

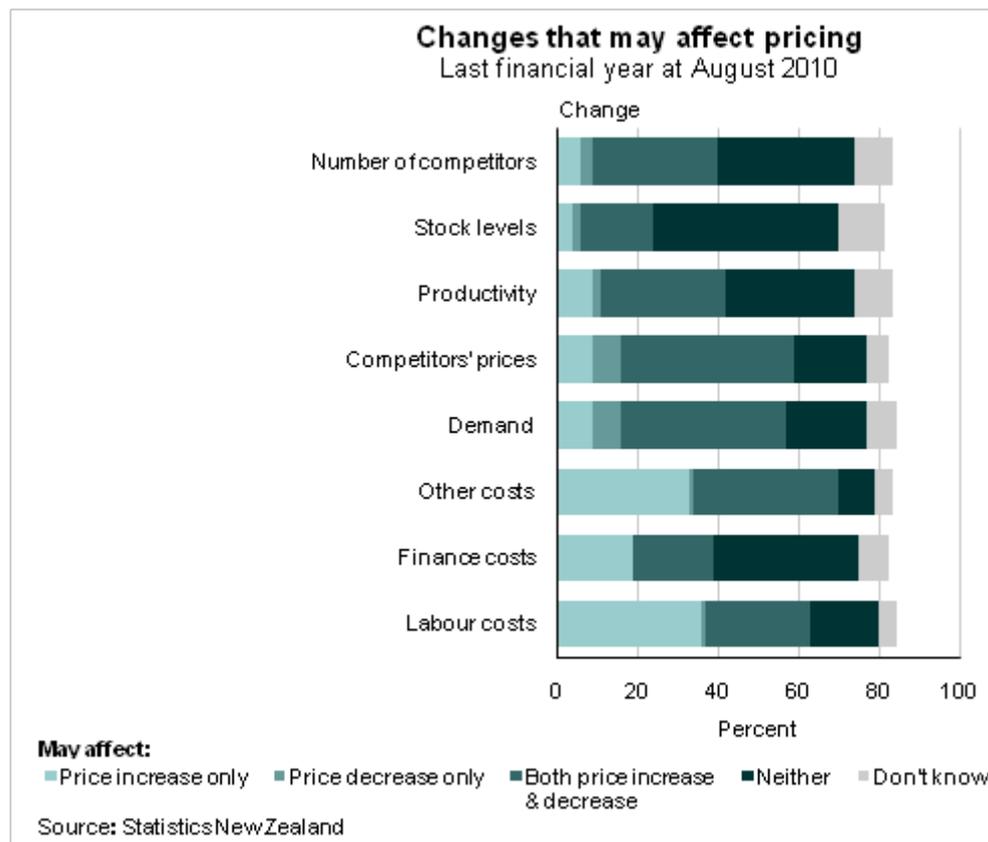
Business Operations Survey: 2010

Embargoed until 10:45am – 08 April 2011

Highlights

Of businesses surveyed in 2010:

- 51 percent had conducted, or planned to conduct, price reviews due to the GST rise in October 2010, while 35 percent expected it to influence wage negotiations.
- 36 percent considered change in labour costs as important for price increases.



- 36 percent reported increased sales in 2010, compared with 41 percent in 2009.
- 93 percent used broadband Internet connections, with cellular connections showing the largest increase in usage.

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Commentary

Business Operations Survey

The Business Operations Survey (BOS) collects information from a cross-section of New Zealand businesses. The survey aims to build a better understanding of a range of business practices and behaviours that may have some impact on business performance. It covers businesses that have six or more employees, and have been operating for one year or more. The information is collected through a modular survey that contains a repeating business operations module, an alternating information and communications technology (ICT) or innovation module, and a contracted module that focused on price and wage setting, and recent financing arrangements for 2010. The yearly structure of the survey is shown in the table below.

Business Operations Survey yearly structure						
	2005	2006	2007	2008	2009	2010
Module A	Business performance	Business performance	Business performance	Business performance	Business performance	Business performance
Module B	Innovation	ICT	Innovation	ICT	Innovation	ICT
Module C	Business practices	Employment practices	International engagement	Business strategy and skills	Business practices	Price and wage setting
Module D	N/A	N/A	N/A	N/A	N/A	Financial conditions

Note: ICT – Information and communications technology; N/A – Not applicable

The BOS survey provides a rare source of nationwide information on how businesses respond to their changing environment.

This is the first release of business operations statistics covering the financial year at August 2010. It is accompanied by [Business Operations Survey: 2010 – Detailed tables](#), which are available on our website, www.stats.govt.nz.

Business operations

Reported business performance

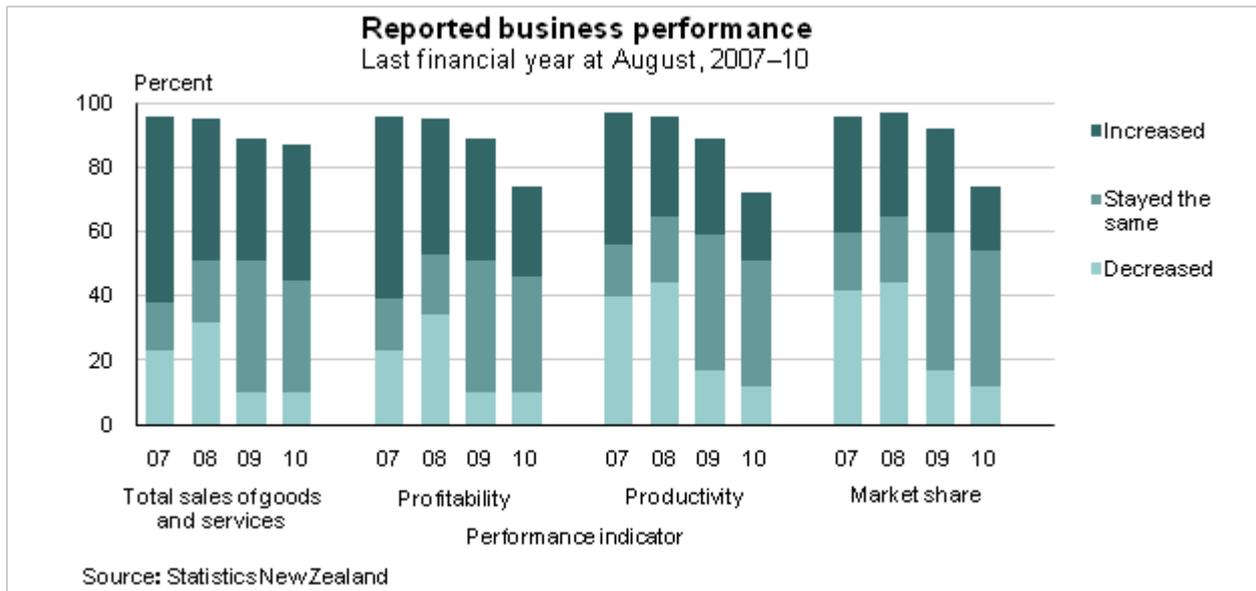
Changes in reported business performance reflect businesses' views on how their internal and external business environments have changed over the period (last financial year at August 2010) following the economic downturn. These perceptions were similar to those reported in 2009, but show a decrease across all measures compared with 2007 and 2008.

There are a range of measures that can be used to indicate business performance. These performance indicators may be influenced by many factors, both internal and external to the business. The performance indicators measured in the survey include sales, profitability, productivity, and market share.

Businesses were asked about their performance over the last financial year to August 2010.

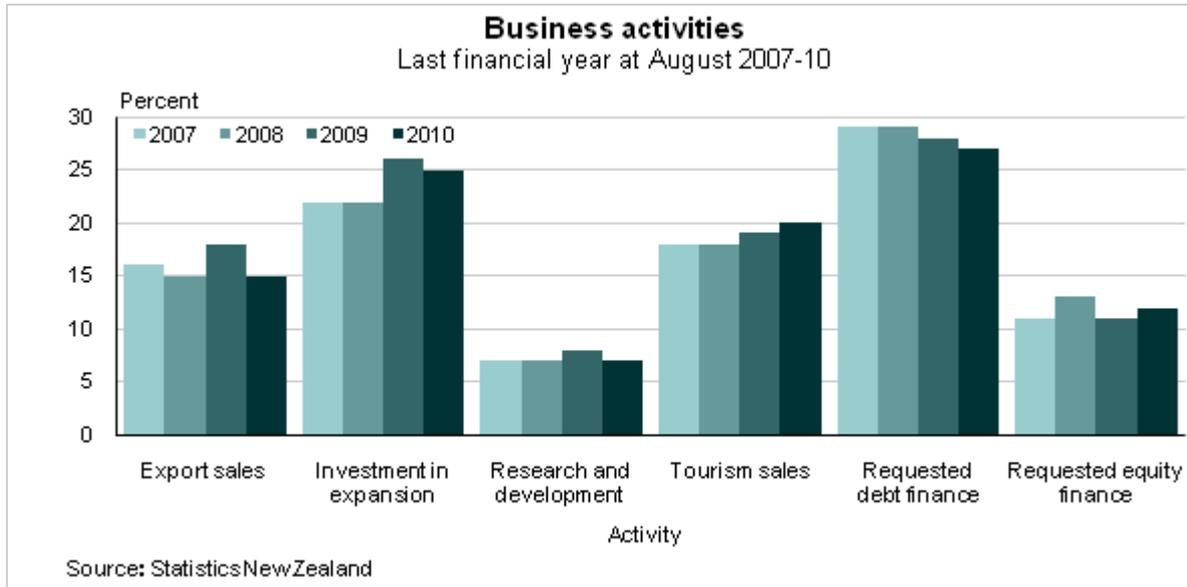
Of businesses surveyed in 2010:

- 36 percent reported an increase in total sales of goods and services, down from 41 percent of businesses in 2009, and a drop of around 20 percentage points from the years 2007 and 2008
- 32 percent reported an increase in profitability, similar to the proportion of businesses in 2009, but down on previous years
- 32 percent reported an increase in productivity, similar to the proportion of businesses in 2009, but down on previous years
- 20 percent reported an increase in their market share, similar to the proportion of businesses in 2009 but down on previous years
- the proportion of businesses reporting no change in these indicators remained similar.



Business activities

The BOS collects information on activities businesses may be involved in, such as export sales, investment in expansion, research and development (R&D), and tourism sales. Participation in all of these activities in 2010 was similar to 2009. This indicates that even in times of difficulty, businesses still maintained similar levels of operations.



Of businesses surveyed in 2010:

- 15 percent gained sales from exports
- 25 percent invested in expansion; however, the survey did not collect information on the value of this investment
- 20 percent gained sales from tourism
- 7 percent undertook R&D.

It should be noted that results on R&D from the BOS differ slightly from those from the Research and Development Survey because of differences in sample selection, target population, and reporting periods.

Business activities				
Last financial year at August, 2007–10				
	2007	2008	2009	2010
	Percent ⁽¹⁾			
Export sales	16	15	18	15
Investment in expansion	22	22	26	25
Research and development	7	7	8	7
Tourism sales	18	18	19	20
Requested debt finance	29	29	28	27
Requested equity finance	11	13	11	12

1. For more information on the businesses included, see 'Technical notes' in this release. Percentages are of all New Zealand businesses.
Note: All counts in this survey were randomly rounded to base 3 to protect confidentiality, so actual figures may differ from those stated.

Information and communications technology (ICT)

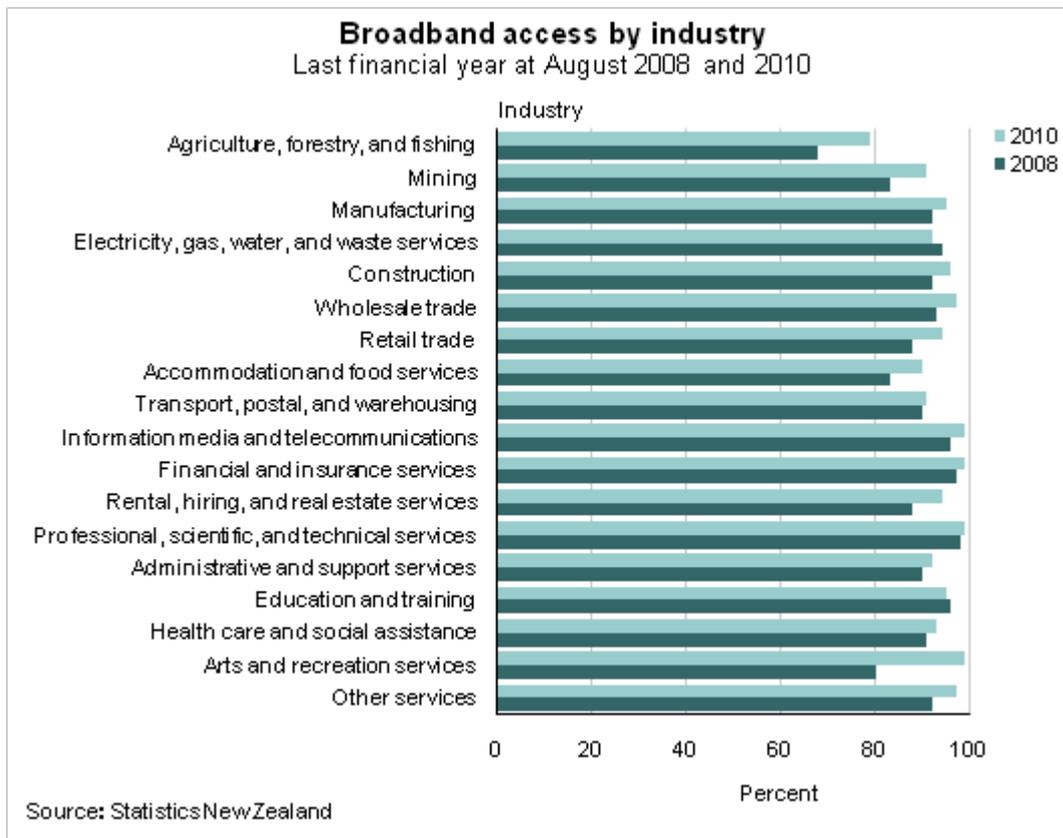
Internet connection types

The levels of computer and Internet use are reaching saturation levels, so there is little change in the number of businesses using these. However, the most evident changes can be seen in the types of technology being used. Businesses are moving away from fixed connection types to more mobile ones.

Computer and Internet use can help businesses in many ways. In 2010, business use of computers and the Internet was high over all size groups and industries.

Ninety-three percent of businesses used broadband connections in 2010, compared with 89 percent in 2008. The most common type of broadband connection used was DSL (digital subscriber line), used by 79 percent of all broadband users in 2010, similar to the level in 2008 (82 percent). This data is similar to that from Statistics NZ's [Internet Service Provider Survey: June 2010](#), which shows that broadband connections are now more common than dial-up.

Cellular Internet connections increased from 11 percent of all broadband users in 2008 to 25 percent in 2010.



Levels of broadband connections were high across all industries, except in the agriculture, forestry, and fishing industry where only 79 percent of businesses use broadband. This proportion is lower than all other industries.

Internet activities

The Internet may be used for a number of different business-related purposes. Of all businesses surveyed in 2010, 89 percent used the Internet for financial activities (eg online banking, invoicing, or making payments), the most common purpose. This proportion rose from 85 percent in 2008. Sharing information within the business was the next most common purpose (43 percent), followed by internal or external recruitment (42 percent).

Internet activities varied over the different industry groups. Sixty-six percent of businesses in the education and training industry used the Internet for recruitment, while only 26 percent of agriculture, forestry, and fishing businesses used the Internet for the same purpose.

All Internet activities showed slight increases as more businesses use the Internet. This was particularly evident in the arts and recreation industry.

Internet sales

Overall, 51 percent of businesses used the Internet to receive orders for goods or services, up from 40 percent in 2008. Of those with Internet sales, most indicated that these sales represented less than one-tenth of their total dollar sales.

The rise in the number of businesses using the Internet to receive orders indicates that the web is a useful channel for businesses to promote their products. However, the ability for customers to make online purchases does not necessarily mean they will always buy online. Of businesses surveyed, 9 percent indicated Internet sales accounted for zero percent sales. Results were similar across all size and industry groups.

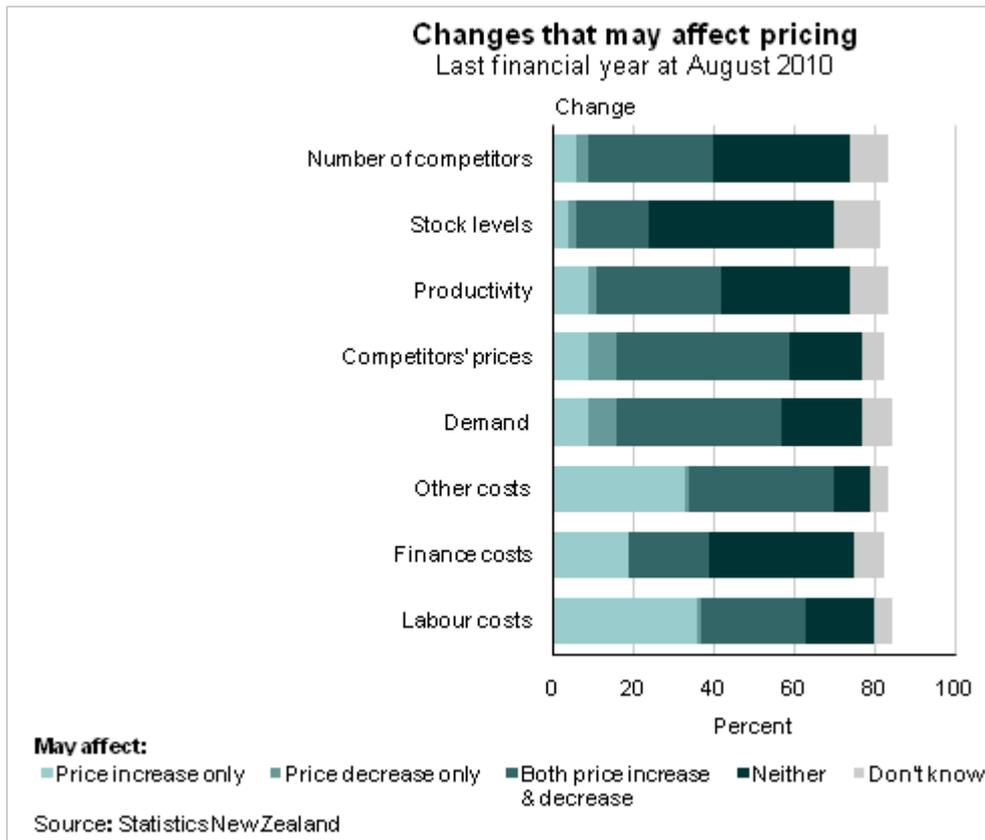
Price and wage setting

The statistics from this module of the survey show new information not previously collected. It provides detail on the price and wage setting practices of New Zealand businesses which will allow comparison with other similar international statistics.

Changes that may affect pricing

There are many factors that influence a business' decision to increase or decrease the price of their main product. In 2010, the BOS asked businesses how changes to certain factors influence their decisions for increases only, decreases only, or both increases and decreases:

- The primary influences on price increases only are changes in labour costs and changes in other costs (eg purchase of goods from suppliers, rent). Over one-third of businesses stated these reasons for influencing their price increases.
- Price decreases only are primarily influenced by changes in demand and competitors' prices, with 7 percent of businesses stating these as reasons for influencing their price decreases.
- Changes in demand and competitors' prices were also the primary influences for both price increases or decreases, with over 40 percent of businesses stating this.



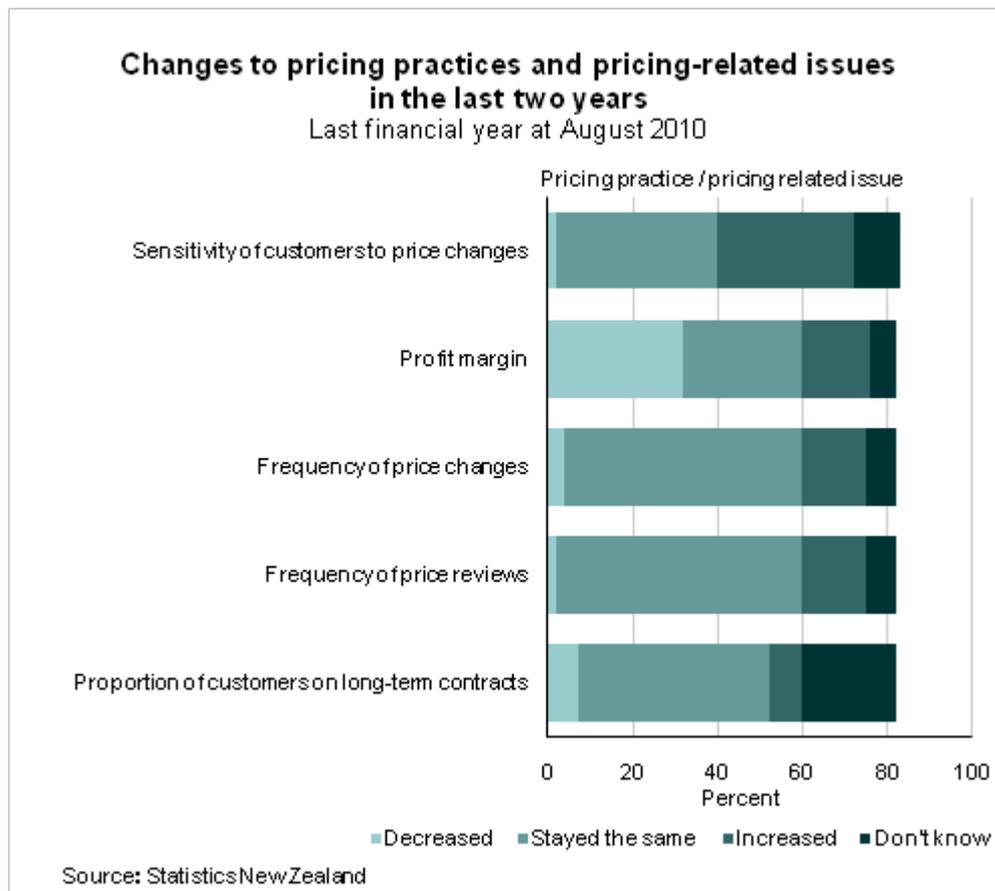
These results are very similar to those collected in a Bank of England survey of businesses in the United Kingdom (New insights on price-setting behaviour in the United Kingdom). In this survey, most businesses reported labour costs were important for price increases, and competitors' prices were important for price decreases. The results of this survey are available from the [Bank of England website www.bankofengland.co.uk](http://www.bankofengland.co.uk).

Changes in pricing practices

Businesses' pricing practices can change over time, due to changes in the business environment and customers. In 2010, businesses were asked how their pricing practices changed over the last two years:

- 32 percent reported a decrease in profit margins
- 32 percent reported that sensitivity of customers to price changes had increased.

This may suggest that businesses are prepared to reduce profit margins in order to retain customers.



Impacts of legislative changes

Effect of GST increase

On 1 October 2010, GST rose from 12.5 percent to 15 percent. In 2010, businesses were asked how this increase affected their price reviews and salary negotiations:

- 34 percent reported they had conducted (or were in the process of conducting) a price review specifically because of the GST increase
- 5 percent reported the rise was a factor in wage and salary negotiations
- 17 percent reported they have not conducted price reviews specifically because of the GST rise, but plan to
- 30 percent reported that the change in GST has not been, but was likely to be, a factor in future wage negotiations.

Results varied across the different industries, due to the different nature of the goods and services provided. The biggest impact on prices was in the accommodation, and food services industry, followed by the retail trade industry. For both these industries, over 60 percent of businesses had reviewed prices due to the GST rise. At the other end of the scale, only 9 percent of businesses in the mining industry did so.

For more detailed information see the [Business Operations Survey: 2010 – Detailed tables](#), available from the Statistics NZ website www.stats.govt.nz.

Wage increases as a result of increase in the minimum wage

On 1 April 2010, the minimum wage rose from \$12.50 to \$12.75. Some businesses paid staff at the minimum wage, so were affected by this change. Some businesses paid staff above the minimum wage, so were not affected to the same extent.

Of all businesses surveyed in 2010:

- 60 percent reported the increase in minimum wage did not cause an increase in wages
- 31 percent reported the increase in minimum wage caused an increase in wages for employees paid at this level
- 13 percent reported the increase in minimum wage caused an increase in wages for employees who are paid a set amount above the minimum wage.

There are differences across the range of industries due to the different mixes of employees paid at or above the minimum wage. Twenty-five percent of businesses in the accommodation and food services industry did not increase wages due to the increase in minimum wage. This compared with 88 percent in the professional, scientific, and technical services industry.

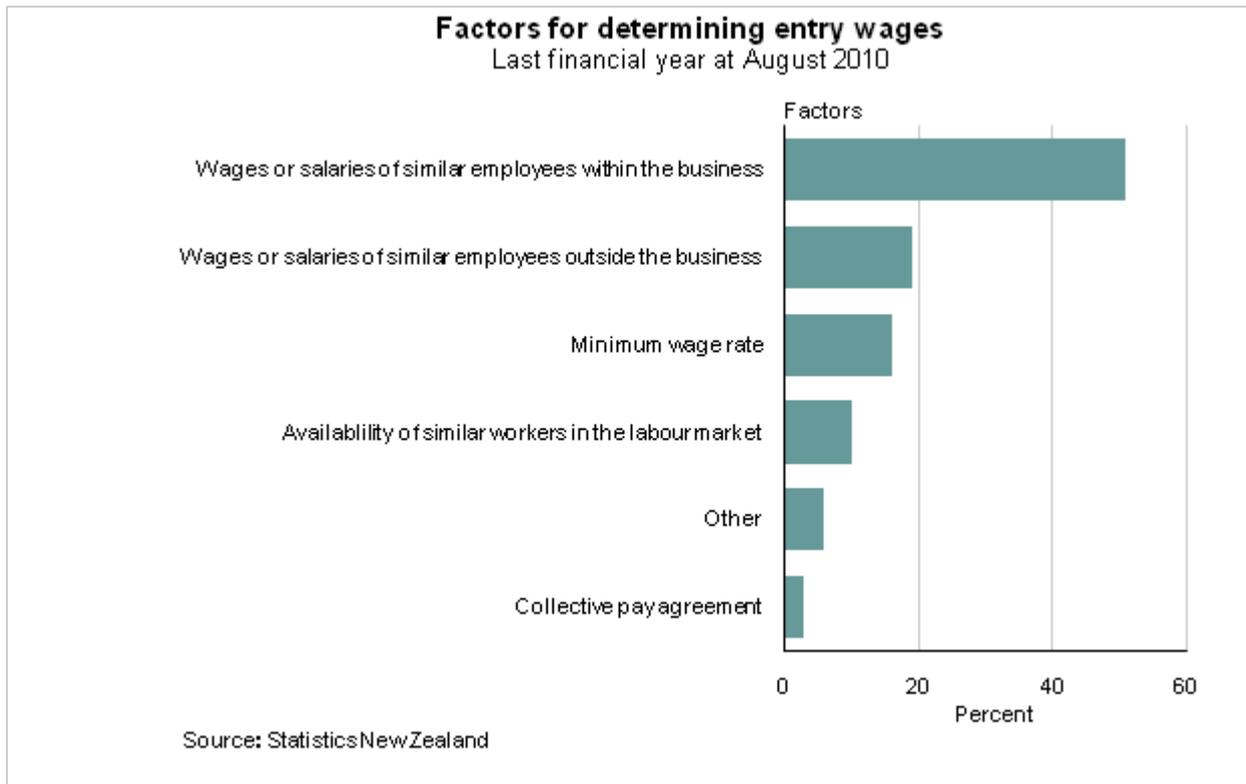
Factors for determining entry wage

Businesses may consider a lot of factors when determining the entry wage for employees. These factors include minimum wage rates, collective pay agreements, wages or salaries of similar employees, and labour availability. These factors will affect different kinds of businesses differently, depending on how they operate their business.

The most common factor that businesses considered when determining entry wage levels was the wages or salaries of similar employees within the businesses (51 percent of all business). This was followed by wages and salaries of similar employees outside the business (19 percent) and minimum wage rates (16 percent).

Rates varied across industries. The mix of skills needed and the demand for those skills in the workforce plus other factors such as the working environment, can have varying influences on the entry wage for businesses in different industries.

There are also differences across industries for those reporting that minimum wages were a factor in determining entry wage levels. Once again, this is due to the availability of labour and the mix of skills needed in certain industries. For example, table 9 shows the accommodation and food services industry had the largest proportion of businesses (43 percent) that reported minimum wage rates as a factor for determining entry wage levels. In contrast, table 8 shows this industry also had the highest proportion of businesses that reported they increased wages due to the increase in minimum wage (63 percent). For more details, see table 8 in the downloads section.



The [Business Operations Survey: 2010 – Detailed tables](#) are available with this information release and can be downloaded from the Statistics NZ website www.stats.govt.nz.

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Next release ...

Business Operations Survey: 2011 information release will be published in April 2012.

Technical notes

Survey background

For New Zealand's economic performance to be measured against initiatives aimed at increasing economic growth, data on a variety of measures needs to be collected.

Because of the large range of data needed, Statistics NZ 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 was designed to include a range of 'modules' and has been run annually by Statistics NZ since 2005.

Statistics NZ works with a range of other organisations to develop the mix of content for this survey. The following table shows how these groups contributed to the development of the survey.

Organisations' contributions to the Business Operations Survey						
Module	2005	2006	2007	2008	2009	2010
	Content					
Module A	Business operations	Business operations	Business operations	Business operations	Business operations	Business operations
Module B	Innovation	Information and communications technology	Innovation	Information and communications technology	Innovation	Information and communications technology
Module C	Business practices	Employment practices	International engagement	Business strategy & skills	Business practices	Price and wage setting
Module D	N/A	N/A	N/A	N/A	N/A	Financing
Organisation	Contribution to content					
MED	Y	Y	Y	Y	Y	N
MoRST	Y	N	Y	Y	Y	N
DOL	Y	Y	N	Y	N	N
Treasury	Y	Y	Y	Y	N	N
NZTE	N	N	Y	N	N	N
Commerce Commission	N	N	Y	N	N	N
RBNZ	N	N	N	N	N	Y
Victoria University	N	N	N	N	N	Y
Note: Y – Yes; N – No; N/A – Not applicable; MED – Ministry of Economic Development; MoRST – Ministry of Research, Science & Technology; DOL – Department of Labour; NZTE – New Zealand Trade & Enterprise; RBNZ – Reserve Bank of New Zealand						

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 2010 and their objectives are listed below.

Module A: Business operations

This module aims to provide a longitudinal series of information relating to business performance. 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 need to collect information on such areas as export intensity. The purpose of collecting business environmental information is to analyse any relationships between the environment in which a business operates and the results it achieves.

Module B: Information and communications technology (ICT)

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

Module C: Price and wage setting

This module covers data previously uncollected about the businesses' strategies for price and wage setting. It covers topics such as:

- price reviews
- price changes
- exporting
- wage and salary bargaining
- unions.

Module D: Financing

This module covers data previously collected in the 2009 Businesses Operations Survey about recent financing arrangements. These have been included to gain a better understanding of the current financing situation of businesses.

Classification change

From 2008, the design of the survey was updated to the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06). See the technical notes of the [Business Operations Survey: 2008](#) for information about this change.

Reference period

The survey was posted out in August 2010 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 2010 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 ANZSIC06 codes as 'in scope' in list 1 below
- were private enterprises as defined by New Zealand Institutional Sector 1996 Classification (NZISC96) as 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 2010 Business Operations survey was 35,307 enterprises.

List 1 – ANZSIC06 codes in scope

In scope

ANZSIC06 code – description

- A – Agriculture, forestry, and fishing
- B – Mining
- C – Manufacturing
- D – Electricity, gas, water, 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 services
- M – Professional, scientific, and technical services
- N – Administrative and support services
- P – Education and training
- Q – Health care and social assistance
- R91 – Sport and recreation activities
- R92 – Gambling activities
- S94 – Repair and maintenance.

Out of scope

- O – Public administration and safety
- R89 – Heritage activities
- R90 – Creative and performing arts activities
- S95 – Personal and other services
- S96 – Private household employing staff and undifferentiated goods and service producing activities of households for own use

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 36 ANZSIC 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.

The survey has been designed to produce aggregate statistics at a national level. This design does not facilitate statistics to be produced at a regional level.

Measurement errors

The Business Operations Survey 2010 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.

Sampling error

The estimates in this report are based on a sample of business. Somewhat different figures might have been obtained if a complete census of the entire business population had been taken using the same questionnaire and processing methods etc. Because the estimates are based on a sample of businesses, all estimates have a sampling error associated with them. The variability of a survey estimate, due to the random nature of the sample selection process, is measured by its sampling error.

The majority of the tables in this release are percentages of the total number of New Zealand businesses within each size and industry. The absolute sampling errors for the overall New Zealand business population are presented in the following table. These errors should be used as a guide for judging the reliability of figures contained in the tables. The table should only be used on the overall estimates that are percentage of all New Zealand businesses.

Sample errors for total population of Business Operations Survey 2010	
Size of estimate	Sampling error
1	0.4
2	0.6
3	0.8
5	1.0
10	1.3
20	1.8
30	2.1
50	2.2
70	2.1
80	1.8
90	1.3
95	1.0
97	0.8
98	0.6
99	0.4

The sampling errors provided above are measured at the 95 percent confidence level.

How to use the sampling errors

For example, the estimated number of businesses with export sales in 2010 is 15 percent. This estimate is subject to a relative sampling error of approximately plus or minus 1.5. This means that 95 percent of the possible samples of the same size will produce an estimate between: $15 - 1.5$ and $15 + 1.5$, that is, between 13.5 and 16.55.

Sampling errors vary from estimate to estimate, and with population breakdown and population size. The table above shows approximate sampling errors for all New Zealand level estimates of the whole Business Operations Survey population. Similar tables of approximate sampling errors at a size and industry level can be provided upon request if required. Exact sampling errors can be produced for each variable within the Business Operations Survey upon request if required.

Treatment of sub-industries

The sub-industries presented in this release (indented industries in the tables) should be treated with caution since they have higher sample errors than those mentioned in Table 1.04. This is because disaggregation of sub-industries results in some loss of data quality.

Response rate

The Business Operations Survey 2010 targeted an 80 percent response rate. The survey achieved an actual response rate of 81.8 percent, which represented 5,369 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

ANZSIC06: Australian and New Zealand Standard Industrial Classification System – New Zealand Version 2006.

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 at August 2010, as entered on the questionnaire.

More information

For more information, follow the link from 'Technical notes' of this release on the Statistics NZ website. For detailed tables see the [Business Operations Survey: 2010 – Detailed tables](#) on the Statistics NZ website, www.stats.govt.nz.

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Tables

The following tables are printed with this information release and can also be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print and export the contents of the file

1. Reported business performance, last financial year at August, 2007–10
2. Internet connection types, last financial year at August 2008 and 2010
3. Business Internet activities, last financial year at August 2008 and 2010
4. Internet sales, last financial year at August 2008 and 2010
5. Changes that may affect pricing, last financial year at August 2010
6. Changes related to pricing practices and pricing-related matters in the last two years, last financial year at August 2010
7. Effect of GST increase, last financial year at August 2010
8. Wage increases due to minimum wage increase, last financial year at August 2010
9. Factors for determining entry wage, last financial year at August 2010

Detailed tables

For more information on this release, see the [Business Operations Survey: 2010 – Detailed tables](#) available on the Statistics NZ website. The tables cover these topics:

- exports
- tourism
- investment
- research and development
- international presence
- employment
- business performance
- other business factors
- computers, ICT services and security
- impact of ICT
- Internet
- purchases and sales of goods or services via the internet
- web presence
- computer networks
- cellphones
- price reviews and changes
- exporting
- wage and salary bargaining
- unions
- recent financing arrangements
- debt financing experiences.