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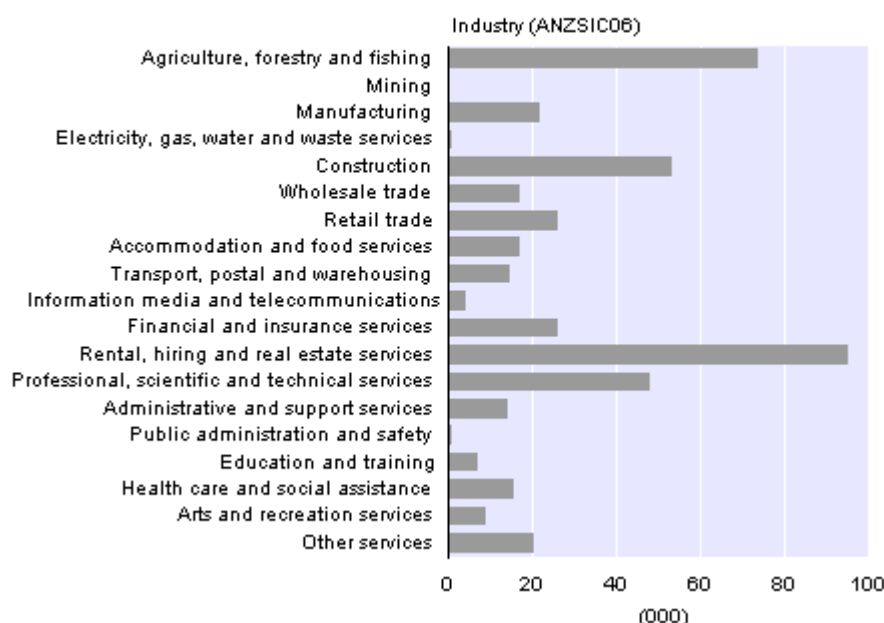
New Zealand Business Demography Statistics: At February 2008

Highlights

- At February 2008, the number of businesses was provisionally 471,100, up 1.5 percent compared with February 2007.
- Three-quarters of business locations were in the North Island (31 percent in the Auckland region).
- One-fifth of all enterprises were engaged in the rental, hiring and real estate services industry.
- The manufacturing industry was the largest employer (252,200 employees).
- There were 56,460 enterprise births over the year (12 percent of the total number of enterprises).
- Of the 62,370 births in the February 2007 year, 83 percent were still operating in 2008. Of the 42,760 births in the February 2001 year, 37 percent were still operating in 2008.
- This is the first publication of business demography statistics using the 2006 version of the Australian and New Zealand Standard Industrial Classification (ANZSIC).

Number of Enterprises by Industry

At February 2008



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See also [New Zealand Business Demography Statistics: At February 2008 – Media release](#).

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 individual, private sector and public sector enterprises that are engaged in the production of goods and services in New Zealand.

This is the second year of publication of an improved set of business demography statistics based on the Longitudinal Business Frame (LBF). 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 data is released on a provisional basis and includes 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 2008 data should be carried out with caution.

This publication is the first 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. For more details, see the [Introducing ANZSIC 2006](#) web page. 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 dual publication of the two versions of ANZSIC will be repeated for the 2009 and 2010 releases of business demography statistics, while 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. For more details on how ANZSIC 2006 was used in the business demography series, read the technical notes of this release.

Total number of enterprises and geographic units

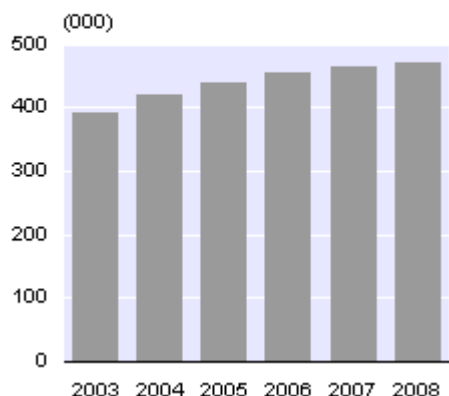
At February 2008, the number of enterprises on Statistics New Zealand's Longitudinal Business Frame was 471,100. The number of business locations (geographic units) corresponding to these enterprises was 507,790. These businesses engaged a total of 1.969 million employees.

When comparing February 2008 with February 2007, the number of enterprises in New Zealand increased by 1.5 percent (up 6,760). Almost all industries were showing growth. The industry with the largest increase was rental, hiring and real estate services (up 4,070), followed by financial and insurance services (up 1,830) and construction (up 1,670). The largest decrease was in agriculture, forestry and fishing (down 4,100 enterprises).

The number of business locations increased in all regional council areas between February 2007 and February 2008. The number of employees engaged grew to 38,900 (up 2.0 percent) in February 2008 compared with February 2007.

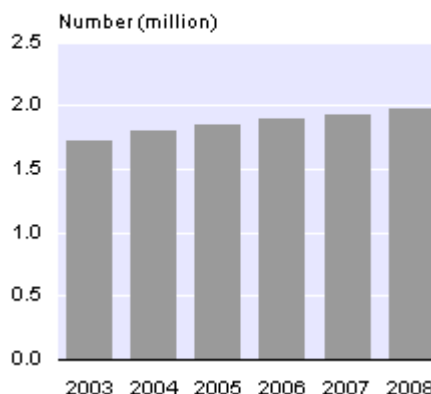
Number of Enterprises

At February 2003–08



Employee Count

At February 2003–08



Industry statistics

Rental, hiring and real estate services

The rental, hiring and real estate services industry had the largest number of enterprises (95,500), representing 20 percent of all enterprises in New Zealand, at February 2008. This industry also had the largest increase in the number of enterprises, up 4,070 or 4.5 percent, between February 2007 and 2008. Most of this growth (96 percent) was from non-employed enterprises. There were approximately 30,600 employees engaged in the rental, hiring, and real estate services industry at February 2008, compared with 30,000 at February 2007 (up 700 or 2.2 percent).

Agriculture, forestry and fishing

There were 74,030 enterprises predominantly engaged in the agriculture, forestry and fishing industry at February 2008, a decrease of 4,100 (5.2 percent) compared with February 2007. Most of this decrease (85 percent) was from non-employed enterprises. Note that the data for the agriculture industry needs to be interpreted with caution due to influences from the sources and processes used to maintain the LBF. The technical notes accompanying this release provide more detail.

The agriculture, forestry and fishing industry engaged approximately 110,100 employees at February 2008, almost the same as in February 2007. Of these employees, 73 percent were engaged in the ANZSIC agriculture subdivision level.

Financial and insurance services

There were 26,310 enterprises predominantly engaged in the financial and insurance services industry at February 2008, an increase of 1,830 (7.5 percent) compared with February 2007. About 96 percent of this increase was from non-employed enterprises.

The financial and insurance services industry engaged approximately 57,200 employees at February 2008 with a small increase of 500 (0.9 percent) from the previous year.

Construction

There were 53,590 enterprises predominantly engaged in the construction industry at February 2008, an increase of 1,670 (3.2 percent) compared with February 2007. About 46 percent of this increase was from non-employed enterprises.

The construction industry engaged approximately 132,000 employees at February 2008, up 5,200 (4.1 percent) from the previous year. This employment increase was contributed largely by residential and non-residential building construction (57 percent) while construction services accounted for 37 percent of this increase.

Professional, scientific and technical services

There were 48,430 enterprises predominantly engaged in the professional, scientific and technical services industry at February 2008, an increase of 1,630 (3.5 percent) compared with February 2007. About 59 percent of this increase was from non-employed enterprises.

The professional, scientific and technical services industry engaged approximately 126,300 employees at February 2008, up 6,400 (5.3 percent) from the previous year. About 76 percent of this rise in employment numbers was from professional, scientific and technical services, while computer system design and related services contributed 24 percent.

Manufacturing

There were 22,030 enterprises predominantly engaged in the manufacturing industry at February 2008, nearly the same as in February 2007. Of these enterprises, 17 percent were involved in machinery and equipment manufacturing, while 15 percent were involved in fabricated metal product manufacturing.

The manufacturing industry was the largest employer at February 2008 with approximately 252,200 employees. Between February 2007 and 2008, the number of employees in the manufacturing industry decreased by 3,200 (1.3 percent). Two-thirds of manufacturing industries at the ANZSIC subdivision level recorded a decrease in employment. The main contributor to this decrease was food product manufacturing, followed by wood product manufacturing.

Regional statistics

Auckland region

At February 2008, almost one-third (31 percent) of all business locations (geographic units) in New Zealand were in the Auckland region. One-third of all employees (33 percent) were engaged by these business locations.

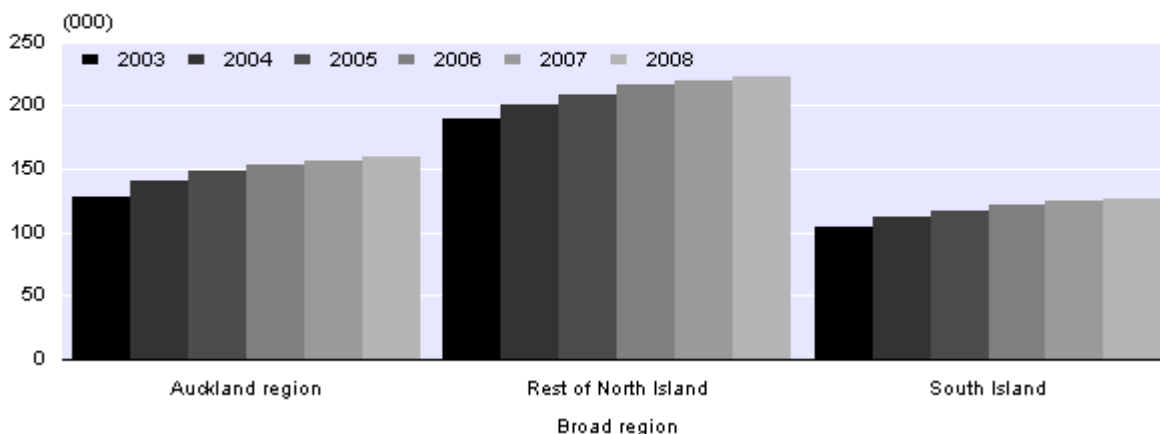
There were 159,400 business locations in the Auckland region at February 2008, up 2.0 percent from February 2007. The majority of industries at the ANZSIC division level recorded increases. The industries with the largest increases were rental, hiring and real estate services (up 1,040 or 3.3 percent), followed by financial and insurance services (up 750 or 6.6 percent) and professional, scientific and technical services (up 730 or 3.3 percent).

At February 2008, there were approximately 644,900 employees associated with businesses located in the Auckland region, up 2.4 percent from February 2007. The industries with the largest increases in employee numbers were professional, scientific and technical services (up 3,700 or 6.4 percent), retail trade (up 1,800 or 2.7 percent) and transport, postal and warehousing (up 1,700 or 5.4 percent). The largest reduction of employees occurred in the manufacturing industry (down 1,300 or 1.6 percent).

Number of Geographic Units

By broad region

2003-08



Remainder of North Island

Excluding the Auckland region, there were 222,100 business locations in the remaining regions of the North Island at February 2008. This was an increase of 1.0 percent when compared with February 2007. These business locations engaged approximately 829,800 employees at February 2008, a 1.5 percent increase from February 2007.

Regions showing significant increases in the number of business locations were Wellington (up 790), Waikato (up 620) and Bay of Plenty (up 300). In Wellington the industry with the highest increase in employment was health care and social assistance (up 1,200 or 5.7 percent) while in Waikato it was professional, scientific and technical services (up 1,000 or 11.0 percent).

South Island

There were 126,050 business locations in the South Island at February 2008. This was an increase of 1,890 (1.5 percent) from February 2007. These business locations engaged approximately 494,000 employees, an increase of 11,200 (2.3 percent) when compared with February 2007.

At February 2008, over half of all business locations (64,210) and employees (approximately 262,700) in the South Island were located in the Canterbury region. Compared with February 2007, Canterbury recorded increases of 960 business locations and approximately 6,300 employees in February 2008. That region contributed more than half towards the overall growth in business locations (51 percent) and number of employees (56 percent) in the South Island.

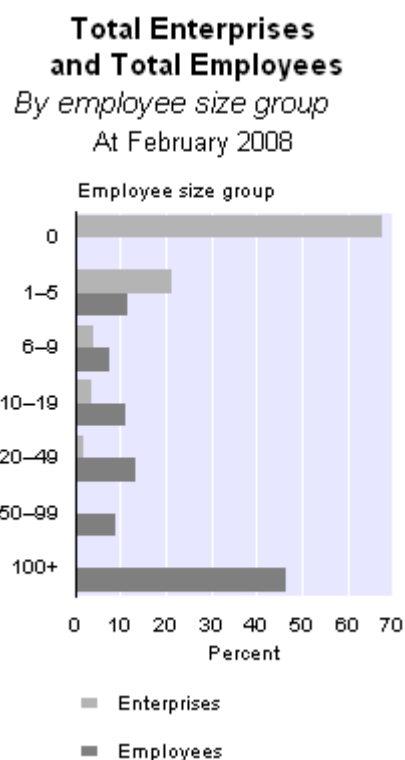
The increase of business locations in Canterbury was mainly in the rental, hiring and real estate services industry, while the increase in the number of employees was spread over many industries.

Business size

At February 2008, most enterprises in New Zealand (97 percent) had fewer than 20 employees. However, these enterprises accounted for only 31 percent of all employees. Conversely, enterprises with 100 or more employees made up 0.5 percent of the total number of enterprises in New Zealand but employed 47 percent of the total number of employees.

At February 2008, 68 percent (319,500) of all enterprises were non-employing enterprises, which is the same percentage as in February 2007. In terms of industrial activity, 28 percent of these enterprises were predominantly involved in rental, hiring and real estate services, 17 percent in agriculture, forestry and fishing, and 11 percent in professional, scientific and technical services.

During the year to February 2008, the strongest growth in employment came from businesses with 100 or more employees (up 26,000 employees or 2.9 percent), followed by firms with 20–49 employees (up 4,000 employees or 1.5 percent).



Births and deaths of enterprises

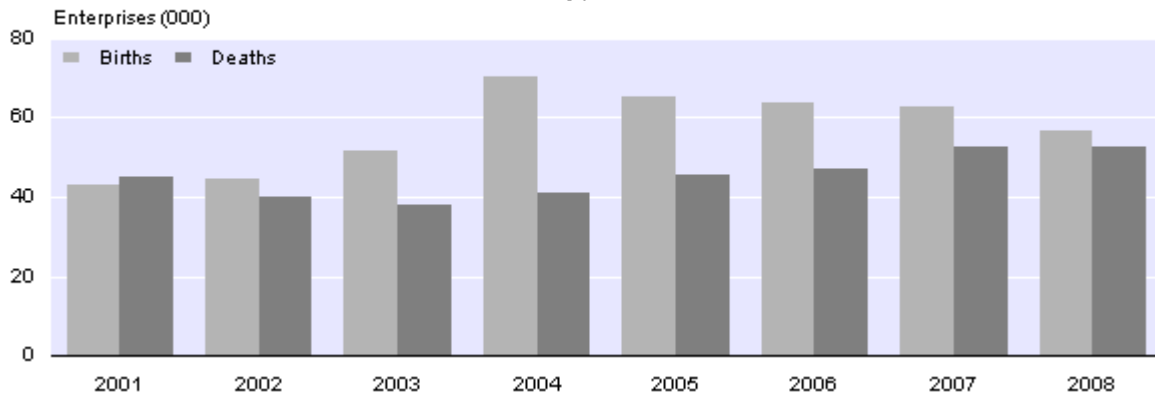
Births and deaths are presented on an annual basis, as at February. For a birth or death to be counted in a reference period, it must have occurred at some stage during the year (start of March to the end of February), and not have a changed status by the February reference point. For example, an enterprise which ceased operation at some stage during the year, and then recommenced operation before February, will not be counted as a death. In the following graphs for births and deaths, the term 'February' (eg February 2008) is used to describe this annual reference period for measuring births and deaths.

In the February 2008 reference period, 56,460 new enterprises started operation (births). These new enterprises accounted for 12 percent of the total number of enterprises (471,100) in New Zealand at February 2008. In the February 2008 reference period it is estimated that 52,690 enterprises ceased operation (although this a preliminary estimate and should be treated with caution). There was an overall increase of 1.5 percent in the total number of enterprises from February 2007 to February 2008.

Over the period 2001 to 2008, the number of enterprise births each year has varied from 42,760 to 70,180. Note that the 2004 figure of 70,180 is influenced by a methodology change and needs to be interpreted with caution (see the technical notes). The number of enterprise deaths has varied from 37,860 to 52,690 over the period 2001 to 2008. In every year from 2002, the number of births exceeds deaths and consequently there has been steady growth in the total number of enterprises each year to 2008.

Births and Deaths

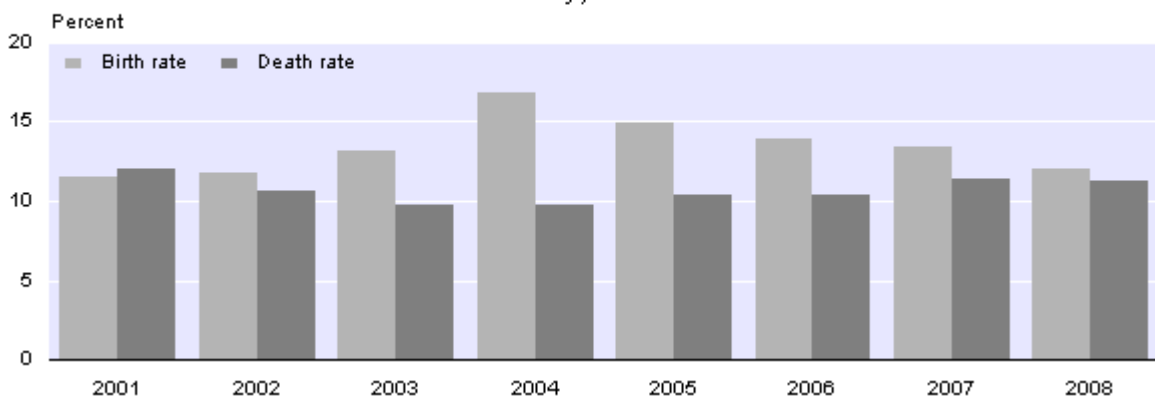
February, 2001–08



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 2008, the annual birth rate of new businesses varied between 11 and 17 percent. Note that the high value in 2004 (17 percent) coincides with a change in methodology (see the 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 22 percent to 26 percent.

Birth and Death Rate

February, 2001–08



Breakdown of births and deaths

Births can be analysed further and classified as:

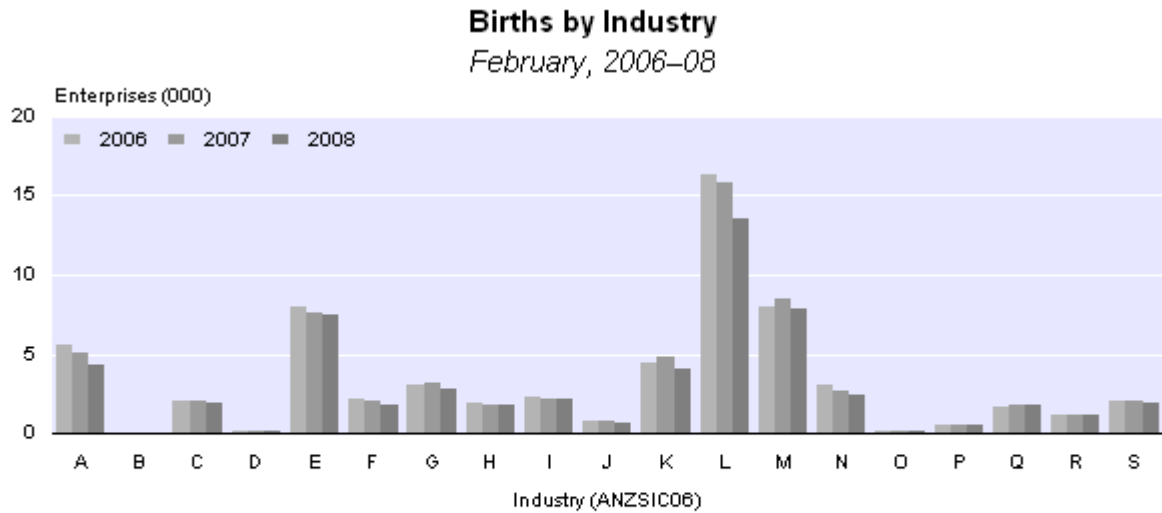
- surviving births (births that survive at least one reference period in the business demography population)
- short-lived births (births that do not survive one period in the business demography population, either due to death or dormancy)
- pure births (births that have a recent birth date. The birth 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 2008 suggests around four in five births survive at least one reference period (surviving births). Of the 62,370 births in the February 2007 reference period, 51,580 survived until February 2008, representing 83 percent of total births.

Births by industry

In the February 2008 reference period, the rental, hiring and real estate services industry had the largest number of births (24 percent of total births), followed by professional, scientific and technical services (14 percent) and construction (13 percent). From 2001 to 2008 the rental, hiring and real estate industry has had the highest number of births in each year.

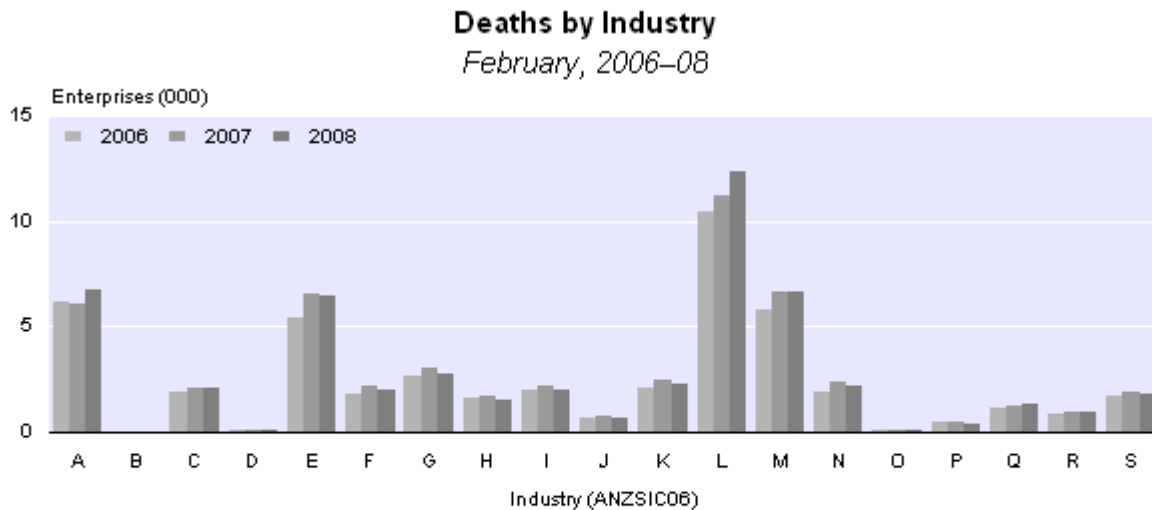
In the February 2008 reference period, the mining industry had the lowest number of births, followed by electricity, gas, water and waste services, and then public administration and safety. These three industries consistently had the lowest number of births over the period 2001 to 2008.



A Agriculture, forestry and fishing; B Mining; C Manufacturing; D Electricity, gas and waste services; E Construction; F Wholesale trade; G Retail trade; H Accommodation and food services; I Transport, postal and warehousing; J Information media and telecommunications; K Financial and insurance services; L Rental, hiring and real estate; M Professional, scientific and technical services; N Administrative and support services; O Public administration and safety; P Education and training; Q Health care and social assistance; R Arts and recreation services; S Other services

Deaths by industry

In the February 2008 reference period, the rental, hiring and real estate services industry had the largest number of deaths (23 percent of total deaths), followed by agriculture, forestry and fishing (13 percent), professional, scientific and technical services (13 percent) and construction (12 percent). Industries with low death numbers included mining; and electricity, gas, water and waste services.



A Agriculture, forestry and fishing; B Mining; C Manufacturing; D Electricity, gas and waste services; E Construction; F Wholesale trade; G Retail trade; H Accommodation and food services; I Transport, postal and warehousing; J Information media and telecommunications; K Financial and insurance services; L Rental, hiring and real estate; M Professional, scientific and technical services; N Administrative and support services; O Public administration and safety; P Education and training; Q Health care and social assistance; R Arts and recreation services; S Other services

Births by employee size group

In the February 2008 reference period, the majority of births were non-employing enterprises (86 percent). Twelve percent of the births were in the 1 to 5 employees category. All other employee size categories had small numbers of births. This is a consistent trend over the period 2001 to 2008. In total, the new enterprises for 2008 had 29,470 employees, which is approximately 1.5 percent of the total number of paid employees for all enterprises.

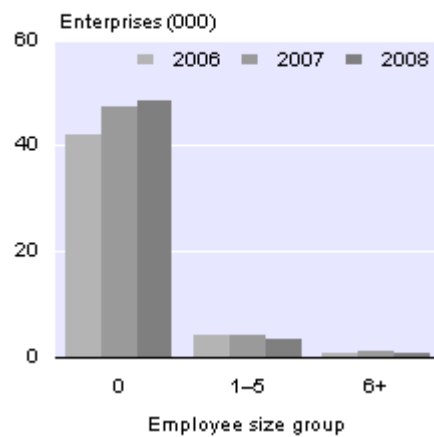
Deaths by employee size group

In the February 2008 reference period, the majority of enterprise deaths were non-employing businesses (92 percent). A further 7 percent were in the 1 to 5 employees category. In total the ceased businesses had 18,520 paid employees (approximately 1 percent of the total number of paid employees).

Births by Employee Size Group
February, 2006–08



Deaths by Employee Size Group
February, 2006–08



Surviving births

The longitudinal nature of the LBF (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 birthed enterprise must exist in the specified succeeding reference period, as well as every reference period in between.

Survival rates of enterprises birthed in 2001

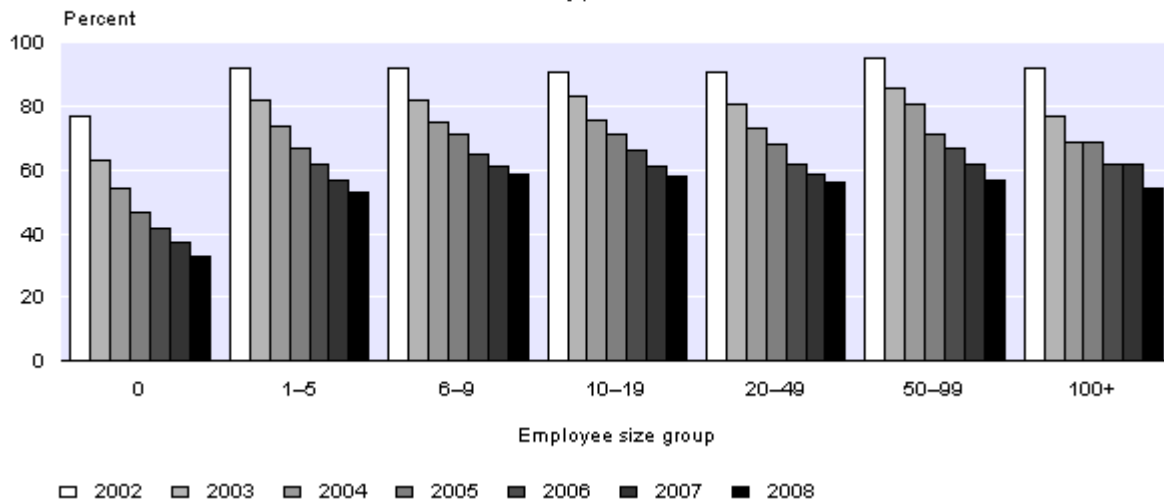
This analysis concentrates on enterprises birthed in 2001. Similar trends are observed for enterprises birthed from 2002 to 2006.

In the February 2001 reference period there were 42,760 new 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, and 37 percent survived the seventh (2008).

Non-employed enterprises had a significantly lower proportion (33 percent) of new births surviving the seven years to 2008 compared with businesses that had paid employees (53 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

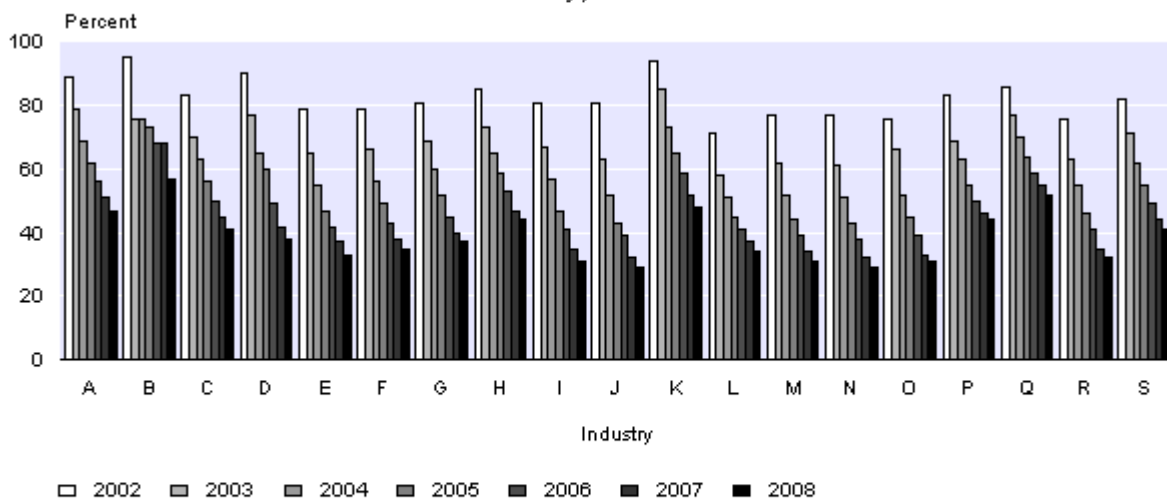
February, 2002–08



Industries with higher survival rates over the seven-year period included mining (57 percent), health care and social assistance (52 percent), financial and insurance services (48 percent), and agriculture, forestry and fishing (47 percent). Lower survival rates were observed for the administrative and support services industry and the information media and telecommunications industry (29 percent for both).

Survival Rate of 2001 Births by Industry

February, 2002–08



A Agriculture, forestry and fishing; B Mining; C Manufacturing; D Electricity, gas and waste services; E Construction; F Wholesale trade; G Retail trade; H Accommodation and food services; I Transport, postal and warehousing; J Information media and telecommunications; K Financial and insurance services; L Rental, hiring and real estate; M Professional, scientific and technical services; N Administrative and support services; O Public administration and safety; P Education and training; Q Health care and social assistance; R Arts and recreation services; S Other services

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Next release ...

New Zealand Business Demography Statistics: At February 2009 will be released in November 2009.

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 individual, private sector and public sector enterprises that are engaged in the production of goods and services in New Zealand.

This is the second publication of a new business demography dynamic statistics series, based on a recently developed statistical resource, the Longitudinal Business Frame (LBF). The first publication, [New Zealand Business Demography Statistics \(Structural\): At February 2007](#) includes more background about the new series.

Introduction of the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006

This publication is the first 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. ANZSIC 2006 has been developed for use in the compilation and analysis of industry statistics in Australia and New Zealand. The Australian Bureau of Statistics and Statistics New Zealand jointly developed this classification to improve the comparability of industry statistics between the two countries and with the rest of the world. The 2006 version of ANZSIC is a significant update to the 1996 version and follows a substantial review of the classification. This involved extensive consultation with government agencies responsible for policy formulation and administration, and non-government analysts of industry structure and performance. The purpose of the review was to ensure that the classification remained current and relevant, reflecting the changes that have occurred in the structure and composition of industry since the previous edition and recognising changing user requirements for data classified to industry. International comparability has been enhanced by aligning the classification, as far as possible, with the upcoming revision of the International Standard Industrial Classification of All Economic Activities (ISIC) (Revision 4). This web page, [Introducing ANZSIC 2006](#), includes links to the structure and detail of the classification.

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 will be repeated for the 2009 and 2010 releases of business demography statistics, while the 2011 release will be based only on ANZSIC 2006.

The ANZSIC 2006 classification was introduced to the BF (Business Frame – source of the LBF) in 2005 when all live units were coded to ANZSIC 2006 in tandem with ANZSIC 1996. This dual coding to both versions of ANZSIC on the BF will continue to 2011. After 2011 only the ANZSIC 2006 classification will be maintained. ANZSIC 2006 has been back cast to 2000 for all units on the BF to provide users with a time series for the new classification. This back casting was carried out by these methods, in the listed order of preference:

- Using concordances from ANZSIC 1996 to 2006 when the concordance was one to one or many to one.
- Automatic coding from business activity description information.
- Imputation based on proportions for many to many and one to many ANZSIC 1996 to ANZSIC 2006 concordances. The proportions were based on the complete dual classification to ANZSIC 1996 and ANZSIC 2006 of the BF in 2005. Approximately 9 percent of the back cast ANZSIC 2006 classifications are imputed.

The tables section of this release includes a count of enterprises at February 2008 by both ANZSIC 2006 division and ANZSIC 1996 division.

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 individual, private sector and public sector 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 GST expenses or sales of more than \$30,000
- rolling mean employee count of greater than three
- part of a group of enterprises
- a new GST registration that is compulsory, special or forced
- registered for GST and involved in agriculture or forestry
- over \$40,000 of income recorded in the IR10 annual tax return (this does include some units in residential property leasing and rental).

At February 2008, there were 471,100 economically significant enterprises on the LBF. They were estimated to represent 99 percent of all GST sales. All non-trading and dormant enterprises, as well as enterprises outside of New Zealand, are excluded from business demography statistics.

All GST registered enterprises recorded on Inland Revenue's client registration file are continually monitored to determine whether they meet the 'economic significance' requirements for inclusion. A buffer zone of \$25,000 to \$35,000 has been established to prevent enterprises switching repeatedly in and out of the economic significance group. The enterprises maintained on the BF represent the target population from which Statistics New Zealand's economic surveys are selected.

Identification and definition of business births and deaths

To observe enterprise 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 (for example, 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 in the real world.

The methods used to identify births, deaths and continuing businesses in the business demography dataset is 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.

Three processes have been developed to identify continuing businesses on the LBF (longitudinal links). Each process, by making complementary linkages to LBF units, is set up to support the others in minimising the likelihood of creating erroneous links. While the first two repair processes use the geographic unit from the BF to repair longitudinal links, the third repair process uses the Inland Revenue reporting unit from the taxation system. In general, the Inland Revenue reporting unit is the enterprise or a group of enterprises. The main objective of exploiting the repair information made by either the geographic unit or the enterprise unit is to isolate the economic birth or death of a business, which in business demography is defined around the enterprise or legal unit rather than around the geographic unit. These processes are described in more detail in the [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). Of course 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 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 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 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 2001–2005 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 2008 reference period should be treated with caution.**

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 birthed enterprise must exist in the specified succeeding reference period, as well as every reference period in between.

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. It might take some time for countries to adopt such standards however, “data producers are often more influenced by national data requirements than international comparability”.

The definitions and methods set out in this section align well with the best practice models presented in the OECD study, especially with the standard model proposed therein. With a better understanding of the various categories of enterprise entries (pure births, reactivations, other entries) it should also be possible to adapt the methods developed by Statistics New Zealand to international standards, once the latter are finalised. Further detail is available in the [Business Demographic Statistics Review Report](#).

Employee count data

The employee count data published in the Business Demography Statistics is sourced from LEED (Linked Employer-Employee Database). There are a number of conceptual differences between the business demography size measures and the published LEED employment statistics. A few of the 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 Employment Monthly Schedule (EMS) data before all returns are finalised. At the time of the business demography publication, the data is considered robust enough to provide an accurate indicator for business size. Business demography does not provide official statistics on employment levels.

Business demography revisions each year can include updates to the employee count data for previous years.

Updates to business demography data

Data on the BF (Business Frame) 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 data, taking into account all updates that have occurred 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.

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. The Agricultural Production Census is conducted every five years (the most recent in 2007) with annual sample surveys used in other years. Some of the changes in business demography statistics for agriculture therefore reflect quality improvements in the BF, rather than actual changes. Note that the industry classification updates from the 2007 Agricultural Production Census have yet to be fully implemented on the BF.

- The residential property operators industry (ANZSIC 2006 class L6711) contains only partial coverage, so must be analysed with caution.
- 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-employing units had been added to the frame before they met the economic significance conditions. The change only affected non-employing 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-employing 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.
- 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.
- Lags in recording business 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.
- Difficulties in maintaining industrial and business classifications for smaller firms (that are primarily maintained using administrative data).
- 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.
- 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 businesses, 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 (for example 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. Additionally the enterprise ANZSIC uses the highest value added to determine the predominant activity for enterprises engaged in multiple activities. In the cases where it is difficult to determine value added of multi-activity enterprises the ANZSIC is derived from the employment levels of the geographic unit(s) belonging to that enterprise.

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 / 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 exist in the specified succeeding reference period, as well as every reference period in between.

More information

For more information, follow the [link](#) from the technical notes of this release on the Statistics NZ website.

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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 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 2008
2. Business demography population, births and deaths, at February, 2001–08
3. Breakdown of births, at February, 2001–08
4. Births by industry (ANZSIC06), at February, 2001–08
5. Deaths by industry (ANZSIC06), at February, 2001–08
6. Births by employee count size group, at February, 2001–08
7. Deaths by employee count size group, at February, 2001–08
8. Employee count of births and deaths, by employee count size group, at February, 2001–08
9. Average employee count of births and deaths, at February, 2001–08
10. Survival rate of births by industry (ANZSIC06), at February, births in 2001–06
11. Survival rate of births by employee count size group, at February, births in 2001–06
12. Enterprises, geographic units and employee count, by ANZSIC96 division, at February 2008
13. Births by industry (ANZSIC96), at February, 2001–08
14. Deaths by industry (ANZSIC96), at February, 2001–08
15. Survival rate of births by industry (ANZSIC96), at February, births in 2001–06

Supplementary tables

The following table has not been printed with this Hot Off The Press but can 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. More business demography tables can be found in the [Table Builder](#) facility on Statistics New Zealand's website.

1. Number of enterprises by ANZSIC96 and ANZSIC06 divisions, at February 2008