## POLICY PAPER

## Job Turnover and the Policy Response in the COVID-19 Era

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*Abstract:* This paper examines job destruction and job creation over the course of 2019 and 2020. The detailed analysis, of both employers and employees, provides insights into the labour market impact arising from a period of unprecedented economic lockdowns and subsequent reopenings. Variation in job destruction rates during lockdown suggests more targeted supports by employer size may be warranted in future, particularly in the hospitality sector. Conversely, sectors exhibiting strong labour demand in 2020 have limited overlap with the sectoral profile of current Pandemic Unemployment Payment (PUP) recipients, indicating that, absent a full and sustained reopening, targeted job-matching policies for the unemployed may meet with limited success. Younger employees had the highest rate of job destruction during lockdown but, notably, also the highest rate of job creation during reopening phases. Some groups, in aggregate, experienced no pandemic-related job turnover, including export-facing employers and employees earning average incomes or higher. In addition, the paper reviews the role played by the Temporary Wage Subsidy Scheme (TWSS) and finds that the policy successfully prevented job destruction in the initial months of the pandemic. The analysis in the paper is made possible by exploiting the potential of a new, population-wide and real-time tax reporting system from the Revenue Commissioners.

## I INTRODUCTION

One of the key policy challenges facing the country at present is ensuring a strong and sustainable recovery in employment following the onset of COVID-19 in early 2020. There have been severe disruptions to both labour supply

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and labour demand as a result of the pandemic, some of which may persist into the medium term. This disruption has been caused by a cycle of lockdowns and economic reopenings which represent a unique and unprecedented disturbance to the Irish labour market. The purpose of this paper is, first, to identify how lockdowns and reopenings affected job turnover during 2020 and what this could imply for future labour market policy and, second, to provide an initial assessment of the 2020 employment policy response (TWSS). The majority of labour market commentary to date has focused on stock analysis – such as aggregate levels of employment and unemployment throughout the crisis – but this paper attempts to fill a gap by analysing the flows (job creation and job destruction) underlying the net stock position throughout 2020 and comparing these to 2019, a "benchmark" year of strong labour market expansion.

A novel aspect of the paper is its exploitation of a rich, new data source from the Revenue Commissioners covering all employers and employees in the State. Prior to the onset of the present crisis, Revenue completed a substantial reform of tax administration that introduced a new real-time reporting system operated by employers. Since 1 January 2019, when an employer runs payroll for its employees, information is almost immediately provided to Revenue at individual payslip level, including significant amounts of data on pay, tax, pensions and other details for each employee. Whereas business surveys can only analyse labour demand, and household surveys can only analyse labour supply, these administrative data can be used to examine both. In addition, the high frequency nature of the data allows for a detailed chronological examination which can separate out the initial and subsequent lockdowns of 2020 and the various phases of reopening the economy. This high frequency feature of the analysis is particularly important to inform policy decisions, given the continued existence of lockdown into 2021 and its potential to recur in future.

Section II provides an overview of events in 2020. Section III introduces the labour market definitions used in the paper and Section IV discusses the job turnover results. Section V provides an initial assessment of TWSS and Section VI concludes.

## II  TIMELINE OF EVENTS

The timeline below provides an overview of the impact of COVID-19 throughout 2020. March and October were national lockdown months, while the economy progressively reopened over May and June. Over the late summer and early autumn, a number of counties experienced local lockdowns. December witnessed both a national reopening and a national lockdown.

| Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|
| | First COVID-19 case recorded in Ireland | National lockdown<br><br>Introduction of TWSS and PUP | | First roadmap published<br><br>Phase 1 Reopening (construction) | Phase 2 Reopening (retail) and<br><br>Phase 3 (hospitality, entertainment and personal services)<br><br>Flat-rate PUP ends |

| Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|
| COVID-19 cases at a minimum<br><br>EWSS introduced in parallel with TWSS | Kildare/ Laois/Offaly lockdown<br><br>TWSS ends | Dublin/ Donegal Level 3 lockdown<br><br>New roadmap for "Living with COVID"<br><br>PUP rate reductions | National Level 5 lockdown<br><br>EWSS and PUP rate increases | | Reopening followed by national Level 5 lockdown |

## II DEFINITIONS

A job in the Revenue data is identified based on the following two conditions:

- The gross pay figure is positive (in keeping with the ILO definition of employment);
- The gross pay figure is identified as non-pension income.

The job flow measures used in the paper take the definitions from Davis and Haltiwanger (1999) as the starting point. In their analysis:

- Job destruction at time $t$ is the employment loss summed over all employer units that contract or shut down between $t - 1$ and $t$;

- Job creation at time *t* is the employment gain summed over all employer units that expand or set up between $t-1$ and $t$;
- Net employment change is job creation minus job destruction.

However, this paper adapts the time periods compared in order to identify the 2020 jobs that were *permanently* destroyed by year end (or, conversely, *uniquely* created since the start of the year). In other words, the time comparison for job destruction is between $t_i$, where $1 \leq i \leq 11$, and $t_{12}$ (December). The time comparison for job creation is between $t_1$ (January) and $t_i$, where $2 \leq i \leq 12$. This approach is preferred in order to form a clearer view on overall job reallocation during 2020, and one which is not overshadowed by temporary or reversible developments. If the standard approach (i.e. a month-to-month, or quarter-to-quarter, comparison) were applied to the specific context of 2020, which involved a cycle of lockdowns and reopenings, *job destruction and job creation flows would very likely be overstated* (e.g. double counted) for the year. Further, taking a more aggregated approach to the data would prevent a detailed analysis of the impact of the lockdowns and reopenings.

Job flows can also be converted into rates. In the job turnover literature, the growth rate for each employer is typically defined as the change in employment between the two specified periods, divided by the average of employment in those two periods (unlike the standard definition of a growth rate which would divide by employment in the initial time period). This adjustment gives a growth rate which is symmetric around zero and which lies within a closed interval [–2, 2], thereby allowing an integrated analysis of entry and exit. This approach is followed here. In order to present a more concise summary of the results, a weighted average of the monthly job flow rates is also calculated by using each month's share of the annual job flow as the weights.

For completeness, an annual presentation of job flows is also briefly discussed in the paper, where *t-1* is 2019 and *t* is 2020. However, this latter presentation has less relevance for understanding the dynamic impact of lockdowns and reopenings, which have been such a prevalent and unique aspect of the COVID-era labour market.

## IV  RESULTS

### 4.1  Aggregate Results

Table 1 shows the total number of Pay As You Earn (PAYE) jobs in 2019 and 2020, and the breakdown of how job levels varied over the year. From this table, we see that there were approximately 3.3 million unique jobs in 2020. However, monthly levels experienced large swings due to the COVID-19 pandemic. May 2020 represented the trough, but job levels had not recovered by the end of the year. By contrast, 2019 presents a picture of stable and higher employment levels.

**Table 1: Jobs from Revenue PAYE Data**

| Month | 2019 | Month-on-month % change | 2020 | Month-on-month % change |
|---|---|---|---|---|
| January | 2,330,900 | | 2,425,700 | −1 |
| February | 2,331,700 | 0 | 2,413,200 | −1 |
| March | 2,364,800 | 1 | 2,406,000 | 0 |
| April | 2,370,600 | 0 | 2,037,900 | −15 |
| May | 2,406,300 | 2 | 1,970,200 | −3 |
| June | 2,449,200 | 2 | 2,056,700 | 4 |
| July | 2,427,000 | −1 | 2,205,900 | 7 |
| August | 2,415,400 | 0 | 2,231,000 | 1 |
| September | 2,425,000 | 0 | 2,287,300 | 3 |
| October | 2,434,100 | 0 | 2,305,100 | 1 |
| November | 2,442,000 | 0 | 2,192,300 | −5 |
| December | 2,456,200 | 1 | 2,312,600 | 5 |
| Net Change in PAYE Jobs | **125,300** | | **−113,200** | |
| Unique PAYE jobs across the year | **3,478,900** | | **3,260,000** | |

*Source:* Revenue analysis.

Figure 1 shows the monthly job flows which underlie the 2019 and 2020 employment levels. March saw the highest level of permanent job destruction in 2020, i.e. jobs which disappeared off payroll that month which did not reappear by December 2020. The March level reflects the first national lockdown and is more than double the equivalent figure for March 2019. October 2020 also experienced high levels of permanent job loss, reflecting the introduction of Level 5 restrictions nationally, but the comparison with 2019 is not as stark. The 2019 pattern of job destruction can be interpreted as the levels which would expect to hold in a "benchmark" expanding economy, with job destruction rising throughout the year.

Table 2 shows the annual summary of job creation and job destruction flows which lead to the net changes in employment observed during 2019 and 2020. Overall, there were slightly more jobs permanently destroyed during 2019 than during 2020. Initially this may seem surprising, given the scale of the economic shock in 2020, but likely reflects two developments. First, it directly highlights the impact of the Temporary Wage Subsidy Scheme (TWSS) and the Employer Wage Subsidy Scheme (EWSS), which were designed to maintain the employment link between employers and their employees (this is discussed further in Section V). Second, it indirectly reflects the lack of seasonal jobs in 2020 associated with tourism (which would otherwise be created over the summer months but be permanently lost by year end). Overall, these two opposing developments resulted

in an annual level of permanent job destruction in 2020 that was in line with 2019, a year of strongly contrasting economic and labour market performance.

From Table 2, we see that more than 830,000 jobs were created during 2020 i.e. jobs that appeared throughout the course of the year that had not been in there in January. Figure 1 highlights that February recorded the highest month of job creation and May the lowest. As the economy reopened in phases over the summer, more jobs were created, with post-reopening levels peaking in the month of October. Across the year, 27 per cent fewer jobs were created than in 2019 (when over a million jobs were created). Low job creation in May and June 2020 relative to the previous year explains half of the annual contraction, again highlighting the impact of the pandemic on the hospitality and tourism sectors. Declining levels of job creation throughout 2019 reflect the fact that companies tend to hire most in the early months of the year when hiring budgets first begin operation. Absent the pandemic, this pattern would also have been expected to hold in 2020 and indeed February levels of job creation in both years are almost identical.

**Figure 1: Monthly Job Flows**
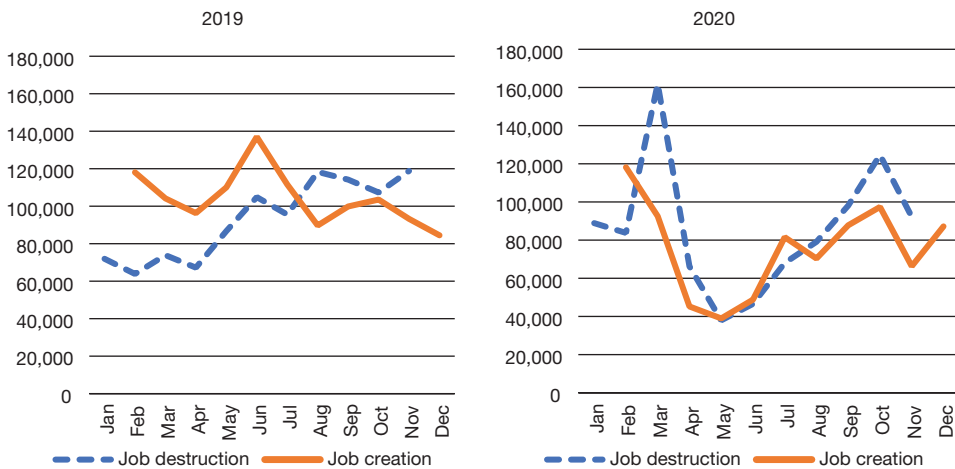


*Source:* Revenue analysis.

Overall, the net employment change in 2020 was a 113,200 reduction; by contrast, 2019 saw a 125,300 expansion. The finding that job flows are several multiples larger than the net employment change replicates results found in other countries (Haltiwanger *et al.*, 2006) and for older time periods in Ireland (Lawless, 2012).

### 4.2 Annual Results
Most of this paper focuses on within-year changes in job flows in order to best understand the dynamic impact of lockdowns and reopenings. But it is also possible to present job turnover in terms of the annual difference between 2019 and 2020.

Table 3 provides this more aggregated presentation, and it shows that the annual job destruction rate in 2020 was 29 per cent and the annual job creation rate was 22 per cent.

### Table 2: Net Employment Change

|  | *2019* | *2020* |
|---|---|---|
| Job Destruction | 1,022,600 | 947,400 |
| Job Creation | 1,148,000 | 834,300 |
| Net Employment Change | 125,300 | –113,200 |

*Source:* Revenue analysis.

### Table 3: Annual Job Turnover Rates

|  | *2019/2020* *%* |
|---|---|
| Job Destruction (JD) Rate | 29 |
| Job Creation (JC) Rate | 22 |
| Net Employment Growth | –6 |

*Source:* Revenue analysis.

The Central Statistics Office (CSO) previously published a statistical series on job turnover covering the years 2006 to 2015, which relied on Revenue tax return data.[1] In 2009, the peak year of the last recession, they report a job destruction rate of 23 per cent and a job creation rate of 9 per cent. This indicates the current pandemic-induced recession has been more severe in terms of job destruction but less so in terms of job creation. This comparison is unsurprising given the nature of a lockdown and the dynamics of a reopening.

Lawless (2012) also examines job turnover in Ireland, using 40 years of data from the Forfás Employment Survey. The data cover agency-supported firms in manufacturing and internationally traded services so a like-for-like comparison is not fully possible, as the turnover rates derived from Revenue data cover the whole economy, in particular the job-rich retail, wholesale and hospitality sectors. However, the longer time series allows for a greater comparison of different recessionary episodes and historical norms. In the past three periods of recession the Irish economy witnessed a fall in its job creation rates and a rise in job destruction rates.[2] During the 2008 recession, job creation rates dropped to half of

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[1] The CSO series used the P35, an annual employer tax return which was replaced in 2019 by a real-time reporting system ("PAYE Modernisation").

[2] These refer to the recession during the 1980s, the recession following the dot-com bust in the early 2000s and the 2008 financial and economic crisis.

their long-term average, while job destruction rates doubled, causing a substantial increase in unemployment. It seems unlikely that job creation behaviour in the current recession will look similar to older recessionary episodes, though, due to the unique stop-start nature of the lockdowns and potentially the reluctance of some employees to return to their previous employment (a new job would be created if a different individual matched to that employer during a reopening phase).

## 4.3 Employer Characteristics

### 4.3.1 Sector

The pandemic did not hit all sectors of the economy equally, as demonstrated by the job turnover rates summarised in Table 4. In particular, the average monthly job destruction rate in Accommodation and Food (15.1 per cent) was more than double that of the previous year. Almost half of the overall net reduction in employment in 2020 (–113,200 from Table 2) occurred in this sector (–66,700). Table 4 shows that some sectors were notable for the negligible difference in job destruction rates between 2019 and 2020: Manufacturing, Administrative and Support Services, and Health and Social Work.

In general, sector-specific technological, organisational and market factors can play an important role in the determination of labour market flows. Evidence from European and OECD countries suggests that manufacturing generates lower job flows than the services sector (Gomez-Salvador *et al.*, 2004; OECD, 2009). This pattern holds in Ireland for both 2019 and 2020. In both years, manufacturing had the lowest job creation rate of any sector. However, the COVID-specific designation of most manufacturing jobs as "essential" no doubt played a part in muting any potential job destruction in the sector relative to services in 2020.

Table 4 shows that five sectors experienced net employment growth in 2020 (a job creation rate higher than the job destruction rate); the highest growth occurred in the Education, Financial and Insurance sectors. By contrast, all sectors of the economy but Mining expanded in 2019. Notably, none of the 2020 growth sectors represent large shares of current Pandemic Unemployment Payment (PUP) recipients.[3] This may indicate that, absent a full and sustained reopening, job-matching schemes for PUP recipients to sectors where labour demand is buoyant may prove challenging due to experience or skills mismatches. The relatively high job creation rates for Administrative and Support Services in both years were driven by recruitment agencies, a firm-type which naturally lends itself to job turnover, both in a growing or pandemic economy.

Sectors that create more jobs have also been found to destroy more jobs (OECD, 2009). One of the potential reasons why this occurs is that mass entry of firms is more likely in industries with larger technological opportunities (in the broadest sense) that are also characterised by processes of fast learning and

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[3] Based on PUP recipients on 9 June 2021.

**Table 4: Job Turnover Rates by Sector**

| | Job Destruction Rate (%) | | Job Creation Rate (%) | | Net employment growth in 2020 |
|---|---|---|---|---|---|
| | *2019* | *2020* | *2019* | *2020* | |
| Agriculture, Forestry and Fishing | 4.9 | 5.7 | 6.2 | 4.7 | |
| Mining and Quarrying | 4.7 | 2.9 | 4.6 | 2.5 | |
| Manufacturing | 2.5 | 2.5 | 2.8 | 2.3 | |
| Construction | 4.0 | 4.7 | 4.9 | 4.3 | |
| Wholesale and Retail | 3.6 | 4.0 | 3.9 | 3.3 | |
| Transportation and Storage | 2.9 | 3.4 | 3.0 | 2.4 | |
| Accommodation and Food | 7.2 | 15.1 | 7.8 | 5.9 | |
| Information and Communication | 3.4 | 3.0 | 4.0 | 3.2 | * |
| Financial and Insurance | 3.3 | 2.8 | 5.0 | 4.8 | * |
| Real Estate | 4.7 | 5.7 | 5.0 | 3.6 | |
| Professional, Scientific, Technical | 3.9 | 4.1 | 5.2 | 4.1 | |
| Administrative and Support | 8.1 | 8.2 | 8.8 | 6.8 | |
| Public Admin and Defence | 3.3 | 2.5 | 3.6 | 2.9 | * |
| Education | 4.8 | 3.3 | 5.1 | 4.4 | * |
| Health and Social Work | 2.7 | 2.7 | 2.9 | 2.7 | * |
| All Other Activities | 4.6 | 6.4 | 5.2 | 4.1 | |

*Source:* Revenue analysis.
*Note:* Rates presented here are the weighted average of monthly rates.

competitive selection that generate mass exits. Although the job turnover rates presented in this paper do not decompose by firm entry versus firm expansion, the pattern of positively correlated destruction and creation rates holds, with a 0.95 and 0.70 correlation coefficient in 2019 and 2020 respectively.[4] Although lower than 2019, when economic growth was particularly strong, the 2020 relationship may be an initial indicator of the adaptability and rapid learning of many employers over the course of the crisis.

The question of permanent scarring applies most urgently to the Accommodation and Food sector, given the scale of job destruction in 2020 and the likelihood of a relatively late full reopening in 2021. Figure 2 shows the monthly job destruction and creation rates for the sector throughout 2019 and 2020. Job creation rates at reopening points in 2020 (July and December) are similar to the same periods in 2019, which gives some grounds for optimism on the flexibility of the sector as a whole.[5]

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[4] The correlation coefficients are calculated using the data in Table 4.
[5] Hotels and restaurants reopened during Phase 3, which began on 29 June. However, many enterprises deferred reopening until 1 July.
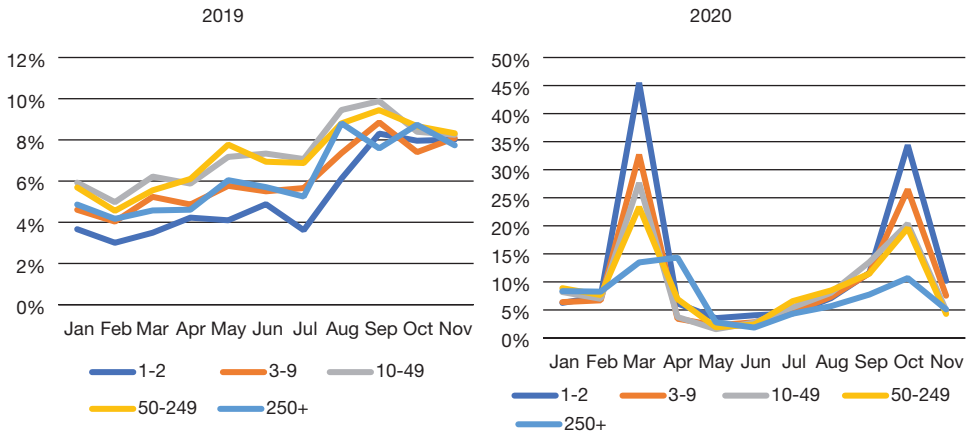
**Figure 2: Monthly Job Turnover Rates in Accommodation and Food**
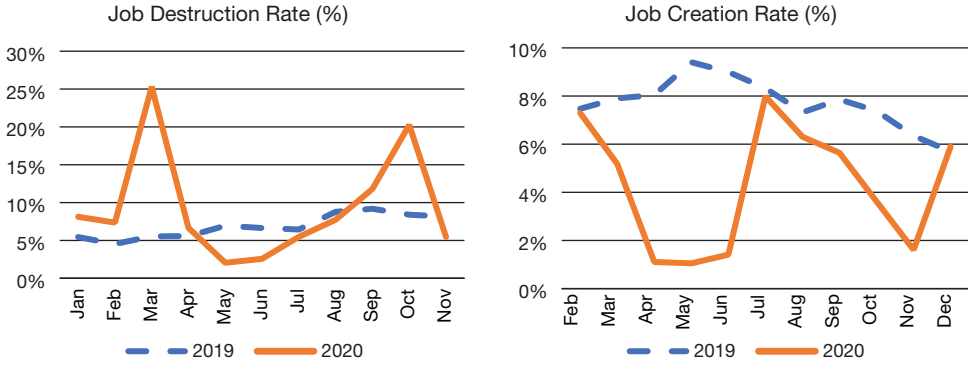


*Source:* Revenue analysis.

Figure 3 documents monthly job destruction rates by employer size in Accommodation and Food in 2020. While job destruction rates for all SMEs and large enterprises (250+ employees) were similar in the reopening phase of 2020, the lockdown months had a notably differentiated impact by size, with micro SMEs (less than ten employees), in particular, experiencing high rates of job destruction in March and October. This contrasts notably with the experience of micro SMEs in 2019, when they had the lowest job destruction rates of any employer size. Given the differentiated lockdown impact, there is a case that any further lockdown policy interventions in 2021 could be more targeted by employer size, given Table 5 highlights that SMEs are responsible for the vast majority of employment in Accommodation and Food (which is not the case for other sectors of the economy).

**Figure 3: Monthly Job Destruction Rates in Accommodation and Food by Employer Size**



*Source:* Revenue analysis.

Figure 4 documents monthly job creation rates by employer size in Accommodation and Food. It shows that smaller SMEs (less than 50 employees) had the highest job creation rates during the summer reopening. This is unlikely to solely reflect a base effect as their job creation rates in the previous year were typically lower than for larger employers. Larger SMEs (50+ employees) and large enterprises had more sluggish creation rates in the reopening phase, both relative to other employers in the sector in 2020 and their own past performance in 2019. This warrants further investigation, as, for example, the unit costs of reopening are expected to be lower for larger employers.

**Figure 4: Monthly Job Creation Rates in Accommodation and Food by Employer Size**
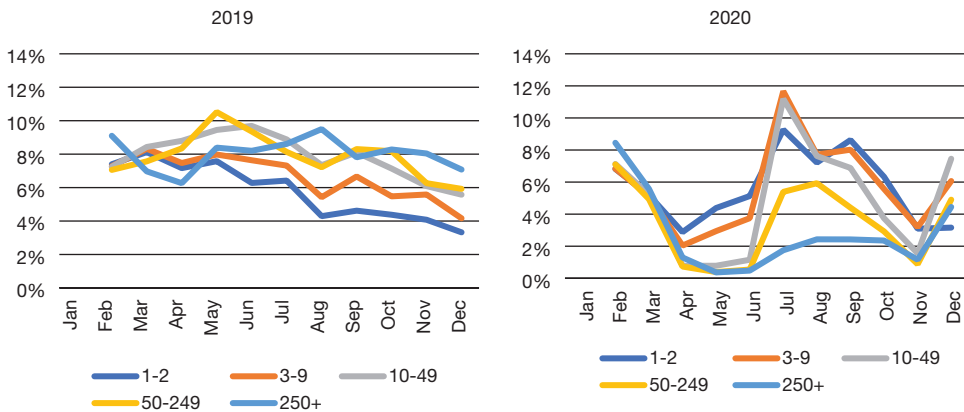


*Source:* Revenue analysis.

**Table 5: Job Shares in Accommodation and Food**

| *Employer Size* | *2019* | *2020* |
|---|---|---|
| 1-2 | 2% | 3% |
| 3-9 | 14% | 17% |
| 10-49 | 35% | 36% |
| 50-249 | 33% | 29% |
| 250+ | 16% | 16% |
| Total | 100% | 100% |
| Total Unique Jobs | **364,000** | **286,000** |

*Source:* Revenue analysis.

### 4.3.2 Exporters

The link between employment and trade is an important one for any small, open economy but it has taken on additional importance in the dual context of Brexit and a potentially K-shaped recovery from the pandemic. In light of this, Revenue

has begun work on an experimental marker to identify employers who are also exporters.[6] The analysis finds that roughly one-in-three jobs in both 2019 and 2020 was supported by exports. Figure 5 shows the exporter share of jobs in each month of 2020 and highlights how the exporter job share rose notably during the first lockdown of 2020 (when so many domestic jobs were lost).

**Figure 5: Exporter Share of 2020 Jobs**
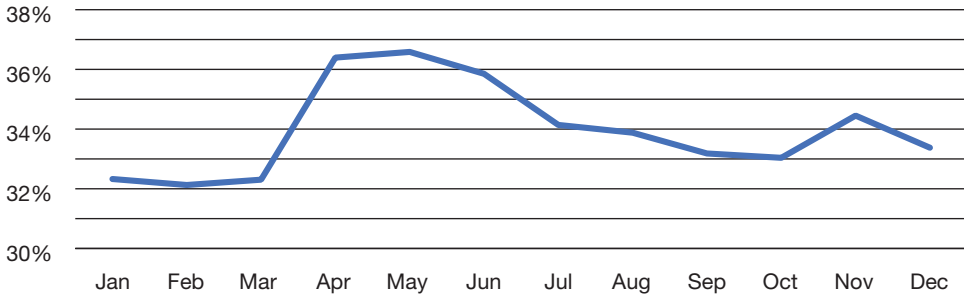


*Source:* Revenue analysis.

Table 6 summarises the job turnover rates for exporting and domestic employers in 2019 and 2020. As was the case with Accommodation and Food, SME exporters experienced jumps in their job destruction rates during the lockdown months of March and October. Therefore, the lower overall destruction rate of exporters in 2020 relative to 2019 is driven by the largest exporting employers (250+ employees), who, on aggregate, did not experience any pandemic-related job losses.[7] This is not necessarily unexpected given 2020 saw the highest level of exports on record (CSO QNA 2020 Q4).

**Table 6: Job Turnover Rates by Exporter Status**

|          | *Job Destruction Rate (%)* | | *Job Creation Rate (%)* | |
|----------|:----:|:----:|:----:|:----:|
|          | *2019* | *2020* | *2019* | *2020* |
| Exporter | 3.0 | 2.7 | 3.3 | 2.6 |
| Domestic | 4.5 | 5.2 | 5.0 | 4.0 |

*Source:* Revenue analysis.
*Note:* Rates presented here are the weighted average of monthly rates.

[6] Exporter taxpayers are identified based on 2019 or 2020 activity recorded on various VAT returns (VIES and the 56A return) and on Customs Declarations forms. These taxpayers are then linked to payroll data. VIES data capture intra-EU trade in goods and services; the 56A data capture intra-EU trade in goods and services and zero-rated extra-EU trade in goods; and Customs data capture extra-EU trade in goods. Taxpayers who exclusively export extra-EU services are likely to be under-estimated by this marker, due to the nature of the available tax administration data.
[7] Multinationals, which can be considered a subset of all exporters, also experienced no pandemic-related job losses in aggregate.

The relatively stronger performance of the domestic sector than the export sector in creating jobs remained unchanged by the pandemic, with a very similar relative performance achieved in both 2019 and 2020. However, due to higher job destruction rates, the net change in employment in the domestic sector during 2020 was –100,800 (which wiped out the +93,800 net change experienced during the previous year).

### 4.4 Employee Characteristics

#### 4.4.1 Age

Table 7 summarises job turnover rates by employee age in 2019 and 2020, while Figure 6 shows the monthly figures for the youngest employees (aged 17-26). These young employees were disproportionately affected by COVID-related job losses, as has also been documented elsewhere by the Department of Social Protection and the CSO. However, the Revenue data in Table 7 show for the first time that young employees also dominated the job creation rates during the year. This pattern of relatively higher turnover rates for the young also holds for 2019 and Figure 6 shows that it is driven by a summer seasonal effect.

In general, mobility and reallocation rates are typically much higher in younger adults who engage in more job shopping and are more often employed under temporary contracts than other workers (OECD, 2009). The 2019 and 2020 patterns show a considerable degree of labour market flexibility for this cohort and indicate that currently high youth unemployment levels may fall naturally once the economy reopens and pandemic-era income supports taper off. In particular, the summer seasonal effect observed in the benchmark year of 2019 suggests care must be taken in devoting large resources to re-employment schemes which may engender displacement or deadweight effects.

**Table 7: Job Turnover Rates by Employee Age**

|  | Job Destruction Rate (%) | | Job Creation Rate (%) | |
| --- | --- | --- | --- | --- |
|  | *2019* | *2020* | *2019* | *2020* |
| 17-26 | 8.6 | 9.0 | 10.3 | 7.9 |
| 27-36 | 4.3 | 4.5 | 4.7 | 3.7 |
| 37-46 | 2.6 | 2.9 | 2.9 | 2.3 |
| 47-56 | 2.2 | 2.6 | 2.4 | 2.0 |
| 57-66 | 2.8 | 3.3 | 3.0 | 2.7 |
| Over 66 | 5.1 | 6.4 | 5.4 | 4.7 |
| Age Unknown / Under 16 | 6.9 | 5.4 | 13.1 | 12.1 |

*Source:* Revenue analysis.
*Note:* Rates presented here are the weighted average of monthly rates.

**Figure 6: Monthly Job Turnover Rates for Employees aged 17-26 years**
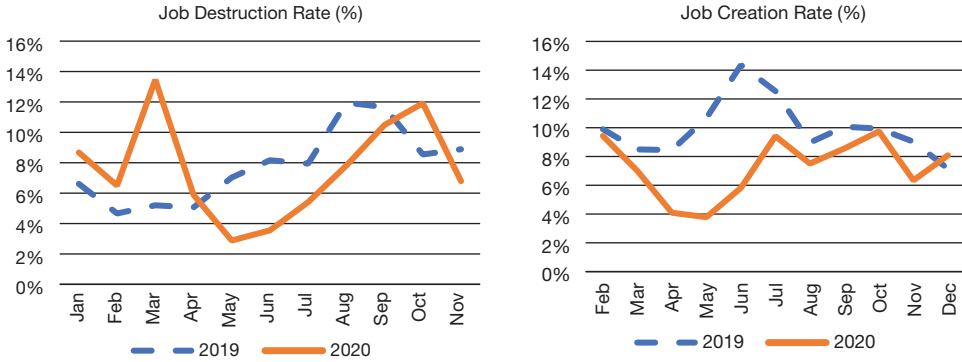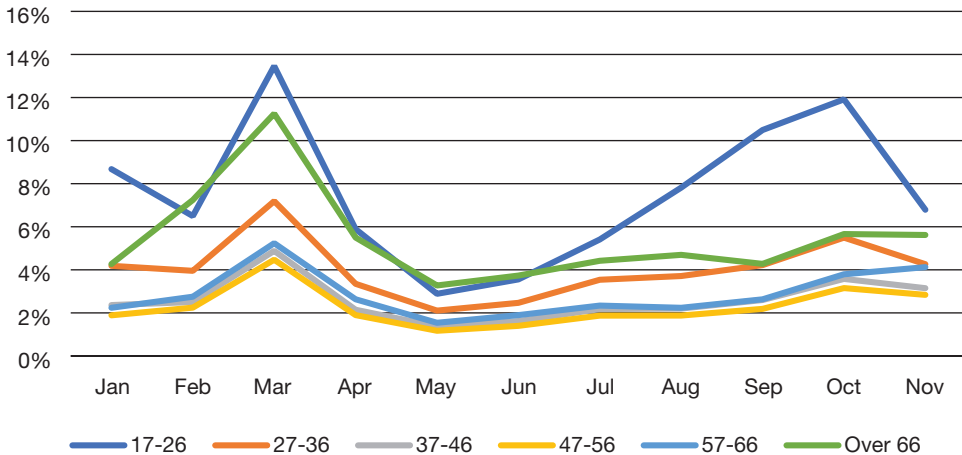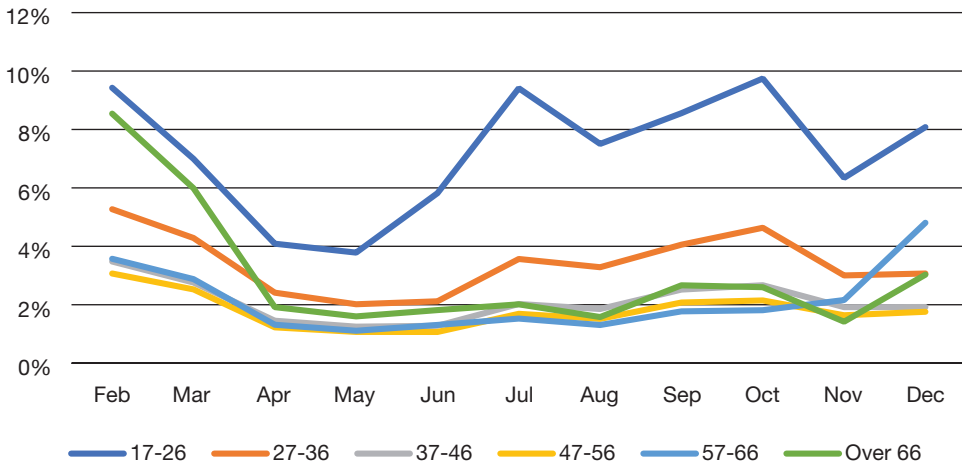


*Source:* Revenue analysis.

Figures 7 and 8 show the monthly job turnover rates for all age categories in 2020. Employees aged over 66 had the second highest job destruction rate in 2020. This may reflect involuntary retirement for some, either in the form of job dismissal or quitting due to health concerns. Health concerns may be a factor, as the over-66 destruction rate during 2020 was notably higher than their rate during 2019.

The two youngest age categories had the strongest response to reopening in the summer months of 2020, as shown in Figure 8, very likely reflecting the younger age profile of employees in the hospitality sector. Other age categories experienced relatively flat job creation rates during the same period, but given a similar pattern in the corresponding months of 2019, this is again likely to reflect a sectoral effect.

**Figure 7: Monthly Job Destruction Rate by Employee Age in 2020**



*Source:* Revenue analysis.

**Figure 8: Monthly Job Creation Rate by Employee Age in 2020**
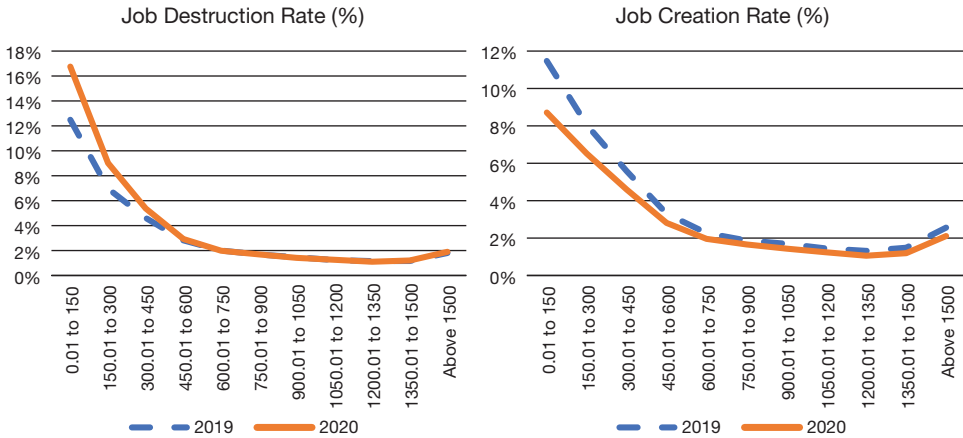


*Source:* Revenue analysis.

### 4.4.2. *Employee Income Levels*

To the best of our knowledge, this paper presents job turnover by income level for the first time. Income is defined as average gross weekly pay.[8] Figure 9 summarises the job turnover rates across the income distribution for 2019 and 2020. In both years, job turnover was highest for the low paid. Although payroll data do not record whether a job is part-time or full-time, the first two income bands (€0-150, €150-300) are almost certainly primarily made up of part-time jobs (given the 2020 minimum wage was €10.10 per hour). Employees earning €300 or less per week account for almost half of the jobs permanently destroyed during 2020.

Jobs earning above €600 per week, by contrast, were characterised by extremely muted job turnover rates in 2020. In fact, 2019 and 2020 rates above this income level are extremely similar, suggesting the pandemic had little impact on the employment prospects of employees earning average incomes or higher. Amongst the higher earnings categories, those earning more than €1,500 per week had the highest turnover rates (although these were still far below the low paid). Almost half of the highest earning employees work in *Information and Communication, Finance* and *Professional Services*, and this turnover pattern may reflect short-term contractor or consultancy work.

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[8] Gross pay is calculated as the sum of gross pay, as recorded on the employee payslip, and the TWSS subsidy where applicable. The number of weeks worked is taken from the payroll data (the recorded pay frequency e.g. weekly, monthly). Extreme values of average gross weekly pay (the bottom 0.1 per cent and top 0.1 per cent) were omitted when preparing statistics in this paper.

## Figure 9: Job Turnover Rates by Income Level

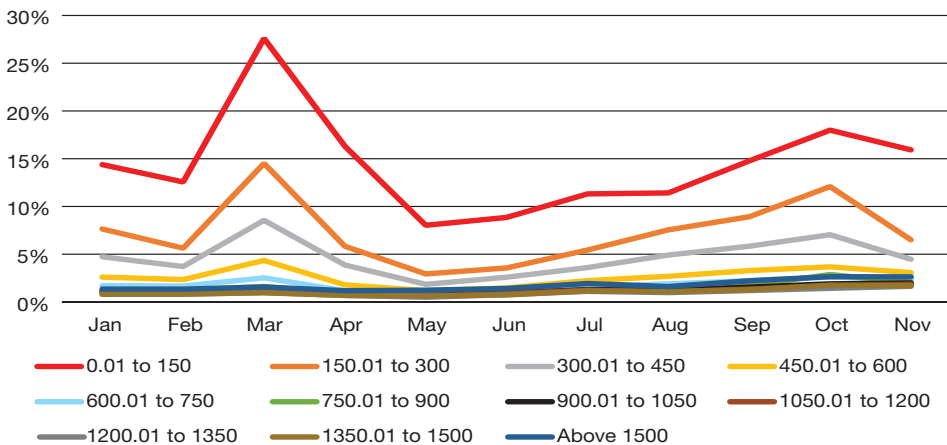Job Destruction Rate (%)                    Job Creation Rate (%)



*Source:* Revenue analysis.

*Not*e: Rates presented here are the weighted average of monthly rates.

Figures 10 and 11 show the monthly job turnover rates by income in 2020. The lowest paid had the highest job destruction rates during the 2020 lockdowns, reflecting the fact that Wholesale and Retail and Accommodation and Food were the main sectors of employment for this group. The lowest paid employees also had the highest job creation rates during the reopening phases. However, while employees earning between €150-€450 a week experienced job creation rates close to their pre-pandemic level of February 2020, the very lowest paid (less than €150) did not. This may reflect the disincentive to work created by PUP payment levels, as, between June and October 2020, the lowest PUP payment was €203 per week.

## Figure 10: Monthly Job Destruction Rate by Income Level in 2020



*Source:* Revenue analysis.

**Figure 11: Monthly Job Creation Rate by Income Level in 2020**
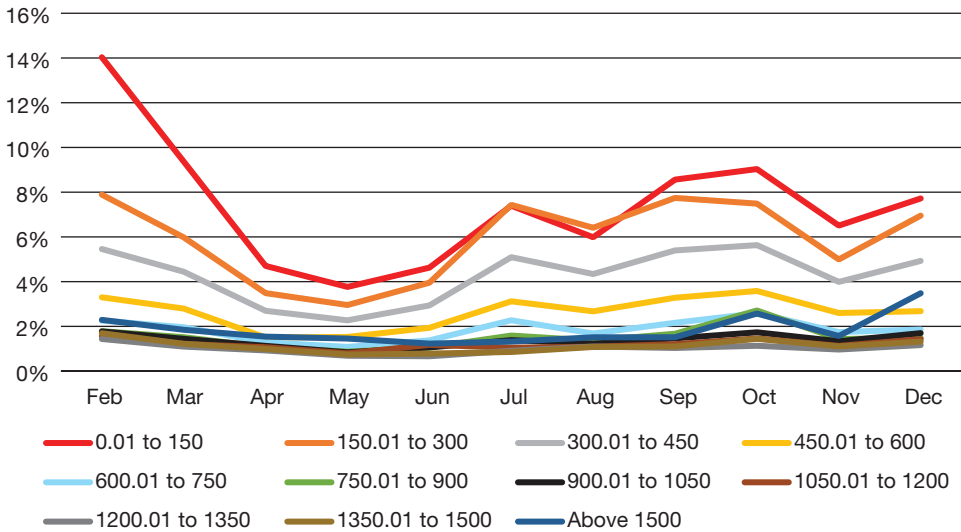


*Source:* Revenue analysis.

### 4.4.3  Other Employee Characteristics

There was virtually no distinction between the job turnover patterns of men and women during the lockdowns and reopenings of 2020. This contrasts with the 2008 recession, where construction-related job losses were male-concentrated (Barrett and Kelly, 2012). This likely reflects the fact that men and women today hold a reasonably equal share of jobs in hospitality and retail, two of the hardest hit sectors during the pandemic.[9] There was also no distinct pattern by gender in 2019.

During the last recession, immigrant employees experienced notably higher job losses than Irish nationals (Barrett and Kelly, 2012). This appears to be the case to a degree during the present crisis, as highlighted in Table 8 which summarises turnover rates by nationality. However job destruction rates for this cohort were also higher during 2019, a year of expansion. Job creation rates are also higher for

**Table 8: Job Turnover Rates by Nationality**

|                     | *Job Destruction Rate (%)* | | *Job Creation Rate (%)* | |
|---------------------|:------:|:------:|:------:|:------:|
|                     | *2019* | *2020* | *2019* | *2020* |
| Non-Irish National  | 4.7    | 5.1    | 5.4    | 4.0    |
| Irish National      | 3.8    | 4.0    | 4.2    | 3.3    |

*Source:* Revenue analysis.
*Note:* Rates presented here are the weighted average of monthly rates.

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[9] Unemployment rates by gender may differ, however, due to factors such as labour force attachment.

non-Irish nationals than for Irish nationals, in both 2019 and 2020, suggesting a higher degree of mobility for this cohort. For both job destruction and job creation, there is little relative difference by nationality during lockdowns and reopening phases.

## V THE IMPACT OF GOVERNMENT EMPLOYMENT POLICIES

During the last recession, most firms adjusted on their extensive margin (dismissals), with fewer firms adjusting via cuts in average wage rates and hours worked (Walsh, 2012). However, the use of subsidy schemes in 2020 represent a key difference with 2008 and were designed to maintain the links between employers and employees.

The Temporary Wage Subsidy Scheme (TWSS) was operated by Revenue through the payroll system. TWSS enabled employees to receive significant income supports through their employers' payroll and meant that employers directly affected by the pandemic could retain links with their employees. The scheme ran from 26 March to 31 August 2020. The cost to the Exchequer was €2.8 billion, with 664,500 employees receiving subsidies through 66,600 employers (Revenue Commissioners, 2021). The Employment Wage Subsidy Scheme (EWSS) replaced TWSS from 1 September 2020. Both schemes ran in parallel from 1 July 2020 until TWSS ceased at the end of August 2020.

The following analysis focuses on assessing the impact of TWSS only as, first, the scheme is now complete and, second, TWSS involved a direct job subsidy (while EWSS is indirect).

Table 9 outlines the headline employment figures for TWSS and non-TWSS employers. Overall, one-in-five jobs in 2020 received at least one TWSS subsidy, while two-in-five jobs in 2020 were with a TWSS employer.

### Table 9: 2020 Employment by Employer Type

|                    | *Employers* | *Directly Subsidised Jobs* | *Jobs with Subsidised Employer* |
|--------------------|------------|-----------------------------|----------------------------------|
| Non-TWSS Employer  | 110,900    | –                           | –                                |
| TWSS Employer      | 66,600     | 664,500                     | 1,375,600                        |
| 2020 Total         | 177,500    | 3,260,000                   | 3,260,000                        |

*Source:* Revenue analysis.

Table 10 summarises the job turnover rates for TWSS and non-TWSS employers in 2020, while Figure 12 shows the monthly job destruction figures. Table 10 shows that the average monthly destruction rate for the 664,500 jobs directly subsidised by TWSS was lower than the average destruction rate for all other jobs:

3.3 per cent as opposed to 5.1 per cent. Figure 12 illustrates that this differential was particularly evident in the earliest months of the pandemic. The pre-pandemic job destruction rate for jobs that would subsequently become subsidised was zero, as compared to 5 per cent for jobs that were never subsidised. This reflects the policy design of TWSS (workers had to have been on January/February payroll to qualify).

**Table 10: Job Turnover Rates for TWSS in 2020**

| | *Overall jobs (% share)* | *Job Destruction (% share)* | *Job Creation (% share)* | *Job Destruction Rate (%)* | *Job Creation Rate (%)* |
|---|---|---|---|---|---|
| Non-TWSS Jobs | 80 | 86 | 97 | 5.1 | 4.5 |
| TWSS-Subsidised Jobs | 20 | 14 | 3 | 3.3 | 2.6 |

*Source:* Revenue analysis.
*Note:* Rates presented here are the weighted average of monthly rates. The Job Creation rate for TWSS-subsidised jobs in this table primarily reflects February job creation.

**Figure 12: Monthly Job Destruction Rate for TWSS in 2020**
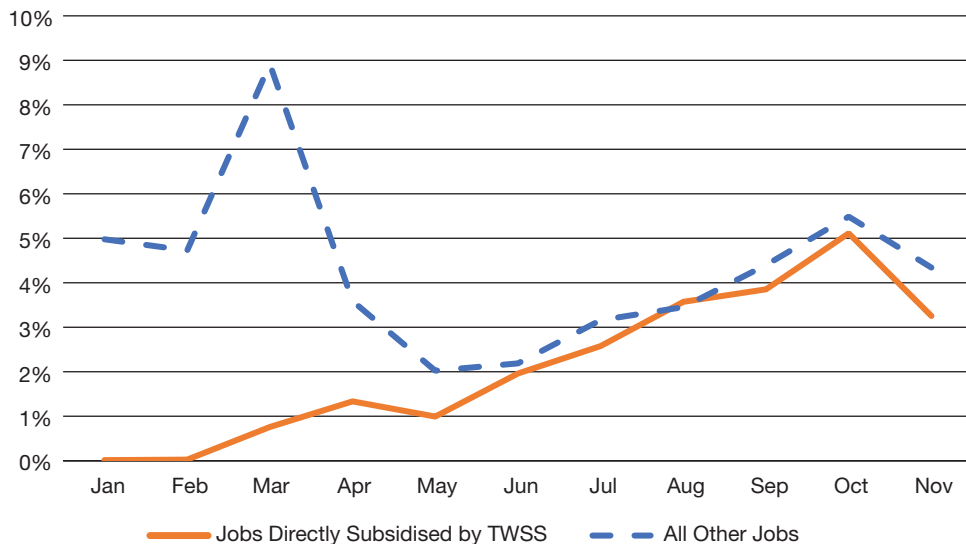


*Source:* Revenue analysis.
*Note:* If a job had received a TWSS subsidy by August 2020 and was still on the same employer payroll in later months of the year, it remains categorised as "directly subsidised by TWSS" in these later months.

However, from the June reopening onward, Figure 12 shows that the gap between both job types narrowed and both experienced a similar upward trend in job

destruction rates. This suggests both job categories, on aggregate, were subject to similar forces of flexibility (or volatility) in the labour market in the latter half of 2020, and that the lower average destruction rate for TWSS is primarily explained by activity during the first lockdown rather than any legacy effect of the policy on employers in the latter half of the year. Overall, this initial assessment of TWSS suggests that the policy was successful at maintaining the link between employers and employees over the initial months of the pandemic, after which the rate of job destruction in supported firms was similar to all other employers. In other words, the policy likely had its greatest impact over the short term.

## VI  CONCLUSION

By exploiting the potential of Revenue's new tax administration system for analysis, this paper presented an overview of job destruction and job creation during 2020 and compared these trends to 2019. The detailed analysis, of both employers and employees, provides insights into the labour market impact arising from a period of unprecedented economic lockdowns and subsequent reopenings.

Variation in job destruction rates during lockdown suggests more targeted supports by employer size may be warranted in future, particularly in the hospitality sector. Conversely, sectors with strong labour demand in 2020 have limited overlap with the sectoral profile of current Pandemic Unemployment Payment (PUP) recipients, suggesting that, absent a full and sustained reopening, targeted job-matching policies for the unemployed may meet with limited success.

Younger employees had the highest rate of job destruction during lockdown but, notably, also the highest rate of job creation during reopening phases. Their job turnover rates typically contain a summer seasonal effect, which suggests that any future policies targeting youth unemployment must be alert to creating displacement and deadweight effects.

Some groups, in aggregate, experienced no pandemic-related job turnover, including export-facing employers and employees earning average incomes or higher. The very lowest paid employees did not experience job creation to the same extent as other employees during reopening phases, which may reflect work disincentives created by PUP payment levels.

Finally, the paper reviewed the role played by the Temporary Wage Subsidy Scheme (TWSS) and finds that the policy successfully prevented job destruction in the initial months of the pandemic.

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