Hot Off The Press

Latest statistics from Statistics New Zealand

Statistics New Zealand
TATAURANGA AOTEAROA

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Linked Employer-Employee Data: September 2007 quarter

Highlights

This release focuses on labour market dynamics for New Zealand by industry.

- Manufacturing, the largest industry by filled jobs, was the only industry to decrease for two successive years, over the September 2005–07 years, dropping 3.4 percent from 234,340 filled jobs in 2005 to 226,280 in 2007.
- The construction industry had the greatest increase in the number of filled jobs (up 42,390 to 118,420 jobs, or 55.8 percent) in the five years to September 2007.
- Average mean quarterly earnings for all industries in the September 2007 year were $11,030, up 4.8 percent from the September 2006 year.
- The arts and recreation services industry had the highest growth in mean quarterly earnings (7.5 percent) in the year to September 2007.
- The mining industry had the highest mean quarterly earnings ($18,300) in the September 2007 year.

Geoff Bascand
Government Statistician

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See also *Linked Employer-Employee Data: September 2007 quarter* – Media release.

Commentary

Updated industry classification

This is the first release of quarterly statistics from Linked Employer-Employee Data (LEED) that uses the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06), which updates the 1996 version of this classification (ANZSIC96). It is also the first release based on data that had been revised as a result of methodology improvements. See the Technical notes to this release for the implications of this change and for more information about ANZSIC06.

Overview

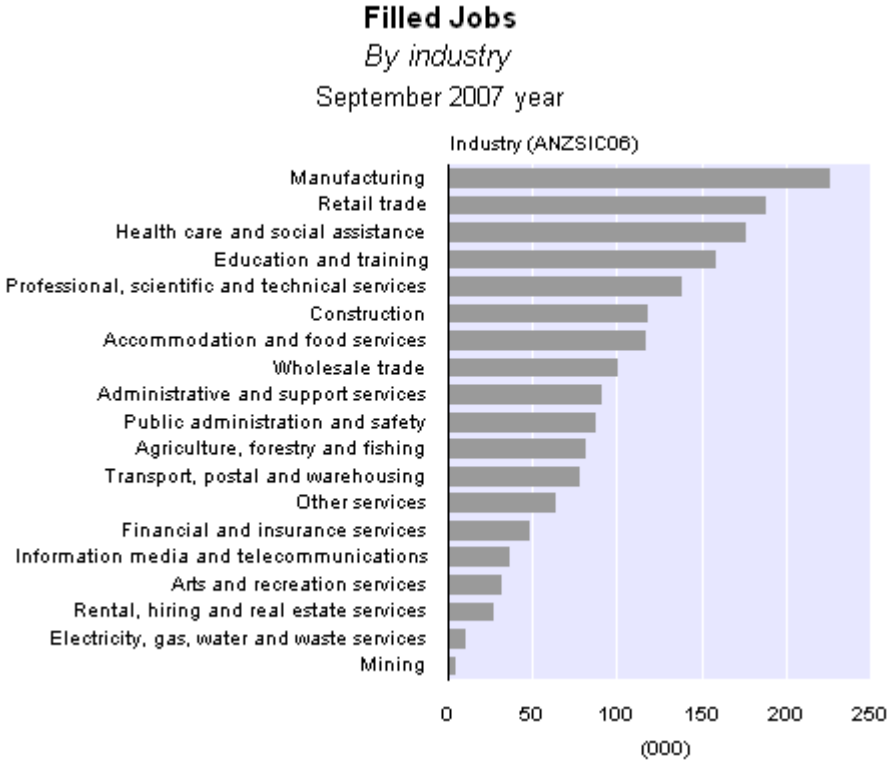
Manufacturing, the largest industry by filled jobs, was the only industry to decrease for two successive years, dropping by 3.4 percent from 234,340 in the September 2005 year to 226,280 in the September 2007 year. The textiles, clothing, footwear and leather manufacturing sub-industry was the key driver of the decline in filled jobs in the manufacturing industry.

The construction industry had the greatest increase in filled jobs over the five years from September 2002–07, with 42,390 extra jobs (up 55.8 percent). During that time, the construction industry went from being the ninth-largest industry to the sixth-largest industry.

Average mean quarterly earnings for all industries increased 4.8 percent to reach $11,030 in the year to September 2007, and increased 24.0 percent in the five years to September 2007. The arts and recreation services industry had the highest growth (7.5 percent) in the year to September 2007. Mining had the highest growth (34.3 percent) in the five years to September 2007. Mining was also the highest paid industry, with average mean quarterly earnings of $18,300 during the September 2007 year.

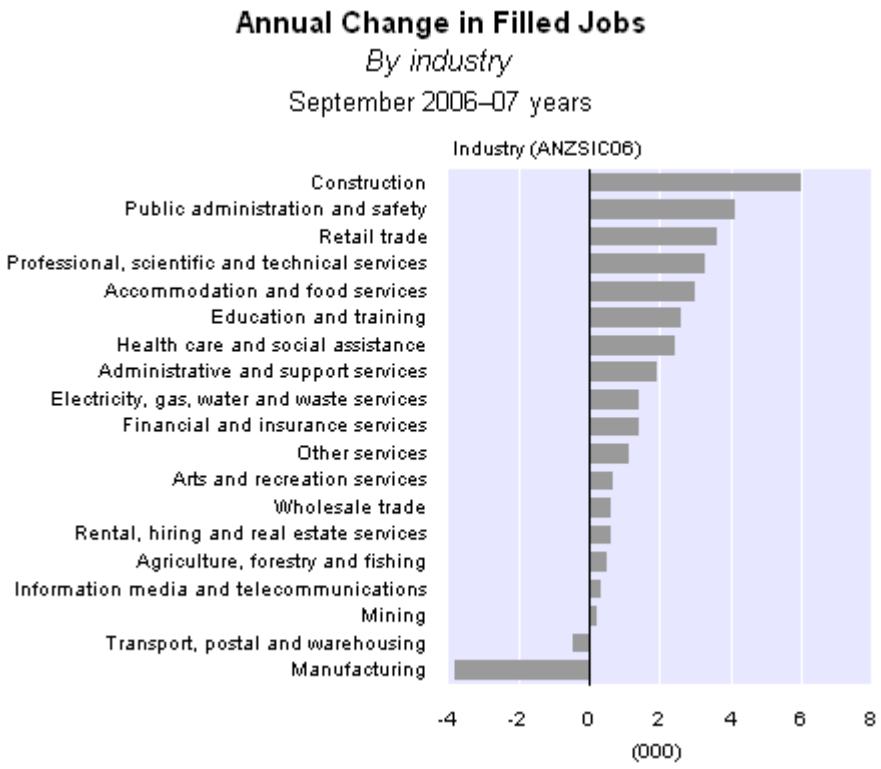
Filled jobs

The quarterly average number of filled jobs was 1,789,850 during the September 2007 year, up 1.7 percent (29,450 jobs) from the September 2006 year. Underlying the change, an average of 132,710 jobs were created and 130,790 jobs were destroyed each quarter in the September 2007 year – a net average creation of 1,920 jobs each quarter. In the five years to September 2007, there was an increase of 15.5 percent in filled jobs (240,110 jobs), up from a quarterly average of 1,549,740 jobs in the September 2002 year.



Manufacturing was the biggest employer, with a quarterly average of 226,280 filled jobs in the September 2007 year. It was also the only industry to decrease in two successive years, dropping 1.8 percent from 234,340 jobs in 2005 to 230,090 jobs in 2006, and a further 1.7 percent to 226,280 jobs in 2007 – a total drop of 3.4 percent between 2005 and 2007. The textiles, clothing, footwear and leather manufacturing sub-industry was the key driver of the decline in filled jobs in 2006 and 2007, accounting for about 30 percent of the decrease in each year.

Retail trade was the second-biggest employer, with 187,530 filled jobs, followed by health care and social assistance (176,210 jobs), education and training (158,290 jobs), and professional, scientific and technical services (138,880 jobs). These five industries accounted for almost half (49.6 percent) of the annual average number of filled jobs. The mining industry had the lowest number, with 4,650 filled jobs.



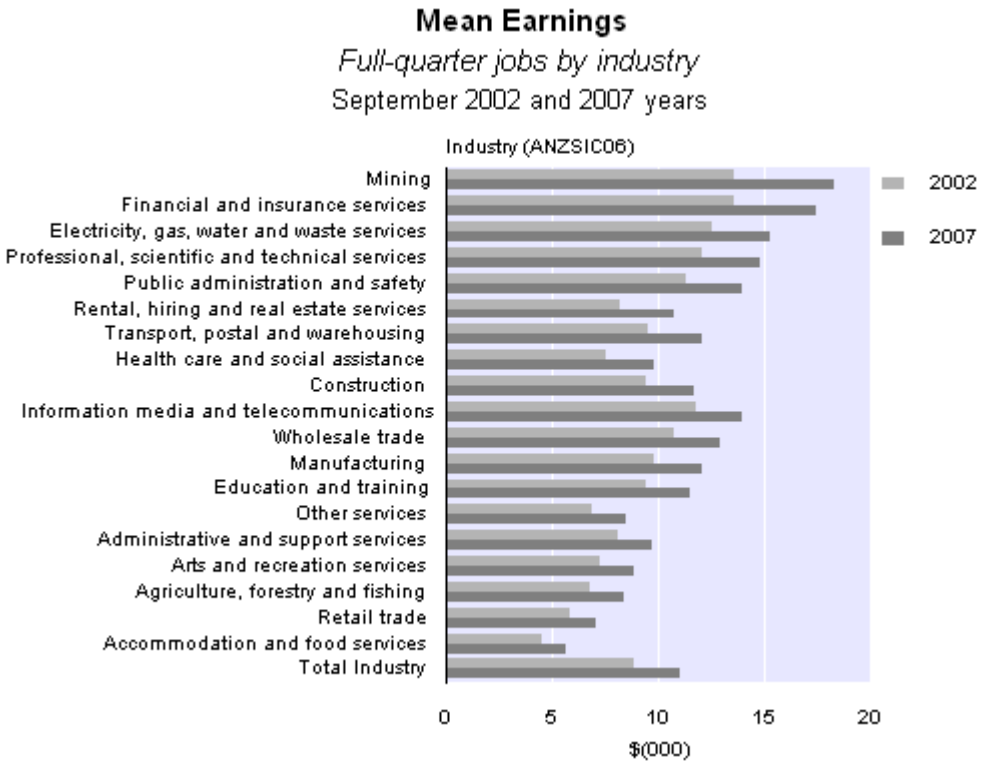
The construction industry had the greatest increase in the number of filled jobs (42,390 jobs) in the five-year period to September 2007, and also the greatest increase in the number of filled jobs since the September 2006 year (5,990 jobs).

The construction industry also had the greatest percentage growth in filled jobs between September 2002 and 2007 at 55.8 percent. Other industries with significant percentage growth during this period included mining (38.3 percent), rental, hiring and real estate services (30.2 percent), professional, scientific and technical services (28.5 percent) and electricity, gas, water and waste services (28.3 percent).

The agriculture, forestry and fishing industry created and destroyed the most jobs in the September 2007 year (with an average of 15,140 jobs created, and 15,810 destroyed each quarter), followed by the manufacturing (12,780 jobs created, 14,140 destroyed), and retail trade (12,660 jobs created, 12,190 destroyed) industries. Accommodation and food services (12,280 jobs created, 12,310 destroyed), and education and training (11,150 jobs created, 11,530 destroyed) complete the top five job-creating industries.

Earnings

Average mean quarterly earnings for all industries in the September 2007 year were $11,030, up 4.8 percent from the September 2006 year. The mining industry had the highest mean quarterly earnings ($18,300) in the September 2007 year. Financial and insurance services ($17,500), electricity, gas, water and waste services ($15,310), professional, scientific and technical services ($14,800) and information media and telecommunications ($14,010) were the industries with the next-highest earnings. The accommodation and food services industry had the lowest average mean quarterly earnings ($5,630) during the September 2007 year.



The arts and recreation services industry had the largest percentage increase in earnings over the September 2007 year (7.5 percent), followed by the financial and insurance services industry (6.8 percent), and the transport, postal and warehousing industry (6.3 percent). The administrative and support services industry and the information media and telecommunications industry had the smallest increases in mean earnings over this period (both 2.5 percent).

In the five years to September 2007, average mean quarterly earnings increased by 24.0 percent, or $2,140, for all industries. The mining industry had the largest actual dollar increase, up $4,670 in the five years to September 2007. This was followed by the financial and insurance services industry ($3,940) and the electricity, gas, water and waste services industry ($2,750). The accommodation and food services industry had the lowest dollar-value increase over the period ($1,140).

Mining also had the highest average mean quarterly earnings growth of all industries in the five years to September 2007 (34.3 percent). The rental, hiring and real estate services industry (up 31.3 percent), and the health care and social assistance industry (up 30.5 percent) had the next-highest growth rates. The smallest percentage increase was in the information media and telecommunications industry (18.6 percent).

Earnings for continuing jobs and new hires

In the September 2007 year, the average mean quarterly earnings for continuing jobs in all industries was $11,500. For new hires, it was $8,410. (Continuing jobs and new hires are two subsets of full-quarter jobs – see the Technical notes to this release for further definitions.)

For continuing jobs in the September 2007 year, the highest average mean quarterly earnings were in the mining industry ($18,580), followed by financial and insurance services industry ($18,060), and electricity, gas, water and waste services industry ($15,750). In the five years to September 2007, average mean quarterly earnings for continuing jobs grew by 24.1 percent overall. In this period, the greatest percentage increases were the mining (up 34.0 percent to $18,580), rental, hiring and real estate services (up 32.0 percent to $11,270), and financial and insurance services (up 30.6 percent to $18,060) industries.

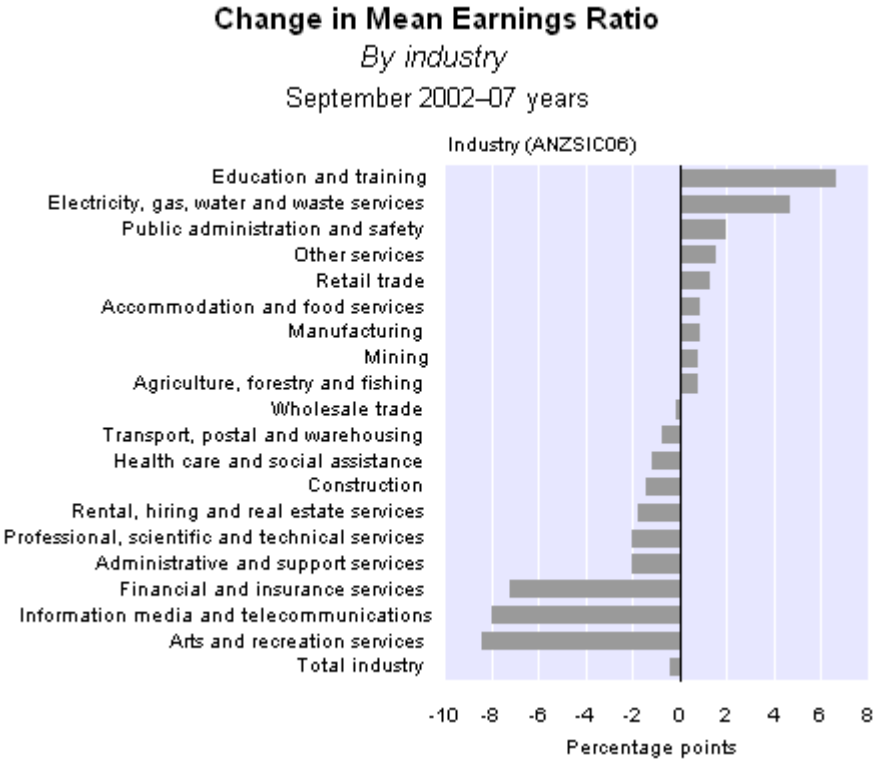
In the September 2007 year, the highest average mean quarterly earnings for new hires were in the mining industry ($16,210), followed by financial and insurance services ($13,670), and electricity, gas, water and waste water services ($12,550) industries. In the five years to September 2007, the greatest percentage increases were in the mining industry (up 35.3 percent to $16,210), followed by education and training (up 34.1 percent to $8,360), rental, hiring and real estate services (up 29.0 percent to $8,590) and electricity, gas, water and waste services (up 29.0 percent to $12,550) industries.

Earnings ratio

When labour is hard to get, businesses are likely to use earnings to both retain and attract employees. A mean earnings ratio can be calculated by taking new hire earnings as a percentage of earnings for continuing jobs. An increasing ratio of new to continuing jobs suggests that businesses were using earnings to attract new staff. A decreasing ratio suggests businesses were trying to retain labour rather than attract new staff.

The September 2007 year mean earnings ratio was 73.1. Since the mean earnings ratio of 73.5 in the September 2002 year, the mean earnings ratio has ranged between 71 and 74 percent.

The mean earnings ratios fell 8.5 percentage points in the arts and recreation services industry (from 78.4 to 69.9 percent), 7.8 percentage points in the information media and telecommunications industry (81.3 to 73.5 percent), and 7.5 percentage points in the financial and insurance services industry (83.2 to 75.7 percent). Increases in mean earnings ratios from 2002 to 2007 were largest in the education and training industry (up 6.7 percentage points from 61.8 to 68.5 percent), the electricity, gas, water and waste services industry (up 4.3 percentage points from 75.4 to 79.7 percent), and the public administration and safety industry (up 1.9 percentage points from 76.8 to 78.7 percent).



Worker turnover rates

The worker turnover rate is a measure of worker stability. The worker turnover rate is calculated as the average number of workers who have either moved into employment (accessions) or out of employment (separations), as a proportion of the average job total.

In the September 2007 year, 311,190 workers started work with a new employer each quarter, and 309,270 left an employer. With an average quarterly filled job total of 1,789,850, the average worker turnover rate is 17.4 percent for the September 2007 year. This was higher than the rate for the September 2006 year (17.1 percent).

The administrative and support services industry had the highest worker turnover rate (32.4 percent). In the September 2007 year, this industry includes firms whose business is in employment placement and recruitment, and labour supply services, and could be expected to have a high turnover rate. The agriculture, forestry and fishing industry had the second-highest worker turnover rate (32.1 percent). The high relative turnover in this industry is due to the seasonal nature of the work. The public administration and safety industry had the lowest worker turnover rate (11.4 percent) in the year to September 2007.

While worker turnover rate is high in some industries, the number of employees entering or leaving employment is also related to the size of an industry. Of every 100 employees entering or leaving employment during the September 2007 year, approximately 11 were in the retail trade industry, 11 were in the accommodation and food services industry, and 10 were in the manufacturing industry.

For technical information contact:
Eric Young and Rodney Jer
Wellington 04 931 4600
Email: leed@stats.govt.nz

Next release ...

Linked Employer-Employee Data: December 2007 quarter will be released on 23 February 2009.

Technical notes

Limited release of statistics due to data revisions

The Linked Employer-Employee Data: September 2007 quarter release is the first release of data that had been revised as a result of methodology improvements. This release publishes the quarterly back series of Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06) industry outputs, along with statistics for the three previous quarters for non-ANZSIC06 outputs. The improvements were incorporated in all other outputs for the September, June, and March 2007 quarters, because data from the three most recent quarters is normally produced by a quarterly release.

A number of improvements were identified from a methodology review and applied to the ANZSIC06 industry outputs for quarters back to June 1999. The reprocessing resulted in revising data for the new ANZSIC06 industry outputs.

In the September 2007 quarter, the back series for non-ANZSIC06 outputs (excluding the three most recent quarters) is not available, because previously published data are not comparable with revised data. These will be available in subsequent quarterly releases, when revisions for the non-ANZSIC06 outputs become available. Non-ANZSIC06 outputs correspond to breakdowns involving combinations of sex, age, region, territorial authority, firm size, and ANZSIC96.

Note ANZSIC96 outputs will continue for at least another year.

ANZSIC06

ANZSIC 2006 (or ANZSIC06) is the latest edition of the classification Australian and New Zealand Standard Industrial Classification. The 1996 version of ANZSIC (ANZSIC96), used in industry outputs in previous releases, has been updated to the 2006 edition. Note that industry outputs defined using ANZSIC06 are not comparable with those based on ANZSIC96.

The release of ANZSIC06 followed a review that involved consultation with government agencies responsible for policy formulation and administration, non-government analysts of industry structure and performance, and industry experts. The changes to ANZSIC ensure the classification is current and relevant, reflecting changes in the structure and composition of industry since the previous edition, and recognises changing user requirements for industry data.

New industry divisions under ANZSIC06

- Rental, Hiring, and Real Estate Services
- Professional, Scientific and Technical Services
- Administrative and Support Services.

The above three divisions were in Property and Business Services under ANZSIC96. Property and Business Services has been split up under ANZSIC06, because it was a collection of dissimilar sub-industries. Therefore the new structure allows better measurement of these services.

- Information Media and Telecommunications Division. This industry covers information-related services that had previously been classified to other divisions under ANZSIC96. An example is publishing which was in the Manufacturing division under ANZSIC96.

- Electricity, Gas, Water and Waste Services. This industry includes waste disposal services, which had been classified to Personal and Other Services under ANZSIC96.
- Public Administration and Safety. This industry comprises Government Administration and Defence, and Police and Fire Services. Police and Fire Services had previously been in Personal and Other Services under ANZSIC96.

Note industry outputs defined using ANZSIC06 are not comparable with those based on ANZSIC96.

For more information about ANZSIC06 go to the Statistics New Zealand website.

What's available on the Statistics New Zealand website?

(1) Complete back series (June 1999 to September 2007) for ANZSIC06 outputs in Infoshare www.stats.govt.nz/infoshare and Table Builder www.stats.govt.nz/products-and-services/table-builder/leed-table-builder.htm.

(2) Data for the three most recent quarters (March, June and September 2007) for outputs, broken down by a combination of sex, age, region, territorial authority, firm size, and ANZSIC96 in Infoshare www.stats.govt.nz/infoshare and Table Builder www.stats.govt.nz/products-and-services/table-builder/leed-table-builder.htm.

Note median earnings measures are available for all ANZSIC06 outputs in Infoshare. They are available in Table Builder for the 1-way table of ANZSIC06 outputs, and the 2-way table ANZSIC06 by region. Median earnings for the other ANZSIC06 outputs in Table Builder will be available in the week following the release of this Hot Off The Press, on 20 November 2008.

Background to LEED

Official quarterly statistics produced from the Linked Employer-Employee Data (LEED) measure labour market dynamics at various levels – including industry, regional, territorial authority, firm size, and sex and age – providing an insight into the operation of New Zealand's labour market. Statistics New Zealand releases other official labour market statistics that show changes in employment at an aggregate level. Statistics from LEED, such as job and worker flows, help to explain what causes these aggregate movements and are therefore useful for explaining changes in the labour market.

Data sources

The LEED dataset is created by linking a longitudinal employer series from the Statistics NZ Business Frame to a longitudinal series of Employer Monthly Schedule (EMS) payroll data from Inland Revenue.

The Inland Revenue dataset is collected for the purpose of administering New Zealand's taxation system. It consists of data from EMS and contains details of earnings, tax type and tax deducted. It does not contain any information relating to the number of hours worked for those earnings.

The Business Frame is a regularly maintained list of all economically significant businesses and organisations (greater than $30,000 turnover) engaged in the production of goods and services in New Zealand. Its main use is to select businesses for participation in Statistics NZ's surveys. Information derived from the Business Frame includes:

- industry
- sector (private or public)
- the number of geographical units (physical locations)
- the count of employees at each geographical unit
- the ownership structure of firms.

Historically, the Business Frame was based on and updated from annual survey questionnaires. Since 2002, the coverage of the Business Frame has been extended to include more businesses, and its employment information has been maintained using monthly tax data.

Although the Business Frame represents a rich source of information on businesses and their structures, a number of practical limitations remain that affect its use in the LEED system. Examples include:

- possible time delays in adding new businesses to the Business Frame and recording businesses that have ceased trading
- the Business Frame practice of transferring geographical units between businesses at the time of legal changes in ownership, rather than at the time the initial administrative unit ceases to file an EMS.

The base data received from LEED is of high quality, but cleaning, transformation and integration processes are required before robust official statistics can be produced. This is necessary because these datasets are collected for different purposes and are not primarily designed for the production of statistics. Integration processes are required to merge the two sources, as the datasets are constructed differently. One of these processes allocates jobs from an IRD number to geographical units or physical locations associated with that employer.

There is a very small amount of error present in the base data or arising from LEED processes. This is negligible at aggregate levels, but can affect statistics for small categories, eg mean earnings results for small territorial authorities (TAs), regions or industrial categories. A direct measure of the error is not available, but some caution should be exercised in interpreting statistics based on relatively small numbers of people.

It is important to note that Statistics NZ surveys are specifically designed to collect the data required, and the information requested is targeted to the desired measures. In comparison, the LEED measures are limited by the characteristics of the base data.

Privacy, security and confidentiality

Statistics NZ and Inland Revenue have an agreement that governs the transfer of tax data for statistical purposes. This process is carried out under section 81(4)(d) of the Tax Administration Act 1994. Inland Revenue data is encrypted prior to transmission and decrypted upon arrival into Statistics NZ. Unique identifiers (IRD numbers) are individually encrypted and names and addresses removed from the Statistics NZ analytical environment. The raw data from Inland Revenue is stored on a separate server from the cleaned (unidentified) data, and both these servers are separate from those used for the rest of the organisation. All servers and back-up tapes are held under Statistics NZ's highest level of physical security. Access to the data is strictly limited and controlled.

LEED consists of unit record data that is used to produce official statistics and support statistical research. Any information released is in the form of summary statistics or statistical research. No information is released from the data that would allow for the identification of any individual or business. The categories for data release are established so that each cell in a table complies with Statistics NZ's confidentiality rules.

LEED is used only for statistical purposes. The data is not available for operational or administrative purposes. In keeping with this policy, Inland Revenue provides data to Statistics NZ but Statistics NZ does not provide data back to Inland Revenue. Any amendments made by Statistics NZ to the Inland Revenue data during processing are for statistical purposes and are not fed back to Inland Revenue.

Population

LEED covers all individuals (‘employees’) who receive income from which tax is deducted at source. These payments are made by organisations that are registered with Inland Revenue. Note that the data from LEED includes social assistance payments, such as paid parental leave, student allowances, benefits, pensions and Accident Compensation Corporation payments, although these are excluded from the quarterly measures. For confidentiality purposes, some individuals are withheld from the data provided to Statistics NZ by Inland Revenue.

In LEED, the employer is the geographical unit or physical location of the business rather than the administrative reporting unit. For example, a nationwide retail chain may have one Inland Revenue reporting unit covering all of its retail branches. In LEED, each branch is considered to be a distinct employer. This approach has been taken to allow regional, and now TA level, statistics to be produced. It also ensures that LEED is comparable with similar international statistics.

The fundamental basis of the LEED quarterly measures is ‘jobs’. A job is defined as a unique employer-employee pair present on an EMS in the reference quarter.

For inclusion in the LEED quarterly statistics the job must:

- relate to a person 15 years of age and over
- have PAYE tax deducted at source
- be in relation to ‘paid employment’ rather than a social assistance payment
- have a valid IRD identifier.

An exception is the total earnings measure, which includes all jobs with PAYE tax deducted at source (irrespective of age and IRD identifier) apart from those relating to social assistance payments.

It should be noted that a small number of working proprietors, partners or other self-employed individuals choose to pay their income tax at source and have not been separated from the 'true' jobs.

Definitions of measures

The following table provides the definitions for each measure in the tables included in this release and also those available from the Statistics NZ website. Other necessary definitions are:

- The calendar year is divided into four quarters, each with three months. The latest quarter is the ‘reference quarter’.
- The ‘reference date’ is the 15th of the middle month of the reference quarter.
- ‘Full-quarter jobs' are jobs that exist continuously over the reference quarter.
- All earnings measures represent quarterly earnings.
- All earning measures are inclusive of tax.
- All earnings measures include payments reported as lump sums to Inland Revenue.

Annual averages for the year are discussed throughout this release. An annual average represents the average quarterly level for the year. Additionally, job and worker flow statistics have been rounded using graduated random rounding, and earnings statistics have been rounded to base 10 or base 100 for confidentiality purposes. LEED statistics are affected by seasonal variations such as production cycles, school years, and processing procedures associated with the source data.

A detailed guide to interpreting the data is available from the Statistics NZ website www.stats.govt.nz.

Definition of measures	
Measure	**Definition**
Total filled jobs	The number of jobs (defined as an employer-employee match) on the 15th of the middle month of the reference quarter.
Accessions	The number of new employees who have joined employers since the previous reference date.
Separations	The number of employees who have left employers since the previous reference date.
Worker turnover rate	The ratio of the average of the total accessions and separations to the average of the total jobs in the reference quarter (t) and the previous quarter (t-1), as represented in the formula: $\frac{(\text{Accessions} + \text{Separations})/2}{(\text{Jobs}(t) + \text{Jobs}(t-1))/2}$
Job creation	The number of jobs created, since the previous reference date, when businesses expand or start up. For example, a business employing 100 workers with 10 accessions and five separations has job creation of five.
Job destruction	The number of jobs lost, since the previous reference date, when businesses contract or shut down. For example, a business employing 100 workers with five accessions and 15 separations has job destruction of 10.
Mean/median earnings	Mean or median earnings of all full-quarter jobs.
Mean/median earnings for continuing jobs	Mean or median earnings for jobs that were full-quarter in the reference quarter and previous quarters.
Mean/median earnings for new hires	Mean or median earnings for jobs that were full-quarter in the reference quarter and began sometime in the previous quarter, but were not present in the four previous quarters.
Mean/median earnings ratio	The ratio of the mean or median earnings for new hires to the mean or median earnings for continuing jobs.
Total earnings	The sum of all earnings paid in the reference quarter, including employees with invalid IRD identifiers and individuals under 15 years of age.
Note: Job creation and destruction are job flow measures, while accessions and separations are worker flow measures.	

Accessions, separations and worker turnover rate

The worker turnover rate is calculated using the counts of accessions and separations, which are defined using the reference date concept. Other workers may join and leave during the reference quarter but not be present at either reference date. These workers are not included in the counts of accessions or separations and are therefore excluded from the worker turnover rate.

The worker turnover rate is calculated at the geographic unit level, not the enterprise level. This means that employees who transfer between geographic units within an enterprise will be counted as accessions and separations.

Annual job creation and destruction

Annual job creation and destruction figures are currently not part of the official set of LEED quarterly statistics. The quarterly job creation and destruction statistics have been designed to explain the change in aggregate jobs between two specific points in time – the 15th of the middle month of the reference quarter and the 15th of the middle month of the previous quarter. They compare the number of jobs at each geographic unit on these two dates. Changes in the number of jobs between these two dates are not included in the statistics.

Some users may attempt to produce annual job creation and destruction figures by summing together four quarters of data. This approach is not recommended. Instead Statistics NZ recommends averaging the quarterly job creation and destruction statistics over the year (which is the approach taken in LEED quarterly publications). Estimates of annual job creation and destruction are available on request. They will be incorporated in the LEED Table Builder statistics in the future, and produced on the same basis as the quarterly series, by comparing employers' job levels between two snapshots a year apart. This method produces significantly less job creation or destruction than adding together four quarters worth of data. Summing quarterly job creation and destruction figures can be seen as overstating permanent job creation and destruction by including seasonal and temporary variations in employment. A similar argument can be made against summing four quarters of worker accessions and separations to produce annual worker flow statistics. However, conceptually it is more appropriate to include seasonal or temporary factors when measuring these worker flows.

Net job change

The difference between the counts of job creation and job destruction (job flows) is equal to the total change in jobs at the aggregate level – the net job change. Job flows reveal the amount of job turnover at the business level underlying the net job change. Similarly, the difference between the counts of accessions and separations (worker flows) is also equal to the net job change. Worker flows reveal the turnover of individual employees underlying the net job change.

These relationships do not necessarily hold for subnational breakdowns. Businesses and individuals may change characteristics, such as industry or age group, over time. This causes a change in the total jobs for that characteristic, but does not affect the job or worker flows.

Continuing jobs and new hires

An employee has a continuing job if they have been with the same employer continuously over the current and previous quarter. A new hire is an employee who has been with the same employer continuously for the current quarter but began the job sometime in the previous quarter. New hires must not have been employed with the same employer in the 12 months prior to the job start date. As a result, seasonal staff and employees who have been rehired within this time period are excluded from new hires.

Patterns in the data

The counts of job creation and destruction, and worker accessions and separations, show an obvious seasonal pattern. This pattern is caused by the annual update of employee counts on the Business Frame, resulting in larger counts of destruction and creation in one quarter than in the other three.

This seasonal pattern changes from the March 2003 quarter. This change is caused by the implementation of a programme to improve the Business Frame maintenance practices and a consequent change in LEED methodology. Methods are being investigated to minimise the changes caused by administrative updating processes.

Compositional changes

Movements in mean earnings statistics are influenced not only by changes in employees' remuneration, such as changes in wage rates, salaries and hours worked, but also by changes in the composition of the paid workforce from period to period. Compositional changes include variations in relative numbers of males and females, full- and part-time employment, and employment in different industries or within industries.

Dimensions available

Dimensions available on Table Builder on the Statistics NZ website (on an ongoing basis) are:

- quarter
- industry of employer
- region of employer
- sex of employee
- age of employee
- firm size
- sector of employer – private or public institutional sector of ownership
- territorial authority (TA) of employer.

The regional statistics refer to the regional council area of the employer, meaning that all statistics are based on the employer's address and not the employee's. Regional statistics are compiled from 16 regions:

- Northland
- Auckland
- Waikato
- Bay of Plenty
- Gisborne
- Hawke's Bay
- Taranaki
- Manawatu-Wanganui
- Wellington
- Tasman
- Nelson
- Marlborough
- West Coast
- Canterbury
- Otago
- Southland.

For confidentiality purposes, this release combines data for the Tasman, Nelson, Marlborough and West Coast regions.

The firm size dimension refers to the size of the business at an enterprise level, not at the geographic unit level. Firm size is based on the employee count on the 15th of the middle month in the quarter of interest.

The TA statistics are compiled from 72 TAs, which cover 16 city councils and 56 district councils. Data from the Chatham Islands territory have been included in estimates for Christchurch city to reduce the impact of errors for a small population. For confidentiality reasons, data from TAs that overlap regional boundaries have been modified by adding the sensitive portion of the overlapping TA to a neighbouring TA in the same region.

There are six modified TAs:

- Waitomo district
- Taupo district
- Whakatane district
- Hastings district
- Ruapehu district
- Rangitikei district.

The allocation of jobs to a particular TA is carried out on the basis of the employer's address on the Business Frame. Therefore, all TA level statistics are based on the employer's address and not the employee's.

The job creation, job destruction and total earnings measures cannot be generated for age or sex dimensions. This is because job flows are calculated at the geographic unit level, and the total earnings measure includes those with invalid IRD identifiers that have no age or sex classification.

The figures in the tables have been rounded, and discrepancies may occur between sums of components and totals. Some businesses are not able to be assigned to an industry. This contributes to the difference between the New Zealand totals and the sum of the industry totals for the earnings, jobs, and job and worker flow measures. All businesses are associated with a region and TA, and therefore the difference between the New Zealand totals and the sum of the region or TA totals for these measures is small.

The level estimates for the TA table should not be compared with other tables from the beginning of the time series up to the September 2004 quarter. This is due to a method of calculation difference in the back data that will be resolved at a future date.

LEED industry output categories

The LEED ANZSIC06 output categories are not the same as those associated with the New Zealand Standard Industrial Output Categories (NZSIOC). With the introduction of ANZSIC06, Statistics NZ developed NZSIOC to assist in the standardisation of outputs. NZSIC has four levels of industry disaggregation. Further information on NZSIOC is available at: www.stats.govt.nz/economy/industry/introducing-anzsic-2006/nzsioc.htm.

The LEED industry output categories provide highly disaggregated data and preserve the confidentiality of employer and employee earnings. The LEED ANZSIC06 output categories are listed below:

One-dimension (or 1-way) industry tables:

- LEED ANZSIC06 level 1 (19 categories). These match ANZSIC06 divisions and can be aggregated up to match NZSIOC level 1.
- LEED ANZSIC06 level 2 (77 categories). This classification is based on 2-digit ANZSIC06, and can be aggregated up to match NZSIOC levels 1 and 2
- LEED ANZSIC06 level 3 is the most detailed industry breakdown that is published (175 categories). This classification is based on 3-digit ANZSIC06 and can be aggregated up to match NZSIOC levels 1 and 2. It cannot be aggregated up to match NZSIOC level 3 because the Dairy Product Manufacturing sub-industry is combined with other sub-industries to preserve confidentiality.

Two-dimension (or 2-way) industry tables:

- LEED ANZSIC06 level 1 (2-way) (17 categories).

Three-dimension (or 3-way) industry tables:

- LEED ANZSIC06 level 1 (3-way) (14 categories).

LEED ANZSIC06 industry output categories for 2- and 3-way industry tables are based on ANZSIC06 divisions. They cannot be aggregated up to NZSIOC level 1 because some categories are combinations of ANZSIC06 divisions. Concordances mapping the LEED ANZSIC06 output categories to ANZSIC06 and NZSIOC are available on request.

LEED ANZSIC06 level 1 is used in the commentary and tables of the Hot Off The press release. The other categories are used by tables in Infoshare and Table Builder.

Frequency of outputs

LEED job measures are generated as a quarterly series, although tax data is received monthly. This is done to reduce volatility caused by the variable number of pays per month and to ensure comparability with other statistics.

Timing of the measures

LEED measures are produced as counts of jobs at a point in time, or means and medians of earnings for jobs existing for a full quarter.

Counts of jobs or workers are taken on the 15th of the middle month of the quarter.

Measures relating to means and median earnings are produced using the full-quarter concept. A disadvantage of the point-in-time approach is that the earnings for a job relate to the entire month regardless of the actual days worked. Therefore, mean or median earnings statistics per job produced under this concept would include people who worked one day (or even one hour) in the month with people who worked all month.

The total earnings measure does not use either the point-in-time or the full-quarter concept, and is instead a simple sum of all earnings paid out at any time in the reference quarter.

Timeframe for production

The timeliness of LEED is dependent on a number of factors:

- Employers take time to complete their EMS schedules and supply them to Inland Revenue
- Inland Revenue requires time for processing and supply to Statistics NZ
- Statistics NZ requires further time for receipt, data transformation and the production of output data
- The derivation of full-quarter outputs requires data for an additional quarter after the reference quarter.

In addition, late returns and updates are received in LEED well after the end of the reference period. These can distort the measures produced, particularly the estimates of change.

LEED statistics are therefore published 12 months after the reference quarter. A delay of this length ensures that the published value is sufficiently close to the real world value. The statistics are then revised with updates from Inland Revenue for an additional two quarters. Updates after this stage have an immaterial impact on the statistics, therefore 18 months after the reference quarter the data is considered final, and subsequent updates from Inland Revenue are ignored.

More information

For more information, follow the link from the Technical notes of this release on the Statistics New Zealand website.

Copyright

Liability

Timing

Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics NZ. Statistics NZ accepts no responsibility for any such delays.

Tables

The following tables are printed with this Hot Off The Press and can also be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the Excel file viewer to view, print and export the contents of the file.

1. Filled jobs, job and worker flows, and worker turnover rate, by industry
2. Mean quarterly earnings, by industry
3. Filled jobs, by industry

Supplementary tables

The following tables can be downloaded from the Statistics New Zealand website in Excel format.

1.01 New Zealand – earnings, job and worker flows
4.01 Agriculture, forestry and fishing – earnings, job and worker flows
4.02 Mining – earnings, job and worker flows
4.03 Manufacturing – earnings, job and worker flows
4.04 Electricity, gas, water and waste services – earnings, job and worker flows
4.05 Construction – earnings, job and worker flows
4.06 Wholesale trade – earnings, job and worker flows
4.07 Retail trade – earnings, job and worker flows
4.08 Accommodation and food services – earnings, job and worker flows
4.09 Transport, postal and warehousing – earnings, job and worker flows
4.10 Information media and telecommunications – earnings, job and worker flows
4.11 Finance and insurance services – earnings, job and worker flows
4.12 Rental, hiring and real estate services – earnings, job and worker flows
4.13 Professional, scientific and technical services – earnings, job and worker flows
4.14 Administrative and support services – earnings, job and worker flows
4.15 Public administration and safety – earnings, job and worker flows
4.16 Education and training – earnings, job and worker flows
4.17 Health care and social assistance – earnings, job and worker flows
4.18 Arts and recreation services – earnings, job and worker flows
4.19 Other services – earnings, job and worker flows

Table 1

Filled Jobs, Job and Worker Flows, and Worker Turnover Rate[1]

By industry [2]

September 2007 year P

Industry	Filled jobs			Job flows		Worker flow[5]	Worker turnover rate (%)
	Number[3]	Percent change from 2006	Percent change from 2002	Job creation[4]	Job destruction[4]		
Agriculture, forestry and fishing	81,280	0.6	-0.9	15,140	15,810	52,410	32.1
Mining	4,650	5.1	38.3	370	320	1,300	14.0
Manufacturing	226,280	-1.7	0.9	12,780	14,140	59,990	13.2
Electricity, gas, water and waste services	10,570	15.5	28.3	650	450	2,670	13.0
Construction	118,420	5.3	55.8	10,320	9,170	36,800	15.6
Wholesale trade	100,940	0.6	11.5	6,390	6,140	26,530	13.2
Retail trade	187,530	2.0	15.9	12,660	12,190	68,530	18.3
Accommodation and food services	117,430	2.6	21.4	12,280	12,310	67,300	28.7
Transport, postal and warehousing	78,700	-0.6	10.8	4,780	4,710	23,210	14.8
Information media and telecommunications	37,300	0.9	3.9	1,740	1,870	9,990	13.4
Financial and insurance services	48,520	3.0	23.4	3,180	3,050	13,010	13.5
Rental, hiring and real estate services	27,760	2.2	30.2	3,140	2,890	10,830	19.5
Professional, scientific and technical services	138,880	2.4	28.5	9,130	8,030	38,150	13.8
Administrative and support services	91,480	2.2	20.7	9,600	9,900	59,350	32.4
Public administration and safety	87,870	4.9	19.6	3,660	2,890	20,000	11.4
Education and training	158,290	1.7	11.1	11,150	11,530	51,160	16.3
Health care and social assistance	176,210	1.4	13.1	7,220	7,030	46,220	13.1
Arts and recreation services	32,350	2.1	22.6	3,450	3,410	14,410	22.3
Other services	63,400	1.9	16.9	4,820	4,710	18,040	14.3
Total Industry	1,789,850	1.7	15.5	132,710	130,790	620,460	17.4

(1) All numbers are averages of the quarterly value over the year.

(2) Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06) .

(3) Based on the number of employees working for firms on the 15th of the middle month of each quarter.

(4) Job creation and destruction numbers have been specified at a quarterly level. Therefore, although these numbers are averages for the September 2007 year, the difference between them is equivalent to the change in jobs between the June 2007 year and the September 2007 year.

(5) The sum of accessions and separations.

Symbol: P provisional

Table 2

Mean Quarterly Earnings[1]

By industry [2]

September 2007 year P

Industry	Quarterly mean earnings								
	Full-quarter jobs			Continuing jobs			New hires		
	($)	Percent change from 2006	Percent change from 2002	($)	Percent change from 2006	Percent change from 2002	($)	Percent change from 2006	Percent change from 2002
Agriculture, forestry and fishing	8,350	4.4	22.4	8,630	4.3	21.8	7,540	4.8	23.0
Mining	18,300	4.9	34.3	18,580	6.0	34.0	16,210	-0.9	35.3
Manufacturing	12,050	4.5	22.2	12,320	4.3	22.0	9,910	7.2	23.4
Electricity, gas, water and waste services	15,310	5.6	21.9	15,750	5.3	21.7	12,550	14.5	29.0
Construction	11,670	4.6	24.1	11,940	4.6	24.1	10,020	4.9	21.9
Wholesale trade	12,930	4.5	20.4	13,280	4.4	20.3	10,390	4.0	20.1
Retail trade	7,100	4.7	21.2	7,430	4.8	20.7	5,370	4.6	23.0
Accommodation and food services	5,630	6.0	25.3	6,010	5.9	25.2	4,430	8.1	26.7
Transport, postal and warehousing	12,040	6.3	26.1	12,430	6.4	26.0	9,630	5.6	24.9
Information media and telecommunications	14,010	2.5	18.6	14,470	2.7	19.8	10,630	0.1	8.1
Financial and insurance services	17,500	6.8	29.1	18,060	7.7	30.6	13,670	0.2	19.1
Rental, hiring and real estate services	10,780	6.2	31.3	11,270	6.5	32.0	8,590	6.4	29.0
Professional, scientific and technical services	14,800	4.7	22.5	15,230	4.8	22.6	11,860	2.3	19.6
Administrative and support services	9,760	2.5	19.7	10,470	2.6	20.9	7,370	2.0	17.5
Public administration and safety	13,960	5.4	23.5	14,290	5.4	23.7	11,240	5.8	26.9
Education and training	11,500	2.6	22.0	12,200	2.2	21.1	8,360	3.5	34.1
Health care and social assistance	9,780	5.6	30.5	10,060	5.3	30.5	8,010	8.2	28.7
Arts and recreation services	8,840	7.5	21.4	9,380	7.7	23.1	6,560	3.9	10.4
Other services	8,530	4.8	23.6	8,780	4.8	23.1	6,970	5.3	25.7
Total Industry	11,030	4.8	24.0	11,500	4.9	24.1	8,410	4.6	23.5

(1) All numbers are averages of the quarterly value over the year.

(2) Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06) .

Symbol: P provisional

Table 3

Filled Jobs[1][2]

By industry [3]

September years 2000–07

Industry	September years							
	2000	2001	2002	2003	2004	2005	2006	2007 P
Agriculture, forestry and fishing	70,990	74,310	82,020	82,140	82,130	83,290	80,770	81,280
Mining	3,160	3,150	3,370	3,620	3,680	4,070	4,430	4,650
Manufacturing	216,670	219,430	224,300	228,990	230,980	234,340	230,090	226,280
Electricity, gas, water and waste services	8,390	8,410	8,240	8,340	8,680	9,090	9,150	10,570
Construction	70,050	71,550	76,030	82,770	92,020	104,220	112,430	118,420
Wholesale trade	86,560	87,820	90,490	92,750	95,920	99,030	100,320	100,940
Retail trade	152,920	157,020	161,800	167,740	173,110	179,590	183,890	187,530
Accommodation and food services	89,310	91,860	96,760	101,770	106,270	111,280	114,420	117,430
Transport, postal and warehousing	68,790	69,550	71,050	73,350	75,440	78,040	79,170	78,700
Information media and telecommunications	35,420	36,020	35,900	35,520	35,780	36,880	36,980	37,300
Financial and insurance services	39,350	38,590	39,320	41,090	42,780	45,310	47,110	48,520
Rental, hiring and real estate services	20,510	20,900	21,320	22,650	24,180	26,450	27,150	27,760
Professional, scientific and technical services	98,910	104,440	108,050	112,830	118,240	127,660	135,570	138,880
Administrative and support services	70,160	73,440	75,770	79,450	84,700	88,580	89,550	91,480
Public administration and safety	68,940	70,080	73,490	73,620	76,970	79,800	83,750	87,870
Education and training	131,900	135,270	142,440	149,150	151,860	154,260	155,670	158,290
Health care and social assistance	144,220	150,000	155,730	159,640	163,810	169,200	173,760	176,210
Arts and recreation services	23,630	24,190	26,380	27,460	28,500	30,300	31,680	32,350
Other services	50,320	51,290	54,240	57,560	59,040	60,910	62,240	63,400
Total Industry	1,454,550	1,490,790	1,549,740	1,603,180	1,656,640	1,724,800	1,760,400	1,789,850

(1) All numbers are averages of the quarterly value over the year.
(2) Based on the number of employees working for firms on the 15th of the middle month of each quarter.
(3) Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06).

Symbol: P provisional