

# Quarterly Employment Survey: June 2012 quarter

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## Key facts

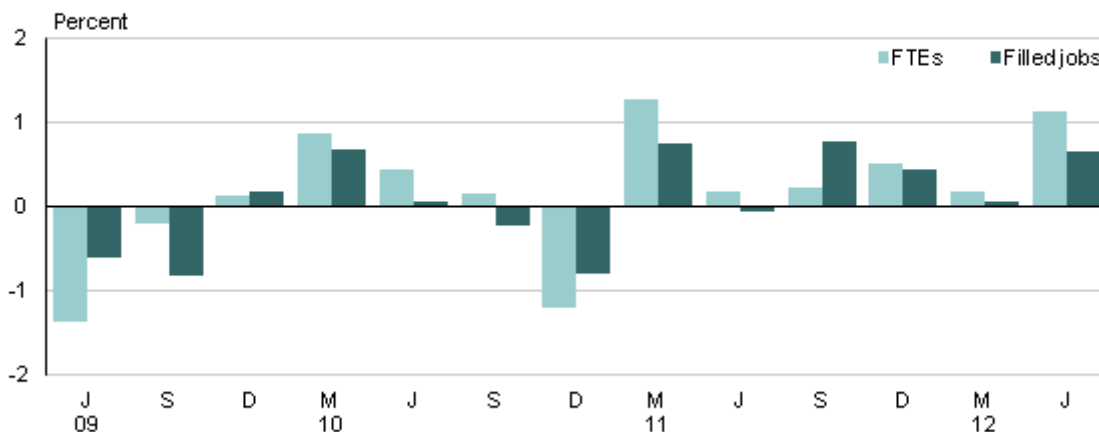
In the June 2012 quarter compared with the March 2012 quarter:

- The seasonally adjusted number of filled jobs rose 0.7 percent.
- The seasonally adjusted number of full-time equivalent employees (FTEs) rose 1.1 percent.
- Average ordinary time hourly earnings remained relatively unchanged (up 0.1 percent).

In the June 2012 quarter compared with the June 2011 quarter:

- The seasonally adjusted number of filled jobs rose 1.9 percent.
- The seasonally adjusted number of FTEs rose 2.0 percent.
- Average ordinary time hourly earnings rose 2.9 percent.

**Employment**  
Quarterly change  
June 2009 quarter to June 2012 quarter



Source: Statistics New Zealand

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## Commentary

- Number of jobs rise
- QES and LCI salary and wage rates rise
- Average earnings grow over the year
- Little change in average earnings over the quarter
- Hours rebound in June
- Canterbury shows signs of employment growth
- Related measures

All employment figures in this release are unadjusted unless otherwise stated.

## Number of jobs rise

All employment figures in this section are seasonally adjusted.

Businesses continued to add more jobs over the June 2012 quarter. The number of filled jobs rose 0.7 percent from the previous quarter and the number of full-time equivalent employees (FTEs) rose 1.1 percent. A strong rise in full-time employment (up 1.5 percent) offset a fall part-time employment (down 0.5 percent). This caused the number of FTEs to rise more than the number of filled jobs.

Employment continued to rise over the June 2012 year. The number of filled jobs rose 1.9 percent and the number of FTEs rose 2.0 percent during this period. Over half the annual rise in unadjusted filled jobs came from three industries: accommodation and food services (up 5.7 percent), construction (up 5.4 percent), and transport, postal, and warehousing (up 7.0 percent).



Source: Statistics New Zealand

## QES and LCI salary and ordinary time wage rates rise

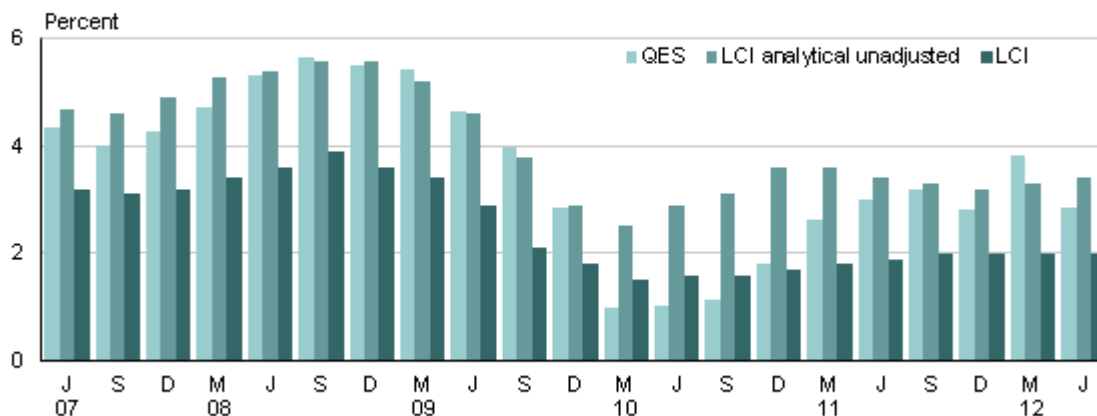
Annual percentage changes in salary and ordinary time wage rates vary between the Quarterly Employment Survey (QES) and labour cost index (LCI) measures.

**QES average ordinary time hourly earnings** rose 2.9 percent for the June 2012 year. The two industries that made the biggest contribution to this rise were: professional, scientific, technical, administrative, and support services; and manufacturing.

**LCI salary and ordinary wage rates** rose 2.0 percent over the same period, and **LCI analytical unadjusted series** rose 3.4 percent.

Salary and ordinary time wage rates are not seasonally adjusted in the QES or LCI.

**Annual percentage change in salary and ordinary time wage rates**  
June 2007 quarter to June 2012 quarter



Source: Statistics New Zealand

QES average earnings statistics are often compared with LCI salary and ordinary time wage rates. However, QES average earnings statistics reflect not only changes in salary and wage rates, but also compositional changes between and within businesses in surveyed industries. In comparison, the LCI measures changes in salary and wage rates for a fixed quantity (eg number of hours worked per week) and quality (eg experience and qualification) of labour input. The LCI analytical unadjusted series fixes the quantity of labour, but reflects quality change within the occupations in addition to price change.

See the [Data quality](#) section for more information.

## Average earnings grow over the year

**Average ordinary time hourly earnings** rose 2.9 percent (75 cents) over the June 2012 year, reaching almost \$27.

All industries contributed to the overall rise, but the biggest contributors were professional, scientific, technical, administrative, and support services (up 3.2 percent), and manufacturing (up 3.1 percent).

The rise in average ordinary time hourly earnings was similar between the **public sector** (up 3.1 percent) and **private sector** (up 2.9 percent).

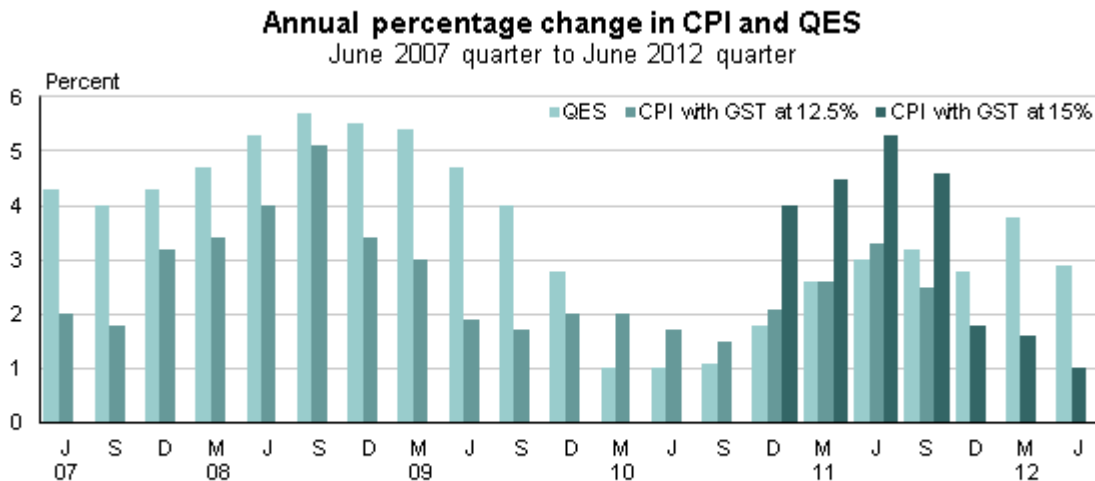
**Average ordinary time weekly earnings (by FTE)** rose 3.0 percent over the year (about \$30 a week). Again, the major contributors to this rise were professional, scientific, technical, administrative, and support services; retail trade; and manufacturing. Rises in earnings in these industries made up a third of the overall rise.



## Related measures

The prices of goods and services bought by households, as measured by the consumers price index (CPI) (see [Consumers Price Index: June 2012 quarter](#)), increased 1.0 percent in the year to the June 2012 quarter. The QES average hourly earnings for ordinary time (ie excluding overtime) increased 2.9 percent over the same period.

GST rose from 12.5 percent to 15 percent on 1 October 2010. This affected annual CPI movements from the December 2010 quarter to the September 2011 quarter. The graph below shows what the annual CPI percentage increases would be if prices collected from the December 2010 quarter to the September 2011 quarter were processed with GST of 12.5 percent for goods and services that are subject to GST. The latest CPI annual increase of 1.0 percent does not include most of the effects of the GST increase.



Source: Statistics New Zealand

Personal income tax rates decreased at the same time as the GST rate rose. However, since the QES measures changes in gross average hourly and weekly earnings, it did not directly reflect the reductions in income tax rates.

For more detailed data see the Excel tables in the 'Downloads' box.

## Definitions

### About the Quarterly Employment Survey

The Quarterly Employment Survey (QES) estimates the demand for labour by New Zealand businesses. From the survey responses, we estimate the levels and changes in employment; total weekly gross earnings; total weekly paid hours; average hourly and average weekly earnings; and average weekly paid hours in the industries we survey.

QES estimates the number of jobs filled, not the number of people employed. This means a person with multiple jobs during the reference week could be counted multiple times.

Data from QES about the total paid hours is used in compiling gross domestic product – economic activity for selected industries. QES average earnings statistics are used in calculating superannuation and paid parental leave.

### More definitions

**Filled jobs:** all full-time employees, part-time employees, and working proprietors.

**Full-time equivalent employees:** the number of full-time employees and half the number of part-time employees (full-time is defined as working 30 hours or more per week).

**Enterprise:** a business or service entity operating in New Zealand.

**Business Frame:** the list of all economically significant businesses in New Zealand, which is maintained by Statistics New Zealand.

**Industry:** determined from the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006. Businesses in QES are classified using ANZSIC06 industries.

For more information about ANZSIC06 and its implementation into the QES and other Statistics NZ collections, please see [ANZSIC 2006 – industry classification](#).

## **Related links**

### **Upcoming releases**

The *Quarterly Employment Survey: September 2012 quarter* is due to be released on 6 November 2012.

To [subscribe to information releases](#), including this one, please complete the online subscription form.

The [release calendar](#) lists all our upcoming information releases by date of release.

### **Past releases**

See [Quarterly Employment Survey](#) for more information on our previous releases.

### **Related information**

[Labour Cost Index \(Salary and Wage Rates\)](#) provides information on movements in base salary and ordinary time wage rates, overtime wage rates, and the following non-wage costs: annual leave and statutory holidays, superannuation, ACC employer premiums, and medical insurance.

[Household Labour Force Survey](#) provides New Zealand's official employment and unemployment statistics.

[Linked Employer-Employee Data \(LEED\)](#) provides statistics on filled jobs, job flows, worker flows, mean and median earnings for continuing jobs and new hires, and total earnings. LEED information is based on tax data.

[National Employment Indicator \(NEI\)](#) provides an early indication of changes in the number of filled jobs at the national level. The NEI covers filled jobs where employees were paid wages or salaries in the month, by an employer who filed an employer monthly schedule return with Inland Revenue. This includes jobs filled by self-employed people who pay themselves a wage or salary.

[New Zealand Income Survey](#) provides information on wages and salaries, self-employment, government transfers, and other transfer income.

For more information on the various income and wage measures, refer to [User guide for wage and income measures](#).

## Data quality

### Period-specific information

This section contains information about data that has changed since the last release.

- [Reference period](#)
- [Response rate](#)

### General information

This section contains information about data that does not change between releases.

- [Data source](#)
- [Imputation](#)
- [Accuracy of survey data](#)
- [Seasonally adjusted and trend series](#)
- [Consistency with other labour market statistics](#)
- [Timing of published data](#)
- [More information](#)

## Period-specific information

### Reference period

The reference period for the *Quarterly Employment Survey: June 2012 quarter* is the payweek ending on, or before, 20 May 2012.

### Response rate

The survey met its desired response rate in the June 2012 quarter.

The desired response rate by weighted FTEs is 89.0 percent. The June 2012 quarter response rate by weighted FTEs was 90.6 percent.

## General information

### Data source

The Quarterly Employment Survey (QES) is a sample of approximately 18,000 business locations selected from a population of economically significant enterprises in surveyed industries. Weights are allocated to each of the selected business locations. These represent the population weights based on employee counts sourced from the Business Frame.

An economically significant enterprise is defined as one that meets at least one of the following criteria:

- has greater than \$30,000 annual GST expenses or sales
- has at least three employees for its rolling mean employment (the average employee count over the previous 12 months)
- recorded over \$40,000 of income in the IR10 annual tax return
- is part of a group of enterprises



- is a new GST registration that is compulsory, special, or forced
- is registered for GST and involved in agriculture or forestry.

Businesses in the following Australian and New Zealand Industrial Classification 2006 (ANZSIC06) industries are not surveyed as part of the QES:

- A01 Agriculture
- A02 Aquaculture
- A04 Fishing, hunting, and trapping
- A052 Agriculture and fishing support services
- L6711 Residential property operators
- O7552 Foreign government representation
- O76 Non-civilian defence staff
- S96 Households employing staff
- T99 Not included elsewhere.

## Imputation

Imputation is the process of estimating data for surveyed businesses that do not respond. One of two methods of imputation is used.

- Ratio imputation – is used for businesses entering the sample in the current quarter. Data is imputed using the employee count from the Business Frame. This assumes the relationship between the employee count and earnings and hours data is robust.
- Historical imputation – is used for businesses that are in the sample in consecutive quarters. The imputed data is calculated by multiplying the previous quarter's data by the average movement of responding businesses that are in the same industry and of similar size.

For further information about the imputation methods, or the effects of imputation on the final dataset, please email [info@stats.govt.nz](mailto:info@stats.govt.nz).

## Accuracy of survey data

Survey data is subject to two types of possible error: sampling error and non-sampling error.

**Sampling error** is a measure of variability that occurs by chance because a sample of eligible businesses, rather than the entire population, is surveyed. The magnitude of the sampling error is controlled by the size of the sample and sound sample selection practice.

**Non-sampling error** includes errors arising from biases in the patterns of response and non-response, inaccuracies in reporting by respondents, errors introduced by modelled data, and errors in the recording and coding of data. Non-sampling error is, by definition, difficult to measure. The magnitude of non-sampling error is not measured.

## Seasonally adjusted and trend series

The X-12-ARIMA package is used to produce the seasonally adjusted estimates and trend estimates for selected QES series. Seasonal adjustment aims to eliminate the impact of regular seasonal events on time series. This makes the data for adjacent quarters more comparable, and ensures that the underlying movements in the time series are more visible.

All seasonally adjusted figures are revised each quarter. This enables the seasonal component to be better estimated and then removed from the series.

While seasonally adjusted series have the seasonal component removed, trend series have both the seasonal and the irregular components removed. Trend estimates reveal the underlying direction of movement in a series, and are likely to indicate turning points more accurately than seasonally adjusted estimates.

Trend estimates towards the end of the series incorporate new data as it becomes available and can therefore change as more observations are added to the series. Revisions can be particularly large if an observation is treated as an outlier in one quarter, but is found to be part of the underlying trend as further observations are added to the series. Typically, only the estimates for the most recent quarter will be subject to substantial revisions.

### **Consistency with other labour market statistics**

Statistics New Zealand publishes a suite of labour market employment statistics. These include the following releases:

- Household Labour Force Survey
- Linked Employer-Employee Dataset
- National Employment Indicator.

Because of differences in coverage and timing, each of these measures provides a different view of employment. See [Comparing our labour market statistics](#) for more information.

### **Comparing the QES and the labour cost index (LCI)**

The QES average earnings and LCI salary and wage rates are measures of labour costs paid by New Zealand businesses in the form of salary and wages.

The QES and LCI information releases are published on the same day each quarter and provide useful information on labour costs. The LCI provides a good measure of pure wage inflation, whereas the QES is a good measure of average hourly earnings, average number of hours paid in a week, or average weekly earnings from wages or salaries.

The following series are discussed below:

- QES average ordinary time hourly earnings (QES)
- LCI salary and ordinary time wage rates (LCI)
- LCI analytical unadjusted salary and ordinary time wage rates (LCI analytical unadjusted)

### **QES average ordinary time hourly earnings**

#### **Coverage**

The QES has a sample of approximately 18,000 business locations selected from a population of economically significant enterprises in surveyed industries. The QES includes jobs filled by paid employees of all ages. The QES does not include the earnings of those working in agriculture or fisheries or several smaller industries (see [Data source](#) for all exclusions), nor earnings from self-employment.

### **Timing**

The QES reference period is the payweek ending on, or before, the 20th of the middle month of the quarter.

### **Measure**

The QES measures the average gross earnings paid to employees. The QES reflects changes in the composition of the paid workforce, and changes to earnings paid by surveyed businesses within industries and between industries. These compositional influences do not affect the LCI series, as it controls for changes in surveyed job descriptions and the standard of job performed, as well as for changes in the relative importance of job descriptions within each sector, occupation, and industry.

Compositional effects **between** industries can affect the QES. This happens when industries with higher or lower earnings than the average total hourly earnings for all industries change in relative importance, and contribute more or less towards the average total hourly earnings for all industries.

For example, average total hourly earnings in the retail trade industry are lower than the national average, and represents about 10 percent of the total paid hours of all industries combined. If the retail trade industry increased total paid hours relative to other industries, the average total hourly earnings for all industries would fall, everything else being held constant, because there is a relative increase in influence from a lower-paying industry.

Compositional changes **within** industries can affect the QES in different ways. Changes in the composition of the paid workforce are reflected in the QES. Such changes could arise from changes between male and female, part-time and full-time, qualifications, experience, occupations, and the performance of employees. Changes can also arise from changes to paid earnings by surveyed businesses within industries.

For example, the average ordinary time hourly earnings for the manufacturing industry increased from \$24.51 in the June 2011 quarter to \$24.81 in the September 2011 quarter. This may reflect individual manufacturing employees being paid a higher wage or salary, or higher-paying businesses joining the industry. It may also reflect a change toward higher-paid occupations, or more highly skilled employees, within a manufacturing business. Any of these events would lift manufacturing average ordinary time hourly earnings. The change in skill level would be reflected in the unadjusted LCI, but not the LCI salary and ordinary time wage rates.

### **LCI salary and ordinary time wage rates**

#### **Coverage**

The LCI covers jobs filled by paid employees in all occupations and in all industries except private households employing staff. The LCI includes jobs filled by paid employees of all ages. The LCI tracks a sample of nearly 6,000 jobs at 2,100 businesses.

#### **Timing**

Each quarter, salary and wage rates are surveyed to find what employers pay at the 15th of the middle month of the quarter.

#### **Measure**

This LCI measures changes in the gross salary and ordinary time wage rates that employers pay to have the same job completed to the same standard. This means that only changes for the same quality and quantity of work are reflected in the index. In practice, this means surveying a given set of job descriptions and making adjustments for any changes to hours worked, duties

performed, experience, qualifications, or performance of employees filling the jobs. For example: an adjustment would be made to a skilled job being tracked in the LCI if a new employee who had just completed a bachelor's degree, with no prior work experience, replaced an employee with a bachelor's degree and 10 years' experience in the role. The term 'fixed quantity' refers to a specific amount of labour, in particular hours worked per week.

The LCI shows changes arising from collective employment agreements, and changes to match market rates, retain or attract staff, or reflect the cost of living. Changes to reflect individual performance, experience, qualifications, and responsibilities are not shown.

The LCI controls for changes in sector, industry, and occupation by assigning fixed weights. Weights reflect the relative importance of job descriptions for different combinations of sectors of ownership, occupation, and industry. This means a change in salary and wage rates for managers – which has a high relative importance – has more influence on the overall series than a change of the same size in salary and wages for clerical and administrative workers. To view the weights for LCI salary and wage measures, see the [Labour Cost Index \(Salary and Wage Rates\)](#).

### **LCI analytical unadjusted salary and ordinary time wage rates**

The LCI analytical unadjusted series has the same **coverage** and **timing** as the LCI.

#### **Measure**

The unadjusted LCI measures changes in salary and ordinary time wage rates for a fixed quantity of labour. It fixes the relative importance of industries and occupations, but does not fix the quality of labour within occupations. This means that any movement in the series will reflect changes in the cost of living, changes to match market rates, and to retain/attract staff, and may also include changes in labour quality. This could be a change in employee performance, qualifications, responsibilities and experience.

For more information on the various income and wage measures, refer to [User guide for wage and income measures](#).

#### **Timing of published data**

QES data is released within six weeks of the end of the reference quarter.

#### **More information**

See also [information about the Quarterly Employment Survey](#).

#### **Liability**

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## Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the files, see [opening files and PDFs](#).

1. Full-time equivalent employees (FTEs), actual, seasonally adjusted, and trend series
2. Filled jobs, actual, seasonally adjusted, and trend series
3. Full-time equivalent employees (FTEs), by ANZSIC06 industry
4. Total weekly paid hours, actual, seasonally adjusted, and trend series
5. Total weekly gross earnings, actual, seasonally adjusted, and trend series
6. Average weekly paid hours for FTEs, actual, seasonally adjusted, and trend series
7. Average weekly earnings for FTEs, by sector
8. Average hourly earnings, by sector
9. Average hourly earnings, by sex

### **Access more data on Infoshare and Table Builder**

Use [Infoshare](#) to access time-series data specific to your needs. For this release, select the following categories from the Infoshare home page:

Subject category: **Work income and spending**  
Group: **Earnings and Employment Survey (QES) - QEX**

Use [Table Builder](#), a free, online tool that enables you to extract the information you want. To access the release data on Table Builder, select the following tables from the home page:

Subject category: **Employment and Unemployment (Labour Market)**  
Table title: **Filled jobs by ANZSIC Group, Sex and Employment (000s)**