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Distributional impacts of COVID-19 – a focus on earnings and participation

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The impact of the public health restrictions and the pandemic-related policy supports on the labour market has seen varying degrees of income and employment loss across different groups including along age, gender, sector and regional dimensions.¹ Large negative employment shocks can also result in reduced labour market attachment for some groups, as in the financial crisis.² In addition to supporting incomes, the wage subsidy supports were intended to assist firms in retaining workers and reduce the potential for higher unemployment and lower labour force participation on a long-term basis. This box examines the income, participation and employment dynamics of different groups during 2020 in the context of pre-pandemic starting points. We explore the implications for earnings dispersion and the future path for the employment recovery including persistent and/or permanent effects of the pandemic on labour supply. As the economy re-opens, an increased emphasis on policies to promote transitions into employment will be necessary, and an important determinant of the shape of the wider recovery and how it is experienced across the population.

Income dispersion during the pandemic

CSO EHECS data from firms on employment and administrative earnings data (EAADS³) indicate how the patterns of reduced employment, hours worked and rates of pay in 2020 differed across the pre-pandemic earnings distribution. Table 1 shows firms reporting reduced employment during the pandemic are concentrated in the bottom half of the pre-pandemic earnings distribution. These include accommodation and food services (with an employment fall of 26 per cent on average between Q2 and Q4 2020); arts and entertainment (20 per cent) and administrative and support services (22 per cent). In the sectors experiencing employment *expansion* during the pandemic, hours reductions were often observed, for example in industry and information and communications. Earnings data for employments active before and during the pandemic (column 5, Table 1) show earnings growth for the employment expanding sectors (earnings growth in information and communications was 18.3 per

¹ See various publications addressing the [employment loss](#) effect, [regional](#) effect, and [income loss](#) effect.

² See [Conefrey et al \(2015\)](#)

³ [Earnings Analysis using Administrative Data Sources](#) (EAADS), CSO.



cent) is above the average across all sectors (6.5 per cent).⁴ In summary, labour market adjustments through the pandemic have predominantly come through employment for those at the lower ends of the income distribution, whereas hours and earnings adjustments have played a larger role for those at the higher end.

Table 1: Employment, hours, earnings adjustments differ across sectors, 2020Q2-Q4

	Median weekly pay 2018 (€)	Employment change (%)	Hours change (%)	Earnings change ¹ (%)
All	593	-3	-0.5	6.5
Accommodation	314	-26	-8.6	-2.1
Arts	364	-20	-0.2	4.3
Retail	441	1	0.4	4.8
Admin	486	-22	-5.1	1.7
Construction	626	-8	1.4	2.2
Transport	628	-5	1.9	-3.0
Health	644	-2	-0.1	3.4
Professional	692	4	-0.3	8.2
Industry	707	3	-2.1	8.9
Education	744	5	2.1	4.7
Financial	818	9	-0.3	9.8
Public admin	842	5	0.1	5.3
ICT	991	7	-1.6	18.3

Source: EHECS, CSO; Live Register, CSO; EAADS, CSO and authors' calculations.

Note: ¹ Earnings change Q12020 to Q12021 for employments active in both quarters, [Labour Market Insight Bulletin](#), CSO.

Earnings growth in 2018, prior to the pandemic, was similar across the distribution of earnings for individuals (Table 2, column 1). The pandemic however has seen substantial variation in the earnings growth of different groups. Using recent CSO data, Table 2 shows the average change in median earnings for recipients of pandemic-related income supports and non-recipients between Q2 and Q4 2020.⁵ Non-recipients saw their employee earnings grow by 5.6 percent between the affected quarters. The variation in earnings growth for non-recipients comes primarily from those in the lower parts of the earnings distribution, including the young. Earnings growth of recipients is more varied and is negatively correlated with pre-pandemic earnings.

⁴ CSO [Impact of COVID-19 Income Supports on Employees, Q4 2020](#)

⁵ It is important to note that earnings data relates to employment earnings and specific pandemic income supports, namely PUP and T/EWSS. These are gross, employee earnings and do not capture the redistributive effect of taxes and other benefits. [Doorley et al \(2021\)](#) find an important role for taxes and other benefits in redistributing income across genders, including during the pandemic.



Table 2: Employee earnings distribution and growth before and during the pandemic

	Median earnings growth (%)	Median earnings gap (€)	Average change in median earnings for those on supports ¹ (%)		Share of recipients in 2019 employment (%)
			Recipients	Non-recipients	
	2017-2018	2018			Employment share
All employees	2.9	0	-9.3	5.6	30.7
1st Quintile	3.1	-333	44.8	20.3	6.1
2nd Quintile	3.4	-137	-6.6	8.5	13.2
3rd Quintile	3.1	53	-12.8	5.4	7.7
4th Quintile	3.0	340	-15.4	4.5	2.8
5th Quintile	3.8	781	-22.9	2.9	0.9

Source: EAADS, CSO; LFS, CSO; Insights from Real Time Administrative Data Sources, CSO; [Cahill and Lydon](#) (2021), Central Bank of Ireland and authors' calculations.

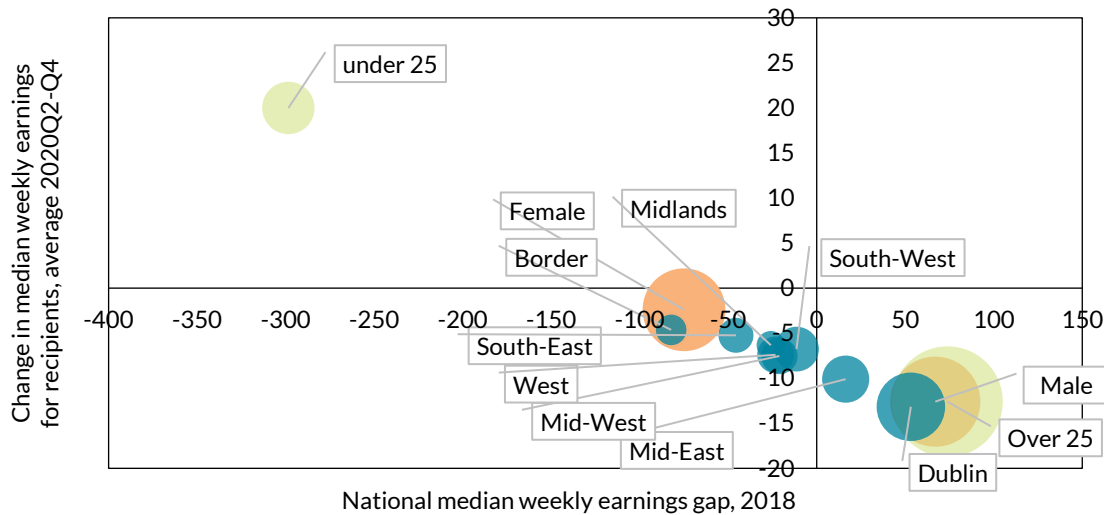
Notes: ¹ Average annual change in median earnings for those on supports over Q2, Q3 and Q4 2020.

This suggests that whilst earnings growth for non-recipients, in the top 4 quintiles at least, is likely to have limited effects on the overall distribution of earnings, the earnings distribution of recipients is likely to have been compressed due to the progressive way pandemic income supports interacted with employment earnings. The strong earnings growth of both recipients and non-recipients in the first earnings quintile is expected to have compressed the earnings distribution of all employees by raising the earnings of this group compared to higher earning cohorts. The recent announcement to reduce PUP payments in a phased manner out to February 2022 is likely to see the reversal of this compression in income distribution, particularly if recipients in the lowest quintile transition back to similar jobs in lower earnings sectors, part-time working arrangements or seasonal work.

Figure 1 plots the average annual change in median earnings (employee income and pandemic income supports) by the median earnings gap in 2018 for groups of employees in receipt of pandemic income supports during 2020. The size of the bubbles represents the relative size of the recipient groups in total pre-pandemic employment. The negative association between earnings growth during the pandemic and pre-pandemic earnings is clear across groups of employees by gender, age, geography and income.



Figure 1: Income dispersion effect of pandemic income supports, recipients only



Source: EADDS, CSO; LFS, CSO; Insights from Real Time Administrative Data Sources, CSO and authors' calculations.
Note: Green circles denote age cohort, orange circles denote gender and blue circles denote region

Labour force attachment

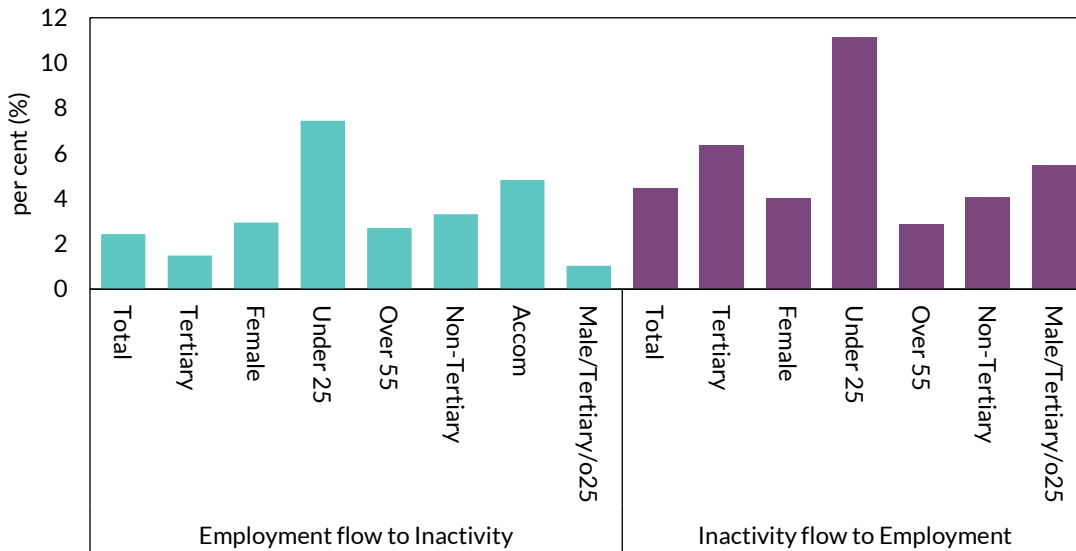
Outside of the pandemic, the probability of long-term unemployment in the event of employment loss is typically higher for males (particularly those over 55 years of age) and persons with lower than tertiary education. Looking through the developments during the pandemic, unemployment has risen especially for females, younger workers and lower than tertiary-educated workers. These groups have exhibited a higher propensity to receive pandemic-related income supports, suggestive of a higher potential flow into post-pandemic unemployment or inactivity when the supports are phased out. Long-term unemployment itself is an important determinant of future attachment to the labour force. However in the case of younger workers, and particularly in the case of women, transitions out of the labour force relatively quickly after employment loss are a feature.

Labour Force Survey analysis demonstrates that, prior to the pandemic, in the event of employment loss, women were more likely to transition outside of the labour force than men, with the same trend evident for those aged under 25 years and with lower than tertiary-level education (See Figure 2).⁶ By comparison, the transition rate for a reference group of male, over 25 years of age, tertiary educated respondents, prior to the pandemic, is the lowest shown (Figure 2).

⁶ On a sectoral basis, the largest transition rates to inactivity are observed in accommodation and food services and other services.



Figure 2: Average labour market transition rates (2015-2019)



Source: Labour Force Survey, CSO and authors' calculations.

While younger workers historically exhibit a relatively high transition rate from inactivity to employment, for example as new tertiary graduates enter the labour force, workers aged over 55 years displayed a steadily low transition rate in the post-financial crisis recovery period. Transition rates to employment for this older cohort rose as unemployment declined below 6 per cent from 2018. As the economy recovers after the pandemic, older workers, who account for 14 per cent of income support recipients, may be at risk of remaining outside of the labour force for longer periods, especially if re-skilling toward other sectors is required and/or if it takes time for labour market tightness to reach pre-pandemic levels.⁷ Current trends in PUP data present a reassuring development early in the re-opening phase as older workers appear quicker to withdraw from the scheme back into employment with younger and female workers remaining in receipt for longer periods.⁸ This trend may also highlight the impact of the health restrictions as not all of the sectors in which younger workers are typically employed are fully re-opened. A clearer picture is expected nearer to February 2022 as it remains to be seen how many workers will flow back to non-supported employment or will require continued support once the schemes are gradually closed.

The labour force participation rate declined to 56.9 per cent in Q2 2020 relative to the pre-pandemic average of 62.3 per cent. While employment and participation levels are maintained by the role of the support schemes, the flow to inactivity coupled with difficulties in job matching due to skills mismatch, human capital loss and other hysteresis effects may lead to negative implications for the labour force

⁷ Persons aged 55 years and over accounted for approximately 18 per cent of the labour force in 2019 with the percentage share of unemployment levels rising from 5 per cent in 2007 to 11 per cent of pre-pandemic data in 2019.

⁸ [COVID-19 Income Supports - An analysis of recipients March 2020 to May 2021](#), CSO.



participation rate throughout the recovery period for some groups. Additionally, historical analysis of the characteristics of those moving to inactivity and unemployment before and during 2020 suggest that women and older workers (over 55 years of age) may face challenges in returning to non-supported employment.

Implications for employment recovery

At present, labour supply appears to be an issue of concern for economies further ahead in the re-opening process relative to Ireland, including given limitations to international travel and migration.⁹ As employment growth in recent years has been assisted by net inward migration levels, employment recovery to pre-pandemic levels may rely on continued positive migration levels across a range of sectors if there are domestic skills shortages¹⁰. Other factors that may affect labour supply are likely to be temporary, including continued health fears, childcare concerns, and reluctance to switch jobs whilst wage subsidy supports are in place and the economy is still partially closed. Continued vaccine rollout accompanied by opening of previously closed activities and the gradual phasing out of income supports are together likely to alleviate these issues.

Prolonged periods of non-employment are harmful to human capital, reduce the potential to reintegrate into the labour market, and could also restrict broader sustainable growth in the economy.¹¹ The nature of the pandemic employment and income losses have been unequal across sectors, skill levels and age. The labour force attachment patterns of some of the affected groups illustrated above highlight that some groups of workers adversely affected by the pandemic may take longer to return to employment. This is especially the case where the pandemic has brought about or brought forward structural change in the demand for certain goods and services. The pandemic income supports have shielded many workers from otherwise substantial income losses especially in the lower parts of the income distribution. Pandemic income supports may also have reduced earnings dispersion during 2020. Moving back to employment will be important for these workers once income supports are phased out. Effective activation measures, aligning incentives and reducing frictions in the labour market, will be a key policy determinant of the near-to-medium term nature of the economic recovery and the long-term implications for both certain cohorts of the population and the growth prospects of the economy as a whole.

⁹ For example the [Financial Times](#) and [Economist](#) have noted recent labour supply constraints facing parts of the US, UK, European and Australian economies as they reopen.

¹⁰ Prior to the pandemic employment contributions from immigrants comprised 10 per cent of gross new jobs ([Byrne and McIndoe-Calder, 2019](#)).

¹¹ Phelps, E. S. (1972). "Inflation policy and unemployment theory" Blanchard, O. and L. Summers (1986). Hysteresis and the European Unemployment Problem. NBER Macroeconomics Annual 1, 15-78.