

## Updating top incomes for Ireland to 2015

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May 2018



World Inequality Lab

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The main series of estimates for top income shares for the Republic of Ireland presented in Nolan (2007), Chapter 12 of Atkinson and Piketty eds. (2007), covered (most of) the period from 1922 to 2000. Additional information from both the income tax statistics and the national accounts for recent years were subsequently employed in extending the estimates on a somewhat different basis from 2000 to 2009, as described in Nolan (2012). Both these series have been included in the World Top Incomes Database (Alvaredo et al., 2011-2016), and more recently in the World Inequality Database ([www.wid.world](http://www.wid.world)). These estimates have now been extended to 2015 and revised backwards to 1922 to produce a more harmonized series, as described in this note.

The original estimates were based on information published by the Revenue Commissioners on the distribution of taxpayers by income range, in terms of what the published income tax statistics refer to as ‘total income’. They also used an income control total derived from the National Accounts personal income aggregate with certain adjustments, using the limited information available on components of personal income over the entire period. This was calculated by taking the personal sector income aggregate from the National Accounts, deducting employers’ social insurance contributions and social transfers, and taking 80% of the resulting figure to reflect the fact that not all of the income of the personal sector goes to households, some goes to ‘private non-profit institutions serving persons’. The rationale for this approach was outlined in Nolan (2007).

For more recent years (since 1989), the published income distribution statistics have been expanded to include the corresponding distributional figures on the basis of what is termed ‘gross income’, which includes employee superannuation contributions. This is a more comprehensive income measure than ‘total income’ and so was used instead in producing the extended estimates for 2000-2009.

Additional information is also available from the National Accounts covering years back to 1995 on an SNA basis, which affects both the way aggregate income of the personal sector is produced and the detail provided on its components. As a consequence, a somewhat different

approach was taken to adjusting the personal sector income aggregate in arriving at the income control total for the 2000-2009 estimates. A substantial proportion of social transfers has now come within the scope of the tax statistics, so half rather than all social transfers were deducted – on the basis that social insurance payments, which are most likely to be recorded in the income tax statistics, make up approximately that proportion. Secondly, imputed rent could now be deducted, interest paid by households (deducted in calculating net interest and aggregate personal income) could be added back in, and the National Accounts adjustments for financial services (FISIM) applied in producing the personal sector aggregate could be eliminated. Comparison of this figure with the total income reported in the income tax statistics suggested that a smaller adjustment factor for the element going to ‘private non-profit institutions’ was appropriate, so a factor of 95%, rather than the 80% used in the earlier estimates from 1922-2000, was applied.

This way of deriving the income control total, and the distribution of ‘gross income’ rather than ‘total income’ from the tax data, has now been used to extend the series forward to 2015, the latest year for which the income tax distribution data has now been produced by the Revenue Commissioners. The control total for the number of tax units continues to be derived in the manner described in Nolan (2007), where the number of tax units is estimated for each Census year as the number of adults (aged 18 or over) minus the number of married women and this is then interpolated for inter-censal years; the 2016 Census provides the latest benchmark for the current extension. (As flagged up in Nolan (2007), this way of estimating the control total does not take into account the fact that some married couples file as separate tax units.) We have also now produced estimates on the same basis going back to 1995, since the National Accounts data allow us to do so from that year onwards.

It should be noted that the current estimates for 2000-2009 differ from those produced in 2012 and previously available in the World Inequality Database. This reflects the fact that the figure for imputed rent taken from the national accounts (National Income and Expenditure Table 13), deducted from personal sector income as one of the adjustments in deriving the income control total, did not relate only to the household sector. This has now been corrected, with the lower figure for households (from National Income and Expenditure Table 1)

employed instead.<sup>1</sup> This increases the size of the income control total and thus reduces the estimated shares modestly.

In addition to these new ‘gross income’ estimates for 1995-2015, the estimates from 1922 to 1994 based on ‘total income’ have now been revised, with the income control total being revisited. We continue to use the limited information on components of personal income available over the entire period to deduct employers’ social insurance contributions and (all) social transfers from the personal sector income aggregate from the National Accounts. However, rather than taking 80% of the resulting figure as the control total, to reflect the fact that some of this aggregate goes to ‘private non-profit institutions serving households (NPISH)’ rather than households, we now take 95%. This is informed by the estimates presented in Mattonetti (2013) of the scale of NPISH flows for Ireland and a number of other countries for which these are not separately distinguished in the National Accounts; for Ireland these were of the order of 4% of personal sector income in 2008. With no basis for estimating what the corresponding figure would have been through the 20<sup>th</sup>. century, we simply take it as applying throughout.

While both the income measure (‘total’ versus ‘gross’) and the construction of the income control total differ in the estimates for 1922-94 vs 1995-on, as it happens this does not lead to a marked break in levels between them. Estimates for 1995 on both bases are close to one another: the estimated share of the top 1% is 7.0% on the ‘new’ basis versus 6.9% on the ‘old’, while the corresponding figures for the top 10% are 29.8% versus 29%. None the less, in using the estimates to track trends over the entire period 1992-2015 this underlying difference should be kept in mind.

## References

Alvaredo, F., Atkinson, A. B., Piketty, T. and Saez, E. (2011-2016). The World Top Incomes Database, published on line between 2011 and 2016.

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<sup>1</sup> Advice from Andrew McManus of the Central Statistics Office was most helpful in clarifying this issue and is gratefully acknowledged.

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