smeeding, Timothy M., Robson, Karen, Wing, Coady and Jonathan Gershuny, "Income poverty and income support for minority and immigrant children in rich countries.", LIS Working Paper Series Nº 527 (2009).

Stevens, Ann. H. and Schaller, Jessamyn, "Short-run effects of parental job loss on children's academic achievement". *Economics of Education Review*, 30, no. 2 (2011): 289-299.

Taylor-Robinson, David, Emeline Rougeaux, Dominic Harrison, Margaret Whitehead, Ben Barr, and Anna Pearce, "The rise of food poverty in the UK" *British Medical Journal* 347 (2013), f7157

Tunstall, Rebeca, Mark Bevan, Jonathan Bradshaw, Karen Croucher, Stephen Duffy, Caroline Hunter, Anwen Jones, Julie Rugg, Alison Wallace, and Steve Wilcox, "The links

between housing and poverty: an evidence review", JRF Report, April 2013, York: Joseph Rowntree Foundation.

UNICEF, "Los niños de la recesión. El impacto de la crisis económica en el bienestar infantil en los países ricos, *Innocenti Report Card*, 12, 2014.

UNICEF, "A League Table of Child Poverty in Rich Nations", *Innocenti Report Card*, 1.

UNICEF, "Measuring Child Poverty: New league tables of child poverty in the world's rich countries", *Innocenti Report Card*, 10, 2012.

UNICEF, "Child Well-being in Rich Countries: A comparative overview", *Innocenti Report Card*, 11, 2013.

Whelan, Christopher T., and Bertrand Maitre, "Identifying Childhood Deprivation: How Well Do National Indicators of Poverty and Social Exclusion in Ireland Perform?." *The Economic and Social Review* 43.2, Summer (2013): 251-272.

World Bank, *Integrating a child focus into poverty and social impact analysis*, Washington, D.C., The World Bank Group, 2011.

Yoshikawa, Hirokazu, J. Lawrence Aber, and William R. Beardslee. "The effects of poverty on the mental, emotional, and behavioral health of children and youth: implications for prevention." *American Psychologist* 67.4 (2012): 272.

Appendix

Table A.1. Population above 16 Years of Age Residing in Spain by Place of Birth

	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Spain	90.8	89.9	88.5	87.3	86.8	86.2	86.3	86.1	86.3
Abroad, EU	2.9	2.8	3.5	3.9	4.4	4.1	4.4	4.1	4.0
Abroad, Non-EU	6.3	7.3	8.0	8.8	8.8	9.7	9.4	9.8	9.6
Abroad, Total	9.2	10.1	11.5	12.7	13.2	13.8	13.7	13.9	13.7
Census Data	*9.9*	*11.1*	*12.2*	*13.6*	*14.3*	*14.5*	*14.5*	*14.6*	*14.5*

Source: Own research using ECV data, 2nd-10th waves. INE for Census Data.

Note: EU includes other countries belonging to the EU-27 between 2010 and 2013. Between 2005 and 2009, this category includes people born in an EU-25 country, along with those born in other European countries.

Table A.2. Family Background of Children According to Migrant Status of Reference Person, 2013

	Native Children	Migrant Children
Household size	4.0 *(3.9–4.0)*	4.3 *(4.2–4.5)*
Number of children in the household	1.8 (1.7–1.8)	2.1 (1.9–2.2)
Living in households with 3+ children aged <18	11.5 (9.8–13.3)	29.6 (22.4–36.8)
Living in a large households (6+ members)	4.9 (3.8–6.0)	15.4 (9.8–20.9)
Reference person aged <35	11.7 (10.1–13.3)	27.6 (21.7–33.5)
Reference person married/Common low	88.3 (86.9–89.8)	85.8 (81.3–90.3)
Lone parent (only 1 adult living in the household)	6.4 (5.4–7.4)	6.0 (2.9–9.1)
Low level of education or reference person (primary or less)	11.3 (9.8–12.7)	28.1 (21.5–34.7)
Reference person has university degree	36.0 (33.6–38.4)	20.3 (14.5–26.2)

Source: Own research using ECV data, 10th wave.

Note: 95% confidence intervals given in brackets.