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EB: Evidence Brief

Benefit numbers as a timely indicator for the labour market

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New Zealand Government

**Unite
against
COVID-19**

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Disclaimer

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Purpose

The COVID-19 pandemic is having an unprecedented and rapid impact on the economy and so there is a need for an up-to-date picture of the labour market. To do this we may need to look at less traditional but more timely labour market indicators in conjunction with the official unemployment statistics.

The purpose of this evidence brief is to explain how benefit numbers can be one of a range of useful data sources that can provide a timelier indication of the state of the labour market for decision-makers and the public.

Key Points

- Benefit numbers, particularly Jobseeker Support, may be used as a timely indicator for what is happening in the labour market (which is officially measured through the Household Labour Force Survey (HLFS)) because:
 - Jobseeker Support numbers generally move in-line with the HLFS unemployed over time
 - They are both driven by changes in economic conditions, even though they measure different things
 - Benefit numbers are updated in real-time and so we can monitor them more frequently
- It is important to note that this evidence brief does not aim to estimate what the unemployment rate will be using Jobseeker Support, and the HLFS is still a useful measure of labour market activity.
- There is an advantage to using Jobseeker Support numbers in understanding more about regional labour markets and sub-populations in New Zealand. This is because the HLFS estimates are based on a relatively small sample of 15,000 households, whilst benefit numbers are a view of the entire benefit population. The volatility (and uncertainty) of the HLFS can increase with more breakdowns of the population.
- Known historical relationships may not be reliable in the current environment given we have an economic shock caused by a global pandemic and restrictions for people to freely move and interact.
- While Jobseeker Support numbers are a reasonable labour market indicator, there are still limitations to using them as a proxy. For example, benefit numbers are essentially a measure of income support, which can be affected by policy and operational changes and therefore the imprecise relationship with official unemployment can also alter.

Unemployment statistics have a publication lag, which means they do not provide an up-to-date picture of the labour market in the current environment

The COVID-19 pandemic is having an unprecedented and rapid impact on the economy and so there is a need for up-to-date labour market indicators. The HLFS is the official measure of labour market statistics in New Zealand, including the unemployment rate. However, it has a publication lag of around five weeks and covers an average of the weeks across a quarter. This means that the March 2020 quarter HLFS release reflected what the labour market looked like on average from the beginning of January 2020 to the end of March 2020.

There are also a range of other useful measures that tell us about labour market conditions, such as measures of employment in the HLFS or filled jobs and hours worked (based on a survey of employers) or the more recent Employment Indicators series (using taxation related data), which provides an early indication of changes in the labour market. Statistics New Zealand also produces the official publication of economic growth (as measured by GDP). GDP growth has a publication lag of around twelve weeks after the end of the quarter.

However benefit numbers are an up-to-date source so they may be used as a timely indicator for the state of the labour market

We can monitor and analyse benefit data, including Jobseeker Support, on a weekly and monthly basis. Due to the unprecedented circumstances MSD is currently releasing this benefit data weekly. They should be used with caution due to volatility from week to week.

Because high-frequency Jobseeker Support data is available we can track them close to real-time. This allows policy makers to make decisions based on the most up-to-date information that is available on the economy in conjunction with the suite of labour market indicators.

One of the main reasons we can compare the two measures is because they move in-line with each other over time

The number of people on a Working Age Benefit (WAB) has generally moved in line with the number of people unemployed in New Zealand as measured by the HLFS over time. This is because:

- a significant portion (around 43% on average since 2013) of people on a WAB are on Jobseeker Support (JS), which is largely driven by labour market conditions
- sole parents are also closely linked to the labour market, impacting the number of people on Sole Parent Support (SPS), making up around 23% on people on WABs on average since 2013.

However, there are differences between the two measures of the number of people on the Jobseeker Support benefit and the numbers unemployed in the HLFS since they measure different things and so short-term trends may not always align completely. Jobseeker Support numbers may relate to unemployment and the economic cycle but are largely about the need for income support. Whereas, the unemployment rate is

designed to measure the supply of labour or the 'degree of slack' in the economy to give policy makers a guide to capacity pressures.

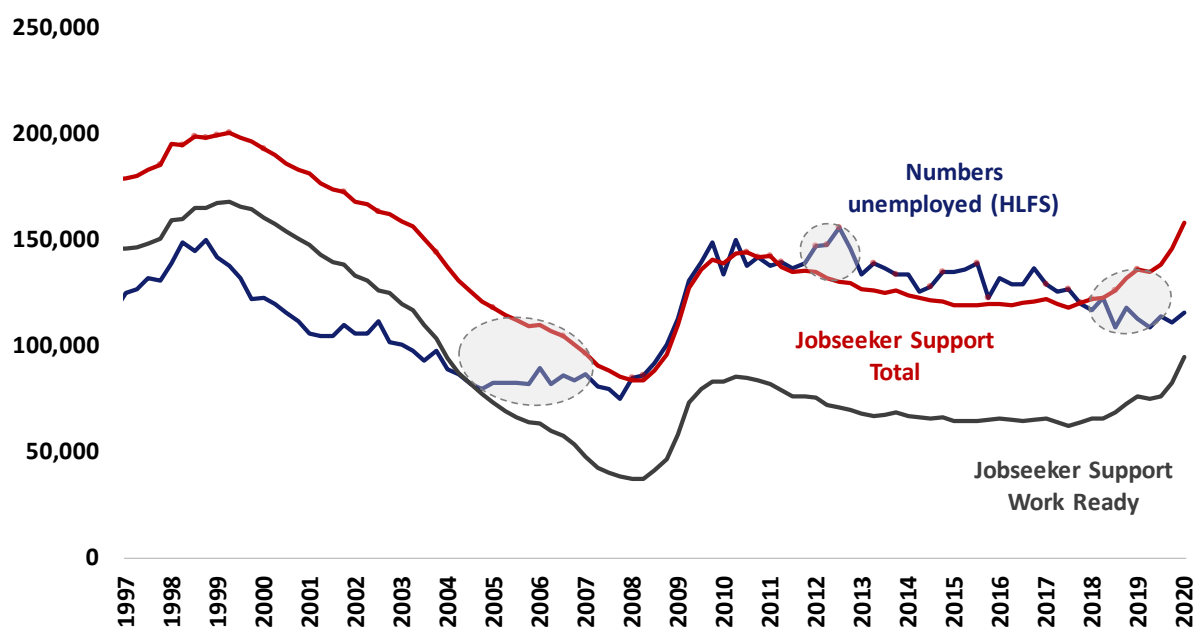
The differences mean that, for example, a person working part time hours will not be counted as unemployed in the HLFS but may still be on Jobseeker Support if they earn below a certain income threshold. On the other hand, a person could be counted as unemployed by the HLFS but not be on Jobseeker Support.

There have also been periods of a few quarters when the two series diverge, but historically they move in line with each other. This is shown below in Figure 1¹.

The reason that we are comparing Jobseeker Support numbers instead of working-age benefit numbers, to the numbers unemployed in the HLFS, is because the main driver of movement in working-age benefit numbers is the number of people on Jobseeker Support.

Figure 1: The number of people on Jobseeker Support and the number unemployed in the HLFS have generally followed the same trend over time, except for around three significant divergences which are shaded below.

Number of people on Jobseeker Support and people unemployed HLFS (Both Seasonally Adjusted)



Using the broader Working-Age benefit numbers, which includes SPS and Supported Living Payment (SLP), we compare it to the unemployment rate. We divided the WAB numbers by the labour force so it uses the same denominator as the HLFS unemployed.

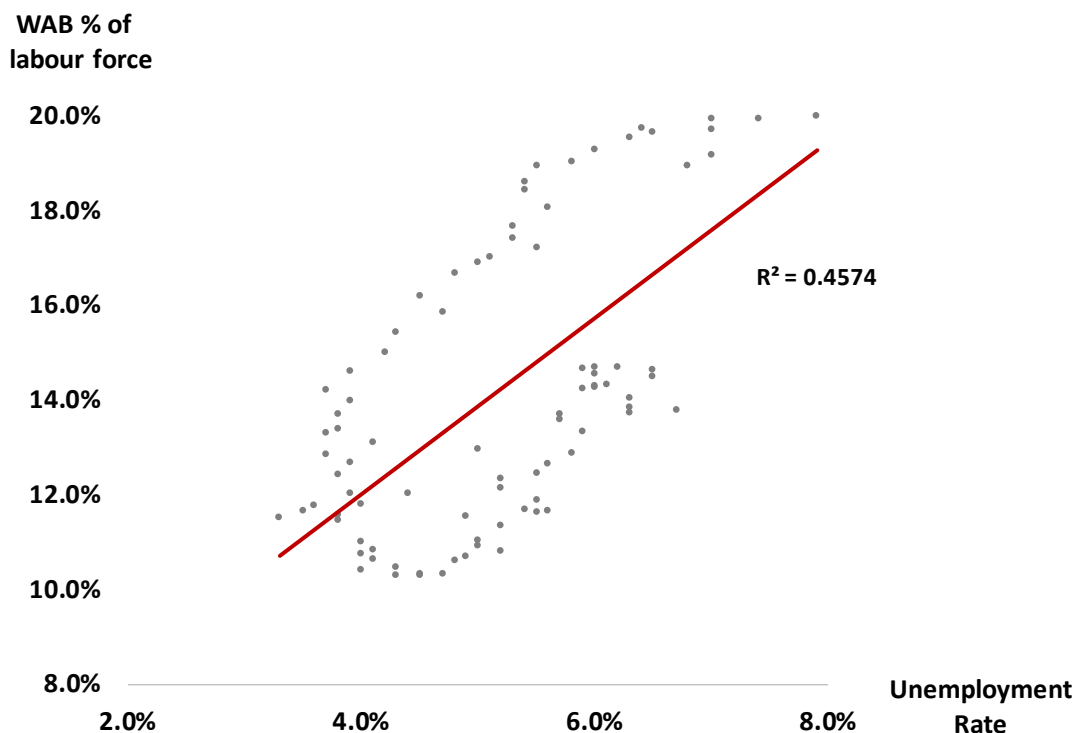
¹ The Jobseeker Support data is seasonally adjusted and data prior to July 2013 has been adjusted to approximate Jobseeker Support due to Welfare Reform changes. The adjustments are crude but capture the broad trends that is sufficient for our purpose.

Benefit numbers as a proportion of the labour force are moderately correlated with the unemployment rate.

Figure 2: Quarterly observations show that working-age benefits as a proportion of the labour force have a positive relationship with the unemployment rate

Working Age Benefit (WAB) vs Unemployment Rate

Both series seasonally adjusted and WAB as percentage of Labour Force



There appears to be a complex relationship between benefit numbers and the unemployment rate due to a “fishhook” pattern. A linear relationship may not tell the full story. There is a trade-off in comparing the benefit numbers with the unemployment rate since they measure different things. Benefit numbers measure the need for income support and so policy and operational changes may alter the relationship with official unemployment. The official unemployment rate measure, while it follows International Labour Organisation definitions, can also vary with sample composition changes, and response rates.

Benefit numbers and the unemployment measures move in-line with each other because they are both driven by economic conditions

Changes in economic conditions, as measured by GDP growth, have an inverse relationship with changes in benefit numbers and the unemployment rate.

GDP measures the amount of goods and services being produced in New Zealand which requires labour, as one input in the production of goods or services.

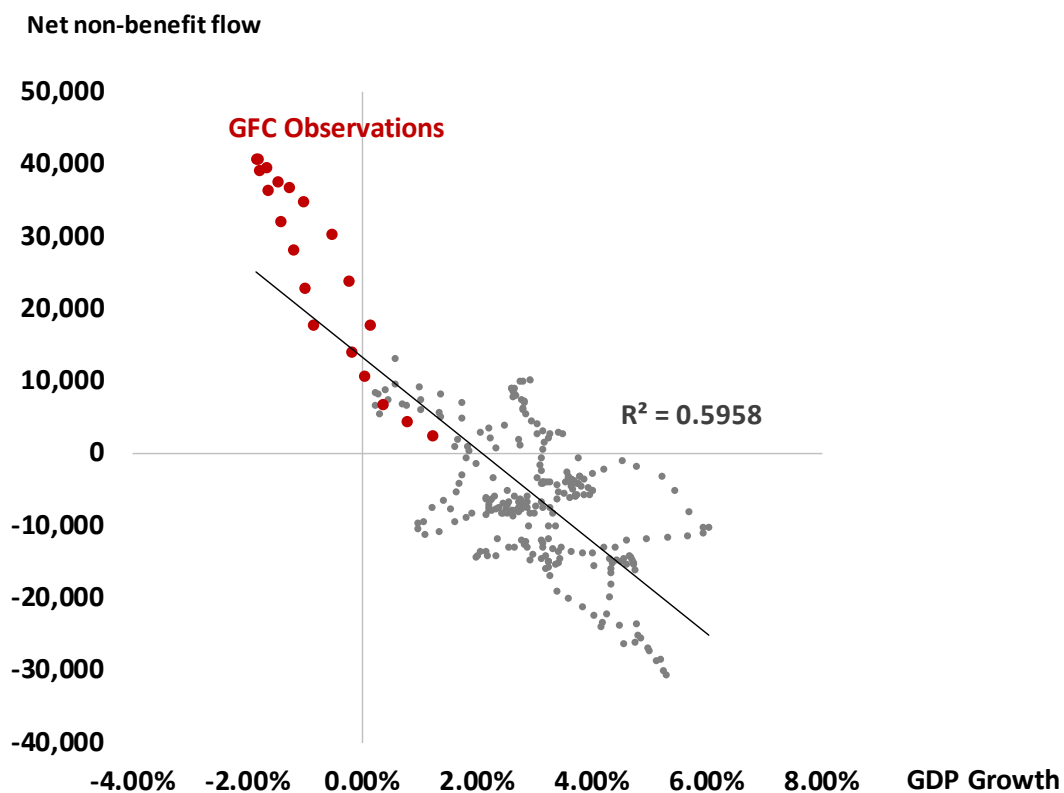
Economic conditions are a main driver of benefit numbers

Changes in GDP affects both the likelihood that a person comes onto Jobseeker Support Work Ready (inflow) and the likelihood they can leave off-benefit and into work (outflow) because increasing economic activity induces more people to be employed. The difference between the two is the net non-benefit flow.

The net non-benefit flow excludes impacts of transfers between other benefits and better captures the relationship JS Work Ready numbers have with the economy, as shown in Figure 3.

Figure 3: There is an inverse relationship between the net number of people moving between Jobseeker Support Work Ready and off-benefit (net non-benefit flow) and GDP growth (annual average).

Net Non-Benefit per Annum Flow vs GDP Growth



It is important to note that the benefits of economic growth do not impact all people equally and the need for income support reflects this unequal distribution.

While the relationship looks strong, there are very large variations at any point along the relationship, which can limit its usefulness in making predictions. For example, if annual average GDP growth was around 3%, then the plot above tells us that the JS Work Ready net non-benefit flow has been observed to be a net inflow of up to 10,000 per annum, or a net outflow of 15,000 per annum, giving a range of 25,000 between those two figures.

Known historical relationships may not be reliable in the current environment, given we have an economic shock caused by a global pandemic and restrictions for people to freely move and interact.

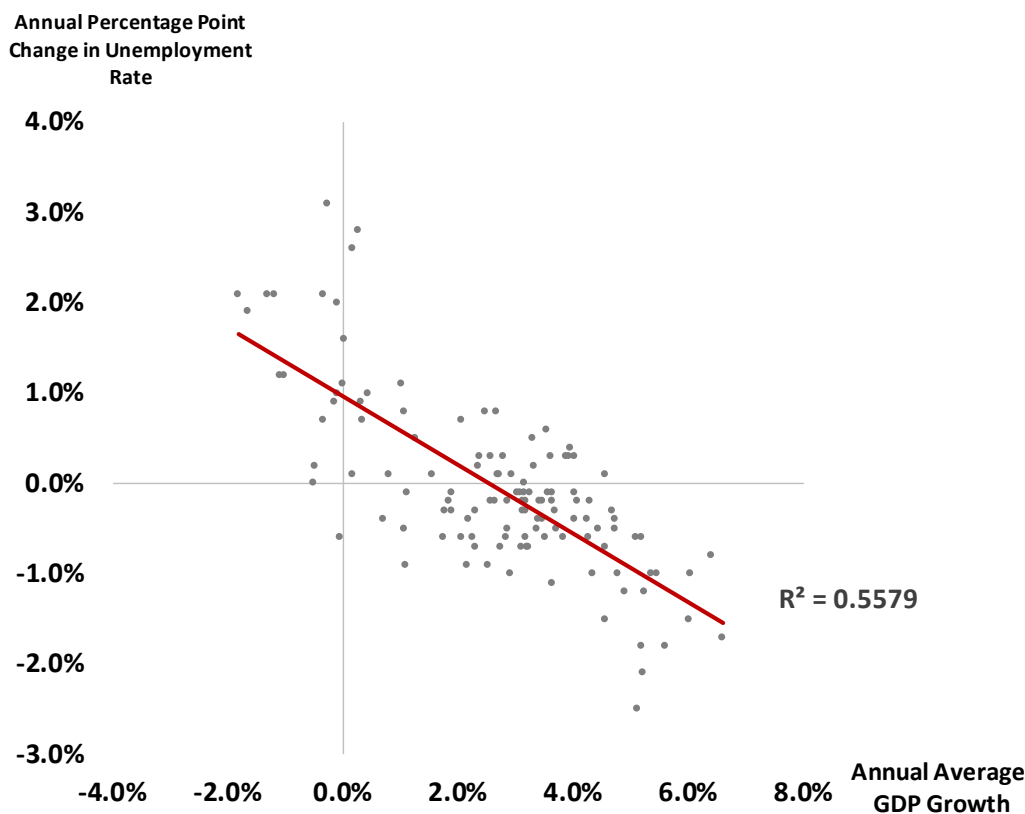
Highlighted in red in Figure 3 are the observations that equate to the Global Financial Crisis (GFC) period and we can see that most of the dots tended to cluster well above the average trend line which, would have led to a large underestimate of the impact.

The unemployment rate is also driven by economic conditions

Changes in the unemployment rate are also driven by changes in economic conditions. This is an empirical relationship first posited by Arthur Okun in 1962 and often referred to as Okun's Law². Figure 4 shows a relatively strong inverse relationship. Note too that, like in Figure 4, the 3% Annual Average GDP growth corresponds to anywhere between +1% and -1% point change in the unemployment rate, so an increase or a decrease may be observed.

Figure 4: There is an inverse relationship between the annual percentage point change in the unemployment rate and GDP growth (annual average).

Annual change in Unemployment Rate vs GDP Growth



Changes to employment (and unemployment) are often a lagging indicator compared to changes in real-time economic activity as the economy can slow while employment can remain unaffected for a few quarters (depending on expectations and credit conditions). Equally you can have 'jobless growth' while GDP figures seem to improve but employment does not. Employers are wary of increasing hiring at first, using more hours, more temporary part-time workers or more automation before employing more

²<https://mileskorak.files.wordpress.com/2016/01/okun-potential-gnp-its-measurement-and-significance-p0190.pdf>

people only when they (and their bank) are confident that improved conditions are here to stay.

Jobseeker Support numbers can tell us more about regional labour market trends and sub-populations

There is an advantage to using benefit numbers, particularly Jobseeker Support numbers, in understanding more about regional labour markets and sub-populations in New Zealand. This is because the HLFS estimates are based on a relatively small sample of 15,000 households and can be volatile. Volatility generally increases with additional breakdowns of the population.

Breakdowns of Jobseeker Support numbers can give us a high-frequency view of which sub-populations are being affected the most by changes in economic conditions particularly for different:

- Ethnicities
- Regions
- Age groups
- Genders.

For example, younger people (aged 18-34 years) tend to be more severely impacted by economic shocks, likely reflecting their position in the labour market with generally lower skill levels and more casual type jobs. High-frequency Jobseeker Support data allows us to observe these trends in a timely manner, which decision-makers can use to inform policy.

Next Steps

Since benefit data, including the number of people on Jobseeker Support, is timely and high-frequency, and long-term trends approximately follows the HLFS unemployment series, decision makers can use them to complement the range of other labour market indicators.

There are pros and cons to using benefit numbers as a timely labour market indicator, but overall they are useful in the current environment because we can observe the pace and depth of the effect of recessions sooner.

Having good information about what is happening in the labour market is important for monitoring and analysis, and from a macro-economic perspective. Real-time economic activity generally occurs before we see the effects show up in the labour market and before the economic activity is published through the official measure of GDP growth.

From a more general social policy perspective it is important to understand the labour market better with its link to poverty, life satisfaction and wider social inequalities.

This evidence brief does not include any impacts of the COVID-19 Income Relief Payment because it was finalised before the policy was announced. The introduction of the COVID-19 Income Relief Payment is likely to distort the traditional relationship we would expect to see in the increasing demand for Jobseeker Support.

MSD is continuing to develop a suite of products to support the Government's response to COVID-19 by releasing more data and information about what is happening in the benefit system.