

Welfare Policy Paper: Child Poverty and Universal Benefits

Background

This paper summarises the results from a high-level analysis of the relationship between European child poverty rates and the incidence of means-tested welfare benefits compared with universal benefits in European countries.¹ The effectiveness of means-tested benefits compared with universal benefits for poverty reduction is still hotly contested across Europe today.² Means-tested benefits have earned a bad reputation for increasing the size of the government bureaucracy involved in benefit distribution and rendering the overall system “inefficient.”³

Similarly, a familiar complaint lodged against means-tested systems is that they exclude substantial sections of the needy population who might otherwise enjoy coverage under a universal system. Despite this, the logic behind means-tested benefits – that in only protecting those in need they help reduce government welfare budgets – remains, at least notionally, sound. Given that Europe now has a substantially greater number of countries with child poverty rates at over 40% than it did fifteen years ago, this type of analysis is particularly important.⁴ This paper therefore uses publicly available online data from

¹ Means tested benefits: A type of selective benefit, the access to which requires checking applicants’ resources (incomes, assets, or both).

Non-means tested benefit or (universal benefits): Cash transfers or services that are available to all citizens/residents (e.g. primary education), or large categories of citizens (e.g. pensioners) without a means-testing requirement or other form of selectivity. Note therefore that ‘universal’ encompasses some benefits that do not go to everybody – they may be demographically targeted or dependent on prior contributions, without being specifically targeted at less well-off households.

These definitions of means tested and non-means tested benefits are borrowed from: Dimitri Gugushvili and Donald Hirsch, *Means-tested and universal approaches to poverty: international evidence and how the UK compares*, (Loughborough: Loughborough University, 2014) pp. 1.

² See the British Newspaper’s 2013 article by Peter Beresford: “Why means testing benefits is not efficient or fair,” *The Guardian*, Mon 14 Jan 2013.

³ Ibid.

⁴ “Severe housing deprivation rate by age, sex and poverty status – EU-SILC survey” Eurostat, 2018 (last accessed Jun 17 2018) ([ilc_mdho06a](#))

Eurostat's Social Protection Statistics in an attempt to answer the question: Is there a relationship between the proportion of benefits that are means-tested (as opposed to non-means tested) in a country and that country's child poverty rate?

Method

As mentioned above, data for this paper have been selected predominantly from Eurostat's Social Protection Statistics on family and children benefits.⁵ The first data set specifies the figure spent on means-tested and universal benefits⁶ by European governments between 2006-2015. The second data set contains the proportion of under-eighteen year olds living in severely deprived housing situations in their country. More specifically, under-eighteen year olds living at below 60% of the median equivalised⁷ income their country, and in deprived housing situations, for European countries between 2003-2017. As this data set measures child poverty in a country relative to a median value, it is also a meaningful measure of inequality and the distribution of wealth in a country.

These two datasets were used to run an OLS linear regression and an OLS fixed effects linear regression in the coding language R to attempt to determine if there is relationship between the levels of means-tested and universal benefits in a country and child poverty rates in that country. The findings of this statistical analysis is summarised the following section.

⁵ "Social Protection Statistics – Family and Children Benefit," Eurostat, 2016 (last accessed Jun 17 2018) http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social_protection_statistics_-_family_and_children_benefits

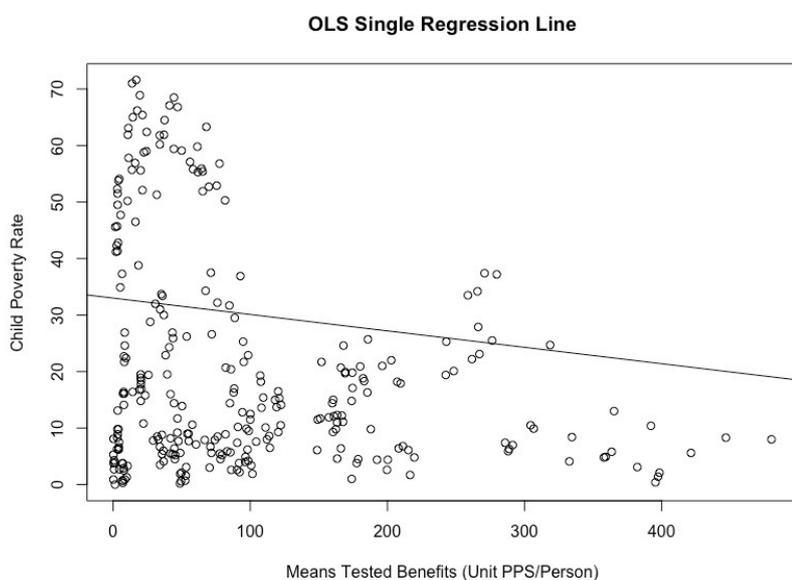
⁶ At purchasing power standard (PPS) per inhabitant.

⁷ Where equivalised means that figures take into account variances in family size. For more information on equivalence adjustments, see the OECD explanation of equivalence scales at <http://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf>

Findings

*OLS Linear Regression*⁸:

This basic regression, demonstrated in the graph below, indicates the relationship between child poverty rates (the dependent variable) and means-tested benefits (the independent variable) in European countries. This regression yielded a beta value of $\beta = -0.05224$ suggesting a very slight negative relationship. In other words, slightly lower child poverty rates are associated with higher levels of means-tested benefits.

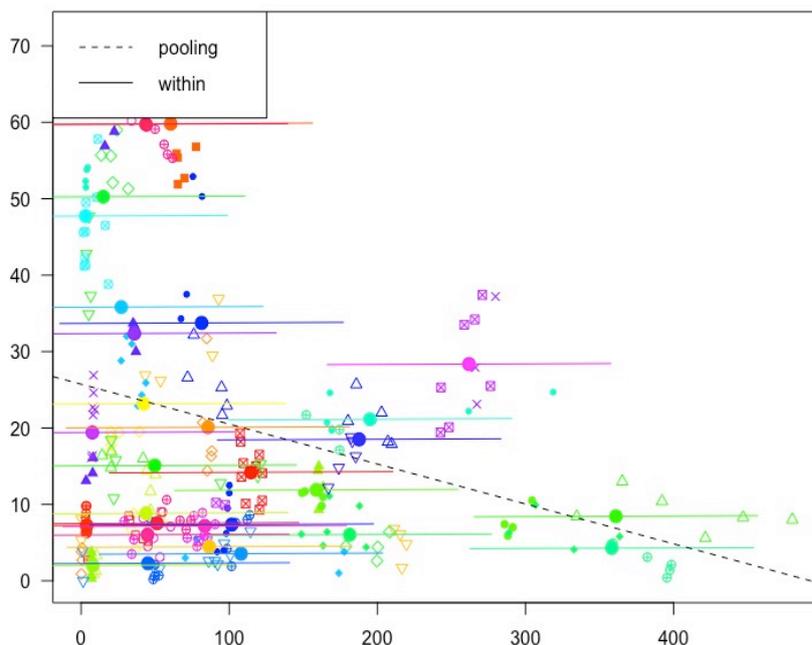


However, regular OLS regression does not consider heterogeneity across groups or over time, which is particularly important for the time series data that this research project uses. Furthermore, it makes sense that child poverty rates might

be lower where the incidence of any type of benefit (means-tested or universal) is higher. Consequently, a more rigorous type of regression is needed to better understand the relationship between these two data sets.

Fixed Effects Regression:

⁸ Using the basic $y_i = \alpha + \beta x_i + \varepsilon_i$ formula.



Given the limitations of basic OLS linear regressions, a more accurate representation of this relationship is given by a fixed effects regression model demonstrated in the following graph. In this regression model, $\beta =$

0.00077343 and no longer $\beta = -0.05224$, suggesting that there is no meaningful relationship between these two variables as this value is so close to zero. This has interesting implications for the bad reputation of means-tested benefits for poverty reduction, and could suggest that European governmental efficiency has improved enough in welfare distribution that it now renders means-tested benefits a more effective method of poverty reduction than previously thought.

Limitations & Next Steps

While these relatively simple statistical analyses of the data are meaningful in assessing the relationship between means-tested (and universal) benefits and child poverty rates across Europe, there is still a substantial amount of analysis to be done. For example, upon completing the two linear regressions described in the section above, the two graphics generated (and displayed in the previous section) revealed a set of data points that did appear to be linear. Resultantly, an assessment of the relationship between means-tested benefits and

child poverty rates might be better achieved through the application of non-linear regressions.

Unfortunately however, this next step must be reserved for a later iteration of this research project.

Bibliography

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