

Child Poverty and Well-Being

JONATHON BRADSHAW

Professor of Work and Employment, University of York, United Kingdom

Abstract

The European Laeken Indicators employ provide only two child breakdowns: the proportion of children living in households with incomes below 60 per cent of the national median using the modified OECD equivalence scale and the Proportion of children living in workless households. The UK also uses these indicators in the Opportunited for All series. This paper explores the extent to which these measures represent international variation in child well-being using an index that we have developed. The conclusions are that: relative income poverty and worklessnss are poor indicators of child well-being especially for some of the new EU countries; deprivation has a stronger association with overall well-being than relative income poverty or worklessness; there are a number of other single indicators of child well-being that could be used as proxies for overall child well-being; but the EU (and the UK) could easily develop its own index of child well-being.

Introduction

Children in poverty have been named by the European Union as target groups in the Common Outlines and Common Objectives of the National Action Plans for Social Inclusion and also in the March 2005 EU Presidency Conclusions. However among the so called Laeken Primary and Secondary indicators of social inclusion only two indicators with child breakdowns had been included (the proportion of children under 16 living in households with equivalent income before housing costs less than 60 per cent of the median and using the modified OECD equivalence scale and the proportion of children living in workless households). Although in the report by Professor Tony Atkinson and colleagues prepared for the Luxembourg Presidency (Atkinson et al 2005) there was a proposal that children should be 'mainstreamed', it was suggested (by the Head of Eurostat) that only one other child related indicator should be added to the Laeken Indicators - on educational attainment, though nothing has actually happened.

Thus there is a huge gap between rhetoric and evidence in the EU. Many acceding and candidate countries currently report on the living conditions and/or well-being of children in the context of their Poverty Reduction Strategy Papers. There is a danger that in adjusting to EU social monitoring standards they might no longer see the need to maintain their focus on children. The EU needs to raise its standards and improve its monitoring of child well-being.

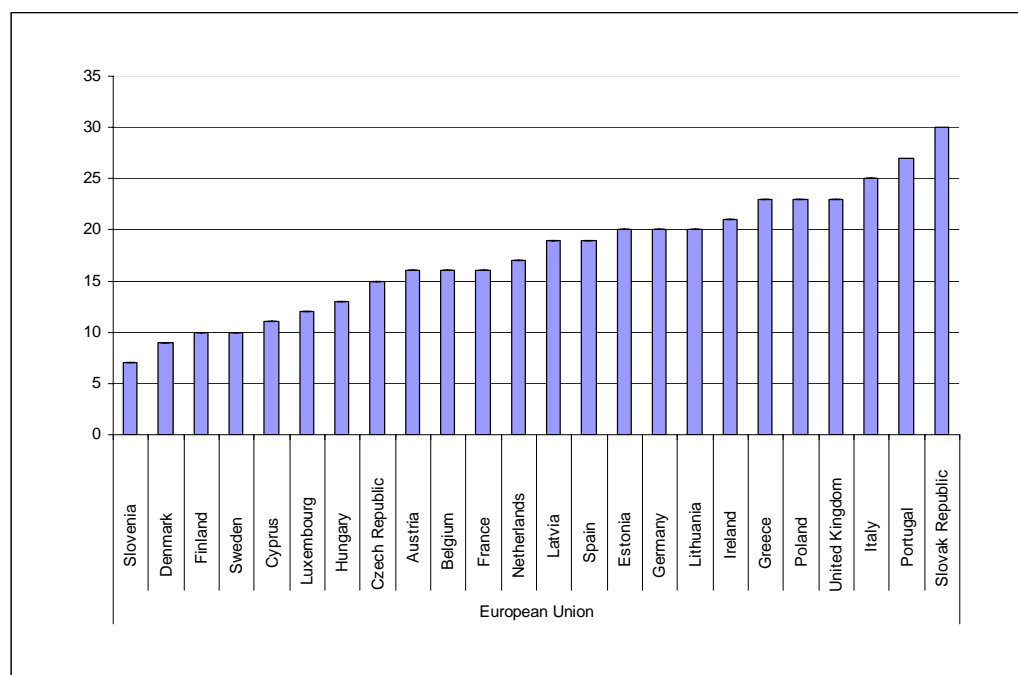
As a response to the cautious approach to indicator development of the Indicators Sub Committee of the EU Social Protection Committee we have made a first attempt at an index of child well-being for the EU 25 (Bradshaw, Hoelscher and Richardson 2006) drawing on

existing survey and administrative data. The purpose of this paper is to assess the extent to which either an indicator of relative income poverty or worklessness are useful as vehicles for monitoring the well-being of children in the EU25.

What is wrong with a relative income based child poverty measure?

The picture of child social inclusion represented by the current Laeken indicator on child poverty is presented in Figure 1.

Figure 1: Percent of children under 16 living in households with equivalent (modified OECD) income less than 60 per cent of the median. 2003.



Source:

http://epp.eurostat.ec.eu.int/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=sdi_ps&root=sdi_ps/sdi_ps/sdi_ps_mon/sdi_ps1112

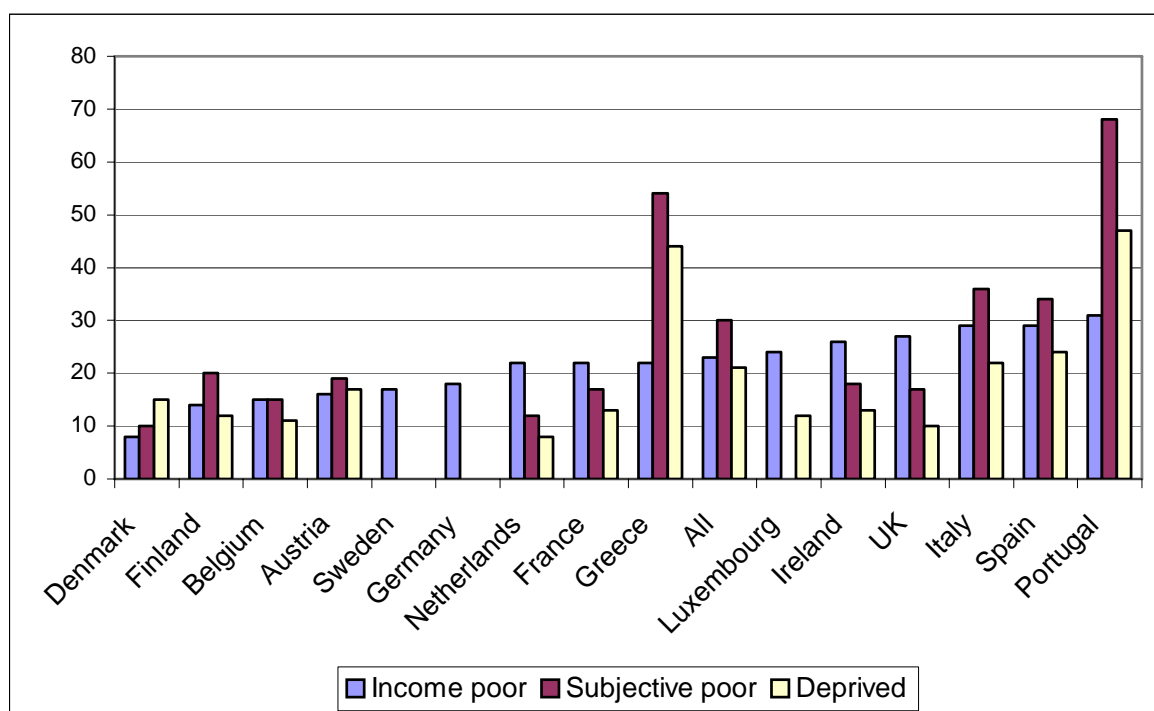
There are a host of problems with this definition of poverty. These have been reviewed elsewhere (Bradshaw 2006) but they include:

- It is not easy to measure income correctly in surveys which tend to use proxy household informants.
- Income is not a good measure of command over resources – it excludes dissavings, borrowings, and the consumption of home production.
- The relative threshold is very different in different countries. 60 per cent of the median is 2000 euros in Latvia, Estonia and Lithuania and 14,000 euros in Luxembourg (and over 9000 euros in the UK) for examples.
- 60 per cent of the median is an arbitrary threshold and if 50 or 70 per cent were used, the league table would be different.

- The modified OECD equivalence scale which is used to adjust income to household needs has no basis in science and also makes a difference to the composition of poor households.
- Poverty rates do not represent poverty gaps – is it better to be a country with high rates but low gaps or low rates and high gaps?
- Poverty rates do not tell us anything about the persistence of poverty.

In order to overcome some of these problems Ritakallio and Bradshaw (2005) have supplemented child income poverty measures in the European Community Household Panel with additional measures of subjective poverty (the proportion of households with children saying that they have difficulty or great difficulty making ends meet) and measures of deprivation (proportion of households with children lacking 3 or more items from a list of nine deprivation indicators). Figure 2 shows that rather different child poverty league tables are produced by these different measures. In particular the UK, the Netherlands, France and Ireland do better on the non income measures.

Figure 2: Child poverty rates by dimension.



Index of child well-being

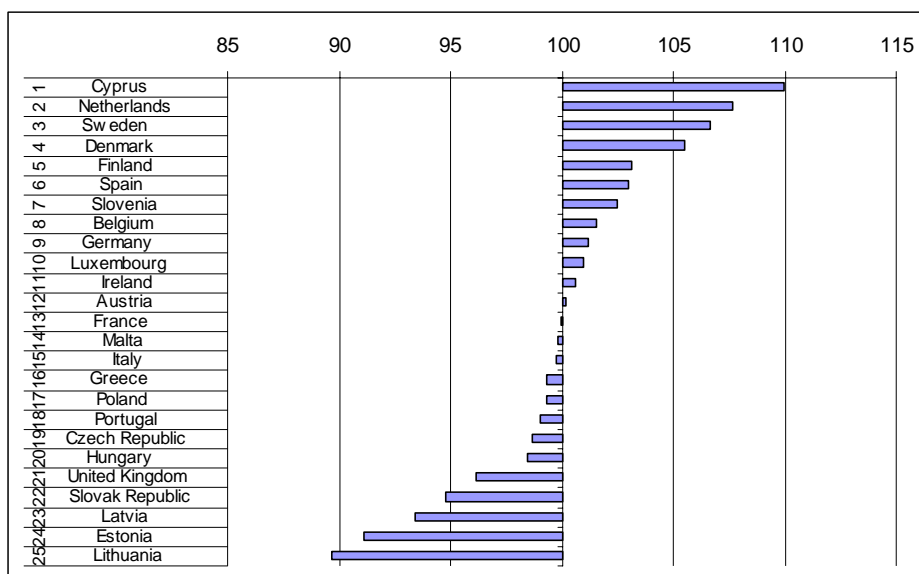
Our index of child well-being is based on a multidimensional understanding of well-being. Where possible the unit of analysis is the child and all the data is about children if not provided by children. There are eight clusters:

- Material situation.
- Housing.
- Health.
- Subjective well-being.

- Education.
- Children’s relationships.
- Civic participation.
- Risk and safety.

These clusters contain 23 domains and the domains are made up from 53 indicators. We have produced an overall index of child well-being in the EU by averaging the z scores for the 23 domains. The results are shown in Figure 3. Cyprus, the Netherlands, Sweden and Denmark are at the top of the league table of child well-being. The Slovak Republic, Latvia, Estonia and Lithuania are at the bottom of the league table of child well-being along with the UK. For four of these countries Cyprus, Malta, Luxembourg and the Slovak Republic more than 25 per cent of the indicators making up the index are missing so it is probably safer to ignore them.

Figure 3: Index of child well-being in the EU25. Distribution of z scores around a mean of 100

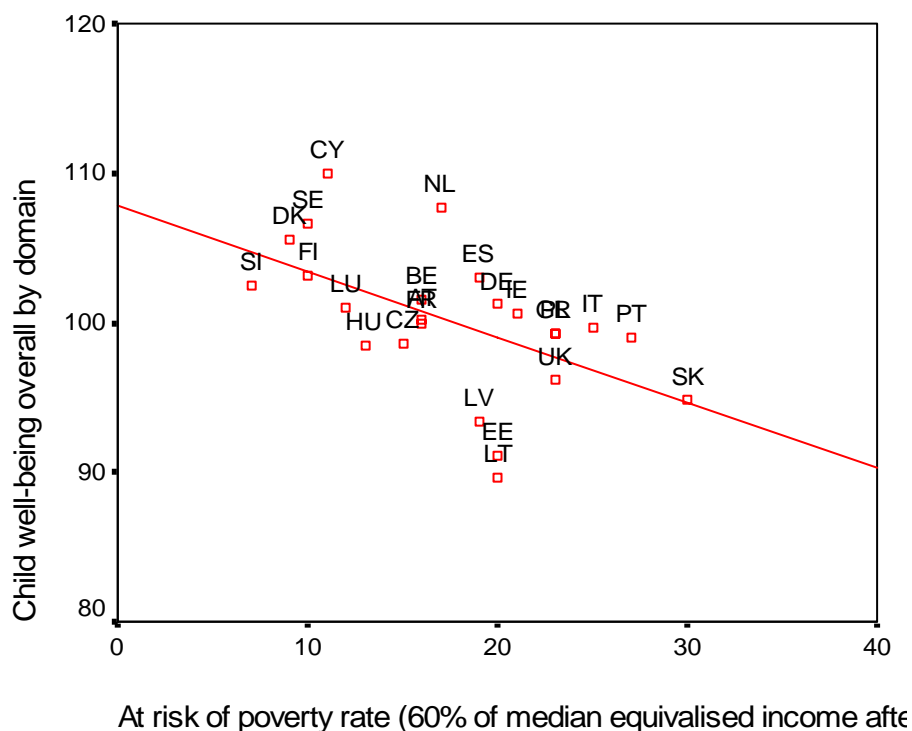


Source: Bradshaw et al., 2006

In the analysis below we will be exploring the relationship between a number of variables and the overall index of child well-being which includes those variables. Strictly speaking they are not therefore independent. However the relative child poverty rate is only one of 53 variables contributing to child well-being and the child poverty domain is only one of 23 domains contributing to child well-being.

First we examine the relationship between the child poverty rate and the index of child well-being in Figure 4. There is a statistically significant correlation between these two variables ($r=-0.55^{**}$). But that means that the child poverty rate explains only about 30 per cent of the variation in overall well-being. It can be seen that Latvia, Estonia and Lithuania have much lower child well-being levels than their relative child poverty rate would indicate.

Figure 4: Overall child well-being by child poverty rate. $R=-0.55^{**}$

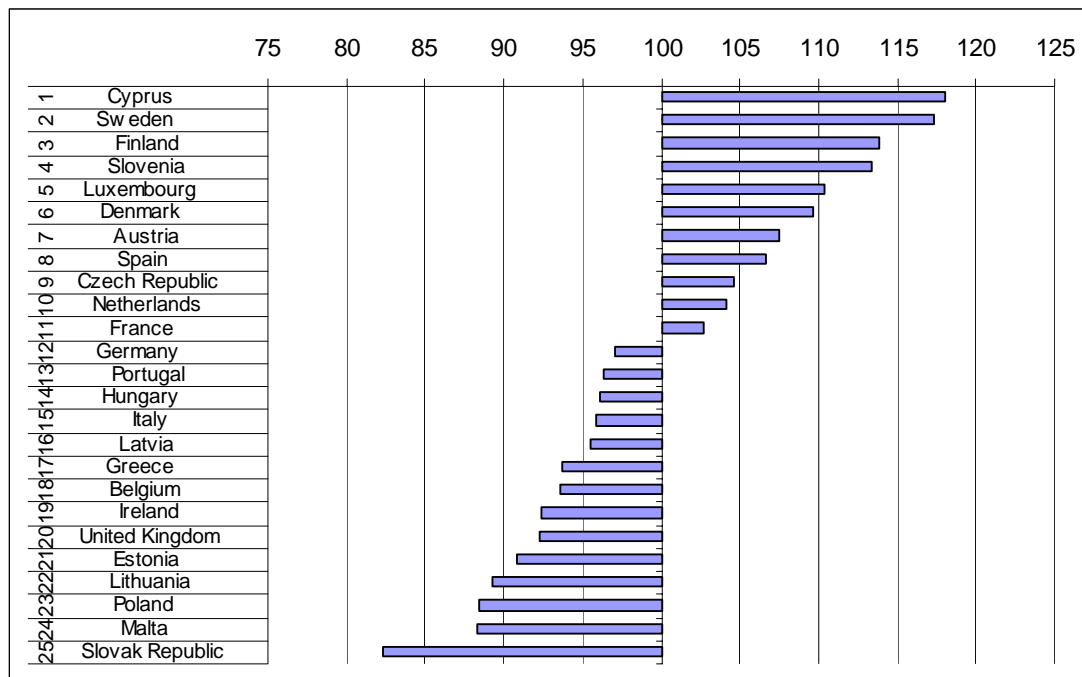


The child's material situation was one of the clusters that make up this index and the domains that contribute to that cluster are:

- Relative child income poverty
 - Child poverty rate
 - Child poverty gaps
- Child deprivation
 - Lacking car, own bedroom, holidays last year, a computer
 - Lacking a desk, quiet for study, a computer, calculator, dictionary, text books
 - Less than ten books in the home
- Parental worklessness.

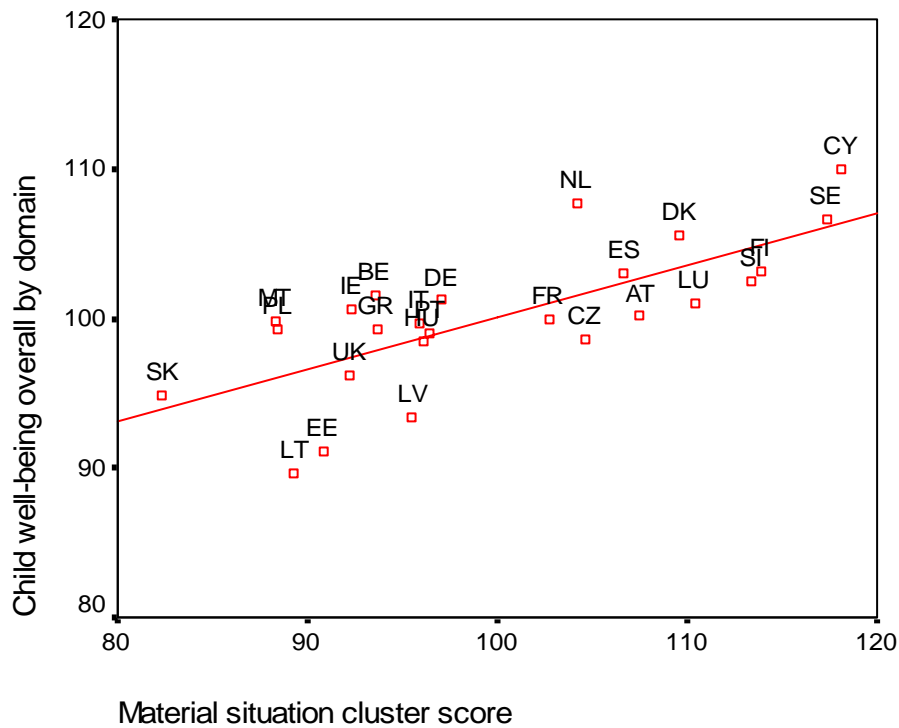
If we combine all the components of the material resources cluster into a single variable we get the league table in Figure 5 and it can be seen that this produces a rather better relationship with overall well-being in Figure 6. Now there is a much better fit ($r=0.73^{***}$). It is the addition of the indicator of deprivation that is improving this fit – the correlation between overall well-being and deprivation is $r=0.72^{***}$ and with worklessness $r=0.36$ ns.

Figure 5: Material resources cluster



Source: Bradshaw et al (2006)

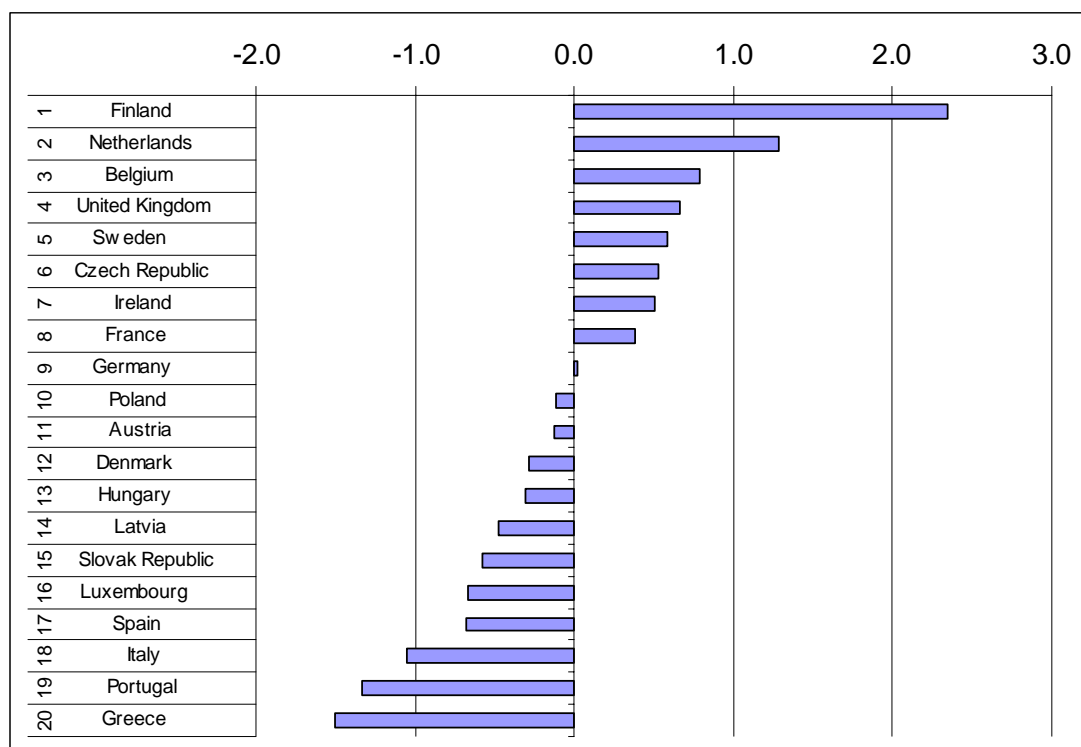
Figure 6: Overall well-being and material well-being.



Educational attainment

It was threatened (very informally in a remark at the Luxembourg Presidency Conference by the Head of Eurostat) that the only concession that the Indicators Sub-Committee of the Social Protection Committee of the EU might make to children is to add a Primary or Secondary Laeken indicator on educational attainment. How is educational attainment related to other indicators of child well-being and our overall index? In the educational well-being cluster of our index we included domains covering educational attainment, educational participation and educational outcomes. However the issue here is educational attainment. For this we used the OECD PISA data which the EU would probably have to rely on. This domain includes data on reading literacy, mathematical literacy and science literacy, all drawn from the OECD/PISA 2003 survey. Cyprus, Estonia, Lithuania, Malta and Slovenia are not in PISA and the UK data is unreliable because of low response rates. There are strong positive associations ($r=0.8$, ***for all) between scores on these three attainment indicators. Figure 7 presents the average of z scores for the three educational attainment indicators. Finland has the highest overall educational attainment levels by some margin and the Southern EU countries have the lowest levels of educational attainment.

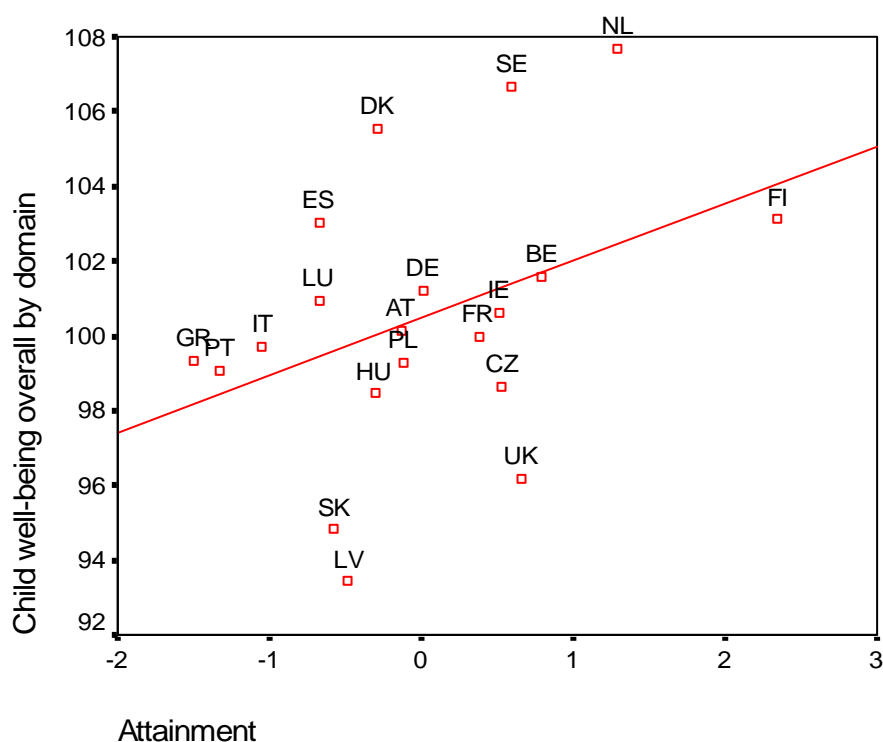
Figure 7: Educational attainment domain average of z scores



Source: Bradshaw et al (2006)

If the EU were to add an indicator on educational attainment how well would that represent overall child well-being. The answer is not at all well. Figure 8 shows that (despite the regression line) there is no relationship between educational attainment and overall well-being $r=0.39$ ns. Educational attainment is really a well-becoming indicator not a well-being indicator.

Figure 8: Child well-being and educational attainment



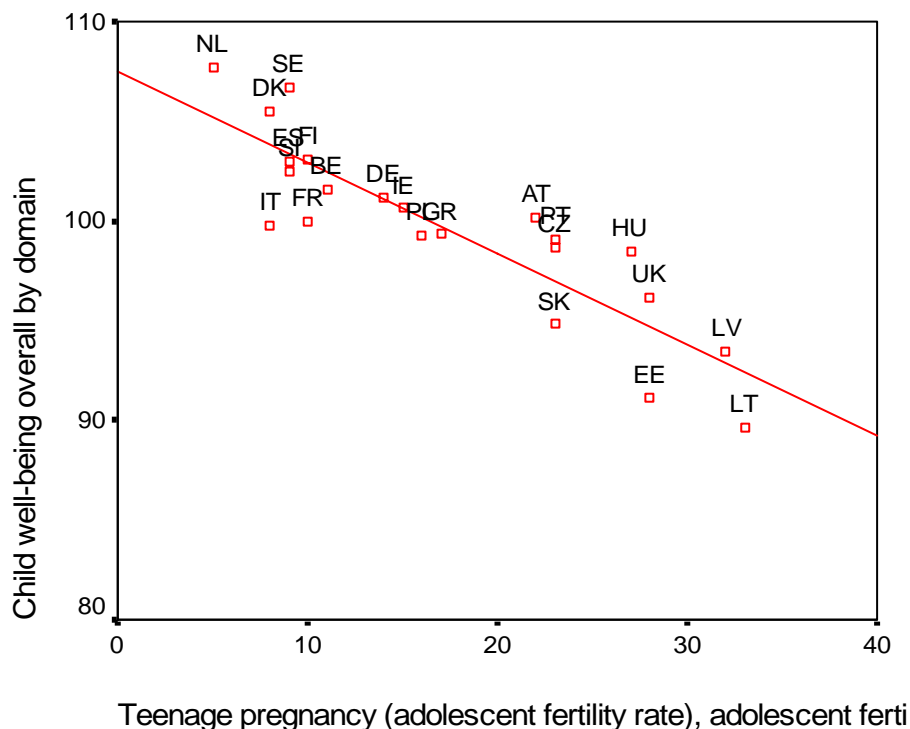
What factors are related to overall well-being? In Table 1 we have selected those indicators from our set of 53 which correlate most highly with the index of overall well-being. The selection is restricted to those with coefficients in excess of $r=0.6$ and which are statistically significant at least the 95 per cent level. They are presented in rank order. All of these variables are better indicators of child well-being than relative child poverty rates, worklessness rates or and educational attainment.

Table 1: Indicators with high correlates with over child well-being

Indicator	Correlation coefficient r
Teenage fertility rate	0.88***
Feeling unsafe in neighbourhood	0.82***
Life satisfaction score	0.81***
Low family affluence (deprivation)	0.78***
Infant mortality rate	0.74***
Under 19 mortality rate	0.67***
Bullied last month	0.67**
Self rated health	0.64**
At least two household problems	0.63**
Low educational possessions	0.60**
Peers kind and helpful	0.61**

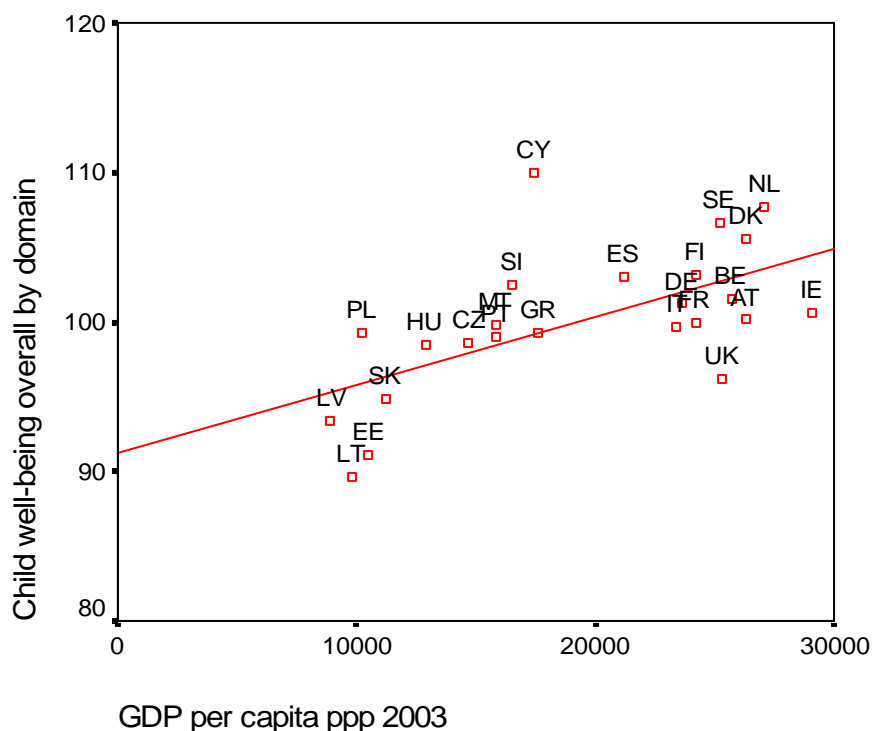
The relationship between the teenage fertility rate and overall well-being is shown in Figure 9. It is really quite extraordinary that this one variable should have such a close relationship with a composite of 53 indicators. It appears to be almost iconic. The countries that do not protect their children against early child bearing have the worst well-being.

Figure 9: Child well-being and teenage fertility rate $r=0.88^{*}$**



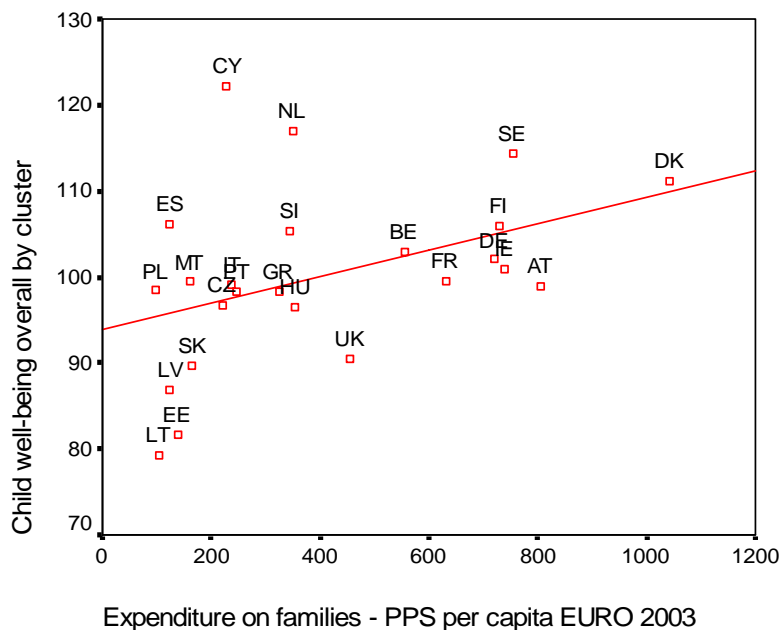
Finally we consider the relationship between overall child well-being and GDP per capita in Chart 10 and social expenditure on family benefits and services in Chart 11. There is a relationship with GDP per capita ($r=0.61^{**}$) – richer countries have happier children but there are outliers including the UK. Given the wealth of the UK our children are doing badly.

Figure 10: Overall child well-being and GDP per capita $r=0.61$



There is a weaker relationship($r=0.42^*$) with social expenditure on families with children. However the countries that make the most effort have the best child well-being. The UK again is a notable for net getting the child well –being that its spending deserves.

Figure 11: Child well-being by expenditure per capita on family benefits and services.



Conclusion

The relative child poverty rate which has been adopted by the EU as the only child related primary or secondary indicator of social inclusion is not adequate to represent variations in child well-being across the EU25. The proportion of children in jobless households is worse. Educational attainment, which might be adopted, is even worse. There are some single indicators that are highly correlated with child well-being and for which there is data across the EU25. However it might be better for the EU to adopt the kind of multi-dimensional index of child well-being of the kind explored in this paper.

The results are disappointing for a UK audience. Despite the efforts that are now being made to abolish child poverty and through Every Child Matters improve the well-being of children, the UK finds itself resolutely at the wrong end of the international league table. This may of course be lag effect – much of the well-being data is old and when more recent data become available we may be moving up the league table. There is a long way to go.

References

- Atkinson, A.B., Cantillon, B., Marlier, E. and Nolan, B.(2005) *Taking Forward the EU Social Inclusion Process. Final Report.* (Government of Luxembourg, Luxembourg), http://www.ceps.lu/eu2005_lu/inclusion/report/final_report.pdf.
- Bradshaw, J., Hoelscher, P. and Richardson, D. (2006) An index of child well-being in the European Union, *Journal of Social Indicators* (forthcoming). UNICEF Innocenti Report Card 7 will be published on Child Well-being in Rich Countries. It covers OECD countries with somewhat different indicators. It is based on a background paper by Bradshaw, J., Hoelscher, P. and Richardson, D. which will appear on the Innocenti website in September 2006.
- Bradshaw, J. (2006) Some problems in the international comparison of child income poverty in Wintersberger, H. , Alanen, L., Olk, T. and Qvortrup, J. (eds) *Childhood, Generational Order and the Welfare State: Exploring Children's Social and Economic Welfare* Volume 1 of COST A19: Children's Welfare Odense: University Press of Southern Denmark, 2006.
- Ritakallio, V-m and Bradshaw, J. (2005) Child poverty in the European Union, SPRU Working Papers.