

T-AP Recovery, Renewal and Resilience in a Post-Pandemic World (RRR)

Final Report

Project Information

Project Title	Deaton Review Country Studies: A Trans-Atlantic Comparison of Inequalities in Incomes and Outcomes over Five Decades
Start Date	May 1, 2022
End Date	September 30, 2024
Lead PI and Institution	James P. Ziliak, University of Kentucky
Consortium Members and Institutions	Richard Blundell, University College London and Institute for Fiscal Studies Antoine Bozio, Paris School of Economics David Green, University of British Columbia Tomi Kyyra, VATT Institute for Economic Research Andreas Peichl, Ludwig-Maximilians Universitat Munchen
Project URL	https://ifs.org.uk/inequality/country-studies/

1. Project Summary (max 700 words)

A summary drawing out the key points and messages (what has been achieved and what did not go according to plan and why).

We have undertaken harmonised analysis focussing on labour market and income inequalities and their determinants in 17 countries. As well as inequality in employment and wage rates between gender and education groups, we examine some of the key determinants of disposable income inequality that includes the extent to which changes in assortative mating and family structure have changed, the importance of redistribution through the tax and transfer system, and the differential role played by immigration in each country. This research was undertaken in a large group of 17 country teams, made up of around 70 researchers. We discussed proposed analysis and interim results in a series of large zoom calls every 6-8 weeks, with smaller groups collaborating new analysis and addressing data issues to discuss with the whole group. Subgroups examined issues on gender (studying long-run child related penalties across countries), educational inequalities (examining the characteristics of difference educational systems with regard to intergenerational persistence), immigration (first- and second-generation impacts), and the evolution of tax and benefit systems (and how these policy reforms interact with changing family structure).

To date we have produced **IFS Deaton Review Country Studies** <https://ifs.org.uk/inequality/country-studies/>. These are 17 country-specific reports following the same template with roughly 50 figures on the same outcomes across countries. In 2024 we also published a two-issue collection of **Fiscal Studies** containing country-specific narratives on the evolution of inequality, one in June 2024 <https://onlinelibrary.wiley.com/toc/14755890/2024/45/2> and the second in September 2024 <https://onlinelibrary.wiley.com/toc/14755890/2024/45/3>.

We have also disseminated the research through a number of public-facing events, including a high-profile launch event at the British Academy in London (December 2023), Statistics Netherlands in the Hague (January 2024), at the Finnish Economic Association in Helsinki (January 2024), Columbia University in New York (February 2025), Russell Sage Foundation in New York (February 2025), Institute for Fiscal Studies in London (March 2025), and Tax Economists Forum in Washington, DC (March 2025).

Our final component of the project is ongoing, consisting of a systematic comparison of labour-market and income inequalities with formal tests of cross-country convergence. This project offers the most comprehensive assessment of cross-country convergence in inequality. We unpack household disposable income inequality convergence into each step of the chain from hourly wages to individual earnings to household earnings to household gross incomes and finally to redistributive tax and welfare systems. We find strong evidence of convergence in disposable income inequality across the 17 countries. Unpacking the sources suggests that this convergence is coming from gross household income inequality converging, and not redistributive policies per se. Notably this convergence in gross

household incomes is occurring below the top 10% of incomes. We anticipate working drafts of the project in summer 2025.

2. Key findings

2.1. Project's research findings and outputs/outcomes

The evolution of labour market and disposable income inequalities over recent decades in high-income countries has generated intense interest in academia and the wider public. The extent to which there have been common trends, or diverging experiences, across a broad range of different countries, remains relatively understudied. In a two-part special issue of the peer-reviewed journal *Fiscal Studies*, we sought to provide the bases for consistent comparisons across 17 North American and European countries. The first issue (June 2024) contains eight papers using our harmonised data on working-age inequalities in four English-speaking countries (Canada, Ireland, the UK and the US) and four Nordic countries (Denmark, Finland, Norway and Sweden), as well as a cross-country cohort-level analysis of the gender wage gap. The second issue (September 2024) contained papers covering Central European countries (Austria, Belgium, France, Germany, The Netherlands) and Southern European countries (Greece, Italy, Portugal, Spain), as well as a comparative analysis of education systems in the countries and links with intergenerational mobility.

The Canadian study finds that strong increases in inequality in market income over the 1980s and early 1990s – a trend that mirrored those in the UK and the US – were completely offset by taxes and transfers, with the result that the disposable income Gini coefficient took the same value in 1976 and 1996. In the ensuing decade, though, disposable income inequality rose due to cuts in both taxes and transfers. Beginning in the early to mid-2000s and extending through to 2019, measures of both market and disposable income have been flat. A notable finding is the lack of increase in market income inequality since the late 1990s, with wages of workers with lower education growing significantly, particularly in the 2000s and again in the late 2010s.

In the United Kingdom, following rises in essentially all measures of labour market and disposable incomes inequalities in the 1980s, inequality in male earnings inequality (for employees) and gross household earnings (for working households) rose from the mid-1990s to the 2008 recession. Changing hours (falling for lower-educated men) and gradual increases in assortative mating acted to push up household earnings inequality. However, this period was characterised by increased redistribution to lower-income households, offsetting these increases in earnings inequalities. Since 2010, labour-market patterns have reduced 'lower half' wage inequalities, but the changes in disposable income inequalities have been modest. The COVID-19 pandemic saw falls in disposable income inequality as increases in state benefits during the pandemic boosted incomes of poorer households.

Ireland is a more dramatic example of rising market income inequality since the late 1980s, but falling disposable income inequality. This pattern is the combination of redistributive policy changes, and two Irish-specific trends: a flattening of the gradient across earnings in the share of working women with working partners (which helps moderate inequality), and fertility changes, which have reduced the number of children in low-income Irish families, therefore boosting this group's equalised incomes.

The US stands out from the other English-speaking countries with steadily rising disposable income inequality over the past five decades. The tax and transfer system in the US is quite effective at reducing the level of inequality in any given year, but despite major reforms to both systems the US continues to face a rising trend of inequality. Much of this is driven by large gains in the top of the distribution. Indeed, the authors argue that three factors drove upper-tail inequality: the decline of work and the decline of marriage among the non-college educated, and the increase of assortative mating among high earners marrying other high earners (the latter being just the opposite of the Irish experience).

Among the Nordic countries, Denmark and Sweden stand out, much like the US, in having a decades-long increase in disposable income inequality. However, the increase in inequality in Denmark and Sweden starts from a low baseline level, and they remain, even after the increase, at lower levels of inequality than most other countries under study.

In Denmark this increase in inequality was driven more by lower-tail inequality and not among top incomes. There were two key developments driving this. First, policymakers cut marginal tax rates on incomes and reduced the generosity of social transfers to those out of work, stimulating employment and earnings, especially among those with middle and high levels of formal schooling. Second, the country experienced a surge in immigrants, who often have lower levels of schooling and thus lower attachment to employment and greater reliance on transfers. Given the reduced generosity of social transfers, this has resulted in the middle class pulling away from lower-income households.

Rising inequality in Sweden is due more to the rising concentration of capital incomes, but, like Denmark, also to the declining fortunes of those out of work, which are a result of retrenchments in the welfare state. While Sweden has also experienced a rising tide of immigration, the paper finds that this has had little effect on the overall distribution of disposable income.

On the contrary, Norway and Finland have had little change in disposable income inequality, at least in the past quarter century. In the case of Norway this stability of overall inequality masks important heterogeneity in experiences across sex and education at the individual level. Earnings inequality among men increased over time, while it fell among women. For both middle- and high-educated workers, the rewards to work have been strong, with robust increases in median earnings. The situation is not so rosy for low-educated workers, but like in other countries this is a declining share of the population and thus has not weighed too heavily on inequality at the population level.

For Finland, market income inequality rose dramatically in the decade from 1985 to 1995 but the disposable income Gini changed very little – showing the impact of the

redistributive system. From 1995 through to 2019, inequality in market income has been quite stable (though with some increase at the very end of the period). Disposable income inequality, however, rose in the late 1990s, with the authors identifying tax and benefit reforms (a move to a dual income tax system and cuts to benefits following the early 1990s recession being important) and increased capital incomes flowing to high-income households as being important drivers of this increase. The period since 2001 has seen relatively little change in disposable income inequality, echoing the trend in market income inequality. Despite this, the authors show that there have been underlying increases in other inequalities, such as rates of married/cohabitating couples being increasingly concentrated amongst higher-earning people.

Turning to Central Europe in the second issue of Fiscal Studies, the Austrian paper is the first of a set of papers that examine countries that, at first glance, have stable levels of income inequalities at a fairly low or moderate level. Indeed, the authors show that while standard metrics of inequality in disposable incomes, hourly wages and labour earnings were stable in recent decades, there were other underlying inequalities changing in the labour market, many of which relate to gender. Large increases in female employment occurred and the share of workers working part-time grew substantially, amongst both men and (particularly) women. Persistent gender gaps remained in employment and childcare. They also note the importance of rising levels of immigration and highlight the rise of cross-border workers who are employed in Austria but live in neighbouring countries.

While standard measures of disposable income inequality in Belgium show fairly low and stable income inequality, the income surveys on which these are based underestimate incomes from capital. In particular, if undistributed profits from the corporate sector are allocated to households, pre-tax income inequality was seen to increase markedly in the early 2010s, returning it to levels seen in the mid-2000s. Even incorporating taxes and benefits does not change this U-shaped pattern of falling inequality in the mid- to late 2000s, followed by rises in the early to mid-2010s.

France is another country with stable, and fairly low, levels of disposable income inequality. This is in great contrast to perceptions about inequality in French society. In a similar way to the Austrian paper, the team examines which other income inequalities may be important in France. They show that the composition of households with low disposable incomes has changed substantially over time. In particular, individuals in these households are increasingly likely to come from an immigrant background, live in a household with no working adults, and to have low levels of formal education.

In Germany, inequalities in earnings and in household disposable incomes rose in the late 1990s and early 2000s, but that between 2005 and the COVID-19 pandemic there was relatively little change. This lack of change since 2005 came despite underlying trends that would otherwise generally push up income inequalities, notably increased assortative matching and high net migration rates, with immigrants increasingly disproportionately on low household incomes compared with the rest of the population. Counteracting forces that have helped push down income inequalities have included the introduction of a minimum wage and a closing gender pay gap.

Similar to the German paper, The Netherlands experienced a nuanced picture of some factors that have acted to drive up income inequalities in recent years, and some that have pushed them down. At the heart of this is the fact that men and women have seen very different trends in the labour market. Male earnings inequality has increased substantially and the fraction of low-income people who are single has increased. There is now more assortativeness on earnings for couples. These factors actually helped push up income inequality, despite factors which acted to reduced it, namely: increases in employment and earnings from lower-educated or lower-earning women, and reductions in direct taxes at the bottom of the income distribution. In common with a number of other papers in this issue, they identify the significant gaps in incomes between immigrants and Dutch-born individuals while the fraction of the population born abroad has risen substantially.

Turning towards Southern Europe, the experience in Greece from 2004 to 2021 is stability in standard metrics of income inequality and then fell markedly. As in France, the standard metrics of (falling) income inequality also clash with high perceptions of inequality in Greece. Falling disposable income inequality was caused by large declines in earnings, particularly higher up the distribution, with pension benefits also falling more at the higher end of the distribution. State benefits have also become more concentrated on lower-income households. Despite the falls in income inequalities, the authors highlight high (and in some cases widening) other inequalities, such as rising unmet need for health care and household overcrowding post-2010, particularly striking for low-income groups. These inequalities are not captured by a focus purely on labour market and disposable income inequalities.

Inequalities in Italy since 1990 suggest rising inequality in the earnings of employees as a key trend in the Italian labour market, feeding through into greater disposable income inequality. Earnings growth was particularly strong in the top 10 per cent of earners, and particularly weak amongst the bottom 10 per cent of earners. Additionally, there is considerable persistence in this inequality within generations. Low 'mobility' means poorer people are likely to stay poor, and the authors link this to other literature showing low levels of intergenerational mobility in Italy.

From the democratic revolution in 1974 to the COVID-19 pandemic, Portugal was characterised by huge increases in income and labour market inequalities from the mid-1980s to the mid-1990s. Inequality subsequently remained high and relatively stable until the mid-2000s, since when it has fallen substantially. Changes to demand and supply of skilled labour were a key dynamic driving these inequalities, with large increases in demand for skills in the 1980s combined with fairly low levels of education leading to large increases in earnings for highly educated workers, pushing up earnings in higher paid parts of the distribution. This was moderated in the 2000s as increased numbers of women, and more highly educated younger generations, entered the workforce. Higher minimum wages and increased collective bargaining subsequently helped bring down earnings inequalities. These patterns of large rises and falls in inequalities place the Portuguese in particular in sharp contrast to many of the countries in this issue.

In common with Portugal, Spain experienced significant fluctuations in income and earnings inequalities. However, while those seen in Portugal were characterised by a large rise, followed by a fall since the mid-2000s, in Spain these fluctuations have occurred with the business cycle. Most notably, there were falls in inequalities during

the economic expansion of the mid-1990s, followed by large rises after the 2008 global financial crisis before a recovery and falls in inequalities in the 2010s. It was these macroeconomic patterns that have been particularly important in driving inequalities in Spain, even though they have also experienced many of the longer-term trends also seen in other countries such as rising female labour force participation and falls in marriage/cohabitation rates that affect, in particular, people with lower levels of education.

In addition to the country-specific studies, this project created two cross-country papers on gender gaps and links between education systems and intergenerational mobility.

The paper on gender gaps examines family and career inequalities, and in particular the way in which parenthood creates different labour market inequalities for men versus women. Creating synthetic cohorts from the harmonised database, the authors document large international differences in employment and earnings gaps at age 30. By age 50, however, motherhood and parental employment participation gaps have converged to small values in all countries, and earnings gaps between mothers and non-mothers have also closed, particularly for highly educated women. Across countries, however, gaps between mothers and fathers remain, and not even highly educated mothers catch up with fathers in terms of earnings. Patterns of part-time work and gaps in part-time work are particularly important to consider at younger ages in the UK, Germany and the Netherlands.

In the comparative paper on education and inequality in the September issue of Fiscal Studies, the authors argue that the exact nature of the educational expansion that has occurred in recent decades matters and that, in some cases, increased education could actually increase inequality. They create measures of the nature of educational systems (validated by the members of each country's team) and compute measures of intergenerational education and income mobility. Using these, they show that educational systems can be broken down into different types. One type (epitomised by Germany and Austria) focuses on early streaming into trades-type education. Another (epitomised by Canada and Finland) puts its emphasis on moving the children of low-educated parents into high education. Many countries do some combination of the two, but no country appears to do both well. And the economies that do neither well (the United States and Italy stand out) are the countries with the highest inequality in our study. Interestingly, the streaming approach appears to be detrimental to girls and relatively good for boys, while the system focusing on access to university tends to yield the opposite pattern.

2.2. How did you go about in achieving your research findings and outputs/outcomes?

The project focuses on inequalities in the economic processes that begin with individual market wages and end with household disposable incomes. This has been extensive and painstaking work coordinating across 17 country teams, with discussions of the comparability of data and analysis undertaken in large-scale online meetings every six weeks from late 2020 through 2022, and with new analysis proposed by specialist groups examining different themes. This was supplemented by

two multi-day in-person meetings in Paris (October 2022) and London (December 2023). The project benefited from the fact that each of the country teams is composed of economists whose careers have been focused on understanding the drivers of inequalities, combined with country-specific expertise in the relevant data and institutions.

2.3. Assess the Trans-Atlantic Partnership (what worked and didn't work well? What has been achieved through this joint funding that would not have been possible within a national funding framework? Do partners have plans to continue the cooperation?)

T-AP funding specifically provided funds to support a 3-day working conference of the 17 country studies teams at the Paris School of Economics in fall 2022, and to host a launch conference of preliminary findings in London at the British Academy. In addition to a wide range of UK policymakers attending, the funding allowed us to fly policymakers from Denmark, Belgium, and Ireland specifically to join the conference.

Support from the T-AP was also important in providing funding for the associated events in Helsinki and the Hague. T-AP funding also allowed us the six funded country teams (Canada, France, Finland, Germany, UK, US) to dedicate particularly large amounts of time to the research and the leadership of a complex project.

Providing funding for travel and conference participation to all 17 country teams (including the 11 countries not specifically involved in the grant but in the wider project) allowed us to work with a greater number of countries than would otherwise be possible, allowing us to draw on more data on a wider range of economies.

3. Impact of the Project

- 3.1. **Academic impact of your project** (please provide a summary of the academic impact achieved. For example, conceptual impact (changes in the way researchers understand a particular field); new methods, techniques or classification systems; or training or capacity building within academia). If possible, please list the sources (publications, reports, reviews, web links, users/beneficiaries etc.) to corroborate the impact.

This project involved nearly 70 collaborators across the 17 countries, including academic faculty and doctoral and post-doctoral students, and researchers at independent research institutes and central banks. This offered extensive mentoring and co-authorship opportunities for graduate students across the countries.

To date we have produced 17 country-specific reports, titled the IFS Deaton Review Country Studies, following the same template with roughly 50 figures on the same outcomes across countries. The URL for these reports is at: <https://ifs.org.uk/inequality/country-studies/>.

We have also published a two-issue collection of Fiscal Studies in 2024 containing country-specific narratives on the evolution of inequality. The results of these narratives, which is summarized in Section 2.1 above are available at <https://onlinelibrary.wiley.com/toc/14755890/2024/45/2>, and <https://onlinelibrary.wiley.com/toc/14755890/2024/45/3>.

We have presented the results of our research at academic seminars and workshops including Columbia University in New York, Finnish Economic Association in Helsinki, Institute for Fiscal Studies in London, Russell Sage Foundation in New York, Statistics Netherlands in the Hague, and the Tax Economists Forum in Washington, DC.

- 3.2. **Impacts outside academia** (please outline the main changes your project has brought about for people outside academia).

Our collaboration has been disseminated to policymakers outside of academia via the launch event at the British Academy in London. A conference participant from the Belgian government's Central planning bureau called the presentations "the best presentations I have seen in twenty years". The discussant at the Finnish Economic Association in Helsinki was a policymaker at the Finnish Finance Ministry. And at the Statistics Netherlands in the Hague included policymakers from Statistics Netherlands and the Dutch finance ministry and ministry of social affairs.

Media coverage of the work in Finland (44 media hits, including the most important Finnish media outlets, impact score of 9/10) and in the United Kingdom (180 media hits). Media outreach in other countries involved in the project, such as in Germany, are planned for Spring 2024.

We have made all the reports on evolution of a range on inequalities in the 17 project countries available as part of the IFS Deaton Review's website. These are easily accessible to the general public and policymakers without needing. In addition, all the papers published in Fiscal Studies are Open Access to allow them to be easily read by people outside academia.

3.3. Any expected future impact of your project

Research is ongoing to synthesize the findings across the 17 countries into two papers on labour market inequalities and redistribution. The plan is to publish these works in a high-profile outlet such as Science or the Proceedings of the National Academy of Sciences (PNAS).

4. Project Team

4.1. Did the grant support the professional development of team members? If so, how?

Most of the research teams across the 17 countries included graduate students, post-docs, or junior researchers, and thus provided extensive mentoring on the methods of data harmonization, inequality measurement, and decomposition of inequality.

4.2. As a result of the research, have any team members obtained any prizes, awards or commendations? (Please only include information that is available in the public domain).

None to date

4.3. Did the project lead to any additional and or unexpected collaborations outside of the research team? If so, please provide details.

Yes.

As part of the collaboration, members of the Austrian and Spanish teams joined forces to publish a paper in the June issue of Fiscal Studies on the evolution of the gender earnings gap across birth cohorts and countries. Likewise, members of the Canadian and Norwegian teams collaborated to publish a paper in the September issue of Fiscal Studies on the role of education systems on economic mobility. Finally, members of the Netherlands and UK teams are collaborating on a joint project examining the influence of international migration on cross-country inequality. These three projects were not planned in advance, rather emerged organically from the collaboration on the wider project.

5. **Conclusions** (please provide a brief summary with the main positive and negative issues concerning your project).

This project offers the most comprehensive assessment of cross-country convergence in inequality. It brought together a group of scholars across 17 countries, most of whom had heretofore not collaborated on research prior to the project. It provided extensive mentoring and publication opportunities for graduate students, post-docs, and junior faculty and researchers. It has resulted to date in two peer-reviewed issues of the journal *Fiscal Studies*, along with expansive country-specific reports based on a common template across the countries. Furthermore it generated new collaborations to work on issues of gender earnings gaps, education, and immigration, and how these processes affect inequality and economic mobility.

6. Recommendations for the Trans-Atlantic Platform

The Trans-Atlantic Platform made this collaboration possible, notably the in-person research workshops and ability to publish peer-reviewed journal articles as Open Access. We appreciate greatly the support provided, and hope that opportunities that foster trans-national collaborations for research continue in the future.