

A small decorative graphic consisting of a solid olive-green horizontal bar with a white bullseye symbol in the center.

Implementing ANZSCO in the Household Labour Force Survey

A large decorative graphic in the bottom-left corner, consisting of several overlapping, concentric circles of varying sizes, rendered in a light grey color. The circles are arranged in a way that they appear to be part of a larger, abstract pattern.

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Preface

Implementing ANZSCO in the Household Labour Force Survey provides additional detail on the use of a new occupation classification in the Household Labour Force Survey (HLFS). In November 2009, occupation results from the September 2009 quarter HLFS will be published using the Australian and New Zealand Standard Classification of Occupations (ANZSCO). Previous occupation results from the HLFS were based on the New Zealand Standard Classification of Occupations (NZSCO99).

This information paper discusses the major changes to industrial groupings resulting from the use of ANZSCO, and how these changes affect the HLFS. The implementation process for the new classification is also summarised. The paper includes a table showing the contribution of NZSCO occupation divisions to ANZSCO occupation divisions, based on dual run results.

Statistics New Zealand welcomes comments about this paper. It is being released to support the HLFS results in November 2009, and to better inform users on the differences between NZSCO99 and ANZSCO.



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Standards and further information

Rounding procedures

All figures are rounded to the nearest hundred. This may result in a total disagreeing slightly with the total of the individual items as show in the tables.

Source

All data is compiled by Statistics New Zealand, except where otherwise stated. This information paper uses survey data.

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1 Introduction

This information paper discusses the implementation of the Australian and New Zealand Standard Classification of Occupations (ANZSCO) into the Household Labour Force Survey (HLFS) and the resulting changes in classification. The September 2009 quarter HLFS release will include occupation statistics based on ANZSCO, whereas previous releases used the New Zealand Standard Classification of Occupations (NZSCO99). Future releases of HLFS industry data will use ANZSCO.

The HLFS provides a regular, timely, and comprehensive portrayal of New Zealand's labour force. Each quarter, a range of statistics relating to employment, unemployment, and people not in the labour force is published.

Table 2 shows the contributions of NZSCO99 occupation divisions to ANZSCO occupation divisions, based on the June 2009 quarter dual-run results.

For more information about the HLFS, see the technical notes in the [Household Labour Force Survey: June 2009 quarter](#) Hot Off the Press, available on the Statistics New Zealand website (www.stats.govt.nz).

If you have any questions or comments about this paper or the HLFS, please contact:

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ANZSCO

The new Australian and New Zealand Standard Classification of Occupations (ANZSCO) was developed to take into account new occupations, particularly occupations in information and communication technology (ICT), that have appeared since the last revision of the New Zealand Standard Classification of Occupations (NZSCO) in 1999.

ANZSCO, a harmonised classification, has been developed by Statistics NZ, the Australian Bureau of Statistics (ABS), and the Australian Department of Employment and Workplace Relations (DEWR), for use in both Australia and New Zealand. This collaboration reflects the current structure of the New Zealand and Australian labour markets, and will improve analysis of trans-Tasman occupation data and align with international classifications.

ANZSCO is a skill-based classification of occupations that looks at the level of skill typically required to competently perform the tasks of a particular occupation. Skill specialisation is determined by the field of knowledge required, the tools and equipment used, the materials worked on, and the goods or services produced or provided. The conceptual model adopted for ANZSCO uses a combination of skill level and skill specialisation as the criteria for designing meaningful and useful major groups.

2 Main differences between ANZSCO and NZSCO99

While the classification criteria for ANZSCO are essentially the same as those used for NZSCO99, ANZSCO provides a greater definition of skill level, and application of the skill level criterion is more rigorous compared with NZSCO99. The structure and conceptual basis of NZSCO99 was closer to that of the International Standard Classification of Occupations than that of ANZSCO.

Under ANZSCO there are eight major occupation groups compared with nine groups under NZSCO99. The structure of ANZSCO has five hierarchical levels – major group, sub-major group, minor group, unit group, and occupation. The categories at the most detailed level of the classification are termed 'occupations'.

The following table compares NZSCO99 and ANZSCO at the major group level:

Table 1

Major Groups under NZSCO99 and ANZSCO	
NZSCO99	ANZSCO
1 Legislators, administrators, and managers	1 Managers
2 Professionals	2 Professionals
3 Technicians and associate professionals	3 Technicians and trades workers
4 Clerks	4 Community and personal service workers
5 Service and sales workers	5 Clerical and administrative workers
6 Agriculture and fishery workers	6 Sales workers
7 Trades workers	7 Machinery operators and drivers
8 Plant and machine operators and assemblers	8 Labourers
9 Elementary occupations	

The introduction of ANZSCO has resulted in there being more occupations in total than contained in NZSCO99. It has also meant significant changes to the way some occupations had been classified in NZSCO99. Important changes are listed below.

Agriculture and fishery workers

This NZSCO99 major group has been discontinued in ANZSCO. These occupations are now spread across a number of ANZSCO major groups. The important changes are:

- Farmers and farm managers are classified to ANZSCO major group 1, managers, sub-major group 12, farmers and farm managers.
- Farm and forestry workers are classified to ANZSCO major group 8, labourers, sub-major group 84, farm, forestry, and garden workers.

- Gardeners, green-keepers, and nurserypersons are classified to ANZSCO major group 3, technicians and trades workers, minor group 362, horticultural trades workers.
- Gardening and nursery labourers are classified to ANZSCO major group 8, labourers, sub-major group 84, farm, forestry, and garden workers.

Associate professionals

This NZSCO99 major group has been discontinued in ANZSCO. These occupations are now spread across a number of ANZSCO major groups. The main changes are:

- Physical science and engineering associate professionals, NZSCO99 sub-major group 31, are mostly classified to ANZSCO major group 3, technicians and trades workers, sub-major group 31, engineering, ICT, and science technicians.
- Ship and aircraft controllers and technicians, NZSCO99 minor group 321, are classified to ANZSCO major group 2, professionals, minor group 231, air and marine transport professionals.
- Life science technicians and related workers, NZSCO 1999 minor group 321, are classified to ANZSCO major group 3, technicians and trades workers, sub-major group 31, engineering, ICT, and science technicians.
- Health associate professionals, NZSCO99 minor group 322, and nursing associate professionals, NZSCO99 minor group 323, are classified to ANZSCO major group 2, professionals, sub-major group 25, health professionals, and major group 4, community and personal service workers, sub-major group 41, health and welfare support workers.
- Writers, artists, entertainment, and sports associate professionals, NZSCO99 minor group 336, are classified to ANZSCO major group 2, professionals, sub-major group 21, arts and media professionals, and major group 4, community and personal service workers, sub-major group 45, sports and personal service workers.

Sales and service occupations

NZSCO99 major group 5, service and sales workers, has been disaggregated and reorganised in ANZSCO into two major groups.

There is now one major group that covers all sales occupations – major group 6, sales workers, and one major group that covers all service workers – major group 4, community and personal service workers.

Information and communication technology (ICT) occupations

ANZSCO identifies a greater number of ICT unit groups and occupations compared with NZSCO99.

In ANZSCO, there are 13 ICT unit groups and 36 ICT occupations. This compares with two minor groups, three unit groups, and seven occupations under NZSCO99.

Summary of major ANZSCO groups

1. Managers

Managers plan, organise, direct, control, coordinate, and review the operations of government, commercial, agricultural, industrial, non-profit and other organisations, and departments.

2. Professionals

Professionals perform analytical, conceptual, and creative tasks through applying theoretical knowledge and experience in the fields of the arts, media, business, design, engineering, the physical and life sciences, transport, education, health, information and communication technology, the law, social sciences, and social welfare.

3. Technicians and trades workers

Technicians and trades workers perform a variety of skilled tasks, applying broad or in-depth technical, trade, or industry specific knowledge, often in support of scientific, engineering, building, and manufacturing activities.

4. Community and personal service workers

Community and personal service workers assist health professionals in providing patient care, provide information and support on social welfare matters, and provide other services in the areas of aged care and childcare, education support, hospitality, defence, policing and emergency services, security, travel and tourism, fitness, sports, and personal services.

5. Clerical and administrative workers

Clerical and administrative workers provide support to managers, professionals, and organisations by organising, storing, manipulating, and retrieving information.

6. Sales workers

Sales workers sell goods, services, and property, and provide sales support in areas such as operating cash registers, and displaying and demonstrating goods. ICT and technical sales representatives are excluded from this major group. ICT sales representatives are included in unit group 2252, ICT sales professionals. Technical sales representatives are included in unit group 2254, technical sales representatives.

7. Machinery operators and drivers

Machinery operators and drivers operate machines, plant, vehicles, and other equipment to perform agricultural, manufacturing, and construction functions, move materials, and transport passengers and freight.

8. Labourers

Labourers perform routine and repetitive physical tasks using hand and power tools, and machines, either as an individual or as part of a team assisting more skilled workers such as trades workers, and machinery operators and drivers.

Further information

More information on the [ANZSCO classification](#) is available on the Statistics NZ website (www.stats.govt.nz). The Statistics NZ [Classifications Code Finder](#) is also useful for identifying where particular occupations are coded.

3 Implementing ANZSCO in the Household Labour Force Survey

The entire process of implementing ANZSCO in the HLFS took two years: from planning in 2007 to the release of the September 2009 quarter results in November 2009. A summary of the process follows.

Changes in the HLFS

The HLFS is a household-based survey, and collects occupation information by asking the respondents what their occupation is for their main job, and what their tasks or duties are for this main job. This information is then used to code the data to occupation codes. An occupation classification manual is used as a guide for classifying responses.

Prior to the implementation of ANZSCO, occupation data from the HLFS was centrally coded to 5-digit NZSCO99 classification codes. With the implementation of ANZSCO, dual codes were created, which were a combination of the NZSCO99 and ANZSCO codes for a particular occupation. The occupation synonym files on the coding application were updated to reflect the new classification. Dual codes were created by attaching the relevant code from each classification to each occupation synonym, so that each synonym had a unique dual code. Using the unique dual codes, each occupation was coded to each classification simultaneously.

As ANZSCO goes down to a much finer level of detail than NZSCO99, the most detailed classifications are now at the 6-digit level, not the 5-digit level, resulting in 443 more occupations. This means that there are several one-to-many concordances in moving from NZSCO99 to ANZSCO.

Occupation data began to be dual coded in the March 2009 quarter, and will continue to be dual coded to both NZSCO99 and ANZSCO until the December 2011 quarter.

Publication changes

From the September 2009 quarter onwards, the HLFS will be published using ANZSCO level one categories. Data will still be available on Infoshare, on the Statistics NZ website, at NZSCO99 level one.

Back-casting

Back-casting preserves statistical time-series by presenting historical series in terms of an updated classification. A back-cast series for 'total people employed by occupation and sex' has been created for ANZSCO. The series was created at the one-digit level and back-cast from the December 2008 quarter to the March 2003 quarter. The March and June 2009 quarter outputs are from the dual-coded data.

Back-cast series will not be released on Infoshare for the 'occupation sought' and 'previous occupation' series.

The HLFS occupation data was back-cast using the proportions approach. The proportional contribution of each NZSCO99 occupation to its new ANZSCO occupation was calculated. Previous NZSCO99 occupation major group totals were then redistributed on the basis of these proportions in order to create a historic ANZSCO series. Each transition from a NZSCO99 to an ANZSCO occupation has its own proportion, calculated using dual codes. For example, major group 1 in NZSCO99 is made up of units that were coded to several ANZSCO major groups. The transition proportions of NZSCO99 group 1 to the appropriate ANZSCO major groups were calculated, and the units redistributed accordingly to concord with the new classification. For the HLFS back-cast occupation series, proportions were calculated using the June 2009 quarter dual codes.

The back-cast table [People employed by occupation and sex](#) is available on the Statistics NZ website.

Occupation data in the HLFS from September 2009 onwards

The HLFS results will be released on an ANZSCO basis from the September 2009 quarter onwards. Estimates based on NZSCO99 will still be collected and available on Infoshare until the December 2011 quarter.

4 Results in summary

Table 2 summarises the distribution of industry data from NZSCO99 to ANZSCO, using data from the June 2009 quarter dual run.

Table 2

People Employed by Occupation (NZSCO and ANZSCO)
Household Labour Force Survey: June 2009 quarter

	ANZSCO									Total
	1	2	3	4	5	6	7	8	9	
	Managers	Professionals	Technicians & trade workers	Community & personal service workers	Clerical & administrative workers	Sales workers	Machinery operators & drivers	Labourers	Residual categories	Total all occupations
NZSCO	000									
1 Legislators, administrators, & managers	250.6	4.6	...	3.9	22.4	7.8	...	...	...	289.3
2 Professionals	S	375.0	4.1	S	S	1.1	...	...	...	381.7
3 Technicians & associate professionals	5.9	85.9	43.8	43.3	40.1	48.9	S	...	...	268.1
4 Clerks	...	2.4	S	1.4	230.8	20.2	11.1	1.1	...	267.2
5 Service & sales workers	S	...	32.4	141.5	1.4	110.3	S	32.5	...	318.4
6 Agriculture & fishery workers	69.6	S	19.6	...	S	...	S	50.6	...	140.4
7 Trade workers	33.9	S	160.6	...	S	S	1.5	1.8	...	199.1
8 Plant & machine operators & assemblers	S	S	19.4	S	...	...	89.7	60.2	...	170.1
9 Elementary occupations	...	...	...	S	3.6	S	14.1	104.1	...	122.4
10 Not specified	...	...	...	S	...	...	...	S	9.1	9.5
Total	360.9	468.5	279.9	191.3	299.4	189.6	116.9	250.6	9.1	2,166.1

Symbols:

S suppressed. Estimates are less than 1,000. Sampling error too great for most practical purposes.

... not applicable