



Hot Off The Press

LATEST STATISTICS FROM STATISTICS NEW ZEALAND

Embargoed until 10:45am – 27 April 2007

Business Operations Survey

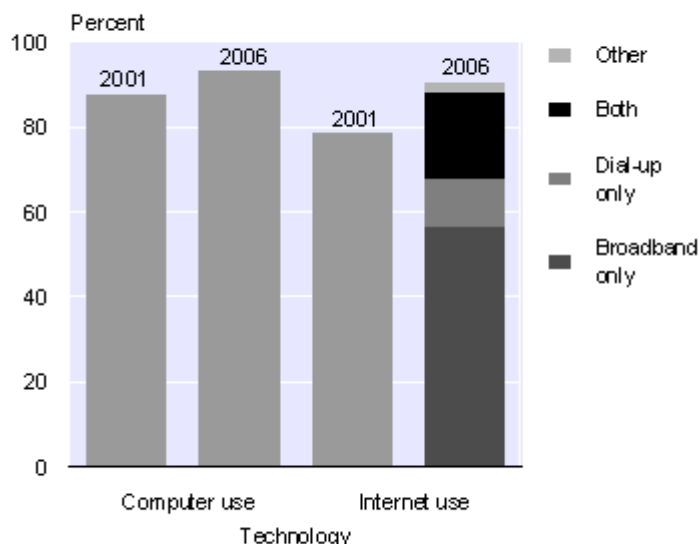
2006

Highlights

- **Ninety-one percent of businesses use the Internet.**
- **Seventy-seven percent of businesses use a broadband Internet connection.**
- **The skilled labour market was rated as poor by 32 percent of businesses.**
- **Twenty percent of businesses offer arrangements for some staff to work from home.**

Penetration of Information and Communication Technology

2001 and 2006 years



Note: 2001 data sourced from *Information Technology Use in New Zealand 2001*. Internet connection types for 2001 are not available.

Dallas Welch
Acting Government Statistician

27 April 2007
Cat 70.914 Set 06/07 – 164

There is a companion Media Release published – [Business Operations Survey 2006](#).

Commentary

Business Operations Survey

The Business Operations Survey collects information from a wide cross-section of New Zealand businesses in order to build a better understanding of a range of business practices and behaviours that may have some impact on business performance.

This is the first release of Business Operations Survey 2006 statistics. More information on business performance and operating environments will be published in a report in August 2007. Data on businesses' use of ICT will also be included in both a detailed report on ICT in New Zealand and the *OECD Science, Technology and Industry scoreboard* in late 2007.

Business operations

Businesses exporting

Sixteen percent of businesses had export sales in their last financial year, which is similar to the 2005 results. The percentage of businesses with exports sales of \$25 million or more increased from 12 percent in 2005 to 15 percent in 2006.



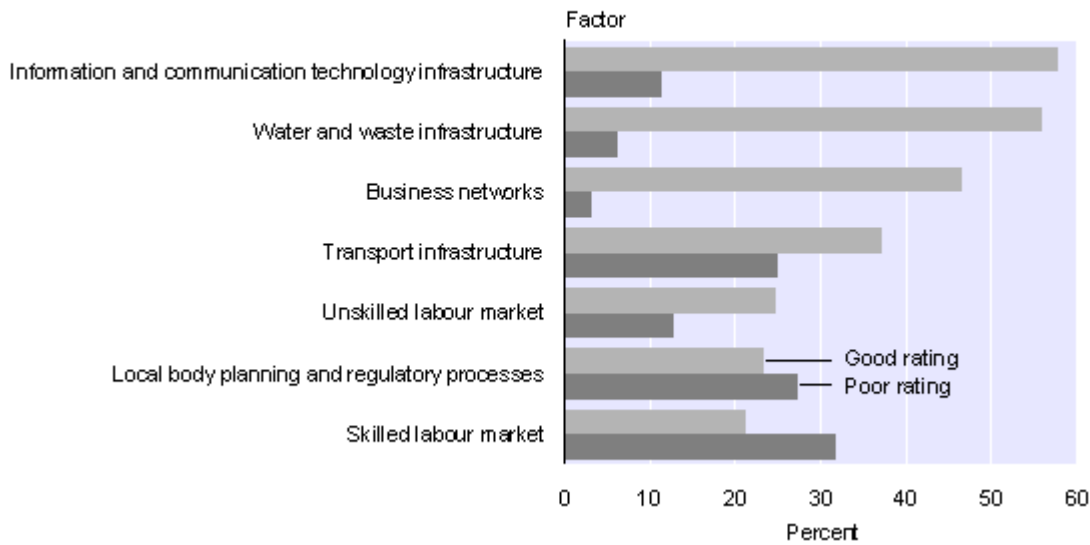
The industry with the greatest increase was the transport and storage industry, followed by the wholesale trade industry. Fifty percent of exporters in the transport and storage industry had export sales of \$25 million or more compared to 28 percent in 2005. Twenty-five percent of exporters in the wholesale trade industry had export sales of \$25 million or more compared to 19 percent in 2005. (See table 1.)

Business operating environment

The environmental factor rated the best by businesses was their information and communications technology infrastructure, followed by their water and waste infrastructure and business networks.

Two factors were rated poorly – the skilled labour market and local body planning and regulatory processes.

Business Operating Environment *August 2006*



The construction industry had the largest percentage of businesses that rated the skilled labour market as poor (52 percent). (See table 2.)

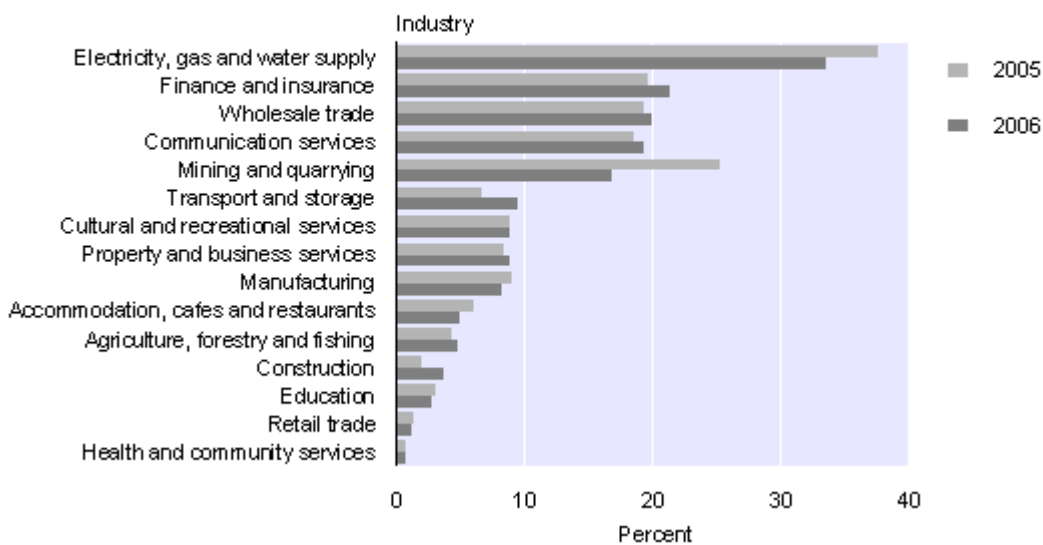
Foreign ownership

The electricity, gas and water supply industry had the highest percentage (33 percent) of businesses with some degree of foreign ownership. The finance and insurance, wholesale trade and communication services industries had more than 15 percent of businesses with foreign ownership.

The biggest change between 2005 and 2006 occurred in the mining and quarrying industry, where the percentage of businesses with foreign ownership reduced from 25 percent to 17 percent.

Businesses with Foreign Ownership *By industry*

Last financial year at August



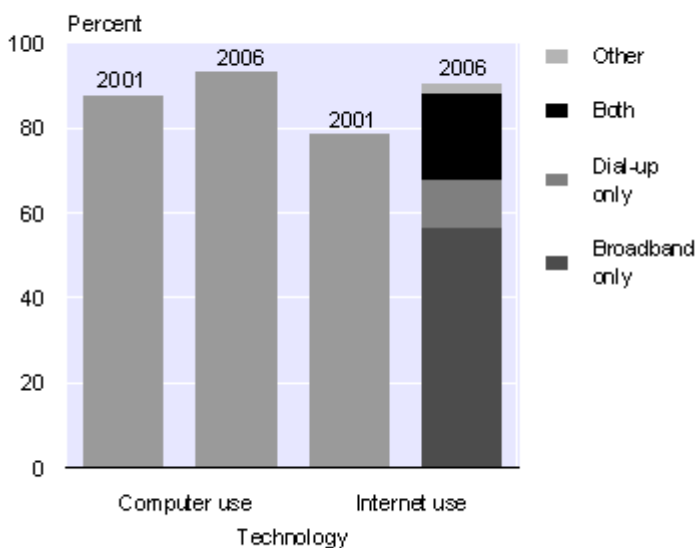
Information and communication technology (ICT)

ICT penetration

Survey results show that 93 percent of businesses used computers and 91 percent used the Internet. Business use of ICT was previously examined in the analytical report [Information Technology Use in New Zealand 2001](#). Comparison of results indicates the number of businesses using the Internet has increased by 12 percentage points. Most businesses use a broadband internet connection rather than dial-up. Fifty-seven percent of businesses use broadband only, 11 percent use dial-up only and 21 percent use both.

Penetration of Information and Communication Technology

2001 and 2006 years



Note: 2001 data sourced from *Information Technology Use in New Zealand 2001*. Internet connection types for 2001 are not available.

ICT security

The security measure used by the greatest proportion of businesses was regularly updated virus checking or protection software (88 percent). Regular back-up of critical data was next (80 percent) followed by a firewall (76 percent) and spam filter (67 percent).

Results vary across different industries, for example 79 percent of businesses in the finance and insurance industry use offsite data back-up compared to 21 percent in the accommodation, cafes and restaurants industry. (See table 5.)

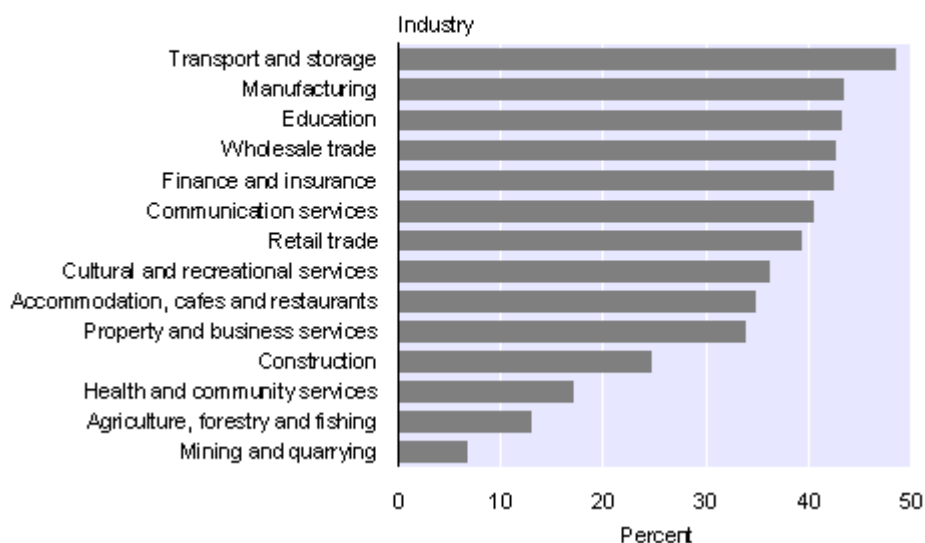
Internet sales

Overall, 34 percent of businesses indicated that they used the Internet to receive orders for goods or services. The highest proportion was recorded in the transport and storage industry (48 percent).

Businesses Using the Internet to Receive Orders

By industry

Last financial year at August 2006



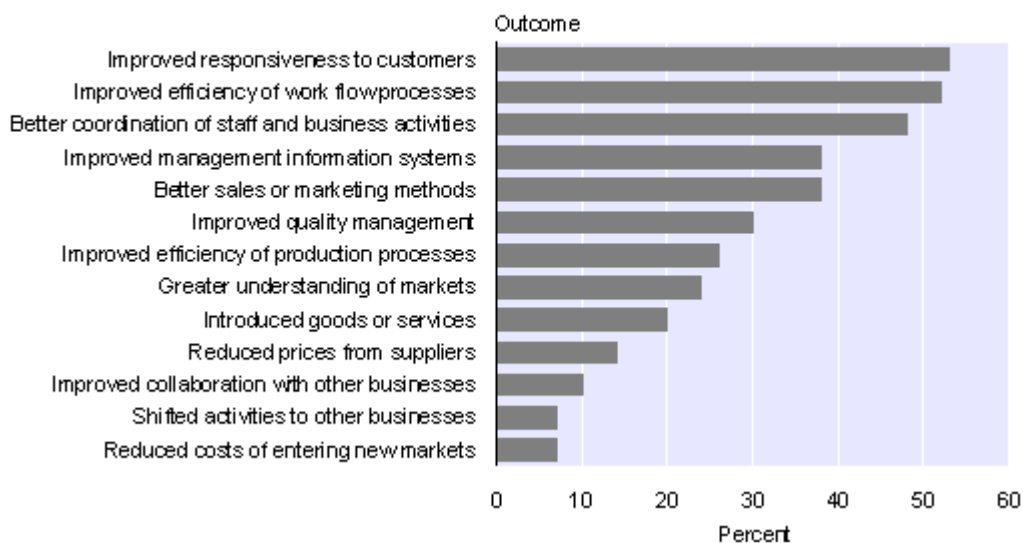
Nineteen percent of all businesses reported that up to 10 percent of their total sales were Internet sales. Six percent of all businesses indicated that up to 10 percent of their Internet sales were exports. (See table 6.)

ICT outcomes

The most common ICT outcomes were improved responsiveness to customers and improved efficiency of work flow processes. Over 50 percent of businesses indicated that ICT was important in achieving these outcomes. The ICT outcomes cited by the least number of businesses were reduced costs of entering new markets and shifted activities to other businesses (both 7 percent).

Outcomes of Information and Communication Technology

August 2006



Data on businesses' use of ICT will also be included in both a detailed report on ICT in New Zealand and the [OECD Science, Technology and Industry scoreboard](#) in late 2007.

Employment practices

Employee training

Overall, 86 percent of businesses trained their staff during the previous financial year. Seventy-seven percent of those businesses trained their staff in health and safety, the most common type of training reported. Trade related and professional/technical training were the next most common types of training. Forty-nine percent of all businesses trained their staff in teamworking/communication, the least common type of training.

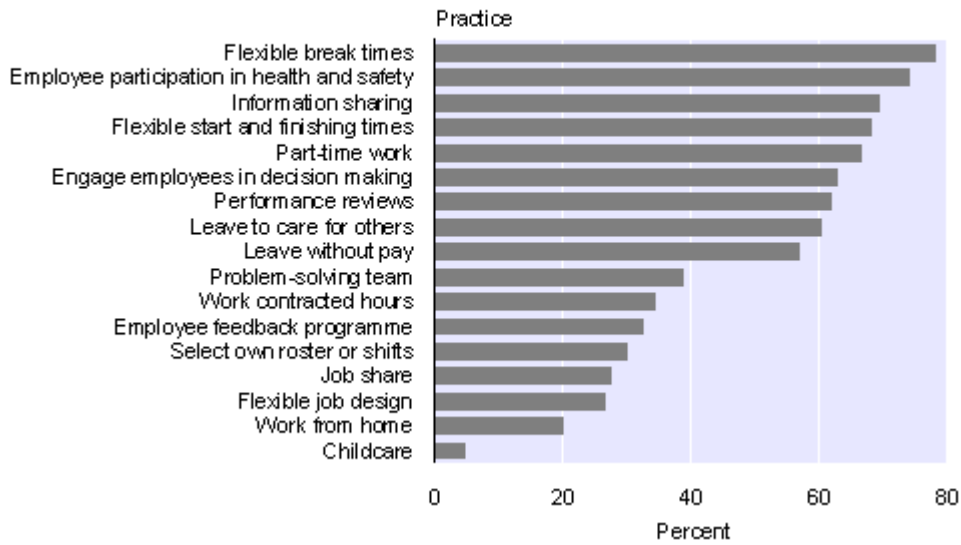


Flexible working arrangements and other employment practices

The most common employment practice offered by businesses was flexible break times (78 percent), followed by employee participation in health and safety (74 percent). The practices offered by the least businesses were arrangements for some staff to work from home (20 percent) and childcare allowances or facilities (5 percent).

Employment Practices

August 2006



Results vary considerably by industry, as highlighted in the table below. For more industry results, see tables 9 and 10.

Employment Practices

August 2006

Practice	Highest percentage		Lowest percentage	
	Industry	Percent	Industry	Percent
Performance reviews	Electricity, gas and water supply	100	Agriculture, forestry and fishing	43
Part-time work	Health and community services	92	Construction	43
Employee feedback programmes	Education	79	Retail trade	21
Working contracted hours	Education	62	Electricity, gas and water supply	17
Childcare	Education	32	Electricity, gas and water supply	0

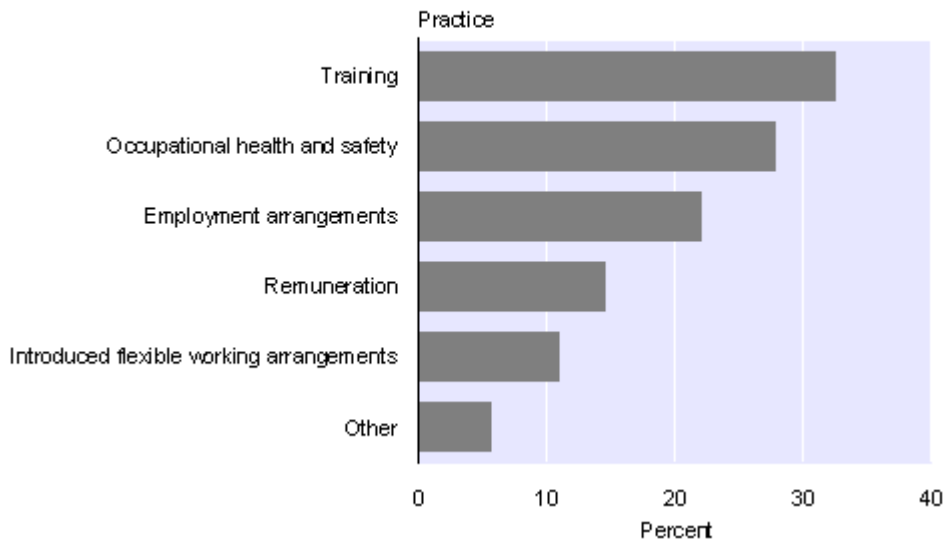
Note: All counts (not percentages) in this survey were randomly rounded to base 3 to protect confidentiality, so actual figures may differ from those stated.

Changes to employment practices

The survey asked businesses to indicate the single most important employment practice change made over their last two financial years. Forty-seven percent of businesses made an employment practice change. The most commonly cited important change was made to training (32 percent), followed by occupational health and safety (28 percent).

Most Important Employment Practice Change

Last two financial years at August 2006



Businesses that changed an employee practice were asked to indicate the reasons for making that change. Overall, the most common reasons were to improve business performance (55 percent) and to improve internal staff relations (43 percent). (See table 12.)

For technical information contact:

Julia Gretton

Wellington 04 931 4600

Email: info@stats.govt.nz

Technical notes

Survey background

The New Zealand Government has a range of initiatives aimed at increasing New Zealand's economic growth rate above the OECD average and sustaining this higher growth performance over a number of years. In order for New Zealand's economic performance to be measured against these aims, a large range of data on a variety of measures needs to be collected.

Because of this increase, Statistics New Zealand has developed an integrated, modular survey – the Business Operations Survey – as a way of collecting the required information while minimising the reporting load for New Zealand businesses. The survey has been designed to include up to three 'modules' and has been run annually since 2005.

The survey has been developed by Statistics NZ in conjunction with the Ministry of Economic Development (MED) and the Department of Labour and is carried out annually by Statistics NZ.

The main objective of the survey is to collect information on the operations of New Zealand businesses in order to quantify business behaviour, capacity and performance. In addition, each module in the survey has its own specific objectives. The modules included in the Business Operations Survey 2006 and their objectives are listed below.

Module A: Business Operations Module

The objective of this module is to provide a longitudinal series of information relating to business performance. The information required can be grouped into two main categories:

- financial performance measures
- business environment measures.

The purpose of collecting financial measures of business performance is to measure and monitor business performance, and to relate the impact of potential enablers on this performance. An important element of these financial measures is their longitudinal dimension, which will enable changes over time to be analysed. This will assist in the development of models aimed at investigating causal relationships. As well as traditional measures of performance such as turnover and profitability, there is also a desire to collect information on such areas as export intensity. The purpose of collecting environmental information is to analyse any relationships between the environment in which a business operates and the results it achieves.

Module B: Information and Communication Technology (ICT) Module

The objective of this module is to provide a core set of comprehensive, official statistics on the present state of business ICT utilisation, constraints that businesses face when implementing ICT and areas where improvements and efficiency gains can be made.

Module C: Employment Practices Module

The objective of this module is to provide information on the characteristics of business and management practice in New Zealand, including:

- the extent to which employment practices enable better firm performance
- the factors that lead to the adoption of employment practices.

Data collection

The Business Operations Survey 2006 was a postal survey. Initial contact was made to key and/or complex businesses in the survey by telephone, before the mail-out, to determine the appropriate person(s) within the business to whom the survey questions could be directed. For all other businesses, the survey form was addressed to the managing director. The survey was posted out in August 2006 and collected information for the last financial year for which the business had data available at that point.

Target population

The target population for the Business Operations Survey 2006 was live enterprise units on Statistics NZ's Business Frame that at the population selection date:

- were economically significant enterprises (those that have an annual GST turnover figure of greater than \$30,000)
- had six or more employees
- had been operating for one year or more
- were classified to Australian and New Zealand Standard Industrial Classification – New Zealand Version 1996 (ANZSIC96) codes listed as 'in scope' in List 1 below
- were private enterprises as defined by New Zealand Institutional Sector 1996 Classification (NZISC96) listed in List 2 below.

An enterprise is defined as a business or service entity operating in New Zealand, such as a company, partnership, trust, government department or agency, state-owned enterprise, university or self-employed individual.

The final estimated population size for the survey was 35,436 enterprises.

List 1 – ANZSIC96 Codes in Scope

In scope

ANZSIC96 code – description

- A – Agriculture, Forestry and Fishing
- B – Mining and Quarrying
- C – Manufacturing
- D – Electricity, Gas and Water Supply
- E – Construction
- F – Wholesale Trade
- G – Retail Trade
- H – Accommodation, Cafes and Restaurants
- I – Transport and Storage
- J – Communication Services
- K – Finance and Insurance
- L – Property and Business Services
- N – Education
- O – Health and Community Services
- P91 – Motion Picture, Radio and Television Services
- P93 – Sport and Recreation

Out of scope

- M – Government Administration and Defence
- P92 – Libraries, Museums and the Arts
- Q – Personal and Other Services.

List 2 – NZISC96 Codes in Scope

In scope

NZISC96 code – description

1111 – Private Corporate Producer Enterprises
1121 – Private Non-Corporate Producer Enterprises
1211 – Producer Boards
1311 – Central Government Enterprises
2211 – Private Registered Banks
2221 – Private Other Broad Money (M3) Depository Organisations
2291 – Private Other Depository Organisations nec
2311 – Private Other Financial Organisations Excluding Insurance and Pension Funds
2411 – Private Insurance and Pension Funds.

Out of scope

1321 – Local Government Enterprises
21 – Central Bank
2212, 2213, 2222, 2223, 2292, 2293, 2312, 2313, 2412, 2413 – Central and Local Government Financial Intermediaries
3 – General Government
4 – Private Non-Profit Organisations Serving Households
5 – Households
6 – Rest of World

Sample design

The sample design was a two-level stratification according to ANZSIC industry and employment size groups. This information was obtained using enterprise ANZSIC industry and employment information from Statistics NZ's Business Frame.

The first level of stratification was 33 ANZSIC industry groupings. Within each of the ANZSIC groups there is a further stratification by employment size group. The four employment size groups used in the sample design are:

- 6–19 employees (small)
- 20–29 employees (medium 1)
- 30–49 employees (medium 2)
- 50 or more employees (large).

The two medium groups have been amalgamated, and the large size group further broken down for this publication, as these businesses were of particular interest for some of the results.

Measurement errors

The Business Operations Survey 2006 results are subject to measurement errors, including both non-sample and sample errors. These errors should be considered when analysing the results from the survey.

Non-sample errors

Non-sample errors include mistakes by respondents when completing questionnaires, variation in the respondents' interpretation of the questions asked, and errors made during the processing of the data. In addition, the survey applied imputation methodologies to cope with non-respondents. Statistics NZ adopts procedures to minimise these types of error, but they may still occur and are not quantifiable.

Given the nature of the data collected, there are limitations on the level of accuracy that can be expected from the survey. Businesses' records may not be kept in the form required for the survey and some estimation by the respondent may be required.

Sample errors

Total revenue was used as the numeric design variable for the survey. The sampling error on the total revenue figure has been measured at 5.5 percent at the 95 percent confidence level.

Response rate

The Business Operations Survey 2006 targeted an 80 percent response rate. The survey achieved an actual response rate of 81.7 percent, which represented 6,066 businesses.

Non-response and imputation

Unit non-response

Unit (or complete) non-response occurs when units in the sample do not return the questionnaire. The initial selection weight of the remaining units in the stratum was adjusted to account for the unit non-response (no item non-response imputation would occur for the units that did not return the questionnaire).

Item non-response

Item (or partial) non-response is when units return the questionnaire but some questions are not answered. No item non-response imputation was carried out for units that did not answer 60 percent or more of the questions they were required to answer (based on questionnaire routing rules). The respondents who did not meet this criterion were classified as unit non-responses and the weights were adjusted accordingly.

Imputation of numeric variables

The imputation methods used were weighted mean imputation and donor imputation. Using the weighted mean method, a weighted mean was calculated from linked responding units for each numeric linecode within each imputation cell. Non-responding units were then imputed with the weighted mean for their imputation cell. Weighted mean imputation was used to impute totals.

Donor imputation randomly selected a donor from within each imputation cell. The non-respondent was then imputed with the value(s) from the donor. Donor imputation was used to impute components and percentages so that the distribution was maintained.

Imputation of categoric questions

For categoric imputation the method used was nearest neighbour imputation, which involved finding a donor with the most similar responses. The donor supplied responses for all categoric variables requiring imputation. If the donor unit did not respond to any of the variables requiring a response, then we chose the next best donor to supply this information. This was continued until all the variables had a response.

Definitions

ANZSIC: Australian and New Zealand Standard Industrial Classification System – New Zealand Version 1996.

Business Frame: A register of all businesses operating in New Zealand.

Employees: The number of employees is defined by an enterprise's rolling mean employment (RME) count. RME is a twelve-month moving average of the monthly employment count (EC) figure. The EC is obtained from taxation data.

Enterprise: A business or service entity 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.

Goods and Services Tax (GST): Respondents are asked to exclude GST if possible in the financial figures provided in the questionnaire. If they did not, Statistics NZ takes out GST to make all enterprises comparable.

Last financial year: For the purposes of this survey, this refers to the last financial year for which the business had results available as at August 2006, as entered on the questionnaire.

Information and Communication Technology (ICT): this refers to the electronic technologies for collecting, processing or transmitting information which can be in the form of voice, images or data. Examples include computers, software, the Internet, telecommunications, networks and new developments such as video conferencing and GPS (global positioning system).

More information

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

Copyright

Information obtained from Statistics NZ may be freely used, reproduced, or quoted unless otherwise specified. In all cases Statistics NZ must be acknowledged as the source.

Liability

While care has been used in processing, analysing and extracting information, Statistics NZ gives no warranty that the information supplied is free from error. Statistics NZ shall not be liable for any loss suffered through the use, directly or indirectly, of any information, product or service.

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.

Next release ...

A report on business practices and performance will be released in August 2007.

Statistics New Zealand: The first source of independent information for your key decisions.

Tables

The following tables can be downloaded from the Statistics New Zealand website in Excel 97 format. If you do not have access to Excel 97 or higher, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

List of tables

1. Exporting businesses, last financial year at August 2006
2. Business operating environment, August 2006
3. Research and development and international presence, last financial year at August 2006
4. Business use of Internet, August 2006
5. Security of information and communication technology, August 2006
6. Internet sales, last financial year at August 2006
7. Outcomes of information and communication technology, August 2006
8. Types of employee training, last financial year at August 2006
9. Flexible working arrangements, August 2006
10. Employment practices, August 2006
11. Most important employment practice change, last two financial years at August 2006
12. Reasons for changes to employment practices, last two financial years at August 2006