



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

Economic Letter

Regional impact of COVID-19: Western Region & Atlantic Economic Corridor

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Vol. 2020, No. 10

October 2020

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The impact of COVID-19 on the labour market has been severe across the country. This *Letter* examines the dynamics of the COVID-19 shock on the Western Region and Atlantic Economic Corridor. A concentration of jobs in consumer-facing sectors such as tourism and accommodation mean that workers in these counties have been adversely affected by public health restrictions. Younger and female workers are particularly vulnerable to employment shocks. Analysis of job postings point to very slack labour market conditions, with some counties particularly weak.

Restrictions to limit the spread of COVID-19 have impacted all parts of society and the economy. The economic impact is not, however, uniform across the country. It depends, to a large extent, on the composition of activity in a given region or county. This *Economic Letter* documents regional variation in the labour market impact of the shock. The analysis is intended to assist policy makers at a regional and national level in planning for economic recovery.

The bulk of the data analysis pre-dates the nationwide tightening of restrictions in October. That said, the labour market impacts from the earlier restrictions, and how these changed through the summer phased re-openings, provides some indication as to the potential regional impact of new restrictions.

The focus of the discussion in this *Letter* is the Western Region and the Atlantic Economic Corridor (AEC). The Western Region is defined under the Western Development Commission (WDC) Act 1998 as the seven counties of Clare, Donegal, Galway, Leitrim, Mayo, Roscommon and Sligo. The AEC is set out in Ireland 2040 as an initiative to drive balanced regional development and encompasses the Western Region as well as Kerry and Limerick. The nine counties are referred to as the AEC for the remainder of the *Letter*. Future work will look at other regions.¹

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The views expressed in this paper are those of the authors only and do not necessarily reflect the views of the Central Bank of Ireland or the WDC. We thank colleagues and Pawel Adrjan from *Indeed* for helpful comments.

¹ The Regional Assemblies have also analysed the regional impact of COVID-19. See, for example, [Daly \(2020\)](#) for the Northern and Western Regional Assembly.

Regional Dynamics of the COVID-19 Shock

Composition matters

The regional dynamics of the COVID-19 labour market shock are influenced by pre-COVID-19 employment patterns and structural factors. We begin, therefore, with brief description of these factors, drawing on CSO [Business Demography statistics](#).²

As a group, the AEC counties' labour market performance pre-COVID-19 was similar to the country as a whole. Employment growth from 2013-18 averaged 4.7 per cent per year, marginally above what we see for other counties at 4.6 per cent (excluding Dublin). Within the region, some counties, such as Sligo, Leitrim, and Roscommon, had comparatively low growth of 2.2-3.2 per cent per year on average.³

The enterprise structure in the AEC differs from other parts of the country, and Dublin in particular. Workers in the 'business economy' are far more likely to work in very small firms: 34 per cent work in firms with under-10 employees, compared to 15.8 per cent in Dublin. Some individual counties such as Leitrim and Roscommon again stand out, with almost half of workers in very small firms and few in very large firms, signifying a lack of multinational presence, amongst other things. This is relevant because small firms may find it more difficult to adjust and be resilient to the COVID-19 shock, in terms of liquidity and cost management. Recent [Central Bank analysis](#) shows that smaller firms are more likely to take-up loan payment breaks since the onset of COVID-19, even after controlling for sector and region.

A long-term pattern observed in the AEC is the concentration of employment towards tourism, agriculture, traditional sectors, and public services.⁴ Figure 1 compares sectoral employment using Census 2016 data. The AEC counties have a much lower share of employment in knowledge intensive services sectors that are more conducive to remote working (*Financial, Insurance & Real Estate, Information & Communications, and Professional, Scientific & Technical activities*) and exhibit a greater reliance on public services (*Health, Education, and Public Administration*), industry (largely manufacturing) and agriculture. Table A1 in the Appendix provides county level data.

² It is important to note that the geographic breakdown of Business Demography is an approximation. Each enterprise is related to its address as registered with Revenue. A company with multiple locations is only counted once where its head office is registered. Employees are assigned to the county where the head office is located.

³ The figures quoted relate to the 'business economy' – NACE Rev 2 sectors B to N(-642). The business economy excludes public services. It should be noted that Census data shows that five of the six slowest growing counties in terms of employment growth from 2011-2016 were in the Western Region ([WDC, 2020a](#)).

⁴ Traditional sectors refer to all Industries (NACE 05 to 35) excluding the "Modern" sector; NACE 20.00 - 21.20 Chemicals and pharmaceuticals, NACE 26.00 - 27.90 Computer, electronic, optical and electrical equipment, NACE 18.20 Reproduction of recorded media and NACE 32.50 Medical and dental instruments and supplies.

Table 1. Characteristics of regional labour markets

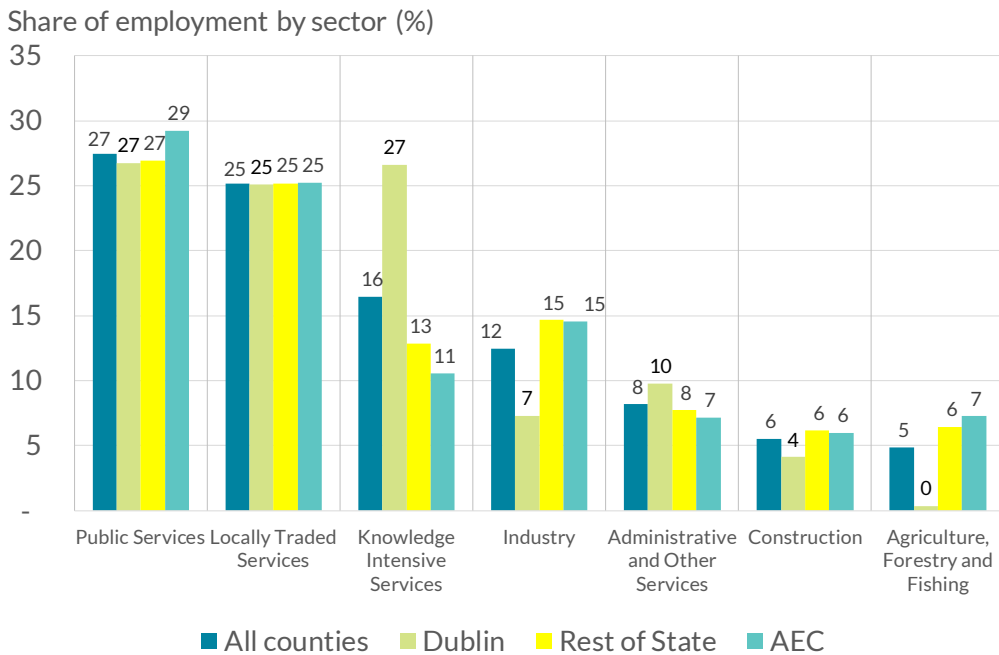
	Share of national employment (per cent)	2013-18 employment growth (average annual per cent)	Share of very small enterprises (<10 empl)	Share of large enterprises (>250 employees)
All counties	100.0	4.6	25.9	32.6
Dublin	47.0	4.4	15.8	48.0
Rest of State (excl. Dublin)	34.5	4.6	35.3	19.3
AEC	18.5	4.7	34.0	18.2
<i>consisting of...</i>				
Clare	1.9	3.8	34.0	20.3
Donegal	2.2	5.1	37.8	8.5
Galway	4.5	5.0	30.6	20.6
Kerry	2.5	6.0	36.4	16.7
Leitrim	0.4	2.2	46.6	0.0
Limerick	3.3	5.6	29.8	24.2
Mayo	2.0	3.5	36.3	18.5
Roscommon	0.7	3.2	46.1	0.0
Sligo	1.1	3.0	30.1	28.2

Source: CSO Business Demography 2018 (Table BRA08). Note: The data refers to the 'Business Economy' and thus excludes public services. The Business Economy is defined as NACE Rev 2 sectors B to N(-642).

While the share of locally traded services (*Wholesale & Retail, Accommodation & Food Services, and Transport & Storage*) is comparable with the rest of the country, the composition within this broad sector varies. The AEC counties have a comparatively higher share in the highly COVID-exposed *Accommodation and Food* sector: 7.2 per cent versus 5.0 per cent for other counties. Counties such as Kerry (10.5 per cent), Donegal (7.9 per cent) and Mayo (7.6 per cent) stand out.

A higher reliance on agriculture also suggests potential comparative Brexit-related vulnerability. [Daly and Lawless \(2020\)](#) show that there are no individual sectors that are heavily exposed to the dual shocks of Brexit and COVID-19. However, some counties may in fact be dually exposed. For example, the combined share of the labour force employed in *Agriculture, Forestry and Fishing, Wholesale and Retail and Accommodation and Food* is higher in all AEC counties than the national average, at 24 percent. Kerry (32 per cent) and Mayo (30 per cent) stand out.

Figure 1: Broad sector employment shares by region



Source: Own Calculations from Census 2016. See Table A1 for county-level figures. Note: “Locally Traded Services” = Wholesale & Retail, Accommodation & Food Service, and Transport & Storage; “Knowledge Intensive Services” = Financial, Insurance & Real Estate, Information & Communications, and Professional, Scientific & Technical activities; Public Services = Health, Education, and Public Administration. ‘Rest of State’ is all non-AEC counties, excluding Dublin.

On a more positive note, growth opportunities may exist in the medical device sector (industry) largely concentrated in Sligo, Mayo, Galway and Limerick. High levels of public service employment provide a short-term employment cushion but points to a potential structural issue for growth. Pearson’s correlation coefficient suggests that a higher share of public service employment is correlated with lower levels of employment growth in recent years.⁵

Composition drives cross-county variation in labour market impact of COVID-19

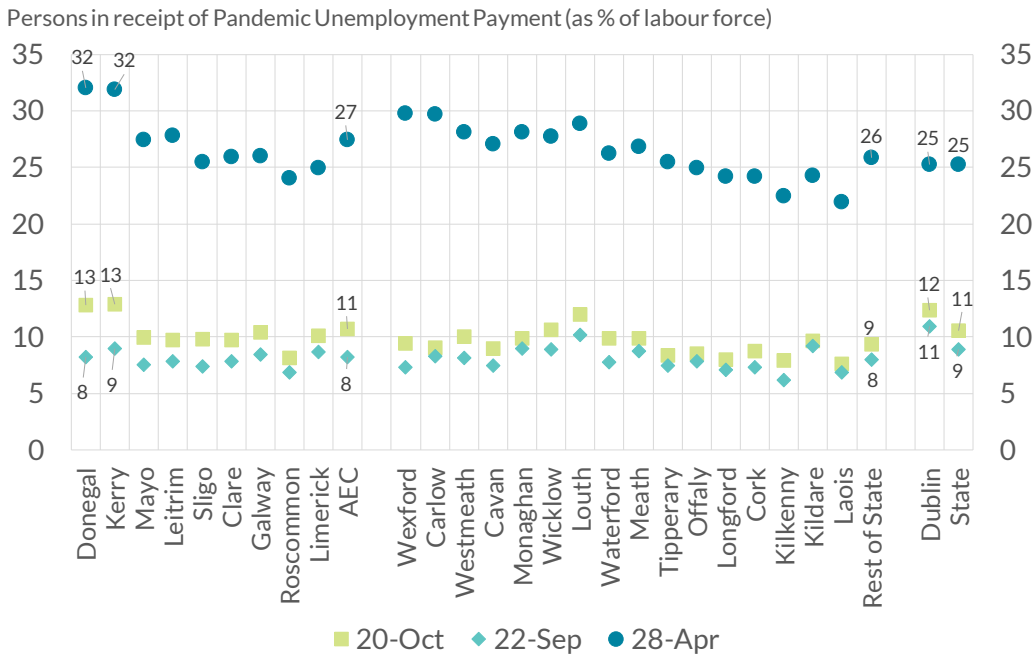
Given the stylised facts above, it is unsurprising that the AEC counties were severely affected by the initial restrictions in April/May (WDC, 2020b). In April, Kerry and Donegal had almost a third of their labour force in receipt of the Pandemic Unemployment Payment (PUP), higher than any other counties (Figure 2). The same counties also saw the largest decline in PUP numbers (as a percentage of the labour force) through to early-September.

The pace of decline in PUP claims slowed markedly through September. Prior to the re-introduction of nationwide restrictions in October, PUP numbers in most counties accounted for 9-10 per cent of the labour force; Dublin was the highest, at 11 per cent. Tighter restrictions in October, initially with Dublin and Donegal

⁵ Pearson’s correlation coefficient is a measure of the strength of the association between two variables and is bounded between -1 (perfectly negatively correlated) and +1 (perfectly positively correlated). The correlation coefficient was -0.68 including Sligo (moderate to high negative correlation) and -0.55 excluding Sligo (moderate negative correlation).

moving to Level 3, followed by all counties, saw PUP numbers track back up in recent weeks. The largest percentage increases were in Donegal and Kerry, where the PUP shares jumped to 13 per cent of the labour force, from 8 to 9 per cent in September. These two counties drive the larger increase we see for the AEC as a group in recent weeks, mirroring their experience during April/May restrictions.

Figure 2: Pandemic Unemployment Payments recipients as a percentage of the labour force



Notes: Week 18 (28 April) and Week 38 (22 Sep) PUP by county from CSO (Table LRW03, downloaded 19.10.20). Data for 20 October from DEASP (downloaded 19.10.20). Labour force by county from Census 2016. 'Rest of State' refers to all non-AEC counties, excluding Dublin.

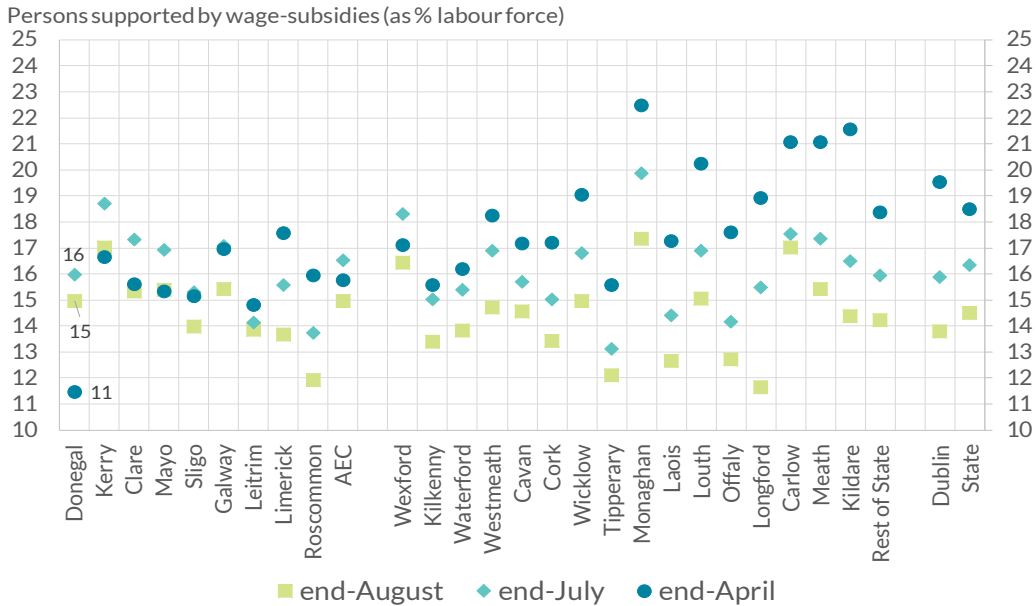
Tracking what happens to former-PUP claimants sheds further light on the regional labour market experience. During the summer re-opening phases there was a steady flow of former-PUP claimants onto the Temporary Wage Subsidy Scheme (TWSS), now the Employment Wage Subsidy Scheme (EWSS).⁶

After the initial phased re-opening, from April to end-July, wage subsidy supports *increased* in four of the nine AEC counties (Clare, Donegal, Kerry and Mayo in Figure 3). In fact, with the exception of Wexford, *all* of the counties where wage subsidies rose during this period were in the AEC region. During this phase, only Limerick and Roscommon experienced material declines amongst AEC counties, with Galway, Leitrim and Sligo all broadly steady. By end-August, almost 17 per cent of the AEC labour force were supported by wage subsidies.

⁶ A forthcoming *Economic Letter* on 'Wage Subsidies and Job Retention' by Keenan and Lydon (2020) discusses the recent dynamics of wage subsidies.

Data on numbers supported by wage subsidies comes out at a longer lag than PUP data. The latest information is for end-August (the square marker in Figure 3), roughly the last date before changeover to the EWSS in September. By this time, the cumulative easing of restrictions saw the numbers supported by the wage subsidies fall right across the country, including in AEC counties.

Figure 3: Wage subsidy recipients as a percentage of the labour force

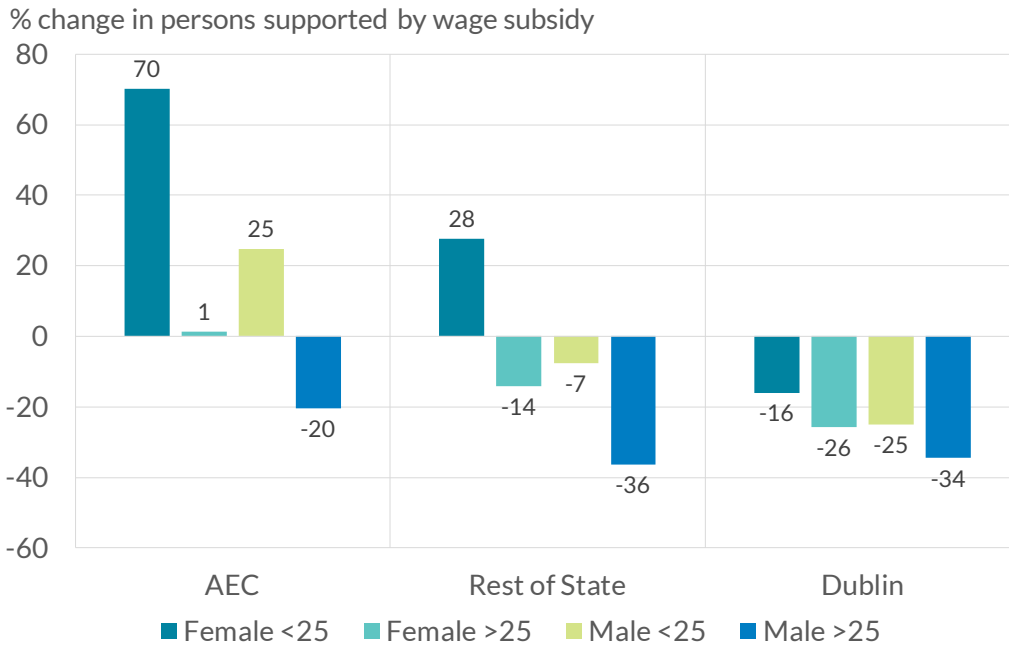


Notes: TWSS by county from CSO Table LRW10 (downloaded 19.10.20). End-April is Week 18 in the CSO data, end-July is Week 32, end-August is week 35. Labour force by county from Census 2016. 'Rest of State' refers to all non-AEC counties, excluding Dublin.

The headline wage-subsidy statistics disguise considerable variation in wage-subsidy support by age, gender and region. Figure 4 compares changes in *numbers supported* by the subsidy from end-April to end-August, *within* age-gender groups. In AEC counties, the number of young (under-25) female workers supported by TWSS increased by 70 per cent since April. Younger male workers rose by 25 per cent. In other counties, excluding Dublin, increases amongst younger female workers of 28 per cent also stands out, albeit not as large as the proportionate increases in the AEC. Wage subsidy supports have declined for all groups in Dublin, with larger falls for older males (over the age of 25). Across most counties, the decline in wage subsidy support is skewed towards older age-groups, and males in particular.

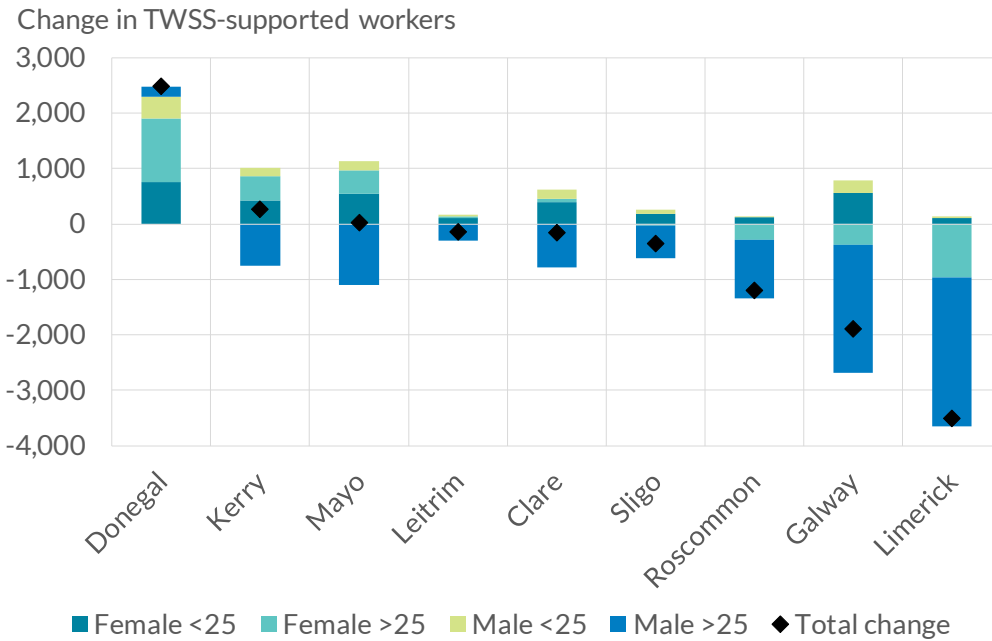
As with all of the AEC data presented thus far, there are distinct county-level differences. Figure 5 shows the contribution by age and gender to the *net* changes in TWSS-supported workers since end-April by county. This re-enforces the gender and age pattern, with female and younger workers (including some male), increasing over time. Older male workers are, in contrast, largely flowing-off TWSS, the one exception is Donegal, where all groups increased.

Figure 4: Percentage change in numbers on wage subsidy by gender & age



Notes: See notes for Table 3. Comparisons for end-April versus end-August (week 35 in CSO data). 'Rest of State' refers to all non-AEC counties, excluding Dublin.

Figure 5: Net changes in wage-subsidy supports (end-August versus end-April)



Notes: See notes for Figure 3. Comparisons for end-April versus end-August.

There are important regional dynamics at play here as 55.4 per cent of workers in *Accommodation and Food Services* in the seven Western Region counties are female, higher than the national share of 52.8 per cent. In Donegal and Mayo, the female share is closer to 60 per cent. Given the importance of tourism activity and the accommodation sub-sector in Donegal and Mayo it is likely that female workers are more likely to be employed where there is a reliance on tourism (WDC, 2019). In a forthcoming *Economic Letter*, Keenan and Lydon (2020) show

that the increase in TWSS-supported workers is strongly correlated with the share of workers by county and gender in *Accommodation and Food Services*.⁷

Whilst we focus on the labour market effects in this *Letter*, the regional COVID-19 impact is also evident in other data. For example, recent Central Bank analysis on debt repayment breaks for [households](#) and [firms](#) finds similar cross-county patterns. Notably, both Donegal and Kerry – counties with significant negative labour market shocks – have the largest within county share of owner-occupier mortgage borrowers on payment breaks (within the AEC), at 12 and 14 per cent of loans respectively.

Labour demand: insights from job posting trends

This section uses data from *Indeed* to analyse how job posting trends have changed since the onset of the COVID-19 restrictions. Job postings are a timely indicator of labour demand, and more broadly, of firms' expectations of future demand. Job posting trends are also positively correlated with [cross-county patterns of employment growth](#) and growth in [new hires](#). It is important to note that the job postings data used here runs to early-September 2020, pre-dating some of the recent tightening of restrictions. The number of job postings in Roscommon and Leitrim can be low. For robustness, we therefore group these two counties in this analysis.

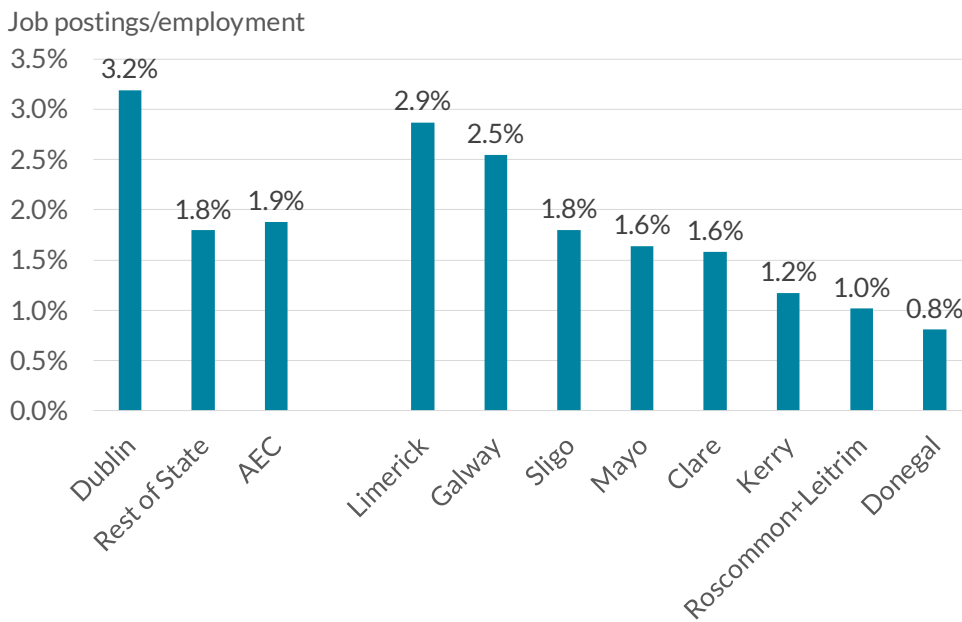
We first show cross-county variation in the ratio of job postings to employment ('vacancy rate') *pre-COVID-19*, in 2019.⁸ Understanding the regional pattern before the shock is important context for interpreting the most recent trends.

Generally speaking, the vacancy rate based on *Indeed* job postings was lower outside of Dublin, at just under 2 per cent of employment, compared to 3 per cent in Dublin. Within the AEC, counties with larger cities – Galway and Limerick – looked similar to Dublin; whereas the other counties typically had a pre-COVID-19 vacancy rate of 1 to 1.5 per cent. Donegal, Leitrim and Roscommon stood out with relatively lower rates of 0.8 to 1 per cent. This may, in part, relate back to the structural employment issues highlighted above.

⁷ Plotting changes in TWSS-supported workers by gender and county against the share of workers in the Accommodation and Food Sector, they find a correlation coefficient of 0.75.

⁸ The 'vacancy rate' in this *Letter* is *Indeed* job postings as a proportion of employment. The CSO also publish a vacancy rate in the [EHECS](#) release. In levels, this tends to be *lower* than the rate calculated using *Indeed* postings, because the number of postings on *Indeed* is typically larger than the number of vacancies recorded in EHECs. However, [Lydon and Adrian \(2019\)](#) show that the trend growth in *Indeed* postings and CSO vacancies is very similar.

Figure 6: Job postings as a percentage of employment, pre-COVID-19



Notes: Job postings are the average of daily data from *Indeed* for 2019. Employment is county-level ‘persons engaged’ from *CSO Business Demography* in 2018 (Table BRA08). As the job postings numbers for Roscommon and Leitrim can be quite low in absolute terms, we group the two counties here for robustness. ‘Rest of State’ refers to all non-AEC counties, excluding Dublin.

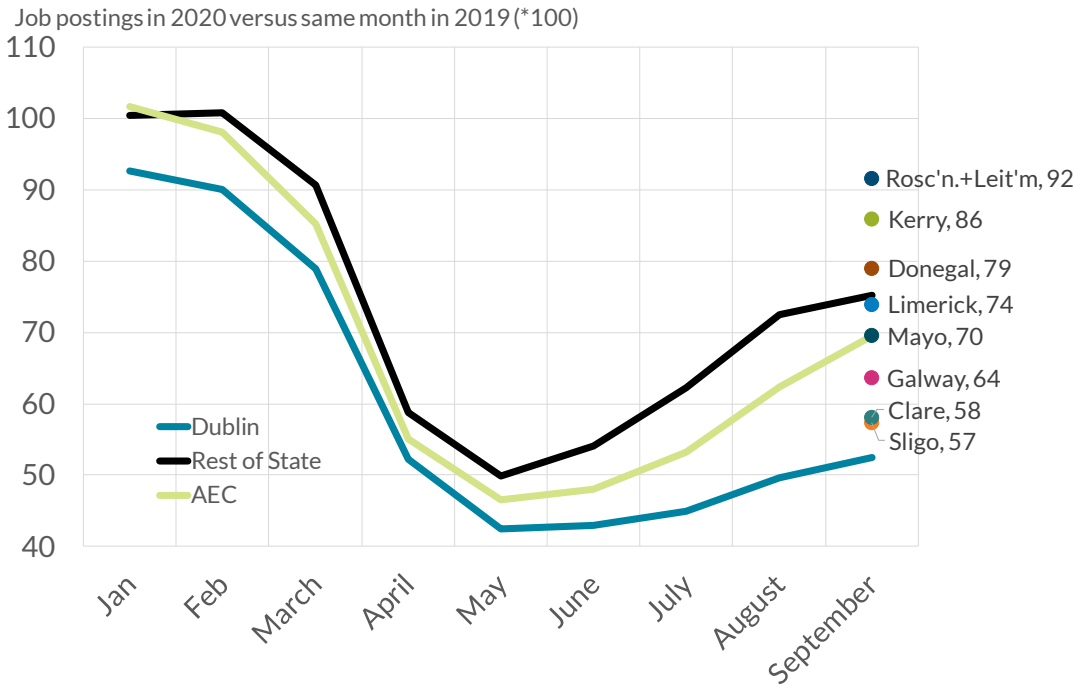
The pre-COVID-19 vacancy rates are important context for Figure 7, which shows job posting trends to September 2020, relative to the same month in 2019. The initial fall in postings during March, April and May was broadly similar across the Dublin, AEC and Rest of State. After this, however, Dublin lagged behind. By September, counties outside Dublin were 20 to 25 per cent below 2019 levels, whereas Dublin was still almost 50 per cent down. One explanation is that the higher concentration in Dublin of jobs with greater potential for working from home has hampered the daily economic activity that rely on the footfall of workers commuting into Dublin. [Similar trends have been reported in London](#), for example. Dublin may also be less attractive for domestic tourism during a pandemic given its high population density, and thus may benefit less from ‘staycation’ activity as a result. For an examination of footfall nationally, in Dublin, and the AEC using Google Mobility data see [WDC \(2020c\)](#).

The September 2020 data for individual counties shows significant within-region variation. The ‘rebound’ in postings for Kerry, Roscommon/Leitrim and (to a lesser extent) Donegal might suggest a more optimistic outlook.⁹ However, there are two important factors to consider. Firstly, this represents a return to a level of job postings that was already relatively weak pre-COVID 19 (Figure 6). Secondly, whilst postings might have returned closer to previous levels, the number of unemployed persons has increased considerably. This motivates the final chart,

⁹ The types of jobs, including sectors, is also important. For example, Education and Health jobs had a large off-flow from PUP in August/September. As shown above, some of these counties have a greater share of compared to, say, Dublin, which could flatter the job posting trend.

Figure 8, which plots the number of unemployed per job posting in September 2019 and 2020.

Figure 7 Job posting trends (indexed to same month in previous year)



Notes: Job postings data from Indeed to 4 Sep 2020, daily data averaged up to month. 'Rest of State' is all non-AEC counties, excluding Dublin.

The number of unemployed person per job vacancy or posting is commonly used in [labour market models](#) to understand the dynamics of hiring, job match quality and wage growth. It is also a useful metric for thinking about the scope for [Active Labour Market Policies](#) (ALMPs) to reduce unemployment. ALMPs cover a wide variety of activities, including training, help with job search and employer-employee matching. When we include all PUP recipients in the pool of unemployed, the number of unemployed persons per job posting rises from three (in September 2019) to fourteen nationally (in September 2020). The CSO has indicated that including *all* PUP recipients in the pool of unemployed in September is likely an [upper bound](#).¹⁰ This is because it includes everyone who has lost an income source due to COVID-19. Some PUP recipients – for example students, casual workers and some part-time – might not be 'formally' considered as 'unemployed' under ILO definitions – that is, if they are not actively seeking work, or available to start a new job within the next two weeks.

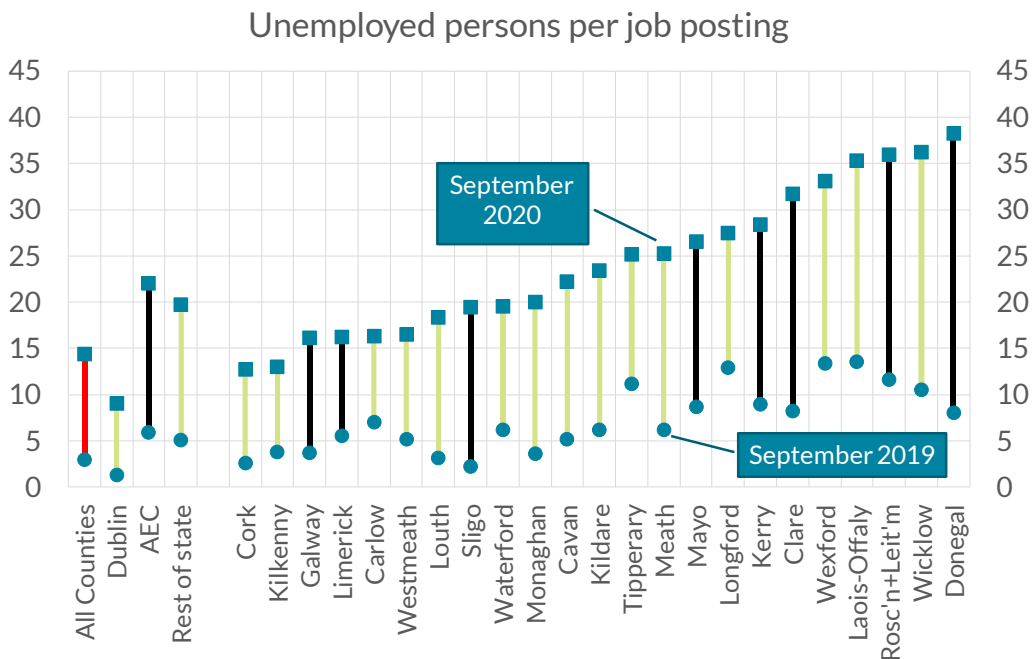
Some parts of the country had very tight pre-COVID labour markets – such as Dublin and Sligo with a ratio of between one and two.¹¹ By September 2020,

¹⁰ The lower bound would be if no PUP recipients end up as 'formally' unemployed, that is, according to the ILO definition of 'unemployed'. In this case, we estimate the lower bound number of unemployed per job posting at five in September 2020, up from three in September 2019.

¹¹ It is important to remember that not all filled job postings directly lead to hire *from* unemployment. There are many different dynamics at play, not least job churn, i.e. workers moving from job-to-job. In fact, as [Lydon and](#)

despite a relatively slower recovery in postings, Dublin still had the lowest ratio, at nine unemployed persons per posting. This reflects the fact that in September 2020 Dublin still had the highest *share* of postings, at around 50 per cent, down from [60 per cent pre-COVID-19](#). Structural factors have had an impact, with Dublin’s relatively high share of knowledge-intensive jobs (Figure 1) playing a role.

Figure 8 Number of unemployed persons per job posting



Notes: Job postings data from Indeed to 4 Sep 2020, daily data averaged up to month. For cell-size reasons, we group Laois-Offaly and Roscommon-Leitrim. Unemployment rates are from the live-register adjusted for county level differences between the live register and the unemployment rate based on census 2016. The September 2020 unemployment rate includes PUP recipients. Live Register and PUP data is from CSO Table LRW10, for early September (week 36), in order to align to the job posting data. ‘Rest of State’ is all non-AEC counties, excluding Dublin.

Within the AEC, there are again considerable differences. Galway and Limerick have had a similar experience to the country as a whole. Sligo was broadly in the middle. Towards the top end in both levels and changes were Clare, Donegal, Kerry, Mayo and Roscommon/Leitrim. Despite broadly similar starting positions, at around 10 unemployed persons per job posting, the recent data points to significant challenges for potential job seekers in the latter three counties, with 32 to 38 unemployed persons per job posting.

To align with the county-level job postings data, the live register and PUP data in Figure 8 is for early-September. PUP numbers in particular are expected to rise as a result of a tightening of restrictions in October. The early evidence of this, in Figure 2, suggests some AEC counties – notably Donegal and Kerry – could be

[Staunton \(2018\)](#) showed, half of new hires in 2018 – when the labour market was relatively tight – were job-to-job switchers. This share is pro-cyclical, when there is more slack, i.e. unemployment is higher, more new hires tend to be from unemployment.

more affected, as was the case during the initial phase of restrictions in April/May. In contrast, the county-level differences in the reaction of job postings to the initial restrictions is relatively small, although the accumulated impact of more restrictions could lead to different dynamics this time around. Overall, we expect the number of unemployed per job postings to rise in response to the latest restrictions, in a way that will likely reinforce the regional differences highlighted in Figure 8.

Conclusion

This *Letter* shows how pre-existing employment patterns and structural issues are important factors in understanding the regional dynamics of the labour market shock. The Western Region and AEC have a distinct enterprise structure that is more heavily reliant on micro-enterprises and a historical pattern of concentrated employment towards tourism, agriculture, traditional sectors and public services. The greater initial adverse employment shock to counties in the AEC should not have been surprising given these stylised facts. We have observed consistent within-region variation across the various dimensions discussed and how this variation may be driven by the interaction between COVID-19 exposure and the composition of economic activity and employment structures at the county level.

The variation in terms of PUP claimants initially subsided through the summer re-opening phases. More recently, and in response to tightening restrictions, PUP numbers have started to rise again. Early indications are that the increases broadly follow the regional patterns we saw during the initial phase of restrictions. During the easing of restrictions in the summer, there was a significant regional element in the flow of former-PUP recipients to TWSS. This likely reflects a concentration of workers in accommodation, food and tourism-related sectors. Related to this, the number of younger, and in particular female, workers supported by wage subsidies has increased markedly in recent months.

The analysis of job postings at the county level suggests that caution should be urged in inferring that the challenge of the recovery from the COVID-19 crisis will be based purely on short to medium term COVID-19 exposure. The structural issues discussed throughout this *Letter* will play a key role in this regard.

Table A1. Sector distribution of employment – Western-AEC counties

	Agriculture, Forestry and Fishing	Industry	Construction	Locally Traded Services	Knowledge Intensive Services	Public Services	Administrative and Other Services
Clare	7%	16%	5%	23%	10%	25%	7%
Donegal	7%	9%	6%	24%	10%	29%	7%
Galway	5%	16%	5%	22%	11%	27%	6%
Kerry	9%	12%	6%	29%	10%	27%	7%
Leitrim	9%	12%	5%	21%	8%	31%	6%
Limerick	6%	16%	5%	25%	12%	28%	8%
Mayo	9%	14%	6%	25%	7%	27%	6%
Roscommon	9%	13%	6%	22%	8%	30%	6%
Sligo	7%	13%	4%	22%	8%	33%	7%

Source: Census 2016.



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