Service Sector Overview Technical Documentation

April 2025

This document provides an overview of important technical information about this Service Sector Overview release, including information on the composition, presentation, limitations, caveats, definitions, concepts, and indicators contained within the data release.

Composition of this Service Sector Overview release

This Service Sector Overview release consists of:

- 11 A3 dashboards, which highlights key information related to each industry included within the dashboards
- 11 Excel files (each one relating to a specific A3 dashboard), containing information for:
    - Workforce counts, including totals, demographic breakdowns, regional breakdowns, and different income measures
    - Business counts, self-employment counts, GDP information, and other selected business information (if available/applicable)
    - Qualifications and training counts, including counts by qualification, and level of qualification.

Presentation of data

The following are reported in this Service Sector Overview release:

- Counts, rounded to the following amounts:
    - Random rounding to base 3 for business counts.
    - Rounding to base 5 for qualification and training counts.
    - Graduated random rounding for worker and self-employment counts.[1]
- Dollar amounts (rounded to the nearest $100)
- Percentages (presented as zero decimal points and based on rounded numbers)

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[1] For an explanation of this, see page 33 of http://www.statisticsnz.govt.nz/assets/Methods/Microdata-Output-Guide-2020-v5-Sept22update.pdf

Data limitations

As with any use of administrative data, there are limitations to be noted. These include the possibility of:

- human error while entering data into administrative systems or when processing the data
- missing items, incomplete files, or duplicate records
- under-reporting (for example, workers that may not lodge all of their income with Inland Revenue, leading to an underreported income for the year)
- circumstances that affect individual responses (for example, changes to the ethnicity that the individual reports themselves).

Definitions, concepts and indicators

Data sources

Multiple data sources are used to collect all of the information presented in this data release. The data sources include:

- The Stats NZ Integrated Data Infrastructure (IDI), a data resource that contains administrative and survey data on individuals and businesses. For more information on the IDI, please visit: Integrated Data Infrastructure | Stats NZ
- Stats NZ business demography information, which is used to produce business counts as well as counts of workers as at February in the reference year. For more information on this data, please visit: Business Demography Statistics - Stats NZ DataInfo+
- Tertiary Education Commission data provided to Workforce Development Councils on the numbers of people undertaking qualifications and training.
- Stats NZ Tourism Satellite Account data, related to tourism expenditure and worker counts. For more information on this data, please visit: Tourism satellite account - Stats NZ DataInfo+
- Ministry of Business, Innovation & Employment data on tourism. For more information on this data, please visit: Sustainable Tourism Explorer

Indicators

The following table lists all the indicators that are included within this release of the Service Sector data.

Indicator	Source	Measurement
Workforce		
Total workforce in the sector (non-Tourism)	IDI	The population of people working in an industry across a given year. Employees are included in a calendar year count if they meet the following income and tenure thresholds in that year: • Earn a monthly income in an individual industry >= minimum wage per hour, times 10 hours per week, times 4.3 weeks per month. • Earn at least 2 months of income from the industry. This income needs to meet the above threshold. Employers and self-employed workers are included if they receive any income of an appropriate type in an individual industry during the year. They do not have any thresholds on income or tenure to surpass.
Workers directly employed in tourism	Stats NZ	The number of people who are modelled to be directly employed in tourism in the year ended March for a given year, based on a combination of worker counts and industry contribution ratios.
Employees as of February	Stats NZ	Counts the total number of employees employed by businesses operating within a specific sector as of February in the given year.
Workforce by selected industry	IDI	Breaks down the workforce into different industries, showing how many people are employed in each sector. This measure within the infographic shows the top three industries with respect to employment figures.
Workforce by selected occupation	IDI	Breaks down the workforce by the occupation they work in. This measure uses Census data and interpolates the data between Census years (and extrapolates past the last Census) to

		estimate how many workers are in given occupations during a given year.
Mean/median annual employee income	IDI	Measures the mean and median annual income earned by employees. For the seasonal/part-time workforce, the income is scaled up to reflect what their income may have been had they worked 12 months in that industry group.
Gender	IDI	The gender of the individual as derived from multiple collections in the Stats NZ IDI to determine a 'best estimate'.
Age	IDI	The age of the individual as derived from multiple collections in the Stats NZ IDI to determine a 'best estimate'.
Ethnicity	IDI	Measures the total response of ethnicity as derived from multiple collections in the Stats NZ IDI to determine a 'best estimate'. Using total response means allowing multiple ethnicities for each individual.
Region	IDI	The regional council of the individual, as identified as the region that the individual stayed longest each year.
Business and Economy		
GDP (non-Tourism)	Derived using IDI data	Represents the total monetary value of all goods and services produced within a country, region, or sector over a specified period. It's an indicator of economic health and growth.
GDP (Tourism)	Stats NZ	Gross Domestic Product figures from the Stats NZ Tourism Satellite Account.
Total businesses	StatsNZ	Counts the total number of businesses operating within a specific sector as of February each year.
Total "tourism characteristic" businesses	Stats NZ	Counts the total number of businesses in industries that are classified as "tourism characteristic" by Stats NZ, as of February each year.
Businesses by industry	Stats NZ	Counts the total number of businesses within a specific ANZSIC Level 4 industry as of February each year.
Total self-employed (non-Tourism)	IDI	Measures the number of individuals who work for themselves, or are classified as being an "employer", rather than being employed by a company or organization.
Self-employed (Tourism)	Stats NZ	Measures the count of 'tourism working proprietors' who are modelled to be

		directly employed in tourism in the year ended March for a given year.
Education and Training		
Total enrolments	TEC	Measures the total number of individuals who enrolled in sector-relevant qualifications in each period.
Total completions	TEC	Measures the total number of individuals who completed sector-relevant qualifications in each period.
Enrolment by subject	TEC	Measures the total number of individuals enrolled in qualifications by the subject matter of the qualification.
Completion by subject	TEC	Measures the total number of individuals completing qualifications by the subject matter of the qualification.
Enrolment by level	TEC	Measures the total number of individuals enrolled in qualifications by the level of the qualification.
Completion by level	TEC	Measures the total number of individuals completing qualifications by the level of the qualification.

Classification groupings

The following table lists the classification groupings used.

Industry groups	Custom groupings of industries loosely based on ANZSIC Level 1 classifications, which align with the A3 products produced
Industries (generally)	Based on ANZSIC, for more information please visit the StatsNZ website here
Industries (tourism related)	Based on groupings of ANZSIC industries used specifically for the Tourism Satellite Account releases.
Occupations	Based on ANZSCO, for more information please visit the Stats NZ website here
Income measures	- Nominal mean - Real mean (baselined to 2022) - Nominal median - Real median (baselined to 2022)
Employment type	- Employer - Self-employed - Employee

Grouped employment type (used for dashboard measure)	• Self-employed or employer • Employee
Gender	• Male • Female Note: gender diverse is not included in this release but will be included where/if possible in future releases.
Ethnic group	• European • Māori • Pacific • Asian • Middle Eastern/Latin American/African (MELAA) • Other ethnicities
Age group	• 24 and younger • 25-34 • 35-44 • 45-54 • 55-64 • 65 and older
Region	• Auckland • Bay of Plenty • Canterbury • Gisborne • Hawke's Bay • Manawatu-Whanganui • Marlborough • Nelson • Northland • Otago • Southland • Taranaki • Tasman • Waikato • Wellington • West Coast
Subject	• Accommodation • Beverage and Quick Service Restaurants • Business & Professional • Catering • Cleaning • Contact Centres • Cookery

	• Credit Administration • Credit Management • Distribution • Engineering • Financial Services • Flight Operations • Ground Operations • Hospitality • Intelligence and Regulatory Compliance • Laundry Processing • Public Sector • Real Estate • Residential Property Management • Retail • Security • Tourism & Travel These groupings are based on groupings used by the Ringa Hora Qualifications & Standards teams. More information is available here: https://ringahora.nz/qualifications/
Qualification level	• Level 2 • Level 3 • Level 4 • Level 5 • Level 6 • Level 7 Note: Where numbers are small, some of these levels are grouped together.

Data caveats and key information

Workforce data

- Worker counts presented are generally based off data from the Integrated Data Infrastructure (IDI) unless otherwise specified. Data linking in the IDI is generally probabilistic, meaning that some records may be incorrectly matched, or not matched at all. This means that counts presented here may differ slightly from

other reported counts due to individuals not being included due to very small amounts of matching error.

- Worker counts are counts of all workers recorded working in that industry (based on the businesses they are attached to) and earning either wages, salary, or self-employment income at any point during that calendar year (unless explicitly stated). Workers classified as employees also need to meet an income and tenure threshold to be included. This approach can result in different counts of workers than using StatsNZ "as at end February" counts, counts used by other organisations, or counts used by Ringa Hora in other publications.

- Worker counts do not include business owners who do not pay themselves wages, salary or self-employment income from their business. This can happen when a business owner for example pays themselves in company dividends or shares.

- Worker counts across industries in this data release cannot be added together to create combined industry totals, as it is possible that a worker may have worked in multiple industries across the year and therefore can be double counted in the data.

- Worker occupation counts presented in this data release are estimated and projected figures using the 2013 and 2018 Census as a base, and should be treated as an approximation of the total number of workers that worked in that occupation during the calendar year as opposed to the actual number of workers that worked in that occupation during the calendar year. These figures are provided to give a sense of common occupations in the industry being analysed, and the expected change in these roles over time based on other observable factors. These figures are subject to regular revision as newer data is added to the model.

- Workers where their age, gender, or ethnicity are not known are not used in the calculation of percentages.

- This data release uses total response ethnicity for the reporting of ethnic groups. Under the 'total response' ethnicity approach, people can appear more than once in our reporting, so ethnic group totals will add to more than 100 percent of workers.

- Workers who spent the majority of the year residing in an area outside of the regional boundaries measured by StatsNZ, or had an unknown region, are not included in the calculation of percentages.

Business and Economy data

- GDP data included in this data release is based on an internal model developed for Workforce Development Councils which incorporates data from StatsNZ (regional GDP by industry), and worker data in the IDI, in order to attribute GDP to

the specific industry groupings used by Ringa Hora and other Workforce Development Councils. This means these GDP figures will not necessarily align with figures produced by StatsNZ or other firms, should be used with caution, and are subject to future revision as new data is added to the model.

- Counts of businesses is based on ANZSIC Level 4 counts reported by StatsNZ, and is randomly rounded to a base of three. This measures the number of businesses that are economically significant individual, private-sector and public-sector enterprises that are engaged in the production of goods and services in New Zealand. These enterprises are maintained on the Statistical Business Register, which generally includes all employing units and those enterprises with GST turnover greater than $30,000 per year. Counts are based as of February in the reference year.

- Self-employment data uses the following prioritisation hierarchy: Employer, Self-employed, Employee. Workers within an industry are only counted once during the given year, and coded to the highest "employment level" based on the composition and source of their income (for example, a worker with self-employment earnings in addition to wages/salary income earnt as an employee would be coded as "self-employed", even if their self-employment earnings only make up a small proportion of their total employment income).

Training and Qualifications data

- Data for qualification enrolments and completions is based on data provided to the Workforce Development Councils by the Tertiary Education Commission, and is randomly rounded to base five.
- Data presented are counts for the full calendar year
- Counts of zero may be small counts rounded down to zero (such as counts between one and four)
- Counts are subject to revision due to the method in which providers report their data.
- Enrolment and completion counts cannot be used to calculate completion rates, as these counts do not consider factors that are used to calculate completion rates by the Tertiary Education Commission (for example, qualification duration). Further information regarding completion rates is available on the Tertiary Education Commission website.