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# *SSISI Public Policy Brief: Understanding the Covid19 Pandemic and its Consequences*

# Income and Employment Impacts: Early Evidence from Administrative Data

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## 1. INTRODUCTION

This public policy brief uses newly available administrative data to examine the income and employment impacts of COVID-19 during the depths of the economy's shutdown in 2020. It highlights the extent of labour market churn during this period and identifies divergent outcomes for different segments of the labour market.

## 2. PAYE MODERNISATION

PAYE Modernisation was introduced by Revenue on 1 January 2019. Under this new system, the most comprehensive reform of the PAYE system since the 1960s, employers report their employees' pay and statutory deductions in real-time to Revenue each time they operate payroll. Information is provided to Revenue at individual payslip level, and includes significant amounts of data on pay, tax, pensions and other matters for each employee.

As well as enhancing the efficiency and transparency of the tax system, the reform presents an opportunity to build a comprehensive picture of the labour market that allows policymakers to see beneath the aggregate statistics that are typical of labour market reporting. Many employers both hire and lay off workers within a short time period (e.g., from one month to the next). This means there is "churn" within the labour market, which the net change in aggregate employment cannot capture. Examining job creation and job cessation provides an indication of labour market flexibility and volatility, as well as identification of specific growth and decline sectors. This is particularly important in today's COVID-19 climate given the scale of the economic challenge and the speed with which policy has had to adapt.

## 3. LABOUR MARKET DEFINITIONS

The International Labour Organisation ("ILO") defines employment as work for pay or profit. This is the definition that the Central Statistics Office ("CSO") follow in preparing labour market statistics. In the following analysis, a job or employee is identified from the payroll data when two conditions are met: the gross pay on the payslip does not refer to occupational pension income and the gross pay figure is positive.

## 4. BEFORE THE COVID-19 CRISIS: FEBRUARY 2020

According to Revenue's payroll data, there were 1.83 million individuals employed by 150,400 private sector employers in February 2020.[1] They occupied 1.91 million jobs. Just under 100,000 new jobs were created in February while a little over 120,000 jobs were lost from January, resulting in a reduction in net employment of 28,000 jobs. In general, job creation and job cessation will be several multiples higher than the net change in employment. The large job loss in February likely represents a seasonal pattern associated with Christmas workers (the same pattern is evident in February 2019).

Average gross pay per job was €3,100 in February. New and ceased jobs had similar average pay, €1700 and €1800 respectively. Their lower level compared to average gross pay for continuing jobs suggest they represent either part-time or low paid work.[2] A full-time employee (working a 40-hour week) on the national minimum wage would earn gross pay of approximately €1,600 in February 2020. However, PAYE Modernisation cannot identify whether a relatively low gross pay figure on a payslip is due to the number of hours worked or the hourly wage.

The February job churn was slightly tax-poor: as a result of employer hiring and firing, €20 million less was due in income tax and USC liabilities and employee and employer PRSI contributions. This represented less than 1 per cent of all tax revenues in the month of February.

[1] The private sector is the subject of this analysis as public sector employment and wages have not been affected by the pandemic to date.
[2] In addition, the relatively lower level of pay could also reflect the timing of employee hiring and dismissals during the month.

**Table 1: February 2020 Labour Market Statistics**

| | February 2020 | Average gross pay |
|---|---|---|
| Employers | 150,400 | |
| Employees (million) | 1.83 | |
| Jobs (million) | 1.91 | 3,100 |
| o/w: continuing jobs from Jan | 1.82 | 3,200 |
| o/w: new jobs in Feb | 0.10 | 1,700 |
| Ceased jobs (did not continue from Jan) (million) | 0.12 | 1,800 |
| Net additional jobs (new minus ceased) (million) | - 0.03 | |
| Tax impact from net additional jobs (IT/USC/PRSI) (million) | - 20 | |
| Total tax this month (IT/USC/PRSI) (million) | 2,060 | |

*Source: Revenue Commissioners*

When considering the tax revenue effects of employment, a job is the natural unit of labour input. However, when considering the impact of COVID-19 and the resulting income support schemes, it is more appropriate to take an individual (employee) as the unit of labour, and this is the perspective taken in the following sections.

## 5. THE PANDEMIC: WHAT HAPPENED TO FEBRUARY'S EMPLOYEES?

### Employees who kept their job

Over three-quarters of February employees (1.42 million) remained in employment with the same employer in April 2020. However, one in three of them went on the Temporary Wage Subsidy Scheme ("TWSS") in April, an income support scheme which began on 26 March and aims to retain the link between employers and employees until the public health crisis subsides.[3] Average gross pay for continuing employees declined by a little over 10 per cent between February and April, driven primarily by the drop in income for employees whose employers entered TWSS. Employees who were not on TWSS were typically higher earners in the pre-Covid income distribution of February 2020. They experienced little change in average gross pay as the crisis began. That said, within this cohort of 990,000 individuals, 34 per cent experienced a pay cut, 20 per cent had no change in pay and the remainder had a pay rise.

However, looking beyond the April payroll data and into May 2020, one in twelve employees who remained employed in the earliest phase of the shutdown subsequently lost their jobs, as evidenced by their appearance in the Pandemic Unemployment Payment ("PUP") claimant numbers by May 12th. 10 per cent of employees with unsubsidised wages (i.e., those never entered TWSS) were let go by mid-May (100,000) while 5 per cent of those on TWSS were let go (20,000). The pre-crisis income profile for these employees who lost their jobs later in the crisis (€2,000) suggests they were lower paid than the average employee but were not necessarily working part-time prior to their dismissal.

**Table 2: April/May 2020 Labour Market Statistics for employees who kept their job**

| | Count in April | Average gross pay (pre-Covid = Feb) | Average gross pay (Covid = Apr) | Change in aggregate tax/PRSI (million) (Apr minus Feb) |
|---|---|---|---|---|
| February Employees who are on payroll in April **with same employer** | 1,420,000 | 3,600 | 3,200 | - 316 |
| o/w: TWSS | 430,000 | 2,600 | 1,100 * | - 317 |
| o/w: non-TWSS | 990,000 | 4,100 | 4,200 | 1 |
| *… **But** on PUP on May 12th *** | *120,000* | *2,000* | *800* | *- 42* |
| *o/w: formerly TWSS* | *20,000* | *1,800* | *400 ** | |
| *o/w: formerly non-TWSS* | *100,000* | *2,000* | *900* | |

*Source: Revenue Commissioners*
** Excludes the wage subsidy (~€410 in April for each week on TWSS)*
*** indication of April dismissals for employees from first two rows*

[3] More details on TWSS are available at: https://www.revenue.ie/en/corporate/communications/covid19/temporary-covid-19-wage-subsidy-scheme.aspx

**Employees who lost their job**
380,000 employees lost their job by April 2020. Almost three quarters (275,000) of these went on PUP. Their average gross pay of €1,600 placed them in the bottom quartile of the pre-Covid income distribution of February 2020 and suggests there were either low paid or part-time workers prior to their dismissal. This likely reflects both the disincentive effect of the PUP (the €350 weekly payment may be above the weekly wages of certain part-time workers) as well as the often-temporary nature of employment in sectors most affected by the economic shutdown, such as the hospitality sector.

A minority of those who were no longer working in April went on Illness Benefit and Jobseekers Benefit (12,000).[4] They were typically better paid than the workers who went on PUP with an average gross pay of €2,500 compared to €1,500. An individual on PUP for four weeks in April received a total €1,400, indicating the income replacement rate was typically very high for the cohort who went on PUP in the earliest phase of the economic shutdown. However, the income replacement rate for those who entered PUP later (in May 2020) was typically lower (see Table 2 above).

A substantial number of individuals who lost their job are not yet accounted for in administrative data sources (93,000) at the time of writing (end May 2020). This is expected to largely relate to the delay between real activity and administrative data capture (e.g., some may have found new employment, but their new employer has yet to run payroll). However, some of these may also have become labour market inactive due to, amongst other reasons, their age, nationality or residency.

**Table 3: April/May 2020 Labour Market Statistics for employees who lost their job**

| | Count in April | Average gross pay (pre-Covid = Feb) | Aggregate tax/PSRI (pre-Covid = Feb) |
|---|---|---|---|
| February Employees who are **not on payroll** in April | 380,000 | 1,600 | 153 |
| o/w: on PUP* | 275,000 | 1,500 | 91 |
| o/w: on IB/JB** | 12,000 | 2,500 | 9 |
| o/w: other *** | 93,000 | 1,800 | 54 |

*Source: Revenue Commissioners*
** To May 12th 2020*
*** To 25th April 2020*
**** Includes those who have yet to appear on payroll or non-PUP social welfare schemes, or who may now be inactive in the labour market*

**Employees who found new jobs**
53,000 February employees found new jobs by April 2020 (this includes those who left their former employer as well as those who took up an additional job). Their gross average pay rose in April to €3,200 from €2,700 in February. In addition, 14,000 employees appear in the payroll data for the first time in 2020. These individuals represent both new entrants to the labour market in April as well as those returning from long-term leave.

## 6. CONCLUSION

PAYE Modernisation, real-time payroll reporting to Revenue by employers, is the foundation on which TWSS is built. In addition, as a new administrative data source, it allows a very detailed examination of the labour market, both across different cohorts and across time.

In the earliest phase of the COVID-19 crisis and economic shutdown, an extensive amount of labour market churn is evident. Hundreds of thousands of individuals lost their jobs. The bulk of these individuals went on PUP and the earlier they were dismissed the higher their income replacement rate (in other words, the lower their pre-COVID average gross pay), indicating that employers were more likely to have dismissed part-time or lower skilled employees in the initial stages of the shutdown before being forced to dismiss higher paid employees in subsequent weeks.

The majority of employees from the pre-COVID period remained in employment, although one in three of them had their income supported through TWSS. There is evidence of downward wage pressure, both for employees on TWSS and amongst employees whose wages are not being subsidised. Finally, even during the depths of the shutdown, some labour market growth is evident and is typically associated with higher-paid employment.

[4] The majority of this cohort went on Illness Benefit. An enhanced rate of €350 was introduced in March 2020 for workers who were diagnosed with COVID-19 or were advised by a doctor to self-isolate.