



GINI

Income Inequality and the Family

*Emma Calvert and
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GROWING INEQUALITIES' IMPACTS

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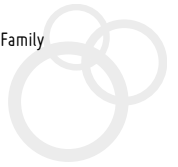


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Abstract

This paper seeks to test empirically whether claims by Wilkinson and Pickett (2010) (W&P) on the pervasive negative effects of income inequality on social conditions in rich countries are borne out in the case of the family. It first examines correlations between 13 family indicators and income inequality across developed countries. It finds that while two indicators measuring early family formation confirm the association with income inequality proposed by W&P, most indicators do not show a robust link, while some have a negative correlation, in possible contradiction of the W&P thesis. The paper then explores a structural precondition which W&P identify as necessary for the income inequality effect to operate, namely, the presence of negative social gradients in outcome variables. It finds that a negative social gradient is present for the family variables already shown to be linked to income inequality, but the small number of variables that are responsive to inequality in this way highlights the limited scope of the W&P thesis. The paper finally looks beyond W&P's point-in-time approach and finds that the growing literature on trends in income inequality and family outcomes over time further challenges the thrust of the W&P argument. The overall conclusion reached is that while the W&P thesis has certain validity in the family domain, income inequality on its own does not seem to have a consistent relationship with family behaviour and does not appear to be a major contributor to differences between countries or change over time in family patterns.

Introduction

In their influential book, *The Spirit Level* (2010), Wilkinson and Pickett (henceforth W&P) argue that more equal societies in the rich world consistently ‘do better’ than less equal ones. The variety of social outcomes to which they apply this thesis is wide, including, *inter alia*, physical and mental health, education, drug abuse, trust and community life, imprisonment and child well-being. Their argument is not merely that the poor fare less well than the rich on these outcomes but rather that society as a whole is worse off if income inequality is wide: life expectancy in general (and not just for the poor) is shorter, educational attainment is lower, drug abuse and crime are more common, community bonds are weaker, and so on. They assert that these differences are so great that they can only be explained by reference to what is happening across the whole social spectrum rather than simply among the poor. They do not claim that *all* social outcomes are affected by income inequality and in particular, as we outline later, they use a ‘social gradients criterion’ to limit the areas to which their thesis applies. Nevertheless, they argue that the effects occur in so many aspects of life as to make income inequality a powerful and general (though not universal) negative influence on personal wellbeing and quality of life in the developed world.

This paper seeks to test the W&P thesis as it applies to the family. It explores how far family patterns across countries are linked to income inequality, in regard either to what might be called family vulnerability, as measured for example by teenage pregnancies or lone parenthood, or broader indicators of family functioning as measured by fertility or family formation. The objective is not to develop explanations for patterns that occur or explore their theoretical significance but simply to test empirically whether income inequality is as significant an influence on family life as the W&P thesis would suggest. The focus on family is justified on the basis that the impact of income inequality can be assessed through detailed analysis of particular domains as well as by extensive examination of many domains. While the analysis is limited to the family, its scope is reasonably wide within that domain. We examine 13 family indicators in our initial analysis below, which is based on aggregate data, and these reduce to 10 in the more detailed analysis later in the paper where micro-data are required. We adopt two definitions of what is meant by ‘rich’ countries: a limited set of long established market democracies (N=22) that are selected to approximately match the countries analysed by W&P and a wider set of OECD countries that adds ex-communist and less prosperous states to the smaller ‘rich’ group (N=39). The reference year lies between 2003 and 2008 for most indicators, depending on data availability.¹

Echoing the methodology used by W&P, the paper first asks whether family indicators vary across countries according to the level of income inequality, measured here by the Gini coefficient for the corresponding year.² Following that, it explores the ‘social gradients’ qualification – W&P’s proviso that the negative impact they are concerned with is likely to come about only for social conditions that are

¹ Some indicators are drawn from a range of years and the corresponding year for the Gini has been approximated. Details provided in Table 1.

² This slightly diverges from the W&P approach which takes the 80/20 income ratio as the measure of income inequality.

‘responsive’ to inequality in the sense that negative outcomes are more common among lower status groups. Thus the second question the paper explores is the extent of negative social gradients in family indicators and their potential role in limiting the scope of the W&P thesis. This part of the analysis is confined to European countries for which relevant micro-data are available. Finally, the paper briefly considers how the growing literature on the relationship between trends in income inequality and family outcomes over time relates to the W&P thesis.

The W&P thesis

The W&P thesis originated from research in epidemiology on the influence of income inequality on health indicators such as life expectancy and death rates (Kondo et al. 2009). This research was expanded to include a wide variety of harmful social outcomes in rich countries, all of which, they conclude, are more prevalent where income inequality is wider (W&P 2008, 2009, 2010). W&P refer primarily to psychosocial processes to explain this relationship, arguing that large differences in social status have a negative impact on the whole population, with the more apparent and steeper social hierarchy of more unequal societies affecting individuals through powerful emotive responses including stress, shame and anxiety. Layte (2011) distinguishes between psychosocial explanations which rely on social capital as an intermediary variable and those which emphasize psychological effects such as stress and status anxiety. As van de Werfhorst and Lancee (2012) argue, other possible explanatory mechanisms for this relationship include neo-material theories, while some research has argued that these may not be mutually exclusive (Elgar and Aitken 2010). Neo-material theory (or resources theory) argues that income inequality affects the level of resources available, both at the individual/household level and national/regional level, with implications for a wide range of social outcomes (Lynch et al. 2000). The argument is that countries with more equal income distribution have greater equality in social infrastructure and services available to all the members of society, thus having a positive relationship with a range of social outcomes. The causal mechanisms are not the primary focus of the current paper which is mainly focused on investigating the relationship between income inequality and a range of family-related outcomes.

The role of social gradients

A key feature of the W&P approach is the role they attribute to social gradients in the overall picture linking income inequality with poor social outcomes. Their thesis is that the inequality effect is confined to social conditions that are 'responsive' to inequality in that they are more common among lower social status categories. Thus, for example, deaths from homicide and heart disease are socially stratified in this way and are included within the ambit of their thesis but deaths from breast cancer typically show no social gradient and are omitted (W&P 2010). In the more academic work which underpins the popular account presented in *The Spirit Level*, W&P expand somewhat on this issue and hypothesise that the same processes through which income inequality harms social outcomes may also have the effect of creating or widening social disparities in outcomes (W&P 2008, 2009).

Though social gradients in outcome variables form an important part of W&P's argument, they elaborate on this topic only to a limited degree. The problem is that standardised cross-national or cross-regional micro-data needed to measure social gradients are difficult to obtain and so a comprehensive evidence base is lacking. W&P's main direct evidence for an inter-connection between income inequality, social gradients and overall social outcomes rests on a study they conducted of social gradients in ten causes of death and their association with income inequality across US states in 1999-2002 (W&P 2008). However, the test is only indirect since the units of analysis they use are US counties (of which there are

3139), not individuals. The measure of social gradients they adopt is the correlation between county-level mortality and county-level median household incomes – for each cause of death where mortality is significantly higher in poorer counties across the US, they judge that a negative social gradient in that cause of death is present. Using this test, nine of the ten causes of death they examine emerge as having a negative social gradient, with mortality from breast cancer as the exception which is not linked to county incomes. They then find that six of these nine causes are also influenced by state-level income inequality: counties at the same income level have higher mortality if they are in more unequal states. Of three causes of mortality which do not show this link, two (prostate and pancreatic cancer) have weaker social gradients than the others, which W&P interpret as consistent with the contention that pronounced negative social gradients are part of the mechanism linking income inequality with poor social outcomes.

They recognise from their own and other studies that these patterns show many exceptions. Smoking, for example, is found in many studies to have a negative social gradient but it does not vary in tandem with income inequality across countries, while in their own work this pattern is found for deaths from diabetes (W&P 2009: 495-6). Nevertheless, they conclude that evidence from mortality data shows a sufficiently widespread intermediating role for social gradients that it can be seen as part of an overall pattern of inter-connection between income inequality and poor social outcomes.

As W&P expanded their thesis to include social outcomes outside the field of health, the link with social gradients was likewise extended as a guiding assumption. Outcomes which showed an association with income inequality were assumed to have a negative gradient. For those where no such link was found, the absence of a social gradient was pointed to as a possible explanation (Rowlingson 2011). Thus for example, suicide is often used as an indicator of social dysfunction but, as W&P acknowledge, cross-country variations in suicide are not linked to income inequality. To account for this, W&P speculate that suicide rates may not be consistently stratified by social status and so may not be open to an influence from income inequality (W&P 2009: 496). Their concern was not to explore this question further but to apply it as a selection criterion to enable them to focus on particular outcomes – those which supported their case on the presumed basis that they were characterised by negative social gradients. This contrasts with our approach here, where we aim for a wide analysis of a particular domain, allow for contrary as well as supporting evidence, and test directly for the presence of social gradients.

Income inequality and the family

W&P limit their analysis of what might broadly be called family-related indicators to two – teenage birth rates and abortion rates. For teenage births, they explore variance across 22 OECD countries and across US states while abortion rates are examined across US states only. Their findings on these indicators support their overall thesis – teenage births and abortion rates are greater in countries or states where income inequality is higher (W&P 2010). Here we include both these indicators but add eleven others to bring the total to 13. W&P interpret their selected indicators as measures of social dysfunction and there has been some questioning of the normative judgement implied by this view. Rowlingson (2011: 16), for example, asks whether teenage births should always be regarded as a social problem since early childbearing may have some health advantages for mothers, particularly compared to late child-bearing. On the other hand, there is wide evidence that teenage motherhood is linked to many unfavourable outcomes such as a greater poverty risk for mothers and children (UNICEF 2001).

Here we accept that some social problems are easy to recognise and agree on (e.g. premature death), others assume norms not shared by everyone (e.g. in regard to abortion), or confuse symptoms with underlying causes (high imprisonment rates may be a problem in themselves or the conditions that cause them may be the real issue), or fail to recognise that what may be negative in one context may be positive in another (very low fertility can be a positive expression of choice for individuals, a critical demographic weakness for societies and a good and necessary adjustment to environmental overload for the planet). In our approach to variable selection, we focus on family-related issues that are recognised as important dimensions of family functioning without suggesting that it is always either possible or necessary to decide whether they constitute ‘problems’ or not. These variables enable us to test for a link between income inequality and family outcomes, some of which may reflect family vulnerability and but all of which capture important aspects of family-related behaviour. A major consideration in our variable selection is data availability: the aim is to pick items that are meaningful in substantive terms while also being available for a worthwhile number of countries.

The 13 variables that emerge from this selection process can be classed under the two broad headings of partnership and fertility (Table 1). Under the *partnership* heading, some variables relate to what might be called partnership fragility – (i) the divorce rate, (ii) the average duration between marriage and divorce, (iii) the proportion of sole parent households, and (iv) the proportion of births taking place outside marriage. Others have to do with partnership formation – (v) the marriage rate, (vi) the average age of first marriage, (vii) the prevalence of cohabitation, and (viii) single person households. Under the *fertility* heading, the selected variables are (ix) the teenage birth rate, (x) the abortion rate, (xi) the incidence of large families, (xii) the total fertility rate and (xiii) childlessness. The data are mainly drawn from the OECD Family Database. We use Gini coefficients from the SWIID database as the measure of income inequality (Solt 2009).

Following W&P’s methodology, we test for an association between these indicators and income inequality by means of zero order correlations. In view of debate which has taken place over the correct

universe of countries to which the analysis should be applied (Rowlingson 2011, Saunders 2010), we first examine an inclusive set of OECD countries which at a maximum number 39 and include some cases that are not 'rich' in the sense defined by W&P (they have a GDP per capita of less than \$25,000 per year). Some of these countries have outlier values on certain variables and since part of the debate on the correct universe of countries has to do with whether outlier cases should be dropped or not, we include results with outliers included and excluded where relevant. To maintain comparability with W&P's approach, we also apply the same analysis to 22 countries which more or less match those that W&P examined (this selection excludes the ex-communist states of eastern Europe and a number of Latin American and Asian states but includes Japan). For a list of countries and indicators, please see Appendix Table.

Table 1 presents results for the 13 indicators and Figures 1-4 set out illustrative scatterplots for selected indicators. A key indicator used by W&P – the teenage birth rate – shows a robust connection with Gini across all variants of the analysis as does a closely related indicator, average age of marriage. The correlation for teenage births is quite strong for 33 OECD countries (Figure 1). It drops somewhat if two outlier cases (Mexico and Chile) are excluded but remains at a similar level if the focus is narrowed to the 22 'rich' OECD countries. A simple model which checks if this association is a spurious product either of overall level of development (as measured by GDP per head) or the overall level of fertility (as measured by the total fertility rate) finds that it is not (Table 2). In fact, when these two control variables are applied, the link between income inequality and the teenage birth rate among the rich OECD countries becomes more pronounced (Models 3 and 4 in Table 2).

Table 1. Correlations between family indicators and Gini coefficient in OECD/EU countries

	All OECD countries		Spirit Level countries		Source & year
	Correlation (excl. outliers)	N (excl. outliers)	Correlation	N	
Partnership variables					
Divorce rate (divorces per 1000 population)	-0.40* (-0.07)	38 (36)	-0.13	22	OECD 2008
Dissolution time (average time from marriage to divorce)	-0.06	29	0.46	15	OECD 2008
Sole parent households (as proportion of all households)	0.29	35	0.33	20	OECD 2003 Ψ
Births outside marriage (% live births outside marriage)	-0.07	36	-0.53*	21	OECD 2008
Marriage rate (marriages per 1000 population)	0.56*** (0.29)	33 (30)	0.20	21	OECD 2005
Average age of first marriage	-0.46** (-0.39**)	32 (31)	-0.48*	17	OECD 2008
Cohabiting (as proportion of population aged 20 plus) ¹	-0.30	34	-0.57**		OECD 2003 Ψ
Living alone (as proportion of population aged 20 plus) ²	-0.54*** (-0.35*)	34 (33)	0.03	14	OECD 2003 Ψ
Fertility variables					
Teenage births (births per 1000 women aged 15-19 yrs)	0.76*** (0.53***)	39 (37)	0.54**	22	OECD 2008
Abortion rate (per 1000 females aged 15-44 yrs) ³	0.55** (0.33)	26 (25)	0.27	17	2003 Sedgh et al. 2007
Large family size (three plus children in household, as proportion of households) ⁴	0.47** (-0.23)	32 (30)	-0.22	17	OECD 2007
Total fertility rate	0.36* (0.29)	34 (33)	0.16	22	OECD 2008
Childlessness (women aged 40-44 years with no children in household) ⁵	0.07	27	-0.47	11	OECD 2007

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$

Ψ The OECD data for these variables is drawn from a variety of years; 2003 is the best approximate.

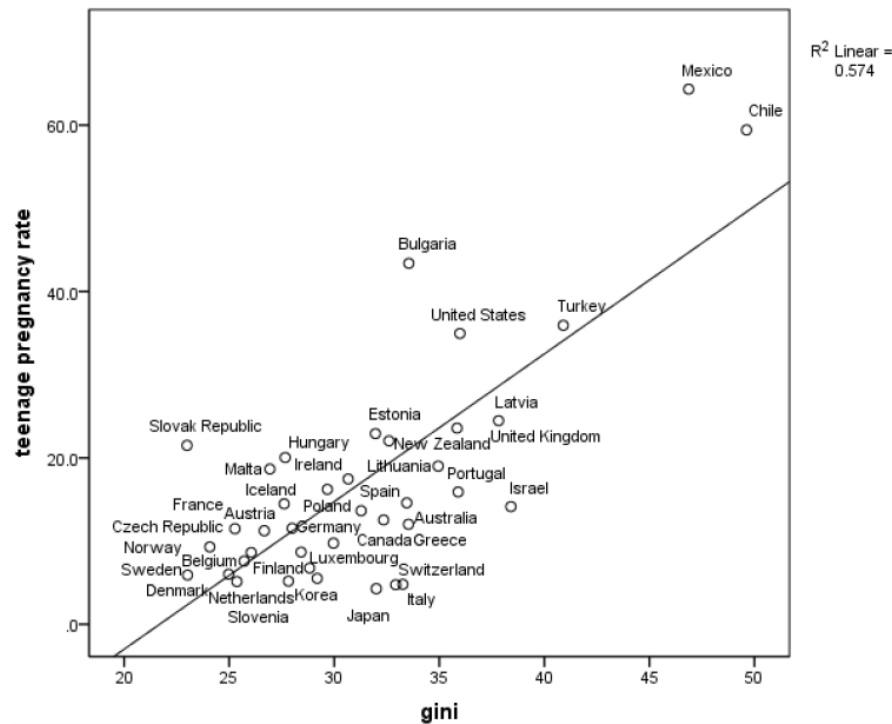
1. Cohabiting prevalence as proportion of couples (ESS 2006) also tested with similar results.
2. Solo-living, never lived with a partner for more than three months, aged 40+ only (ESS 2006) also tested: no significant correlation.
3. Abortion ratio per 100 live births (Sedgh et al. 2007) also tested with similar results.
4. Proportion of children in large families as proportion of family households (OECD, 2008) also tested: no significant correlation.
5. Childlessness at aged 30-34 and 35-39 (OECD, 2007) also tested: no significant correlation.

Table 2. Regression of teenage births and income inequality with controls

	OECD countries (n=34)		Rich OECD countries (n=22)	
	Model 1	Model 2	Model 3	Model 4
	<i>Standardized coefficients</i>	<i>Standardized coefficients</i>	<i>Standardized coefficients</i>	<i>Standardized coefficients</i>
Gini	0.78***	0.67***	0.54**	0.62**
GDP per capita		-0.19		0.25
Total fertility rate		0.11		0.29
Adj. R-squared	0.60	0.61	0.26	0.34

*** p≤0.001, ** p≤0.01, * p≤0.05

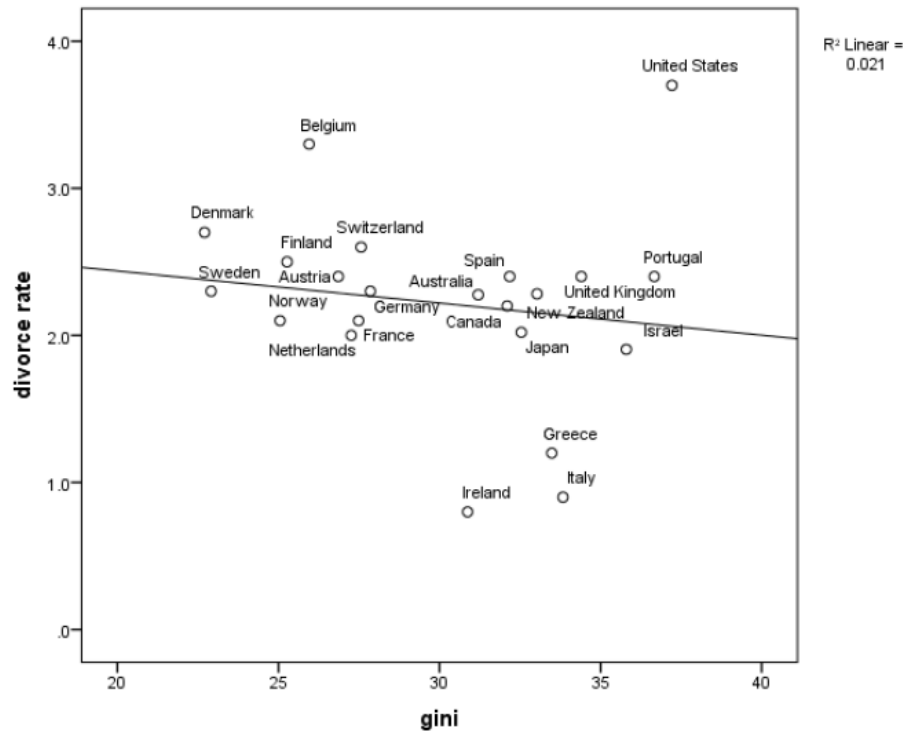
Figure 1. Teenage pregnancy rate and income inequality (39 OECD countries)



All the other family indicators show relationships with income inequality that either fail to support W&P’s thesis or tend to contradict it: they are weak, or are significant because of marginal cases, or in some instances have the wrong sign. The abortion rate is of particular interest here since W&P point to variations in abortion across US states as evidence in support of their thesis. Among OECD countries for which abortion data are available, the link with income inequality shown in Table 1 is positive as W&P would predict, but if a single case that is extreme on both abortion and income inequality (Russia) is removed the correlation ceases to be significant. The divorce rate (Figure 2), on the other hand, is negatively related to income inequality across all OECD states, the opposite of what W&P would predict. Here too, however, outlier cases are responsible – Mexico and Chile both have little divorce and high

inequality – and without them the correlation with divorce falls almost to zero. It is also notable from Table 1 that what is often taken as a key indicator of family vulnerability – lone parenthood – shows no significant association with income inequality.

Figure 2. Divorce rate and income inequality (22 'rich' OECD countries)



There are two inter-related variables that tap into partnership fragility – the share of births taking place outside of marriage (Figure 3) and the prevalence of cohabitation (Figure 4). They are notable because they are *negatively* associated with income inequality in the rich OECD states and thus challenge the W&P hypothesis directly. Most non-marital births in the rich world now take place to cohabiting parents but assertions that cohabitation is a functional equivalent of marriage in those cases has been disputed. The evidence is that cohabitation, including cohabitation that leads to childbearing, is a less stable form of union than marriage, is linked with lower social status and probably carries higher risks for future social, emotional and financial outcomes (Perelli-Harris et al. 2010, Liefbroer and Dourleijn 2006, McLanahan 2004, Kiernan 2004, Heuvelin et al. 2003). This is true even in more equal states like Norway and Sweden as well as in the less equal US and UK (Perelli-Harris et al. 2010, Kennedy and Thomson 2010, Kiernan et al. 2010). Low levels of income inequality in the Nordic states coupled with their high levels of both cohabitation and non-marital births thus contribute to the negative association with the Gini coefficient reported in Table 1 and in Figures 3 and 4.



Figure 3. Births outside marriage and income inequality (21 'rich' OECD countries)

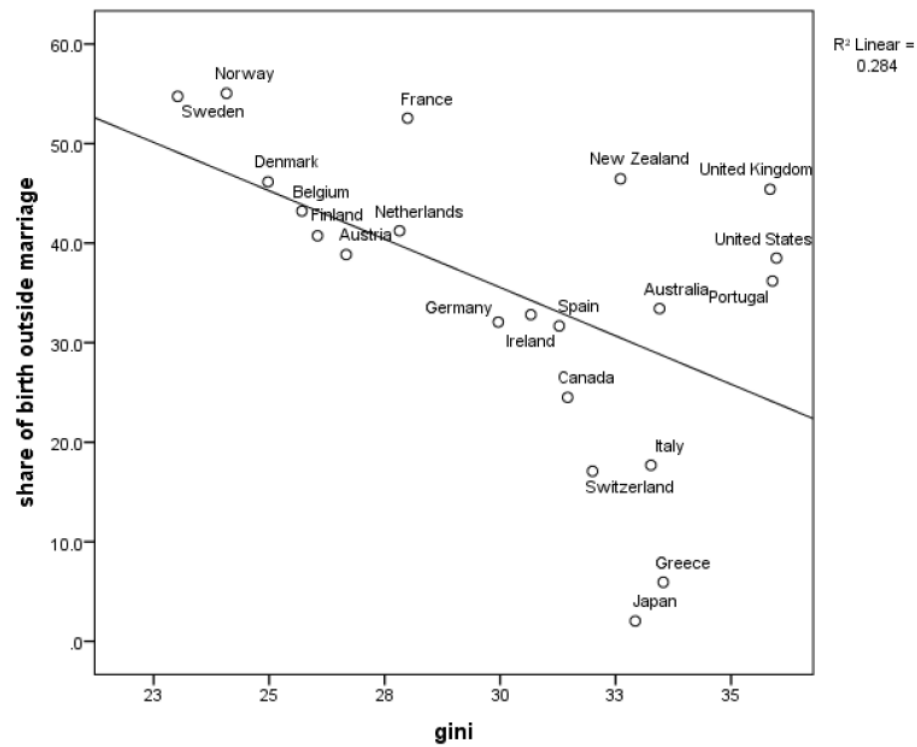
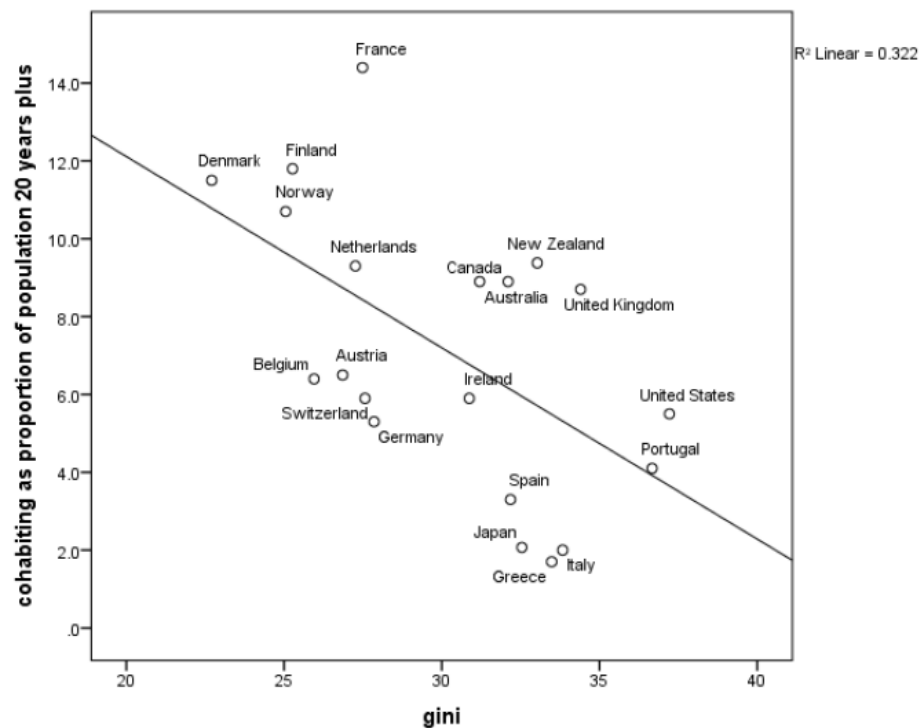


Figure 4. Cohabiting and income inequality (22 'rich' OECD countries)



Social gradients: data and measures

We now turn to the second issue addressed in this paper, namely, the prevalence of negative social gradients in family behaviour and their role in mediating the link between family outcomes and income inequality. To investigate this topic we require internationally comparable micro-data and for this purpose we draw from Round 3 (2006) of the European Social Survey (ESS) and the 2006 EU Survey of Income and Living Conditions (EU-SILC). Round 3 of the ESS is of particular value because it contains a range of family-related indicators collected in the Timing of Life rotating module (see <http://ess.nsd.uib.no/ess/round3/>). The EU-SILC has the advantage of larger national sample sizes than the ESS and where selected indicators are available from that source we use it in preference to the ESS.

Ten relevant indicators are available from these sources. These echo in an approximate way a sub-set of the 13 indicators examined earlier but because they are operationalized from different data sources and in different ways they do not exactly match. Under the *partnership* heading, the variables are (i) currently divorced/separated, (ii) lone parenthood, (iii) currently married or civil partnership, (iv) married by 21 years old, (v) lived with a partner by 21 years old, (vi) currently cohabiting (those in partnerships only), (vii) long-term solo living (aged 40+).³ Under the *fertility* headings, the variables include (viii) First child by 21 years old (females only) (ix) Childless (females, aged 40+) and (x) Large family (given birth/fathered 3 plus children, aged 40+).⁴ Owing to age effects in terms of family and couple formation, variables (vii), (ix) and (x) have been restricted to those aged 40 years plus.

These indicators are subject to a number of limitations. First is the small sample sizes on which they are based, resulting in wide confidence intervals around many of the estimates. The second is that the time-reference of some of the variables can be wide, in contrast the narrower time-reference of counterpart variables used earlier. For example, the percentage of respondents who had a birth before age 21, which is intended as a counterpart to the teenage birth rate referred to earlier, relates to respondents across the full adult age-range and therefore reflects behaviour across a wide span of years (respondents who were aged in their 60s at survey date in 2006 would have been aged under 21 from the mid-1960s to the mid-1970s, whereas respondents aged in their 20s would have been aged under 21 after the mid-1990s). This wide time reference reduces the meaningfulness of correlations with Gini coefficients for a fixed recent year. However, as Pearce and Davey Smith (2003) highlight, the problem of wide time referencing applies to many indicators used in research of this type, not least with health conditions which are cumulative outcomes arrived at over a lifetime rather than specific behaviours occurring at a particular point in time.

The proxy measure of socio-economic status (SES) we use is a three-category measure of educational attainment – incomplete secondary education or less, completed secondary education and third-level education, drawn from the ISCED classification in the ESS. This measure is used partly for the pragmatic

³ The indicators “long-term solo-living” and “lived with a partner by 21 years old” are derived from a question on whether the respondent has ever lived with a partner for longer than 3 months.

⁴ The indicators relating to children are derived from a question on how many children the respondent has ever given birth to/fathered, i.e., it is not restricted to children currently living in the household.

reason that it has fewer missing cases and may be subject to less measurement error than other possible SES proxies such as income or occupational level. It also has the substantive appeal that it is more likely to be exogenous to family behaviour (it is usually completed before partnership or fertility begins) than income or occupation (both of which could be influenced by partnership or fertility processes). To measure social gradients, we calculate the odds of the behaviour in question in each of the three educational levels for each country and *define a country as having a significant social gradient on a particular indicator if there is a statistically significant difference in the odds of a positive score on the indicator between the lowest and highest educational categories*. The odds ratio between the lowest and highest educational categories quantifies the gradient: scores greater than 1 indicate a *negative* social gradient (the measured behaviour or status is more common among the less educated), while scores between 0 and 1 indicate the reverse. It should be recalled here that the direction as well as the presence of social gradients is of interest since for some indicators the direction of the gradient may be the reverse of what the general tenor of the W&P thesis lead one to expect.

Social gradients: results

The results of the analysis of social gradients are set out in summary form in Table 3, which shows the odds ratios between the lowest and highest educational categories for those indicators and countries where the differences are significant at the 95% level. These results show that only those variables which relate to early family formation – marriage, cohabitation and births before age 21 – show negative social gradients for most countries. We have seen in the previous section that early family formation was the only aspect of family life which showed robust links with income inequality along the lines of the W&P thesis. Here we now find that this aspect is also characterised by the negative social gradients that W&P identify as necessary mediating links between income inequality and poor social outcomes. As far as early family formation is concerned, therefore, the present analysis lends support to the W&P thesis both on the effects of income inequality and the mediating role of negative social gradients.

We also saw earlier that indicators of partnership instability (cohabitation and divorce) showed the reverse of the association with income inequality than one might have expected – both divorce and cohabitation were slightly *less* likely to occur in more unequal societies. Here we find that more countries have positive social gradients for these variables (n=10) than negative (n=4). This is consistent with W&P's claim that where income inequality does not link to social outcomes in the expected way, the absence or weakness of negative social gradients in those outcomes may explain why (on the absence of a consistent social gradient in divorce, see the study of 17 countries by Härkönen and Dronkers 2006). The same applies to two other indicators which might have been expected to be affected by income inequality – the incidence of large families (3+ children) and of lone parenthood. For both these variables, negative social gradients are present for less than half the countries in the sample (n=10) and this could be considered too weak a pattern of social stratification of these behaviours to make them 'responsive' to income inequality in the manner proposed by W&P.

In one sense, therefore, the present results could be counted as broadly consistent with the W&P thesis: family indicators that have strong negative social gradients are robustly linked with income inequality, those which lack negative social gradients show no association and, for indicators with positive social gradients, the direction of association is reversed. In another sense, however, this conclusion serves simply to highlight the narrow scope of the W&P thesis since the range of variables for which the combination of negative social gradients and robust association with income inequality holds – the tendency towards early family formation, as measured either by child-bearing, marriage or cohabitation in the teenage years – is limited. The other aspects of family behaviour examined here, such as family stability, family size and whether family formation occurs at all, are not stratified in the relevant manner and thus, to use W&P's language, are not responsive to income inequality. The upshot is that, in the family arena, the W&P thesis is largely valid in so far as it goes but application of the social gradients criterion means that it does not go very far.

Table 3. Odds ratios (lower secondary or less v tertiary education)

	ESS 2006							EU SILC 2006		
	Married <21	Lived with partner <21	Currently cohabiting	Solo living, 40+	First child <21, females	Childless, females, 40+	Large family, 40+	Married	Divorced	Sole parent hhold
Austria	3.9	2.4		n.s	12.9	n.s	n.s	0.7	0.7	n.s
Belgium	5.9	4.0	n.s	n.s	16.3	n.s	n.s	n.s.	n.s.	1.6
Bulgaria	6.8	6.7	n.s	n.s	6.5	n.s	9.8			
Cyprus								n.s	n.s	n.s
Czech Rep.								0.3	n.s.	2.6
Denmark	7.3	1.7	n.s	n.s	9.9	n.s	2.6	0.6	n.s.	2.2
Estonia	2.1	1.8	n.s	n.s	4.1	n.s	n.s	0.3	0.5	n.s
Finland	3.5	1.3	n.s	n.s	5.6	n.s	n.s	0.5	n.s.	2.0
France	4.1	1.7	0.7	2.7	11.5	n.s	n.s	n.s.	1.5	n.s
Germany	2.9	2.5	n.s	n.s	3.4	n.s	2.0	0.5	0.8	1.7
Greece								1.2	n.s.	n.s
Hungary	4.8	4.4	n.s	n.s	7.5	n.s	n.s	0.5	0.7	n.s
Iceland								0.4	n.s.	1.8
Ireland	4.9	2.3	n.s	n.s	6.6	n.s	n.s	0.8	1.9	2.4
Italy								1.3	0.6	0.5
Latvia								0.3	0.6	0.5
Lithuania								0.3	0.5	n.s
Luxembourg								n.s.	n.s.	n.s
Netherlands	4.1	2.3	0.5	2.5	3.6	0.4	1.7	n.s.	n.s.	2.1
Norway	3.7	1.9	0.5	n.s	4.5	n.s	n.s	0.5	2.5	1.6
Poland	3.6	2.9	n.s	n.s	8.8	n.s	4.1	0.4	0.6	n.s
Portugal	2.7	2.7	1.0	n.s	3.2	n.s	n.s	1.6	n.s.	0.4
Russian Fed.	1.6	1.6	n.s	n.s	n.s	n.s	3.8			
Slovak Rep.	10.7	9.4	n.s	n.s	8.6	n.s	7.7	0.2	0.4	n.s
Slovenia	5.0	3.9	n.s	n.s	8.3	n.s	2.4	0.5	0.7	n.s
Spain	3.6	3.2	n.s	n.s	6.3	0.3	2.5	1.4	n.s.	n.s
Sweden	3.7	1.8	3.0	n.s	7.4	n.s	n.s	0.6	n.s.	n.s
Switzerland	4.6	2.4	1.1	3.3	8.3	n.s	n.s			
Ukraine	n.s	n.s	n.s	0.5	2.1	n.s	2.6			
UK	3.3	2.4	n.s	n.s	5.2	n.s	n.s	n.s.	4.9	1.8
Overall -	21/22	21/22	3/22	3/22	0/22	2/22	10/22	4/26	4/26	10/26
Overall +	0/22	0/22	3/22	1/22	21/22	0/22	0/22	16/26	10/26	3/26

Notes: Austria is missing on current cohabiting status; n.s=non-significant; Blank cells indicate missing data; overall -/+ : no. of countries with negative/positive social gradient

Trends over time: income inequality and the family

The issues considered so far are a-historical in that they relate only to the present. It is worth briefly going beyond this contemporary point-in-time focus and asking how a more historical view of trends in income inequality and family behaviour, as reported in secondary literature, relates to the W&P thesis.

It should be said from the outset that income inequality has not featured as a major explanatory factor in general academic accounts of family change in the second half of the twentieth century and thus that an attempt at reverse projection of the W&P thesis across recent decades would run against the grain of most scholarly work in the field. The concept of a 'second demographic transition' has been used to refer to the sharp changes in family life which occurred in western countries from the mid-1960s onwards – the fall in fertility to very low levels, the growing instability of partnership as reflected in a sharp increase in divorce and relatively transient cohabitation, the transformation of women's roles in the home, and the de-coupling of sex from marriage (van de Kaa 2002, Lesthaeghe and Surkyn 2006). The 1960s and 1970s are often identified as a major turning point in this broad transformation (see, e.g., Therborn 2003, Fukayama 2009, Popenoe 2012). It was during these years that the gender revolution, the sexual revolution, the decline in fertility to very low levels and the rise of divorce began to take off. From our present point of view, an important feature of these developments is the inequality context in which they occurred: they started out and moved rapidly ahead at a time when income differences were either falling or already at a long-time low and the more recent return to widening income disparities was still a long way off (Brandolini and Smeeding 2009). This would suggest that in so far as income distribution had any association with the onset of rapid family change, it was high levels of equality rather than inequality that were the significant factor. Such an association would be loosely consistent with the theory of the second demographic transition which holds that the economic prosperity and security of the 1960s helped pave the way for the new regime of 'post-materialist values' which it sees as the driving force behind changing family behaviour (van de Kaa 2002, Lesthaeghe and Surkyn 2006).

It is notable in particular that the two family-related variables which W&P focus as manifestations of social problems – teenage births and abortion – have declined over recent decades when the trend in income inequality was generally upward. In 29 OECD countries, the teenage birth rate fell on average by a half between 1980 and 2008 and only one country – Malta – showed an increase (OECD Family Database, 2012, Chart SF2.4.D). Trends in abortion were more mixed but overall have been downwards since the mid-1990s and eastern Europe in particular has experienced a sharp fall in abortion during a period of high and generally rising income inequality (Sedgh et al. 2012: 627). In the United States between 1990 and 2008, the teenage pregnancy rate fell by 40 per cent, the teenage abortion rate by 56 per cent and the overall abortion rate by 29 per cent (Ventura et al. 2012: 10), though this was a period of rising income inequality (OECD 2008: 27). These data suggest then, that even for those variables which seem to be linked with income equality on a point-in-time cross-sectional basis there is no similar link when we look at trends across time.

While few scholars have looked to trends in income inequality as influences on family change, there has been a great deal of interest in the reverse causal connection – family change as a contributor to widening income inequality. Some of the family trends looked at in this context lie outside the purview of what we have so far considered in this paper, for example, the rise of educational homogamy which has been pointed to by some researchers as a cause of widening social disparities in household incomes and success in the job market (Esping-Andersen 2009: 59-61; McCall and Percheski 2010: 336-7, Schwartz and Mare 2005, Schwartz 2010, Reed and Cancian 2009). Others dispute that educational homogamy has in fact universally increased (Blossfeld 2009: 516, Smits 2003, Smits and Park 2009) or question whether, even when it occurs, it has a significant impact on income distribution (Breen and Salazar, 2009, 2010, Western et al. 2008). Nevertheless, the key point for the present paper is that the causal mechanisms at issue here run from family change to income inequality rather than vice versa and thus do little to reinforce the W&P thesis.

A similar point arises from a second major area of investigation in this field – that focusing on the rise in family instability and its contribution to income inequality, a topic that has generated a particularly large body of research in the United States. The issues here are the sharp growth of lone parenthood and unstable cohabitation among families in the past fifty years, the concentration of this growth among families in the lower socio-economic groups (contrasting with its much slower growth among, say, college-educated women), and the impact of ‘missing fathers’ on household resources. In the US, a number of studies have attempted to calculate the share of rising income inequality which can be attributed to the growth of female-headed families, with estimates ranging from 11% to 41% (McLanahan and Percheski 2008: 259). A number of studies have come closer to the thrust of the W&P thesis by exploring whether causality might also flow in the other direction: worsening income prospects for poorly educated fathers may weaken their ability to contribute to the family household and thus feed into higher rates of family breakup and lone parenthood. Even here, however, the concern is with the impact of income inequality the ‘diverging destinies’ of better-off and poorer families rather than to any hypothesised overall decline in family well-being as might be posited by the W&P thesis (Waldfogel et al. 2010, McLanahan 2004, McLanahan and Percheski 2008). There has been some research in a similar vein outside the US (Holmes and Kiernan 2010, Kennedy and Thompson, 2010) and this has included some elements of cross-country comparison (Kiernan and McLanahan 2011; Cherlin 2011, Perelli-Harris et al. 2010).

Conclusion

This paper has argued that the W&P thesis concerning the negative effects of income inequality on social outcomes has some validity when applied to the family. Indicators of early family formation (teenage birth rates and early age of entry into partnership) are linked to income inequality in a robust way and are characterised by the negative social gradients which W&P point to as necessary mechanisms in mediating the association between income inequality and social outcomes. However, the paper has also argued that the validity of the thesis is narrow: no aspect of family behaviour other than early family formation is robustly linked to income inequality across countries. The latter finding can be accounted for within the W&P framework on the basis that most family behaviours do not display the negative social gradients which, as per the W&P thesis, are required to make them 'responsive' to income inequality. This, however, is simply to confirm that income inequality is not strongly or pervasively associated with cross-country variation in family patterns.

If we go beyond the point-in-time focus of the W&P thesis and look at trends over time, a similar conclusion holds. Rapid change in family behaviour often labelled the 'second demographic transition', resulting in fewer births, rising divorce, more cohabitation and informal unions and more children living in lone parent families, commenced when income inequality was generally low and stable in the 1960s and 1970s. Key indicators of family dysfunction highlighted by W&P such as teenage births and abortion rates have tended to decline during recent periods of rising income inequality. These indications suggest that trends in income inequality have not been a major driver of family change, though in some countries a reverse causal relationship may sometimes be important (for example, in that rising educational homogamy or increasing lone parenthood may contribute to widening inequalities in household incomes). Thus the overall conclusion reached is that, apart from its present-day cross-country associations with early family formation, income inequality on its own does not exert a consistent effect on family behaviour and is not a major contributor to differences between countries or change over time in family patterns.



References

- Blossfeld, H-P. (2009). Educational Assortative Marriage in Comparative Perspective, *Annual Review of Sociology*, 35: 513–30.
- Brandolini, A. and T.M. Smeeding (2009) ‘Income Inequality in Richer and OECD Countries’, pp. 71-100 in W. Salverda, B. Nolan and T.M. Smeeding (eds.) *The Oxford Handbook of Economic Inequality*. Oxford: Oxford University Press.
- Breen, R., Luijkx, R., Müller, W. and Pollak, R. (2010). Long Term Trends in Educational Inequality in Europe: Class Inequalities and Gender Differences, *European Sociological Review*, 26(1): 31-48.
- Breen R. and Salazar, L. (2009). *Educational assortative marriage and earnings inequality in the United States*. Working Paper, Dept of Sociology, Yale University New Haven, CT.
- Breen, R. and Salazar, L. (2010). Has increased women’s educational attainment led to greater earnings inequality in the UK? A multivariate decomposition analysis *European Sociological Review*, 26(2): 143-58.
- Cherlin, A. (2010). Demographic trends in the United States: A review of research in the 2000s, *Journal of Marriage and the Family*, 72: 403–419.
- Cherlin, A. (2011). *The American way of marriage: Are there lessons for the UK?* The Edith Dominian Memorial Lecture 2011. Available at: www.oneplusone.org.uk
- Esping-Andersen, G. (2009). *The Incomplete Revolution. Adapting to Women’s New Roles*. Cambridge: Polity Press.
- Fukayama, F. (1999) *The Great Disruption: Human Nature and the Reconstitution of Social Order*. New York: Simon and Schuster
- Goldthorpe, J. H. (2010). Analysing Social Inequality: A Critique of Two Recent Contributions from Economics and Epidemiology, *European Sociological Review*, 26(6): 731-744.
- Härkönen, J. and Dronkers, J. (2006). Stability and Change in the Educational Gradient of Divorce. A Comparison of Seventeen Countries, *European Sociological Review*, 22(5): 501-17
- Heuvelin, P. Timerlake, J.M. Fustenberg, F.F. (2003) Shifting Childrearing to Single Mothers: results from 17 Western countries *Population and Development Review* 29, 1: 47-71.
- Holmes, J. and Kiernan, K. (2010). *Fragile Families in the UK: evidence from the Millennium Cohort Study*, Draft report (typescript).
- Jones, R. and K. Kooistra (2011) Abortion Incidence and Access to Services in the United States, 2008 *Perspectives on Sexual and Reproductive Health*, 43, 1:41–50

- Kennedy, S. and Thomson, E. (2010). Children's experiences of family disruption in Sweden: Differentials by parent education over three decades *Demographic Research*, 23(17): 479-508.
- Kiernan, K. E. (2004). Unmarried Cohabitation and Parenthood in Britain and Europe, *Journal of Law and Policy*, 26(1): 33-55.
- Kiernan, K., S. McLanahan, J. Holmes and M. Wright (2011). Fragile families in the US and UK' Center for Research on Child Wellbeing, Princeton University, Working paper W11-04-FF. Available at <http://crcw.princeton.edu/workingpapers/WP11-04-FF.pdf>
- Kiernan, K. E., & Mensah, F. K. (2009). Poverty, maternal depression, family status and children's cognitive and behavioural development in early childhood: A longitudinal study, *Journal of Social Policy*, 38(04): 569-588.
- Kondo, N., G. Sembajwe, I. Kawachi, R M van Dam, S V Subramanian, Z. Yamagata (2009). Income inequality, mortality, and self-rated health: meta-analysis of multilevel studies, *British Medical Journal*, 339: b4471.
- Lancee, B., and van de Werfhorst, H.G., (2012). Income Inequality and Participation: A Comparison of 24 European Countries, *Social Science Research*.
- Layte, R. (2011). The Association between Income Inequality and Mental Health: Testing Status Anxiety, Social Capital, and Neo-Materialist Explanations. *European Sociological Review*, 28(4): 498-511.
- Lesthaeghe, R. and J. Surkyn. 2006. When history moves on: Foundations and diffusion of a second demographic transition, in R. Jayakody, A. Thornton, and W. Axinn (eds.), *International Family Change: Ideational Perspectives*. Mahwah, NJ: Lawrence Erlbaum and Associates.
- Liefbroer, A. C. and E. Dourleijn. 2006. Unmarried cohabitation and union stability: Testing the role of diffusion using data from 16 European countries *Demography* 43: 203–221
- Lunn, P. and T. Fahey (2011). *Households and Family Structures in Ireland: A Detailed Statistical Analysis of Census 2006*. Family Support Agency, Dublin.
- Lynch, J. W., G.D. Smith, G.A. Kaplan and J.S. House (2000). Income inequality and mortality: Importance to health of individual income, psychosocial environment, or material conditions, *British Medical Journal* 320, 7243: 1200-4.
- McCall, L. and C. Percheski (2010) Income Inequality: New Trends and Research Directions, *Annual Review of Sociology*, 36: 329–47.
- McLanahan, S. (2004). Diverging Destinies: How Children are Faring Under the Second Demographic Transition, *Demography*, 41(4): 607-627.
- McLanahan, S. (2009). 'Children in Fragile Families' Center for Research on Child Well-being Working Paper # 09-16-FF, Princeton University.

- McLanahan, S. and C. Percheski (2008). Family Structure and the Reproduction of Inequalities. *Annual Review of Sociology*, 34: 257–76.
- OECD Family Database (2012) ‘Chart SF2.4.D: Adolescent fertility rates, 1980 and 2008’, available at <http://www.oecd.org/social/socialpoliciesanddata/oecdfamilydatabase.htm>, accessed 5 November 2012.
- Pearce, N. & G. Davey Smith (2003). Is social capital the key to inequalities in health? *American Journal of Public Health*, 93, 1: 122- 129.
- Perelli-Harris, B., W. Sigle-Rushton, M. Kreyenfeld, T. Lappegård, R. Keizer, and C. Berghammer (2010). The Educational Gradient of Childbearing within Cohabitation in Europe. *Population and Development Review* 36, 4: 775-801.
- Reed D. and Cancian M. (2009). *Rising family income inequality: the importance of sorting*. Working Paper, LaFollette School of Public Affairs, University of Wisconsin, Madison.
- Rowlingson, K. (2011). *Does Income Inequality Cause Health and Social Problems?* York: Joseph Rowntree Foundation.
- Saunders, P. (2010) *Beware False Prophets: Equality, the Good Society and The Spirit Level*. London: Policy Exchange
- Schwartz, C.R. and R.D. Mare (2005) Trends in Educational Assortative Marriage from 1940 to 2003, *Demography* 42, 4: 621-46.
- Sedgh, G., S. K. Henshaw, S. Singh, A. Bankole, and J. Drescher. (2007). Legal Abortion Worldwide: Incidence and Recent Trends, *Perspectives on Sexual and Reproductive Health*, 39 (4): 216-225.
- Sedgh, S., S. Susheela, I.H. Shah, E. Åhman, S. K. Henshaw, A. Bankole (2012) Induced abortion: incidence and trends worldwide from 1995 to 2008, *The Lancet* 379: 625–32
- Smits J. 2003. Social closure among the higher educated: trends in educational homogamy in 55 countries. *Social Science Research*, 32:251–77
- Smits, J. and H. Park. 2009. Five Decades of Educational Assortative Mating in 10 East Asian Societies, *Social Forces*, 88:227-55.
- Solt, F. (2009) ‘Standardising the World Income Inequality Database’ *Social Science Quarterly* 90, 2: 231-42.
- Surkyn, J. and R. Lesthaeghe, R. (2004). Values orientations and the second demographic transition (SDT) in Northern, Western and Southern Europe: An update, *Demographic Research*, S3(3).
- Therborn, G. (2004). *Between Sexes and Power. Family in the World, 1900-2000*. London: Routledge.

UNICEF (2001), 'A league table of teenage births in rich nations', *Innocenti Report Card No.3*. Unicef Innocenti Research Centre, Florence.

UNICEF (2007). *Child Poverty in Perspective: An overview of child well-being in rich countries*. Unicef Innocenti Research Centre, Florence

Ventura, S.J, S. C. Curtin, J. C. Abma and S. K. Henshaw (2012) Estimated Pregnancy Rates and Rates of Pregnancy Outcomes for the United States, 1990–2008, *National Vital Statistics Reports* 60, 7 (June 2012)

Waldfogel, J., T-A. Craigie and Brooks-Gunn, J. (2010). Fragile Families and Child Well-Being, *The Future of Children*, 20(2): 87–112.

Western, B., D. Bloome & C. Percheski (2008) Inequality among American Families with Children, 1975 to 2005, *American Sociological Review*, 73: 903-920.

Wilkinson R.G, Pickett K.E. (2008) Income inequality and socioeconomic gradients in mortality. *American Journal of Public Health* 98: 699–704

Wilkinson R.G., Pickett K.E. (2009) Income inequality and social dysfunction. *Annual Review of Sociology*, 35: 493–511

Wilkinson, R. and K. Pickett (2010). *The Spirit Level: Why Equality is Better for Everyone*. Penguin.

Appendix Table 1: Country and indicator data

Country	Spirit Level	Divorce rate	Dissolution time	Sole parents	Births outside marriage	Marriage rate	Av. age marriage	Cohab	Living alone	Teenage preg.	Abortion	Large family	TFR	Childless
Australia	Yes	2.3		5.8	33.4	5.4		8.9	26.5	14.6	20.0		2.0	13.0
Austria	Yes	2.4	12.1	9.7	38.8	4.8	30.8	6.5	33.5	11.2		5.0	1.4	33.9
Belgium	Yes	3.3	14.8	12.1	43.2	4.1	29.6	6.4	31.6	7.6	8.0	8.0	1.8	19.6
Bulgaria	No	1.9	14.9	6.5	51.1		27.1	4.2	22.7	43.4	22.0	2.0		31.0
Canada	Yes	2.2		15.7	24.5	4.6	28.6	8.9	26.8	12.5	15.0	10.0	1.7	
Chile	No	0.2								59.4			2.0	
Cyprus	No	2.1	10.9	5.7	8.9		27.9	0.9	16.0	6.8		11.0		14.6
Czech Republic	No	3.0	14.0	12.9	36.3	5.1	28.4	2.9	30.3	11.5	13.0	4.0	1.5	19.3
Denmark	Yes	2.7	11.5	5.1	46.2	6.7	32.7	11.5	36.8	6.0	15.0		1.9	
Estonia	No	2.6	13.2	14.7	59.0	4.6	27.9	11.8	33.5	22.9	36.0	5.0	1.7	21.9
Finland	Yes	2.5	13.0	7.6	40.7	5.6	30.8	11.8	37.3	8.6	11.0	6.0	1.9	28.8
France	Yes	2.1	13.3	8.0	52.6	4.5	31.0	14.4	31.0	11.5	17.0	7.0	2.0	20.6
Germany	Yes	2.3	14.0	5.9	32.1	4.7	30.9	5.3	35.8	9.8	8.0	4.0	1.4	33.6
Greece	Yes	1.2	12.5	8.7	5.9	5.5	30.3	1.7	19.7	12.0		5.0	1.5	24.8
Hungary	No	2.5	14.1	10.7	39.5	4.4	28.7	6.3	26.2	20.1	26.0	7.0	1.4	16.5
Iceland	No	1.7	11.9	7.2	64.1	5.4	32.7		30.7	14.5			2.1	
Ireland	Yes	0.8		11.7	32.8	5.1	30.7	5.9	21.6	17.5	7.0	8.0	2.1	
Israel	Yes	1.9								14.1	14.0		3.0	
Italy	Yes	0.9	16.8	8.9	17.7	4.2	31.2	2.0	24.9	4.8	11.0	4.0	1.4	22.0
Japan	Yes	2.0		8.4	2.0	5.7		2.1	29.5	4.8		3.5	1.4	
Korea	No	2.6		9.4	1.5	6.5				5.5			1.2	
Latvia	No	2.7	13.6	20.3	43.1		26.8	5.5	25.0	24.5	29.0	5.0		30.5
Lithuania	No	3.1	13.5	7.2	28.5		26.2	4.1	28.7	19.0	15.0	6.0		19.3
Lux.	No	2.0	13.6	8.4	30.2	4.4	30.9	14.0	29.3	8.7		8.0	1.6	26.8
Malta	No				25.4		29.1	2.1		18.7		8.0		12.5
Mexico	No	0.7		10.3	55.1	5.6	26.4		7.6	64.3		17.0	2.1	27.4
Nether.	Yes	2.0	14.1	5.8	41.2	4.5	31.1	9.3	33.6	5.2	9.0	7.0	1.8	24.3
New Zealand	Yes	2.3		9.3	46.5	5.0		9.4	22.6	22.1	21.0	8.0	2.2	
Norway	Yes	2.1	13.6	8.6	55.0	4.8	32.3	10.7	37.7	9.3	15.0	6.0	2.0	
Poland	No	1.7	14.3	12.6	19.9	5.4	26.3	1.3	24.8	16.2		9.0	1.4	13.2
Portugal	Yes	2.4	14.5	8.6	36.2	4.6	28.4	4.1	17.3	15.9		4.0	1.4	17.9
Romania	No		12.2	9.3			27.0	4.3	18.9			6.0		21.6
Russia	No					7.5					45.0			
Slovak Republic	No	2.3	14.6	9.2	30.1	4.9	27.5	1.4	19.4	21.5	13.0	8.0	1.3	18.5
Slovenia	No	1.1	16.0	12.5	52.8	2.9	29.6	5.4	21.9	5.1	16.0	5.0	1.5	15.2
Spain	Yes	2.4	15.2	9.9	31.7	4.8	28.8	3.3	20.3	13.7		4.0	1.5	18.1
Sweden	Yes	2.3	11.5		54.7	4.9	33.4			5.9	20.0		1.9	
Switz.	Yes	2.6	14.4	5.2	17.1	5.4	33.7	5.9	36.0	4.3	7.0		1.5	
Turkey	No	1.4	10.4			9.1		0.2		35.9		20.0	2.1	16.1
Ukraine	No													25.1
UK	Yes	2.4	13.0	9.8	45.4	5.2	30.7	8.7	30.2	23.6	17.0	7.0	2.0	
USA	Yes	3.7		9.2	38.5	7.6		5.5	27.3	35.0	21.0	7.0	2.1	
N of cases		38	29	35	36	33	32	34	34	39	26	32	34	27

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Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

- exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,
- elaborate on the effects of both individual distributional positions and aggregate inequalities, and
- allow for feedback from impacts to inequality in a two-way causality approach.

The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political 'distances', alienating people from politics, globalisation and European integration? Do they affect individuals' participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefits of policies limiting income inequality and its efficiency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org





GINI GROWING INEQUALITIES' IMPACTS

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