

Embargoed until 10:45am – 29 October 2010

## New Zealand Business Demography Statistics: At February 2010

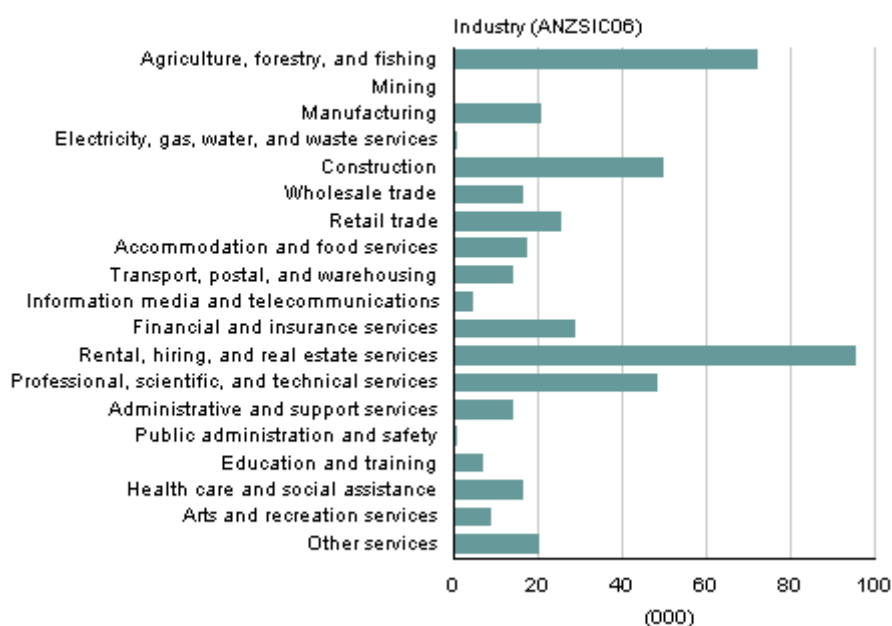
### Highlights

Provisional figures at February 2010 showed:

- 470,350 enterprises, down 1.7 percent compared with February 2009
- 43,700 enterprise births over the year, down 20.4 percent from the previous year
- 55,040 enterprises ceased over the year, up 6.0 percent from the previous year
- a total of 1.890 million paid employees (a business size measure statistic, not an official employment statistic), down 1.9 percent from 2009
- one-fifth of all enterprises were in the rental, hiring, and real estate services industry
- the manufacturing industry was the largest employer (227,300 employees)
- the new Auckland Council region that comes into existence on 1 November 2010 had an estimated 31 percent of the business locations in New Zealand.

### Number of enterprises by industry

At February 2010



Source: Statistics New Zealand

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29 October 2010  
ISSN 1174-1988

# Commentary

## Business demography statistics

Business demography statistics provide an annual snapshot (as at February) of the structure and characteristics of New Zealand businesses. The series covers economically significant enterprises that are engaged in the production of goods and services in New Zealand.

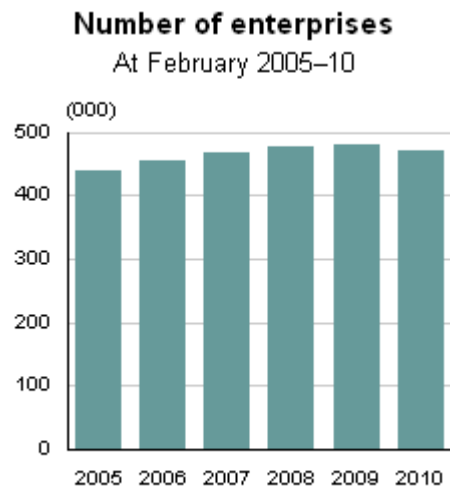
This release includes both the structural (counts of businesses by industry, size, region, etc) and the dynamic (births, deaths, survival rates, etc) business demography statistics. The statistics are released on a provisional basis and include a revised time series back to 2000. It is expected that the largest revisions will occur in the most recent reference periods. This is mainly due to the lags associated with the processing of administrative data. Analysis of the 2010 data should be carried out with caution.

This publication is the third release of business demography statistics on the basis of the 2006 version of the Australian and New Zealand Standard Industrial Classification (ANZSIC 2006). Previously, the 1996 version of ANZSIC was used. For more details, see [Introducing ANZSIC 2006](#). All figures in this Hot Off the Press are based on the 2006 version of ANZSIC. The tables released with this publication include both the 1996 and 2006 versions of ANZSIC. This is the last dual publication of the two versions of ANZSIC. The 2011 release will be based only on ANZSIC 2006. The ANZSIC 2006 classification has been back cast to 2000 to provide users with a consistent time series.

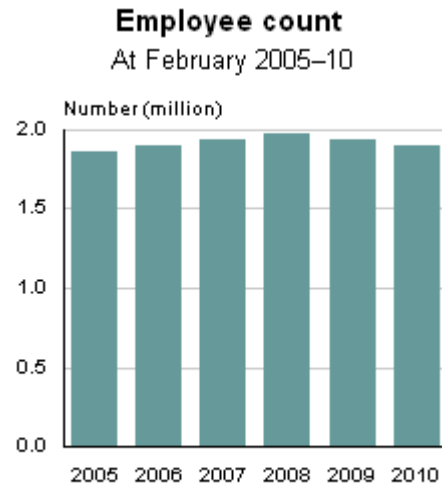
## Total number of enterprises, geographic units, and employees

At February 2010, the total number of enterprises in New Zealand was 470,350, a decrease of 1.7 percent (down 8,220) from 2009. The number of business locations (geographic units) associated with these enterprises was 505,680, a decrease of 1.7 percent (down 8,840) from 2009.

These enterprises engaged a total of 1.890 million paid employees (a business size measure statistic, not an official employment statistic). The number of paid employees decreased by 37,000 (1.9 percent) at February 2010 compared with February 2009.



Source: Statistics New Zealand



Source: Statistics New Zealand

## **Industry statistics**

### **Rental, hiring, and real estate services**

Rental, hiring, and real estate services continued to be the industry with the largest number of enterprises (95,820 at February 2010), representing about 20 percent of all enterprises in New Zealand. Between February 2009 and 2010, this industry recorded a small decrease in the number of enterprises (down 810 or 0.8 percent) which was the first decrease in the number of enterprises recorded for this industry since the beginning of the current series at February 2000.

There were approximately 26,700 employees engaged in this industry at February 2010, compared with 27,100 at February 2009 (down 400 or 1.5 percent). A large majority of enterprises in this industry (95 percent at February 2010) were non-employing businesses.

### **Agriculture, forestry, and fishing**

There were 72,400 enterprises in the agriculture, forestry, and fishing industry at February 2010, a decrease of 1,640 (2.2 percent) compared with February 2009. The enterprises in this industry engaged approximately 107,400 employees at February 2010, down 3,100 (2.8 percent) from the previous year. This was also the lowest number of employees on record since February 2003 for this industry. At the industry class level, other agriculture and fishing support services had a drop of 1,900 employees (10.8 percent) and made the largest contribution towards the overall drop in employment numbers in this industry. The employment in the other agriculture and fishing support services is influenced by the timing of seasonal agricultural activities such as crop harvesting.

### **Construction**

There were 50,400 enterprises in the construction industry at February 2010, a decrease of 2,800 (5.3 percent) compared with February 2009. This was the largest drop in the number of enterprises across all industries, over the past year.

This industry engaged approximately 115,100 employees at February 2010, down 7,700 (6.3 percent) from the previous year. The industry subdivision building construction which included both residential and non-residential building construction saw a drop of approximately 2,800 employees or 9.9 percent over the past year.

### **Manufacturing**

There were 21,190 enterprises in the manufacturing industry at February 2010, a decrease of 640 (2.9 percent) compared with February 2009. This industry has now seen the number of enterprises declining consecutively for the past four years.

While continuing to be the industry employing the largest number of paid employees (227,300 at February 2010), manufacturing recorded a drop of 12,300 employees (5.2 percent) between 2009 and 2010. This decline in the number of employees came from all subdivisions of the manufacturing industry, with significant contributions coming from machinery and equipment manufacturing (down 2,100 or 7.3 percent), fabricated metal product manufacturing (down 2,000 or 8.8 percent), and textile, leather, clothing, and footwear manufacturing (down 1,400 or 10.6 percent).

## **Retail trade**

Retail trade, the third largest industry in terms of the number of employees engaged, with 196,500 paid employees at February 2010, had 4,900 (2.4 percent) fewer employees than at February 2009. During the same period, the number of enterprises predominantly engaged in this industry also dropped, but by a relatively smaller margin of 1.5 percent.

## **Health care and social assistance**

Between February 2009 and February 2010, the number of enterprises predominantly engaged in the health care and social assistance industry remained steady (up by just 80 or 0.5 percent). During the previous five years, the annual increase in the number of enterprises in this industry ranged between 3.2 and 4.7 percent.

The number of paid employees in this industry at February 2010 was 206,400, which was an increase of 5,600 or 2.8 percent compared with February 2009. The main contributors towards this increase were hospitals (up 1,500 or 2.1 percent) and aged care residential services (up 1,400 or 4.5 percent).

## **Regional statistics**

In all regions of New Zealand, the number of business locations (geographic units) decreased between February 2009 and February 2010. The number of employees engaged in these business locations decreased in all regions except Gisborne which showed a marginal increase.

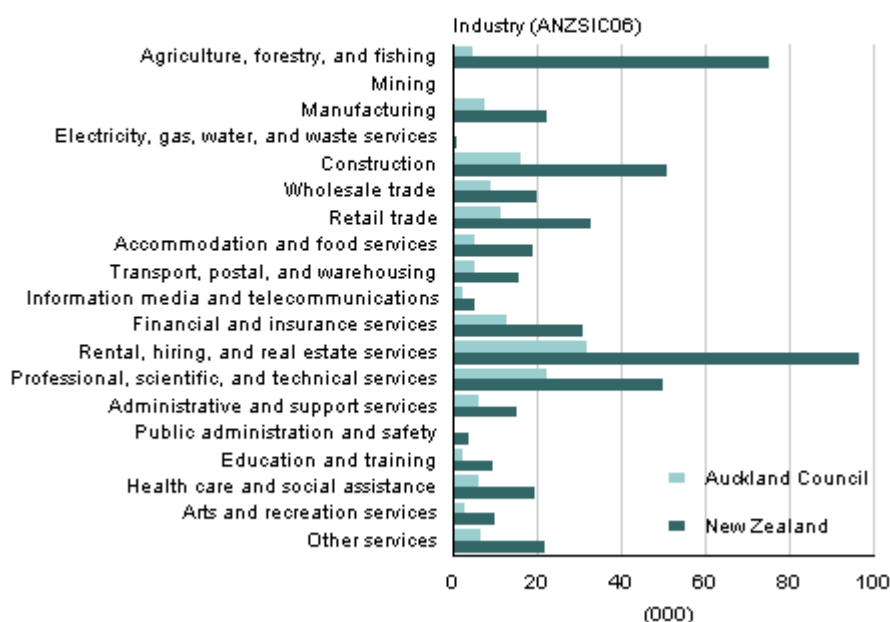
## **Auckland Council region**

The new Auckland Council region that comes into existence on 1 November 2010 had an estimated 31 percent of the business locations and 32 percent of the paid employees in New Zealand. The Auckland Council region had 48 percent of the business locations in the information media, and telecommunications industry in New Zealand, but only 6 percent of the agriculture, forestry, and fishing business locations in New Zealand.

## Number of business locations in Auckland Council region and New Zealand

By industry (ANZSIC06)

At February 2010



Source: Statistics New Zealand

The Table Builder tables include regional statistics on the basis of the local government boundaries that applied from 1 November 2010 as well as those that applied at February 2010. Both sets of statistics use the business demography data as at February 2010.

The following analysis is based on local government boundaries as at February 2010:

### Auckland region

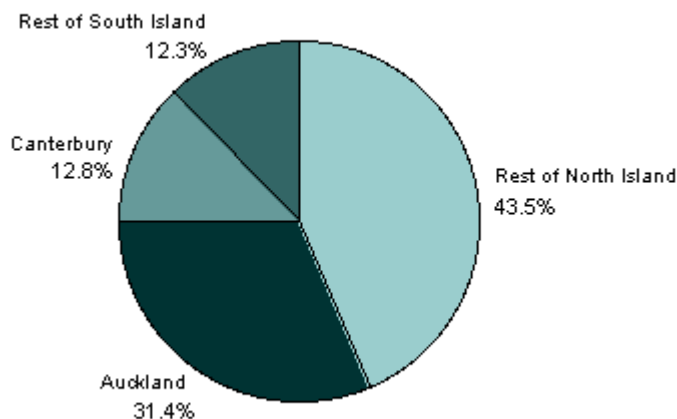
At February 2010, Auckland had nearly one-third (31 percent) of all business locations in New Zealand. Nearly one-third (32 percent) of all paid employees were engaged by these business locations.

There were 158,750 business locations in Auckland at February 2010, down 1.8 percent from February 2009. At the ANZSIC division level, 16 out of 19 industry divisions recorded decreases. The industry with the largest decrease was construction (down 960 or 5.6 percent), followed by professional, scientific, and technical services (down 690 or 3.0 percent) and transport, postal, and warehousing (down 270 or 4.7 percent). The information media and telecommunications industry had a small increase in the number of business locations (up 90 or 3.7 percent).

At February 2010, the business locations in Auckland had 611,500 employees, down 2.0 percent from February 2009. The industries with the largest decreases in employees were manufacturing (down 4,000 or 5.2 percent), professional, scientific, and technical services (down 2,300 or 3.6 percent), and construction (down 1,800 or 5.1 percent). Only three industry divisions out of 19 had higher employee numbers at February 2010 compared with February 2009. The industry with the largest increase was health care and social assistance (up 2,600 or 4.5 percent), followed by education and training (up 2,300 or 4.4 percent).

## Number of business locations by broad region

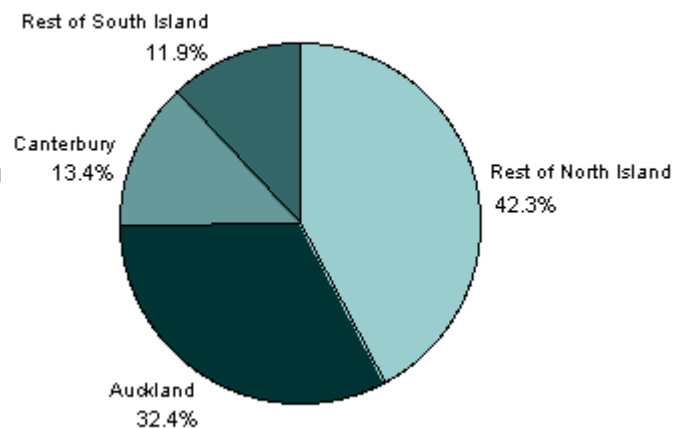
At February 2010



Source: Statistics New Zealand

## Employee count by broad region

At February 2010



Source: Statistics New Zealand

## Remainder of North Island

Excluding Auckland, there were 220,000 business locations in the remaining regions of the North Island at February 2010. This represented a drop of 1.9 percent compared with February 2009. These business locations engaged approximately 799,900 employees at February 2010, a 1.6 percent decrease from February 2009.

The regions with the largest decreases in business locations were Waikato (down 1,140 or 2.2 percent) and Wellington (down 880 or 1.7 percent). In the Waikato region the largest drop in employment was in the construction industry (down 1,000 or 8.3 percent), followed by accommodation and food services (down 800 or 6.9 percent).

## South Island

There were 126,750 business locations in the South Island at February 2010. This was a decrease of 1,790 (1.4 percent) from February 2009. These business locations engaged approximately 478,200 employees, a decrease of 11,300 (2.3 percent) compared with February 2009.

At February 2010, just over half of all business locations (51 percent) in the South Island were located in Canterbury. These business locations accounted for 53 percent of all employees engaged in the South Island. Between February 2009 and February 2010, in the South Island, Canterbury recorded the largest decrease of 740 (1.1 percent) business locations and the number of employees dropped by 5,400 (2.1 percent). The industries with the largest decrease in employees in the Canterbury region were manufacturing (down 2,600 or 7.0 percent), followed by construction (down 1,000 or 6.3 percent).

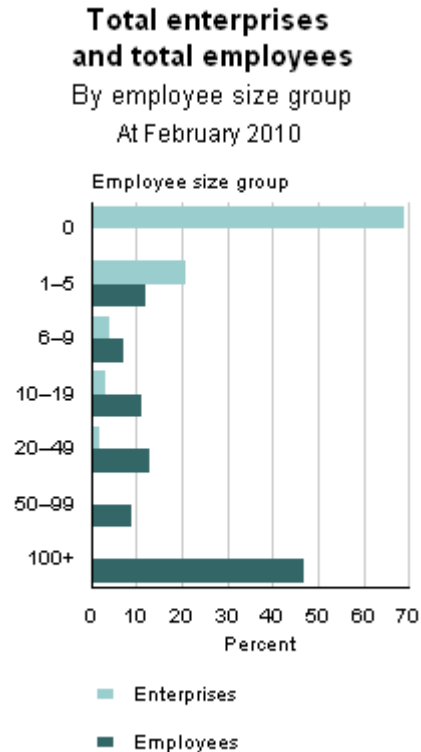
## Business size

At February 2010, most enterprises in New Zealand (97 percent) were either non-employing or had fewer than 20 employees. However, these enterprises with fewer than 20 employees accounted for only 31 percent of all employees. Conversely, enterprises with 100 or more employees made up less than one percent of the total number of enterprises in New Zealand but employed 47 percent of the total number of employees. At February 2010, 69 percent (323,940) of all enterprises were non-employing enterprises. In terms of industrial

activity, 28 percent of these enterprises were predominantly involved in rental, hiring, and real estate services, 16 percent in agriculture, forestry, and fishing, 10 percent in professional, scientific, and technical services and 10 percent in construction.

During the year to February 2010, the enterprises with 6–9 employees recorded the largest drop of employees (down 2.8 percent), followed by enterprises with 20–49 employees (down 2.3 percent) and enterprises with 100 or more employees (down 2.3 percent).

Note that the employee count statistics presented here do not include working owners unless they are paid a salary or a wage subject to pay as you earn tax (PAYE).



Source: Statistics New Zealand

## Births and deaths of enterprises

Births and deaths of enterprises are presented on an annual basis, as at February. For a birth or death to be counted in a reference period, it must have occurred during the year (start of March to the end of February), and not have a changed status by the February reference point. For example, an enterprise which ceased operation during the year, and then recommenced operation before February, will not be counted as a death. In the graphs for births and deaths, the term 'February' (eg February 2010) is used to describe this annual reference period for measuring births and deaths.

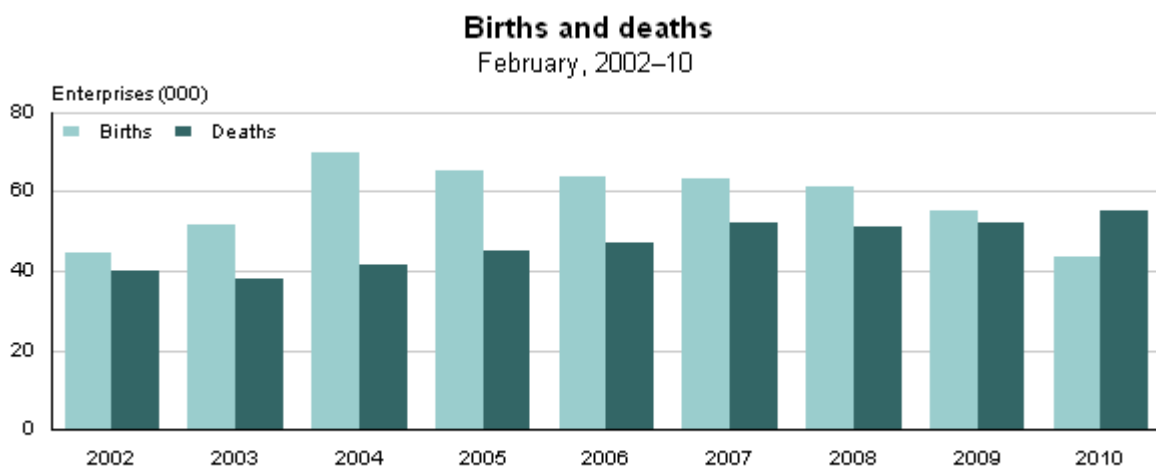
The data is released on a provisional basis and includes a revised time series back to 2001. It is expected that the largest revisions will occur in the most recent reference periods. This is mainly due to the lags associated with the processing of administrative data. Analysis of the 2010 data should be carried out with caution.

In the February 2010 reference period, 43,700 new enterprises started operation (births), which is a decrease of 20.4 percent compared with February 2009. This is the largest decrease in any year since the beginning of the new series. These new enterprises accounted for 9 percent of the

total number of enterprises (470,350) in New Zealand at February 2010. This is the lowest birth rate since the beginning of the current series. Over the period 2001 to 2010, the number of enterprise births each year has varied from 43,020 to 69,560. Note that the 2004 figure of 69,560 was influenced by a methodology change and needs to be interpreted with caution (see 'Technical notes').

In the February 2010 reference period, 55,040 enterprises ceased operation (deaths), which is an increase of 6.0 percent compared to February 2009. The number of enterprise deaths has varied from 38,100 to 55,040 over the period 2001 to 2010, the highest being in 2010.

The February 2010 reference period was the first year since 2001 where the provisional data showed the number of deaths exceeding the number of births. There was an overall decrease of 1.7 percent in the total number of enterprises in New Zealand from February 2009 to February 2010.

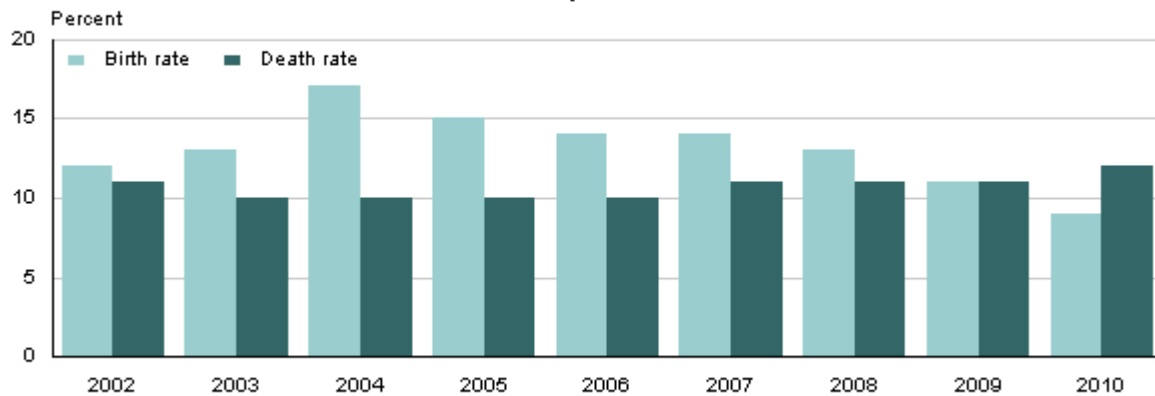


Source: Statistics New Zealand

The number of births each year can be expressed as a birth rate (percentage) by dividing the number of births by the total population of enterprises. Over the period 2001 to 2010, the annual birth rate of new businesses varied between 9 and 17 percent. Note that the high value in 2004 (17 percent) coincided with a change in methodology (see 'Technical notes'). The annual death rate varied between 10 and 12 percent. The resulting business turnover rate (sum of the birth rate and death rate) ranged from 21 percent to 26 percent.

## Birth and death rate for enterprises

February, 2002–10



Source: Statistics New Zealand

## Breakdown of enterprise births and deaths

Births can be analysed further and classified as:

- surviving births (births that survive at least one reference period in the business demography population)
- short-lived births (births that do not survive one reference period in the business demography population, either due to death or dormancy)
- pure births (births that have a recent birth date – the birth dates of all geographic units and the enterprise are less than two years from the February reference period).

Analysis of births over the periods 2001 to 2009 suggests around four in five births survive at least one reference period (surviving births). Of the 54,930 births in the February 2009 reference period, 44,600 survived until February 2010, representing 81 percent of total births.

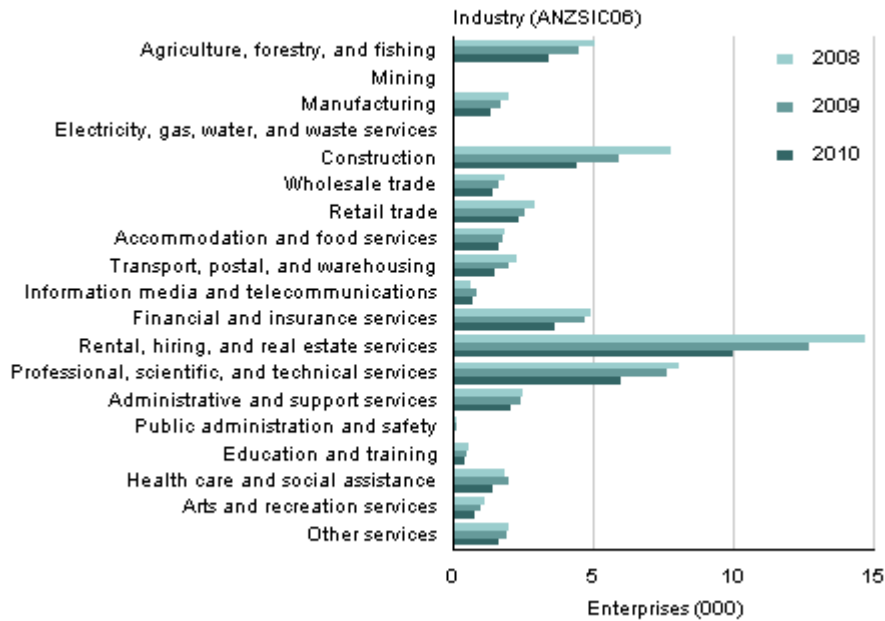
## Enterprise births by industry

In the February 2010 reference period, the rental, hiring, and real estate services industry had the largest number of births (23 percent of total births), followed by professional, scientific, and technical services (14 percent) and construction (10 percent). From 2001 to 2010 the rental, hiring, and real estate industry has had the highest number of births in each year.

In the February 2010 reference period, the mining industry had the lowest number of births, followed by electricity, gas, water, and waste services, and then public administration and safety. These three industries consistently had the lowest number of births over the period 2001 to 2010.

## Births by industry

February, 2008–10



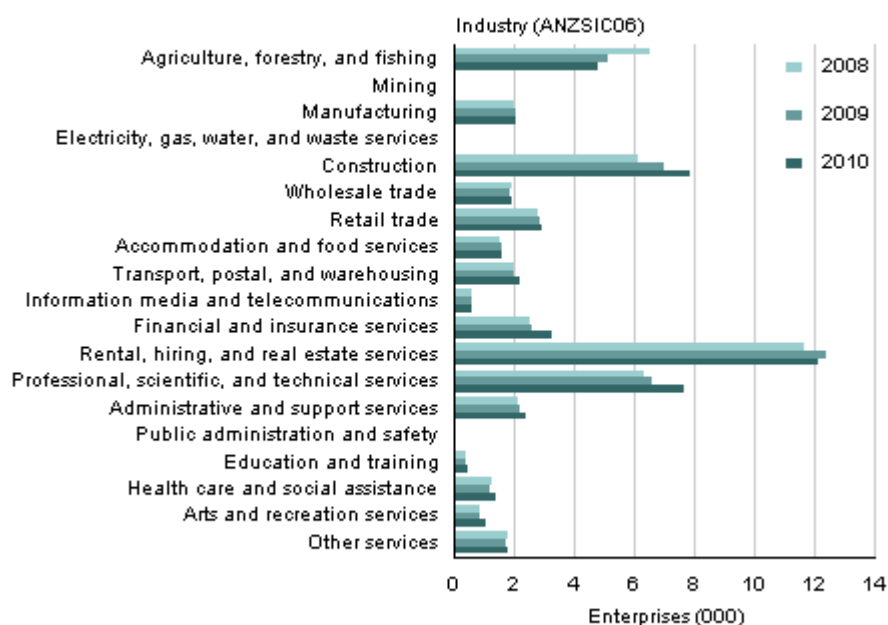
Source: Statistics New Zealand

## Enterprise deaths by industry

In the February 2010 reference period, the rental, hiring, and real estate services industry had the largest number of deaths (22 percent of total deaths), followed by construction (14 percent) and professional, scientific, and technical services (14 percent). Industries with the smallest number of deaths included mining; electricity, gas, water, and waste services; and public administration and safety.

## Deaths by industry

February, 2008–10



Source: Statistics New Zealand

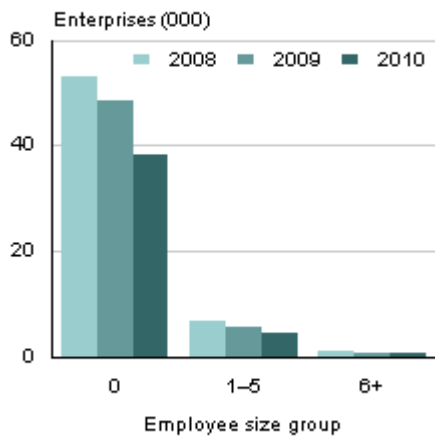
## Enterprise births by employee size group

In the February 2010 reference period, the majority of births were non-employing enterprises (87 percent). Eleven percent of the births were in the 1 to 5 employees category. All other employee size categories had small numbers of births. This was a consistent trend over the period 2001 to 2010. In total, the new enterprises for 2010 had 20,800 employees, which is approximately 1.1 percent of the total number of paid employees for all enterprises.

## Enterprise deaths by employee size group

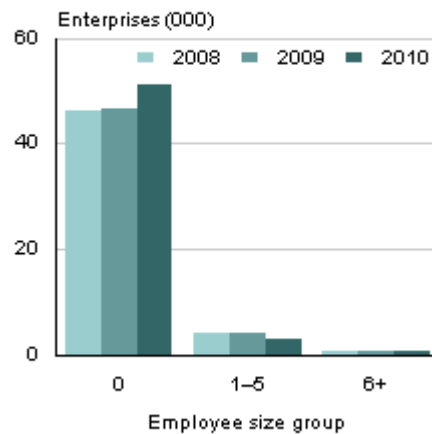
In the February 2010 reference period, the majority of enterprise deaths were non-employing enterprises (93 percent). A further 6 percent were in the 1 to 5 employees category. In total the ceased enterprises had 23,600 paid employees (approximately 1.2 percent of the total number of paid employees).

### Births by employee size group February, 2008–10



Source: Statistics New Zealand

### Deaths by employee size group February, 2008–10



Source: Statistics New Zealand

## Surviving births

The longitudinal nature of the Longitudinal Business Frame (LBF) (the source data for business demography statistics) allows enterprise births in any reference period to be tracked over subsequent years. Survival rate statistics can be used to analyse the rate of survival of new births, by both industry and business size. Survival rates are calculated as the percentage of births in each reference period that survive into future reference periods in the business demography population (surviving births divided by total births for a particular reference period). To be considered a survivor, the enterprise must exist at every reference period between its birth year and the given reference period.

### Survival rates of enterprises birthed in 2001

This analysis concentrates on enterprises birthed in 2001. Similar trends are observed for enterprises birthed from 2002 to 2008.

In the February 2001 reference period there were 43,020 enterprise births. Of these, 80 percent survived the first year, 67 percent survived the second, 58 percent survived the third, 51 percent survived the fourth, 45 percent survived the fifth, 40 percent survived the sixth, 37 percent survived the seventh, 34 percent survived the eighth and 31 percent survived the ninth (2010).

Non-employing enterprises had a significantly lower proportion (28 percent) of births surviving the nine years to 2010 compared with businesses that had paid employees (46 percent for the 1 to 5 employees category and higher proportions for larger employee size groups).

## Survival rate of 2001 births by employee size group

February, 2004–10



Source: Statistics New Zealand

Industries with higher survival rates over the nine-year period included mining (47 percent); health care and social assistance (47 percent); agriculture, forestry, and fishing (40 percent); and financial and insurance services (39 percent). Lower survival rates were observed for the administrative and support services industry (23 percent) and the information media and telecommunications industry (24 percent).

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### Next release ...

*New Zealand Business Demography Statistics: At February 2011* will be released in October 2011.

## Technical notes

### Business demography statistics

Business demography statistics provide an annual snapshot (as at February) of the structure and characteristics of New Zealand businesses. The series covers economically significant enterprises that are engaged in the production of goods and services in New Zealand.

This is the fourth publication of a new business demography dynamic statistics series, based on the Longitudinal Business Frame (LBF). The first publication, New Zealand Business Demography Statistics (Structural): At February 2007 includes more background about the new series.

### Businesses covered

In order to understand what business demography statistics measure, it is important to take into account the coverage of businesses in the published series. The coverage of business demography statistics is limited to economically significant enterprises that are engaged in the production of goods and services in New Zealand. They must meet at least one of the following criteria:

- annual expenses or sales subject to GST of more than \$30,000
- 12-month rolling mean employee count of greater than three
- part of a group of enterprises
- registered for GST and involved in agriculture or forestry
- over \$40,000 of income recorded in the IR10 annual tax return (this includes some units in residential property leasing and rental).

Enterprises recorded on Inland Revenue's client registration file are continually monitored to determine whether they meet the 'economic significance' requirements for inclusion. These enterprises maintained on the Business Frame (source of the LBF) represent the target population from which Statistics New Zealand's economic surveys are selected.

All non-trading and dormant enterprises, as well as enterprises outside of New Zealand, are excluded from business demography statistics.

### How businesses are represented as statistical units

Businesses are represented in the BF (Business Frame) and the business demography statistics as statistical units. Two types of statistical units are used.

- The enterprise unit represents the legal business entity, for example a limited company, a partnership, a trust, an incorporated society. Where there is a group of limited companies linked by share ownership, each individual limited company is recorded in the statistics as a separate enterprise.
- The geographic unit represents a business location engaged in one, or predominantly one, kind of economic activity at a single physical site or base (eg a factory, a farm, a shop, an office). Geographic units are unique to enterprises and an enterprise unit can have from one to many geographic units (business locations). Typically an enterprise unit only has a single geographic unit, unless the enterprise has paid employees permanently working at more than one location. Geographic units can be transferred between

enterprises, for example enterprise B purchases a factory (a geographic unit on the BF) as a going concern from enterprise A.

The detailed [Table Builder business demography statistics](#) include outputs for both enterprise and geographic units. When you create a table in Table Builder select the statistical unit that is appropriate to your statistical requirements. Regional data is only available for geographic units.

## **Updates to business demography data**

Data on the BF is updated continually to maintain the latest information on businesses. Updates can affect the history of businesses as well. The LBF is constructed monthly from all current and historic BF data, taking into account all updates that have occurred on the BF since the last construction. This means that statistics based on the LBF can change if they are recreated from an updated version of the LBF.

From the 2007 release onwards, business demography statistics are released provisionally to allow for updates to the series to be incorporated. It is expected the largest revisions will occur in the most recent reference periods, with smaller changes earlier in the time series. This is mainly due to the lags associated with the processing of administrative data, which are a key component of the BF maintenance strategy.

## **Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006**

This publication is the third release of business demography statistics on the basis of the [Australian and New Zealand Standard Industrial Classification \(ANZSIC\) 2006](#). Previously, the 1996 version of ANZSIC was used. References to industries in this Hot Off the Press all relate to ANZSIC 2006. The tables released with this publication include both the 1996 and 2006 versions of ANZSIC. This dual publication of the two versions of ANZSIC is repeated for the final time with this 2010 release of business demography statistics, while the 2011 release and beyond will be based only on ANZSIC 2006.

## **Regional Business Demography Statistics and the Auckland Council (Super City)**

Regional statistics released for 2010 via Table Builder include:

- The regional councils, cities, districts, and area units that existed in February 2010.
- The regional councils, cities, and districts that reflect the creation of the Auckland Council on 1 November 2010. These statistics are a recalculation of the Business Demography Statistics data as at February 2010 and include some estimation with the regional classification of geographic units on the southern border of the Auckland Council. These statistics include local authority boundary changes in Waikato region as well as the Auckland Council changes.

From 2011 regional business demography statistics will only be published on the basis of the new Auckland Council, including the historical time series.

## **Identification and definition of business births and deaths**

To observe business dynamics such as births and deaths over time from administrative data sources, it is crucial to be able to link continuing businesses if their identifiers change in the

source data. A business may undergo several changes in its lifetime, in addition to birth and death. For example, legal or administrative entities may close down or emerge due to breakups, mergers, split-offs, takeovers, or restructuring. Any of these events can result in the business obtaining a new unique identifier (an IRD number) in the tax reporting system and subsequently on the BF. A business would then appear as a death and subsequent birth in these systems. However, neither administrative changes nor the events mentioned above necessarily indicate the occurrence of a birth or death of the underlying business activity in the real world.

The methods used to identify business births, deaths, and continuing businesses in the business demography dataset are in line with recommendations from the Organisation for Economic Co-operation and Development (OECD) and Eurostat. The theoretical criteria used to define business births, deaths, and continuing businesses are based on a combination of factors of production (land, labour, capital). A birth is an assembly of new factors of production. A death is a disassembly of factors of production.

In practice, the information that is used as proxies for these factors of production to identify continuing businesses are:

- whether a business holds a majority of its original geographic units (business locations)
- if a business keeps the same trading name
- if a business is in the same industry
- if a business continues to operate from the same location
- whether a business continues to employ most of its former employees.

In contrast, indicators for a new business (birth) are whether a business formed new geographic units, has a new trading name, and mostly recruits new employees.

The processes used to identify continuing businesses on the LBF (longitudinal links) are described in [Business Demographic Statistics Review Report](#).

## **Reference period for births and deaths**

Births and deaths are presented on an annual basis, as at February. For a birth or death to be counted in a reference period, it must have occurred at some stage during the year (start of March to the end of February), and not have a changed status by the February reference point. For example, an enterprise which ceased operation at some stage during the year, and then recommenced operation before February, will not be counted as a death.

According to the recommendation of Eurostat for enterprise births and deaths, a reactivation (existing enterprises which have been dormant for a period of time and come back into the business demography population) after less than two years of inactivity is not counted as a death and subsequent birth. To identify births at time T, it is therefore necessary to check movements in the enterprise population over more than one period (year) – that is, at least back to time T-2 years. Looking back in time further than just one period to determine the status of an enterprise also helps to filter out temporary movements in and out of scope (as determined by the economic significance of an enterprise, which may change from one period to the next). The number of periods we can look back for births, or forward for deaths, is limited by the start and end points of the available data (the LBF holds data from April 1999 to the current month). For enterprise births in 2001, the snapshots of April 1999 and February 2000 were used as reference points. For all other birth and death reference periods, only snapshots for February were used as reference points.

## Identification of enterprise births in business demography

**Total entries** of period T are all enterprises whose identifiers exist at time T but not at time T-1 year. Of these, **real births** are all enterprises whose geographic units existed at neither time T-1 year nor time T-2 years.

- If an enterprise consists of more than one geographical unit, it is only considered a real birth if none of its units existed in the previous two years.
- Entries other than real births are enterprises that experience administrative changes or movements in and out of scope.

Once real births have been identified on the LBF using the methods above, they can be analysed further. By splitting real births of period T into:

- **pure births**, birth dates of all geographic units and the enterprise are more recent than the February snapshot of time T-2 years
- **other births**, birth dates are not recent, therefore these are likely to be reactivations
- **surviving births**, survive at least one period until time T+1 year
- **short-lived births**, disappear by time T+1 year, either due to death or dormancy.

## Identification of enterprise deaths in business demography

**Total exits** of period T are all enterprises whose identifiers exist at time T-1 year but not at time T. Of these, **real deaths** are all enterprises whose geographic units exist at neither time T nor time T+1 year.

- If an enterprise consists of more than one geographical unit, it is only considered a death if all of its units disappear in the following two years.
- Exits other than real deaths are enterprises that experience administrative changes or movements in and out of scope.
- If data for time T+1 year are not available, the number of real deaths will be preliminary until it can be revised after the next snapshot is available. A review of the identified real deaths for the 2001–05 period showed that they would have been overestimated by 7 to 8 percent if the next snapshot had not been available. Therefore deaths for the 2010 reference period should be treated with caution.

## Identification of geographic unit births and deaths in business demography

These statistics are available by regional council and territorial local authority. The rules for identifying geographic unit births and deaths mirror those of enterprise units, as described above, except that the enterprise unit to geographic unit linkages are irrelevant. Existing geographic units moving into or between regions are not considered as births or deaths.

## Survival of enterprise births

The longitudinal nature of the LBF allows enterprise births in any reference period to be tracked over subsequent years. Survival rate statistics can be used to analyse the rate of survival of new births, by both industry and business size. Survival rates are calculated as the percentage of births in each reference period that survive into future reference periods in the business demography population (surviving births divided by total births for a particular reference period). To be considered a survivor, the enterprise must have existed at every reference period between its birth year and the given reference period.

## International comparability

The OECD study on international comparability of business start-up rates found that although enterprise birth rates are considered key economic indicators, their availability and definition varies considerably from country to country. Therefore, comparisons of birth or start-up rates between countries should be treated with caution. Eurostat and the OECD are currently working on standard models for business populations and standardised definitions for key indicators. The definitions and methods used in New Zealand business demography statistics align well with the best practice models presented in the OECD study. Further detail is available in the [Business Demographic Statistics Review Report](#).

## Employee count data

The employee count data published in the Business Demography Statistics and LEED (Linked Employer-Employee Database) is sourced from the Employer's Monthly Schedule (EMS) tax form. There are a number of conceptual differences between the business demography employee count size measures and the published LEED employment statistics. Major differences include:

- Business demography includes employees of all ages (LEED statistics exclude employees aged under 15 years).
- Business demography counts employees employed at any time during the February month (LEED statistics only count employees employed on the 15th of the reference month).
- Business demography uses the EMS data before all the returns are finalised. At the time of the business demography publication, the EMS data is considered robust enough to provide an accurate indicator for business size.

Business demography does not provide official statistics on employment levels. The employee count data in business demography is primarily used to support business size measure statistics.

- Business demography revisions each year can include updates to the employee count (EC) data for previous years.
- The 'Technical notes' section's 'Guide to interpreting time series data' and 'Limitations of business demography data' apply to the EC statistics as well as the counts of statistical unit statistics.
- The timing of seasonal business activity (eg horticultural crop harvesting) can influence the time series for some industries and regions.
- The EC statistics include all employees that were paid during the month, irrespective of the number of hours worked or the number of days employed. If an individual had multiple jobs during a month with different employers, all jobs are counted.
- The EC data at the geographic unit level for multi geographic unit (many business locations) enterprises is calculated by a process that includes some estimation. Enterprise unit EC data is proportioned out to the constituent geographic units by using survey data and administrative records on employee locations.
- Generally the employee count for a geographic unit is all paid employees working at that business location. However for industries with employees who do not work at a fixed location, the employees are counted at the geographic unit that represents the base, administrative, or head office of their employer. Examples include the building and construction industry, transport industry, contract labour industry, health care and assistance, gardening, agriculture contracting, cleaning, etc.
- Caution and an understanding of the factors influencing the EC statistics are required in interpreting changes over time.

The employee count data does not include working owners unless they are paid a salary or wage by the enterprise that is subject to PAYE. So enterprises in the zero employee count size category may have:

- working owners
- labour which may be provided by other businesses or contractors
- business activity that requires no labour (eg passive investment).

## Guide to interpreting time series data

The published time series of business demography data has several significant changes caused by improved Statistics NZ processes. Due to data constraints, no attempt has been made in the series to remove the influence of these changes, rather they are described here so that users can understand the time series.

- Agriculture units (ANZSIC 2006 subdivision A01) – For a period of time prior to 2002 the agricultural units on the BF were maintained to a lower quality level than other units on the BF as there was no agricultural production statistics programme in place. Following the reintroduction of a programme of annual agricultural production statistics in 2002, there were consequential improvements in the BF quality, with business demography data for the agriculture industry considered more robust from 2004. However, feedback on the BF from the agriculture programme cycle can still result in some volatility in the agriculture series. Some of the changes in business demography statistics for agriculture therefore reflect quality improvements in the BF, rather than actual changes.
- The business demography series shows a small drop in the total number of enterprises from 2000 to 2001. This was influenced by a change in June 2000 to the methodology used to add new units to the BF. Under the new methodology units were only added to the BF after administrative data sources reported that they displayed sufficient activity to meet the BF economic significance conditions. Previously, non-employed units had been added to the frame before they met the economic significance conditions. The change only affected non-employed businesses.
- The business demography series shows a significant increase in the number of enterprises in 2004, particularly in ANZSIC 2006 divisions K (financial and insurance services) and L (rental, hiring, and real estate services). This was largely a consequence of improved use of administrative data to maintain the BF. Most of the enterprises added were non-employed businesses.

Other factors related to the representation of businesses on the BF can also influence time series data.

- Business demography time series statistics can be influenced by structural changes in businesses, such as business mergers, one business taking over another business, or a business selling part of its activities. This can cause a significant movement in an industry (ANZSIC) time series of employee count data. For example, in a business takeover where one enterprise is absorbed into another enterprise, the employees of the smaller enterprise will typically become classified to the ANZSIC of the larger enterprise.
- Regional business demography time series statistics can be influenced by changes in how an enterprise with many business locations is represented on the BF as geographic unit(s). For example a move to a less granular or more detailed geographic unit structure on the BF, due to changes in a way a business reports regional information can influence regional time series.
- Many enterprises undertake a range of business activities simultaneously. For example, they manufacture and wholesale goods and their activities can be over a range of commodities that cross ANZSIC boundaries. Enterprises are classified to ANZSIC on the

BF according to its predominant activity. Movements in time series of ANZSIC data can be caused by the predominant activity of enterprises changing. This can cause what appears to be a significant change in an industry time series. These changes need to be interpreted with caution, because the business activity may be largely continuing under a different predominant industry classification.

## Limitations of business demography data

There are a number of limitations associated with business demography data. These limitations include:

- Non-coverage of 'small' enterprises that fall below the economic significance criteria.
- Partial coverage of enterprises in the gap between the BF economic significance condition of \$30,000 of sales subject to GST and the compulsory GST registration threshold of \$60,000 (applied from 1 April 2009). The level of this partial coverage cannot be quantified, but it is observed that some businesses do register for GST when their activity is below the compulsory GST registration threshold.
- The residential property operators industry (ANZSIC 2006 class L6711) contains only partial coverage, so must be analysed with caution.
- Lags in recording enterprise births and deaths.
- The published time series is subject to revision each year as the latest data from the LBF is incorporated for relevant years. Revisions of any significance will typically be confined to the last end points of the series.
- The business demography statistics on the number of business births, deaths, and surviving businesses rely on a variety of data sources to identify a continuing business that for example undergoes a change of legal ownership and restructuring as well as genuine business start-ups and closures. These data sources are not comprehensive and are of lower quality for small non-employing businesses. When businesses register for GST and are added (or 'birthed') onto the BF, they are given a new reference number. Company restructuring or changes of ownership can result in a new GST registration being filed, even though it relates to an existing business. Both the BF and the LBF have procedures in place to identify links between new and existing businesses, but there is no guarantee that all links will be identified. There will also be some false positive links identified. So some caution is required in the interpretation and use of these statistics.
- Non-availability of overseas ownership information for some of the units on the BF.
- Difficulties in maintaining industrial and geographic classifications for medium and smaller enterprises (that are primarily maintained on the BF using administrative data).
- Fine-level regional and industry business demography data needs to be used with caution. The BF, which is the main source of data for the business demography series, is designed to support quality national level and aggregate industry level statistics. It is not designed to provide quality fine-level regional or industry statistics. Particularly for small and medium-sized enterprises, the BF update sources can have timing lags and less robust information. These quality weaknesses can be highlighted in fine-level business demography statistics.
- Some caution is required with the use of back cast ANZSIC 2006 statistics as some of the classification data has been imputed (estimated).

## Rounding

Enterprise and geographic unit counts in the tables attached to this release are unrounded. Employee count data has been rounded. This may result in a total differing slightly from the sum of its components. Derived figures (eg percentage changes) have been calculated using unrounded data.

## **Terms and definitions**

### **ANZSIC**

Australian and New Zealand Standard Industrial Classification (ANZSIC 1996 and ANZSIC 2006). A geographic unit is assigned to an ANZSIC category according to the predominant activity in which it is engaged.

### **Ancillary industry**

When a geographic unit predominantly provides services to other geographic units in the same enterprise or group of enterprises, it is assigned an ancillary ANZSIC. This indicates the predominant industrial activity of the units to which the services are provided. For example, an office serving several factory units would have a primary industry reflecting the administration activity, while the ancillary industry would reflect the factory activity. The business demography statistics in this release use the ancillary industry when one exists, and the primary industry otherwise.

### **Birth**

A birth is the creation of a combination of production factors, with the restriction that no other national businesses are involved in the event. Births do not include entries into the population due to reactivations, mergers, break-ups, split-offs, or other restructuring of a group of businesses linked by ownership or control. Births also exclude entries into a population resulting from changes to characteristics of existing businesses (this is largely based on, and fully consistent with, the Eurostat definition of enterprise births). To be considered a birth in the business demography population, the enterprise and associated geographic units existed at neither time T-1 year nor time T-2 years.

### **Death**

A death is the dissolution of a combination of production factors, with the restriction that no other domestic businesses are involved in the event. Deaths do not include exits from the population due to temporary inactivity, mergers, takeovers, break-ups, or other restructuring of a group of businesses linked by ownership or control. Deaths also exclude exits from a population resulting from changes to characteristics of businesses which remain active (this is largely based on, and fully consistent with, the Eurostat definition of enterprise deaths). To be considered a death in the business demography population, the enterprise and associated geographic units exist at neither time T year nor time T+1 year.

### **Employee count (EC)**

Head count of salary and wage earners sourced from taxation data. EC data is available on a monthly basis. The EC count used for the derivation of business demography statistics is for the February month.

### **Employment size groups**

EC data in this release has been summarised into seven employment size groups:

- 0 EC
- 1–5 EC
- 6–9 EC

- 10–19 EC
- 20–49 EC
- 50–99 EC
- 100+ EC.

## **Enterprise**

A business operating in New Zealand. It can be a company, partnership, trust, estate, incorporated society, producer board, local or central government organisation, voluntary organisation, or self-employed individual.

## **Entries**

Enterprises that are present in the business demography population at the end of the reference period, but were not present at the start of the reference period.

## **Exits**

Enterprises that are present in the business demography population at the start of the reference period, but are not present at the end of the reference period.

## **Geographic unit or business location**

A separate operating unit engaged in New Zealand in one, or predominantly one, kind of economic activity from a single physical location or base.

## **Pure births**

Births which have a recent birth date. The birth dates of all geographic units and the enterprise are more recent than the February snapshot of time T-2 in the business demography population. Pure births generally exclude reactivations (enterprises dormant for a period of time that come back into the population).

## **Reactivations**

Enterprises dormant for a period of time that come back into the business demography population.

## **Surviving births**

Births that survive at least one period (until time T+1 reference period) in the business demography population.

## **Short-lived births**

Births that disappear by the time T+1 reference period in the business demography population, either due to death or dormancy.

## **Survival rates**

Survival rates are calculated as the percentage of births in each reference period that survive into future reference periods in the business demography population (surviving births divided by

total births for a particular reference period). To be considered a survivor, the birthed enterprise must have existed at every reference period between its birth year and the given reference period.

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## **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 provided with this Hot Off the Press 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. Enterprises, geographic units, and employee count, by ANZSIC06 division, at February 2010
2. Business demography population, births, and deaths, at February, 2001–10
3. Breakdown of births, at February, 2001–10
4. Births by industry (ANZSIC06), at February, 2001–10
5. Deaths by industry (ANZSIC06), at February, 2001–10
6. Births by employee count size group, at February, 2001–10
7. Deaths by employee count size group, at February, 2001–10
8. Employee count of births and deaths, by employee count size group, at February, 2001–10
9. Average employee count of births and deaths, at February, 2001–10
10. Survival rate of births by industry (ANZSIC06), at February, births in 2001–08
11. Survival rate of births by employee count size group, at February, births in 2001–08
12. Enterprises, geographic units, and employee count, by ANZSIC96 division, at February 2010
13. Births by industry (ANZSIC96), at February, 2001–10
14. Deaths by industry (ANZSIC96), at February, 2001–10
15. Survival rate of births by industry (ANZSIC96), at February, births in 2001–08

## Supplementary tables

More business demography tables can be found in [Table Builder](#).