



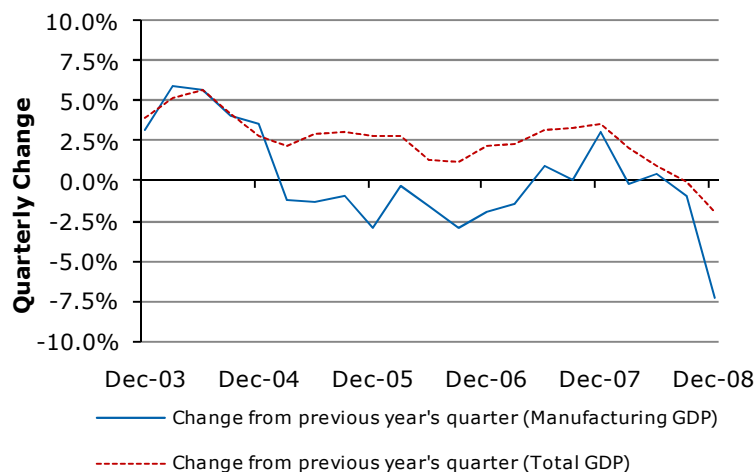
## EMPLOYMENT AND SKILLS SNAPSHOT - MANUFACTURING

### Overview – May 2009

Manufacturing is the third largest employing industry in New Zealand, with 252,800 workers (or 11.5% of the total workforce) as of December 2008<sup>1</sup>. Over the last five years, in contrast to the rest of the economy, the manufacturing industry has experienced falling levels of employment.

The manufacturing industry is divided into ten sub-industries: food, beverage & tobacco manufacturing; textile, clothing, footwear & leather manufacturing; wood & paper product manufacturing; printing, publishing and recorded media; petroleum, coal, chemical and associated product manufacturing; non-metallic mineral product manufacturing; metal product manufacturing; machinery & equipment manufacturing; and other manufacturing<sup>2</sup>.

Figure 1: Total GDP and manufacturing GDP change from previous year's quarter, (Dec 2003 – Dec 2008)



Source: NZIER Quarterly Projections (March 09)

In recent years, manufacturing Gross Domestic Product (or GDP) has shown more volatility than overall GDP (Figure 1). Manufacturing GDP growth has generally been lower than overall GDP since late 2004 and it fell rapidly in late 2008.

<sup>1</sup> Department of Labour Employment Estimates are calculated internally by extrapolating historical trends in employment as well as incorporating Linked Employer-Employee Data (LEED) from Statistics New Zealand.

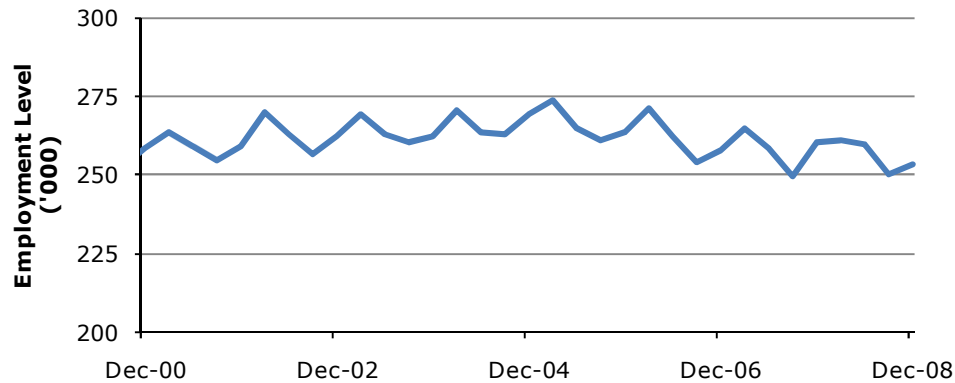
<sup>2</sup> Other manufacturing includes prefabricated building manufacturing, furniture manufacturing, and other manufacturing.



## Recent employment growth

In contrast to New Zealand's overall strong economic performance, the manufacturing industry experienced significant employment decline in recent years. In the five years to December 2008, employment in manufacturing fell by 9,000 (or 3.8%) to 252,800. This represents an annual average fall in employment of 0.7% in the past five years, the second largest fall in employment over the period, after agriculture, forestry and fishing.

Figure 2: Manufacturing – Employment Level ('000) (Dec 2000 to Dec 2008)



Source: Department of Labour Employment Estimates

However, employment growth was unevenly distributed within the industry. Two sub-sectors – food, beverage & tobacco, and non-metallic mineral product manufacturing – saw small growth in employment (4.9% and 7.2% respectively). Most other sub-sectors in manufacturing saw significant employment declines, with textile, clothing, footwear and leather manufacturing; and other manufacturing the hardest hit, experiencing declines in employment of around 23.6% and 12.2% respectively.

Table 1: Manufacturing industry employment by sub-sector, December 2008

Industry	Employment	Shares of Industry Employment	Employment Growth (Dec 03 - Dec 08)
Food, Beverage and Tobacco	67,100	26.5%	4.9%
Machinery and Equipment Manufacturing	46,600	18.4%	-2.1%
Metal Product Manufacturing	31,900	12.6%	1.1%
Wood and Paper Product Manufacturing	25,500	10.1%	-7.3%
Petroleum, Coal, Chemical and Associated Product Manufacturing	21,800	8.6%	-7.6%
Printing, Publishing and Recorded Media	21,200	8.4%	-5.1%
Textile, Clothing, Footwear and Leather Manufacturing	16,300	6.4%	-23.6%
Other Manufacturing	147,500	5.8%	-12.2%
Non-Metallic Mineral Product Manufacturing	7,900	3.1%	7.2%
<b>Total Manufacturing</b>	<b>252,800</b>	<b>100%</b>	<b>-3.4%</b>
Total (All Industries)	2,207,200	100%	11.1%

Source: Department of Labour Employment Estimates



Table 1 shows that manufacturing employment is dominated by food, beverage & tobacco manufacturing, which accounted for 67,100 workers (or 26.5% of the industry's employment) in December 2008. Machinery and equipment manufacturing employed 46,600 and metal product manufacturing 31,900 (or 18.4% and 12.6% of industry employment respectively).

### Skills profile

Generally, employees in manufacturing have lower levels of qualification obtainment than the New Zealand average (Table 2).

*Table 2: Qualifications held by employees within the manufacturing industry, 2006<sup>3</sup>*

Occupation	No Qualification	School Qualification	Vocational Qualification	Bachelor Degree or Higher
Specialised Managers	13%	34%	31%	20%
Food and Related Products Processing Machine Operators	39%	29%	25%	2%
Labourers	43%	34%	15%	3%
Metal Moulders, Sheet-Metal and Related Workers	24%	27%	45%	1%
Metal and Mineral Products Processing Machine Operators	34%	34%	20%	5%
All Occupations in New Zealand	19%	35%	27%	19%

Source: Census of Population and Dwellings, 2006

Qualification levels vary according to occupation within the manufacturing industry. In 2006, we see from Table 2 that specialised managers had the highest portion of employees identifying as having bachelors degrees or higher, with 20%, which was about the national average for all occupations.

The occupations described above also had a significant proportion of their workforce identifying as having no qualifications, with labourers and food & related products processing machine operators identifying as having 43% and 39% of their occupations with no qualifications respectively.

This high level of employees who identify as having no qualifications could lead to these people experiencing difficulty in a time of high unemployment. Low educational attainment will also influence how these workers are trained in new processes or technologies, and if laid off, they are likely to have restricted employment prospects.

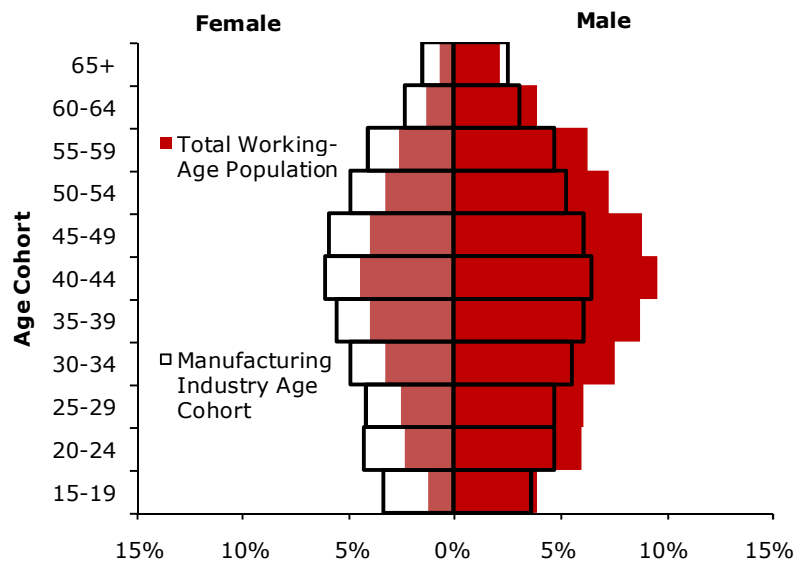
### Age/gender profile

The manufacturing workforce is predominantly male, accounting for 70.5% of industry employment. Manufacturing has the fourth smallest share of female employment of all industries at the aggregated level. From the 2006 Census, the latest date for which data is available, females made up 29.5% of the manufacturing workforce, compared with the average of 47.1% for all industries. Such a large disparity reflects in part the nature of work within manufacturing, and the traditional role that males have played in the industry.

<sup>3</sup> Percentages may not add to 100%, due to rounding



Figure 3: Age and gender profile of manufacturing industry employees, compared to the total working age population, 2006

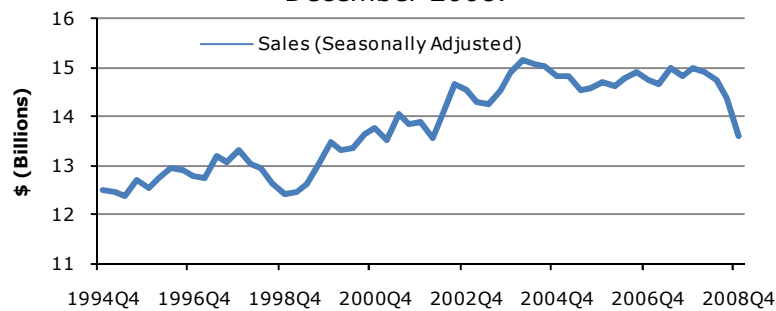


Source: Census of Population and Dwellings, 2006

### Industry Outlook: manufacturing sales

For most of 2008, total manufacturing sales have been declining, as shown in the total industry sales graph in figure 4.

Figure 4: Seasonally adjusted historical manufacturing sales, December 1994 – December 2008.



Source: Statistics New Zealand; Economic Survey of Manufacturing, December 2008

The December 2008 issue of the Quarterly Survey of Manufacturing shows total manufacturing sales down 3.9% (\$769 million) from September 2008. This decline in manufacturing was driven by falling dairy and meat product manufacturing sales, with sales down 6% (\$208 million).

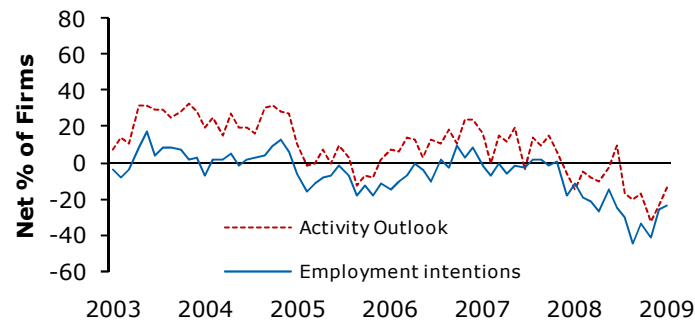
### Employer perspectives

Employers appear to expect employment to fall and business activity to worsen over the coming year. In the March 2009 National Bank Business Outlook (see Figure 4), a net 24% of manufacturing firms surveyed intended to employ fewer staff in the following year, compared to 19.1% who intended to employ less staff across all the industries surveyed.



According to the same survey, the business activity outlook in manufacturing is also relatively negative. A net 13.5% of employers within the industry expect business activity to decline over the coming year, compared to a net 3.8% of all firms surveyed.

Figure 5: Activity and employment outlook, manufacturing



Source: National Bank Business Outlook, March 2009

### Forecast employment

The Department of Labour prepares periodic updates of employment projections for industries and occupations for the next five years<sup>4</sup>. These are based in part on the GDP forecasts by industry produced by the New Zealand Institute of Economic Research, but also take into account recent productivity trends within industries. It should be noted that a certain degree of uncertainty is attached to these industry employment projections which are often influenced by changes to industry prospects.

In the five years to 2013, employment in the manufacturing industry is expected to decline by about 0.8% per annum. This compares with an annual average forecast growth rate of 0.8% across all industries over the same period. Projected employment growth within manufacturing therefore continues the downward trend in employment within the industry over the last five years.

### Summary

After several years of falling GDP and employment, the manufacturing industry now appears vulnerable to future employment losses as sales and exports suffer due to the international economic climate.

<sup>4</sup> Department of Labour Employment Projections, 2008-1013