

REGIONAL GROWTH OUTCOMES

*In Employment in the New Zealand
Food & Beverage Industry*

FINAL REPORT; v1.01r; August 2019





MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI



NEW ZEALAND
TRADE & ENTERPRISE
Te Taurapa Tūhono

Ministry for Primary Industries
Manatū Ahu Matua



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EXECUTIVE SUMMARY

FOOD IS IMPORTANT

New Zealand is a temperate climate country the size of Italy, Japan or the United Kingdom, but with the population of Singapore. The country has an abundance of natural resources spread across a small population. Much of New Zealand's success to date in food has come from this simple fact.

From the 19th Century to today, the food and beverage industry has played an outsized role in the economy, the importance of which is difficult to overstate.

Food production uses almost half of New Zealand's land and much of the surrounding ocean. Food manufacturing accounts for 32% of New Zealand's total manufacturing GDP. At \$34b, food is the country's major export industry generating two thirds (65%) of merchandise exports and close to half (46%) of total exports (both goods and services).

The core production (farms and orchards) and manufacturing parts of the food industry directly support 219,000 jobs. When the wider food chain is taken into account – which includes food service, food wholesaling and food retailing – the industry employs close to half a million people, or one in five workers. These jobs are not concentrated in Auckland; they are spread all across the country. In regions outside Wellington and Auckland, this chain directly employs 20–40% of the working population, making it the core economic base for both small rural communities and the larger regional cities.

CHANGE IS OCCURRING

The New Zealand food production system has evolved over many years to be a highly efficient producer of a few major commodities, with growth based on increasing volumes, and relentless productivity improvements.

Farming is a dynamic industry undergoing a fundamental long-term shift to fewer, larger production units. Over the last two decades, New Zealand has seen a more than 30% fall in farm unit numbers. This shift to fewer units is playing out across all regions and most sectors.

Total on-farm employment, including owner-operators, has seen a net loss of 12,300 jobs since 2000. On-farm jobs are down across most regions, other than Canterbury, Otago and the West Coast.

At the same time, over the last two decades, the number of food processing firms has increased by 50% and more than 13,500 jobs have been created. These jobs are not just on the factory floor, but in a wide variety of roles such as marketing, sales, branding, package design, and new product development. This growth is occurring across all regions and most sectors.

DAIRY

Dairy is the competitive backbone of the New Zealand F&B economy creating over 53,000 direct jobs. Dairy farms are (1) getting larger, with (2) more land is converting to dairy and (3) more milk is being produced per cow, leading to more milk overall as a result, but with fewer people overall on-farm. Processing unit numbers have more than doubling in the last 18 years (with particularly strong growth in Auckland and the Waikato). Employment in processing has grown significantly over the same period as a result of increased volumes – growing from 8,200 in 2000 to 13,000 in 2018.

MEAT

Meat is the largest overall employer in the New Zealand food industry, both on-farm and in processing. However, farm unit numbers are decreasing and meat production is flat to falling. There are currently 328 processing units nationally, a net increase of 28 units in 18 years. Unfortunately, industry drivers suggest it is unlikely that significant net new employment can be created.

POULTRY

Poultry meat currently employs 1,500 people on-farm and 3,600 people in processing. Farm units are increasing, and farm sizes are growing (more birds per farm) leading to growing meat production. While processing unit numbers are relatively stable, the sector is creating jobs across the four key poultry producing regions (Auckland, Waikato, Canterbury and Taranaki).

SEAFOOD

Seafood is consolidating around both larger boats and larger processing facilities at key port locations. This consolidation has been driven by a total landed volume that has been declining over the last 20 years, and has led to fewer overall jobs. Aquaculture currently produces about a fifth of total volume and it is the only sector with potential to create real growth. The South Island leads in share of total seafood production (72%) and employment.

FRUIT AND VEGETABLES

The fruit and vegetable sector employs 28,100 people on-farm and 9,100 people in processing and wholesaling. However, overall on-farm metrics, both units and jobs, are in decline. On the other hand, fruit and vegetable processing is growing. Employment and unit growth in processing is generally positive.

ARABLE CROPS, SEEDS AND GRAINS

The Arable crop/grain-based sector employs 6,200 people on-farm and 6,600 people in processing. Canterbury has almost 50% of all crop area and the largest number of units overall. Arable crop area is growing, but much of this growth is being driven by feed for the dairy sector. Growth is occurring across the country. The sector is seeing both (1) more farms and (2) larger farms over a larger area. Employment is increasing across the country with a few exceptions.

Grain-based foods processing, the other main user of arable crops, has a stable number of processing units. However, employment growth is occurring.

PROCESSED FOODS

Processed Foods is a large and diverse sector that primarily combines different ingredients (e.g. meat and vegetables) into finished consumer-ready products.

There are currently 12,000 Processed Foods processing jobs in New Zealand, almost the same number as are employed in dairy processing (despite the latter getting the lion's share of attention). The sector is spread across almost 1,000 processing units and activities are located across the country. However, a third of all operations are clustered in Auckland. Growth metrics are strong. The number of processing units is increasing annually at 4% (CAGR). This growth of new processing operations is driving down average employment per unit but growing total employment. Employment growth varies by region; Northland and Hawke's Bay are achieving double digit annual growth rates.

WINE

The wine industry supports 8,800 direct jobs, 4,800 in grape growing and 3,900 in wine production. Wine is showing strong overall growth on-farm and in processing; however, consolidation and scale in the industry is resulting in a decline in overall jobs/litre of wine produced. The number of wineries in New Zealand has stabilised over the last 8 years (438 in 2018) coming off strong growth through the 1990's and 2000's. Winery growth is occurring in Otago and in Wellington, particularly in the Wairarapa. Due to production growth, New Zealand wineries are creating jobs and these jobs are spread across the key wine regions.

OTHER BEVERAGES

Given many beverages contain water as the main ingredient, most beverage categories are not constrained by ingredient supply. New Zealand has substantial water, growing hop production, growing whey production, growing sugar refining supply and significant fruit volumes. Overall, the number of non-wine beverage manufacturing operations is growing, with the 373 units spread across the country. The industry employs 3,700 people, 60% in Auckland. Beverage employment growth varies by region with Auckland, Waikato, Hawke's Bay, Wellington and Otago all doing well.

This project has five clear objectives

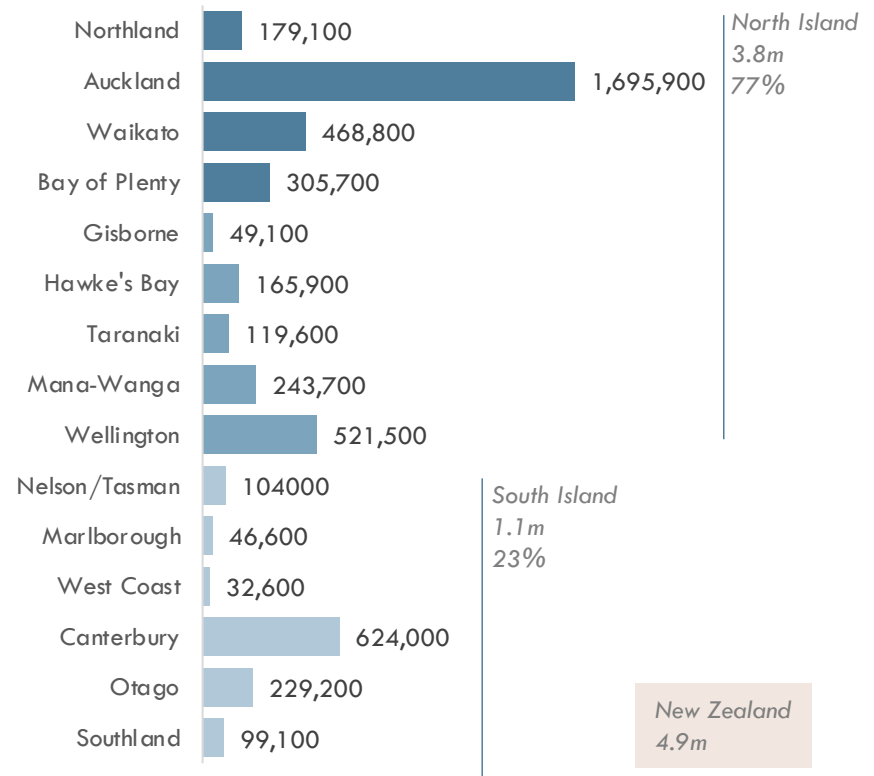
1. Move beyond typical 'aspirational, narrative-based' approach to regional strategic thinking in regards to food & beverage growth
2. Provide fact based/data driven foundation analysis to the regions of New Zealand
3. Benchmark relative performance between regions to identify gaps
4. Provide clear inputs into regional strategy formation initiatives rather than proposing a strategy for every region of the country
5. Do not duplicate previous research (trade data etc.) but add to existing findings

Analysis is conducted at the level of the fifteen* regions of New Zealand

NEW ZEALAND REGIONS 2019



POPULATION BY REGION 2018



*Nelson and Tasman data combined in the research; See Appendix for Regional Snapshots; Source: MBIE Regional database, Coriolis analysis

For each sector, this analysis looks at three high-level drivers of regional food & beverage productivity and employment

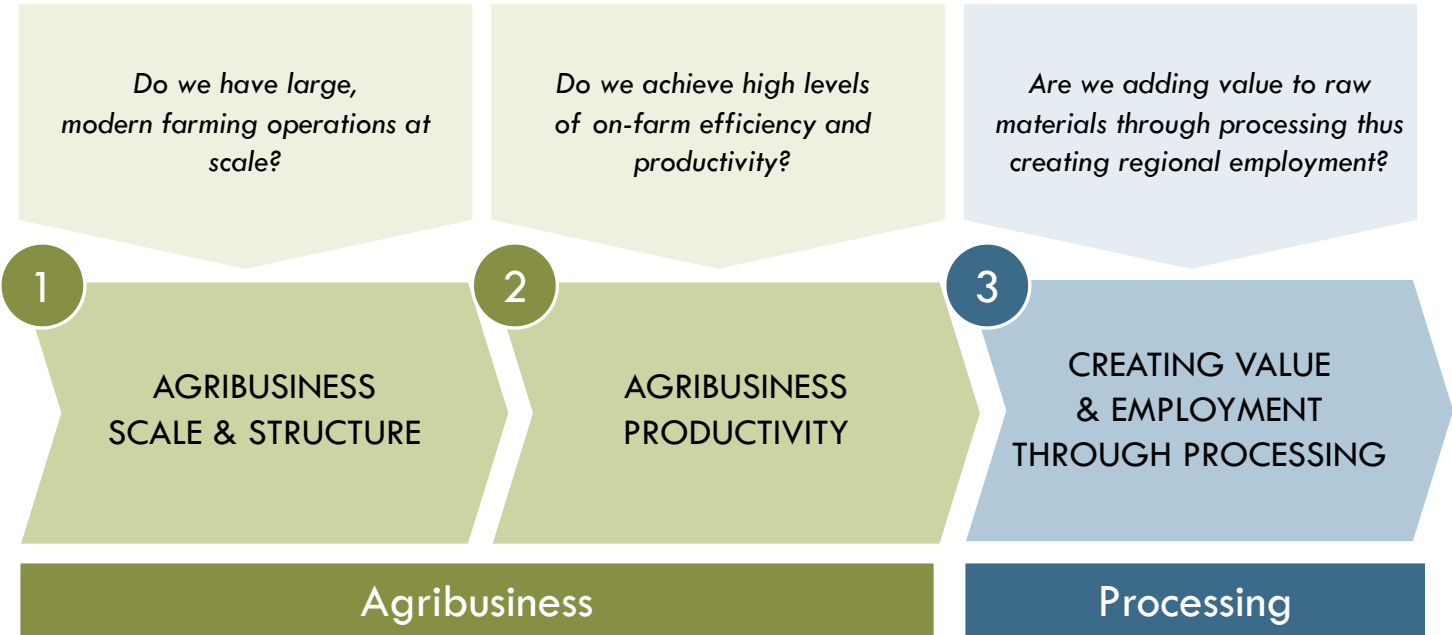


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Why do we care about the New Zealand food & beverage industry?

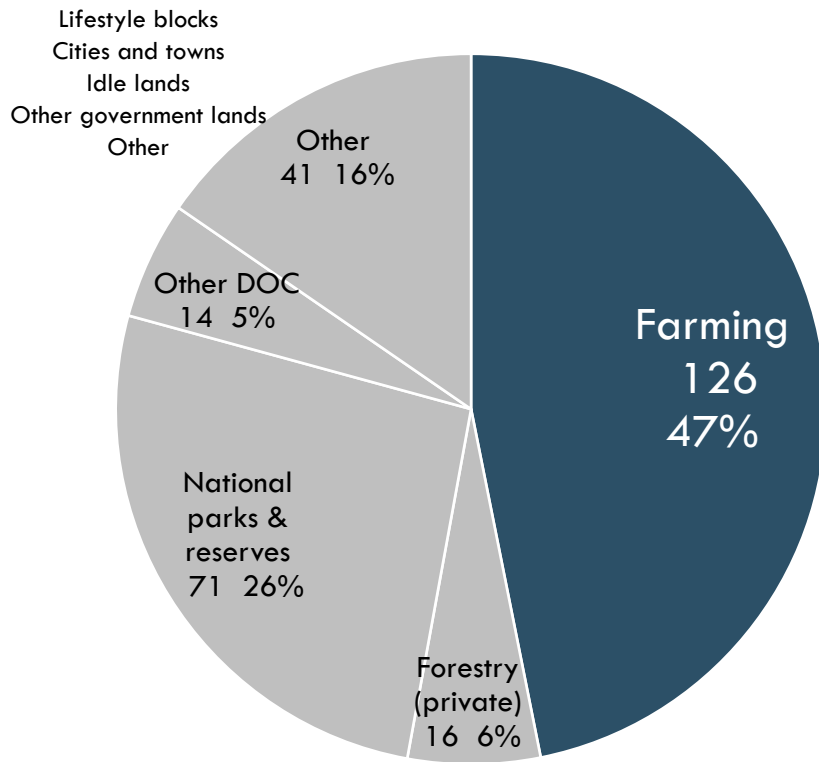


WHY FOOD?

- Food production uses almost half of New Zealand's land and much of its oceans
- The wider food chain directly employs one in five working people in the country
- In regions outside of Wellington & Auckland, the wider food chain directly employs 20-40% of the working population
- Food & beverage directly accounts for a third of total New Zealand manufacturing output
- Food & beverage is the major New Zealand export industry, accounting for almost half of total goods and services exports
- The food & beverage industry achieves a large trade surplus, while most other sectors are underperforming or in deficit
- Food & beverage is growing exports strongly, where most other sectors are underperforming or going backwards
- New Zealand has the highest 'revealed comparative advantage' in food & beverage of any major exporter
- New Zealand's success in food & beverages is underpinned by fundamental long term drivers

Food production uses almost half of New Zealand's land and much of its oceans

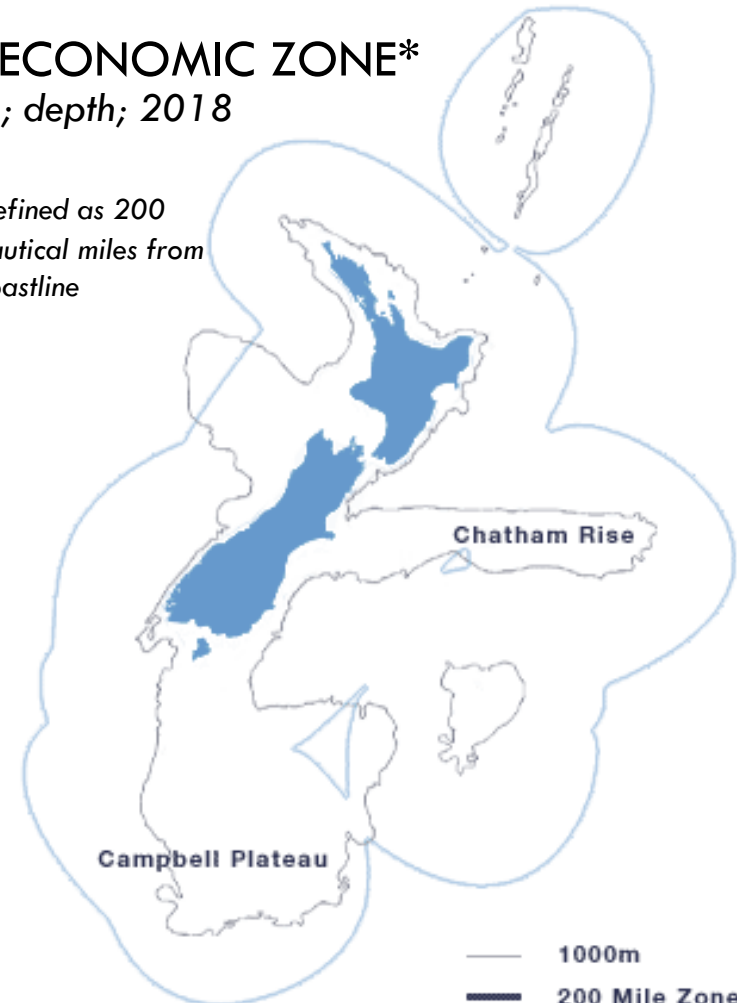
NEW ZEALAND LAND USE
km²; 000; 2010



TOTAL = 268,000 km²

NZ ECONOMIC ZONE*
Area; depth; 2018

Defined as 200 nautical miles from coastline

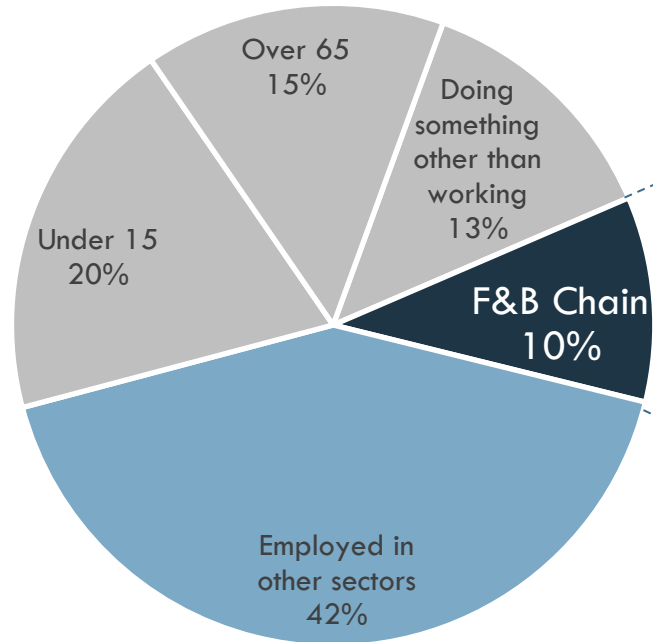


*EEZ; Note: a nautical mile is 1,852 metres; Source: Statistics NZ; Department of Conservation; Sealord; Coriolis analysis

The wider food chain directly employs one in five working people in the country

NZ POPULATION BY EMPLOYMENT

People; m; 2017

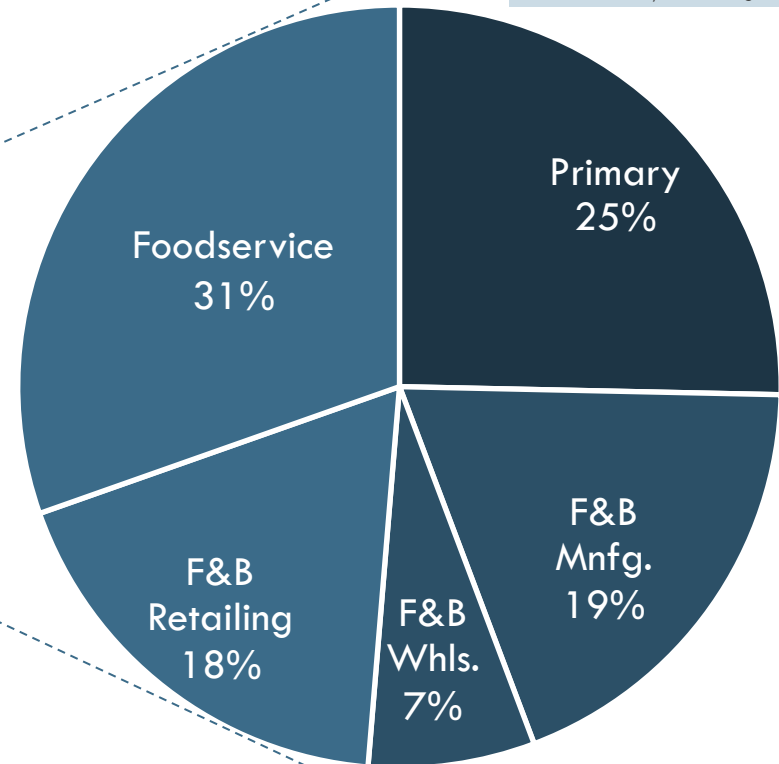


Total = 4.8m

FOOD CHAIN EMPLOYMENT BY SECTOR

People; %; 2017

NOTE: Tight definition; excludes all inputs and support services; likely closer to 1/3 including those



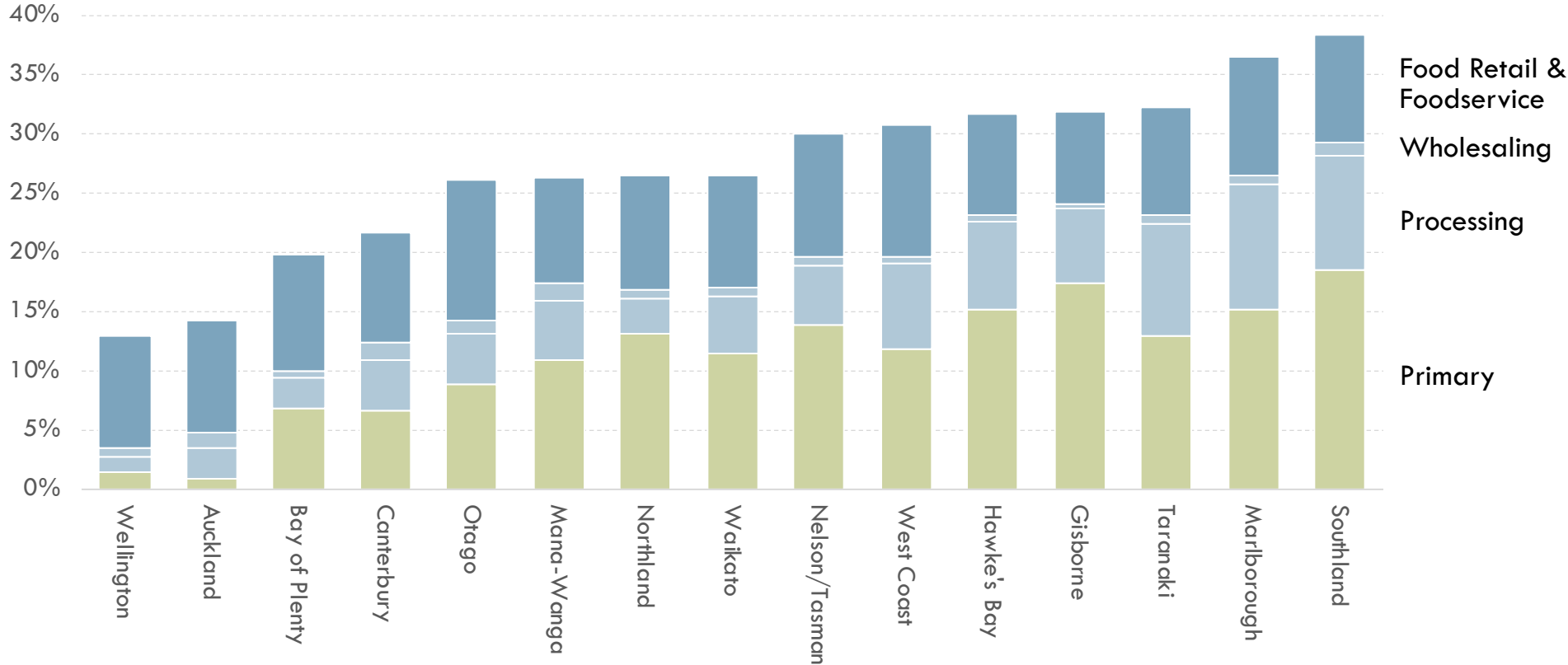
Total = 493,000

... or one in five of working population

In regions outside of Wellington & Auckland, the wider food chain directly employs 20-40% of the working population

PERCENT OF REGIONAL EMPLOYMENT IN THE FOOD CHAIN
% of employees; 2018

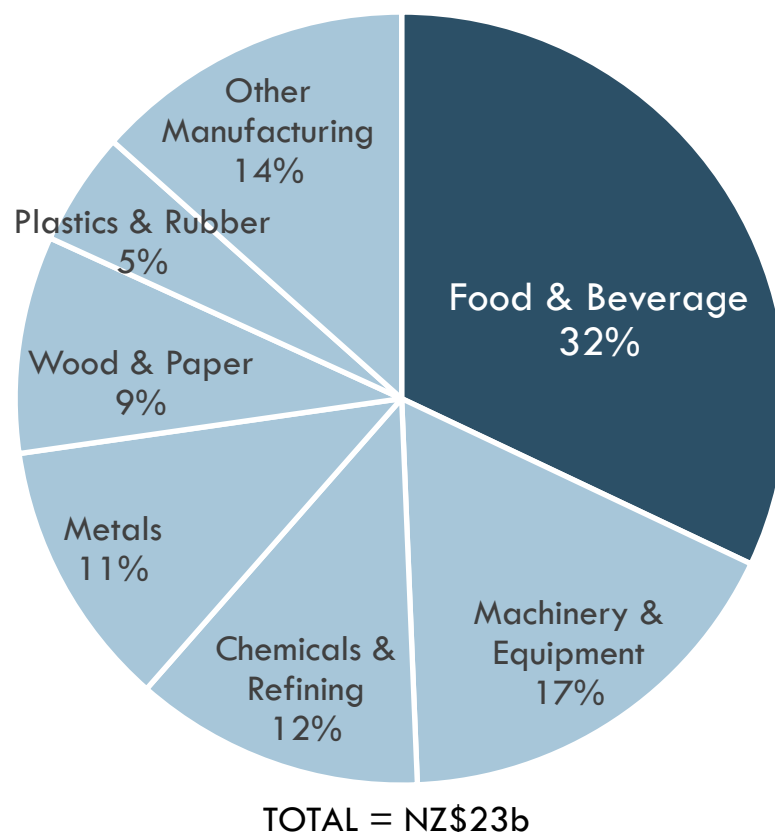
NOTE: Tight definition; excludes all inputs and support services; likely closer to 1/3 including those



Food & beverage directly accounts for a third of total New Zealand manufacturing GDP

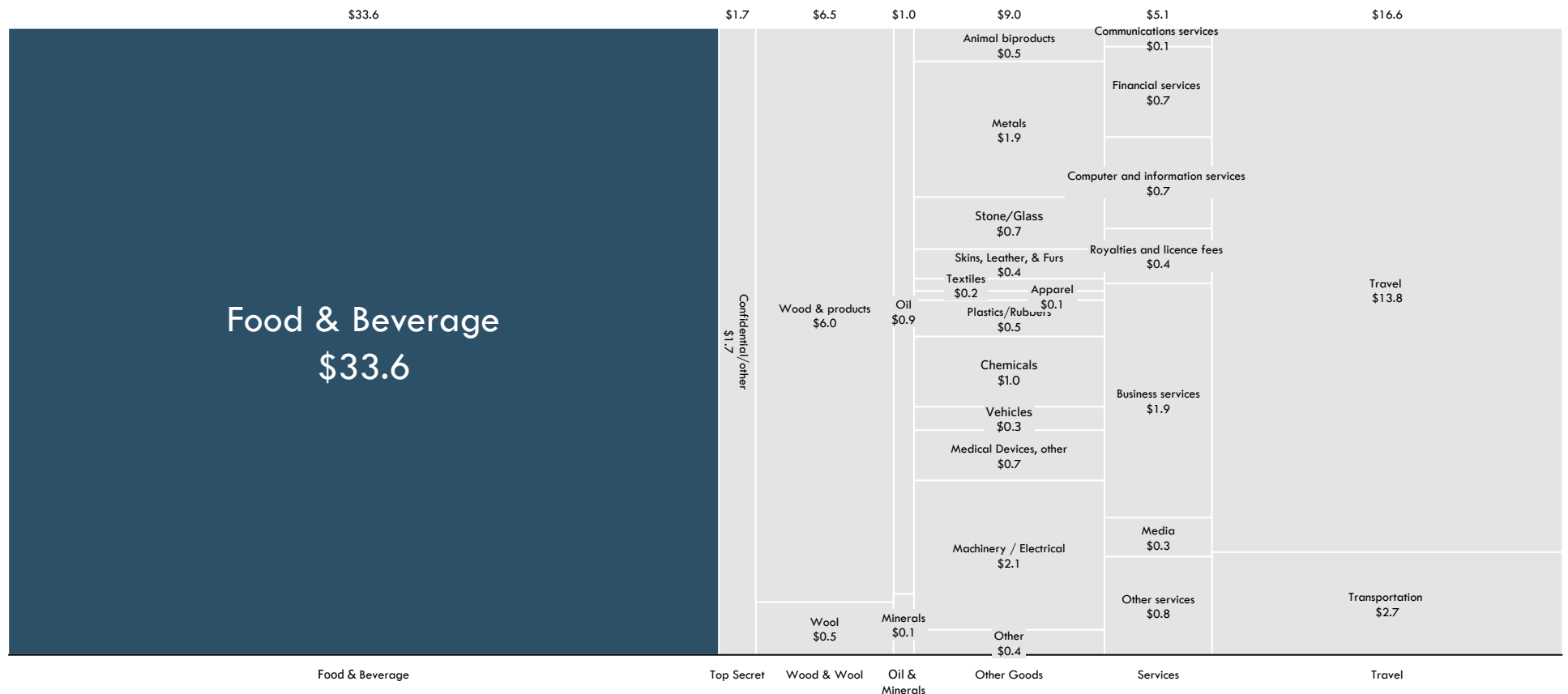
REAL GDP VALUE BY MANUFACTURING SECTOR

% manufacturing real GDP; year Mar 2017



Food & beverage is the major New Zealand export industry, accounting for almost half of total goods and services exports

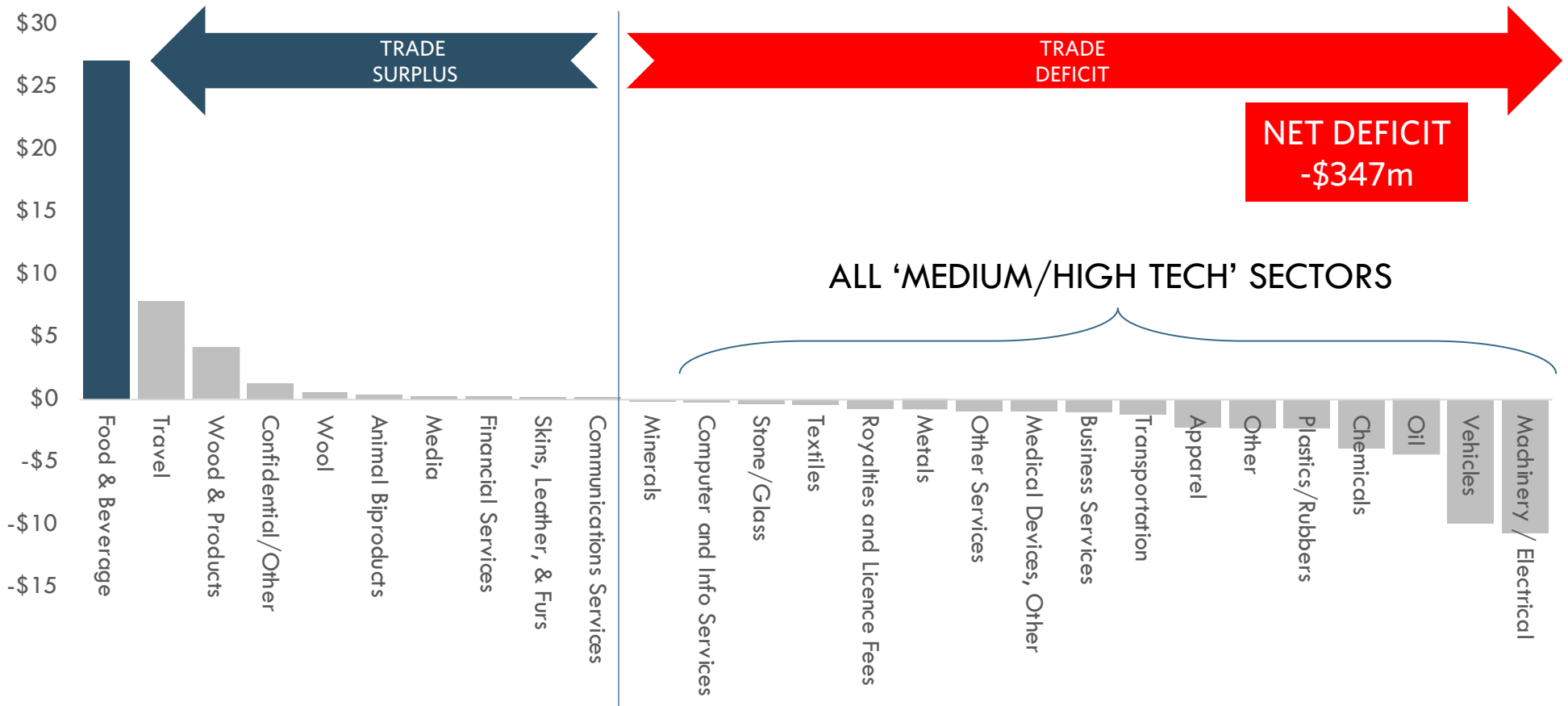
TOTAL NEW ZEALAND EXPORT OF GOODS AND SERVICES BY CATEGORY NZ\$; b; 2017



Source: SNZ; Coriolis analysis and classifications

The food & beverage industry achieves a large trade surplus, while most other sectors are underperforming or in deficit

NET TRADE POSITION IN TOTAL NEW ZEALAND TRADE (EXPORTS-IMPORTS)
 NZ\$; b; 2017



Source: SNZ; Coriolis analysis and classifications

Food & beverage is growing exports strongly, where most other sectors are underperforming or going backwards

10 YEAR NET CHANGE IN TOTAL NEW ZEALAND EXPORTS
 NZ\$; b; 2007-2017

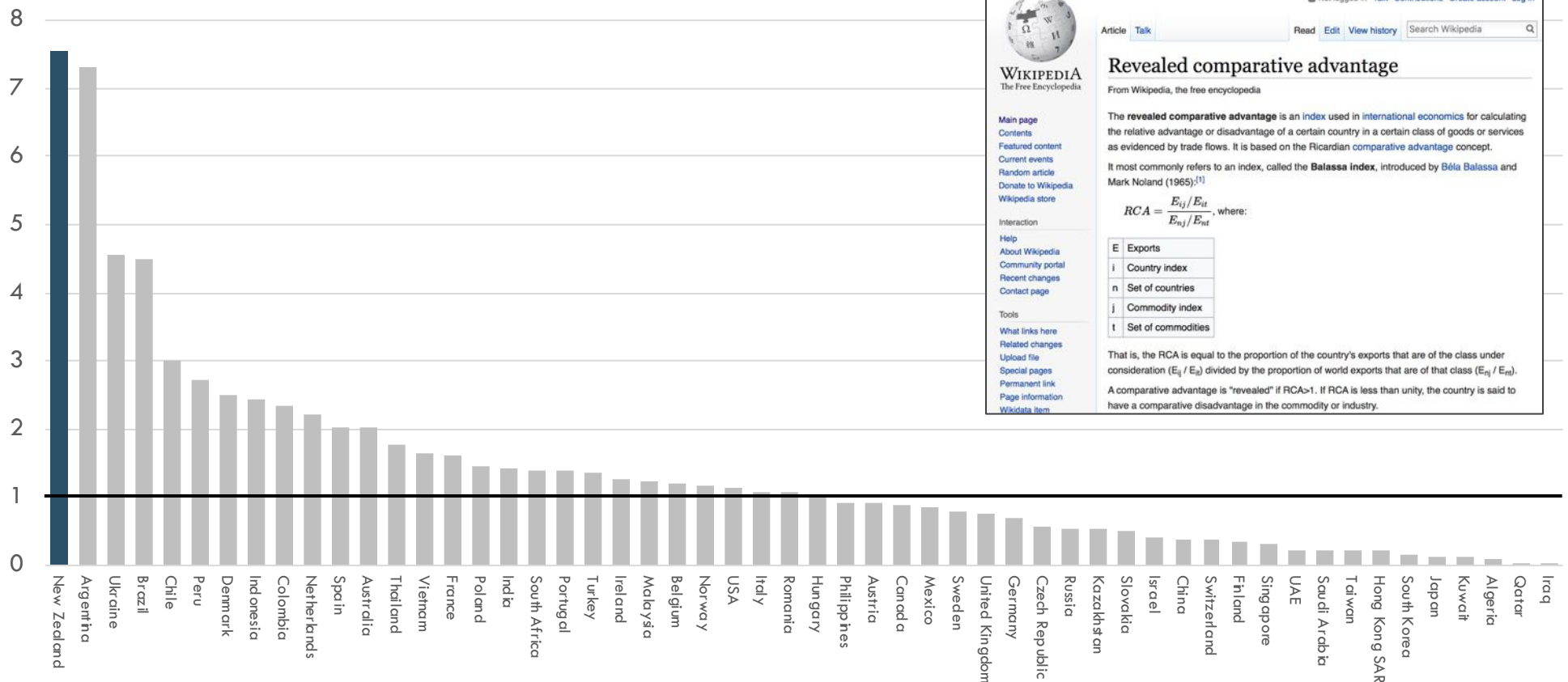


Source: SNZ; Coriolis analysis and classifications

New Zealand has the highest 'revealed comparative advantage' in food & beverage of any major exporter

REVEALED COMPARATIVE ADVANTAGE IN FOOD & BEVERAGE

RCA index; top 54 exporting countries; 2016



Source: UN Comtrade; SNZ; Wikipedia; Coriolis analysis and classifications

New Zealand's success in food & beverages is underpinned by fundamental long term drivers

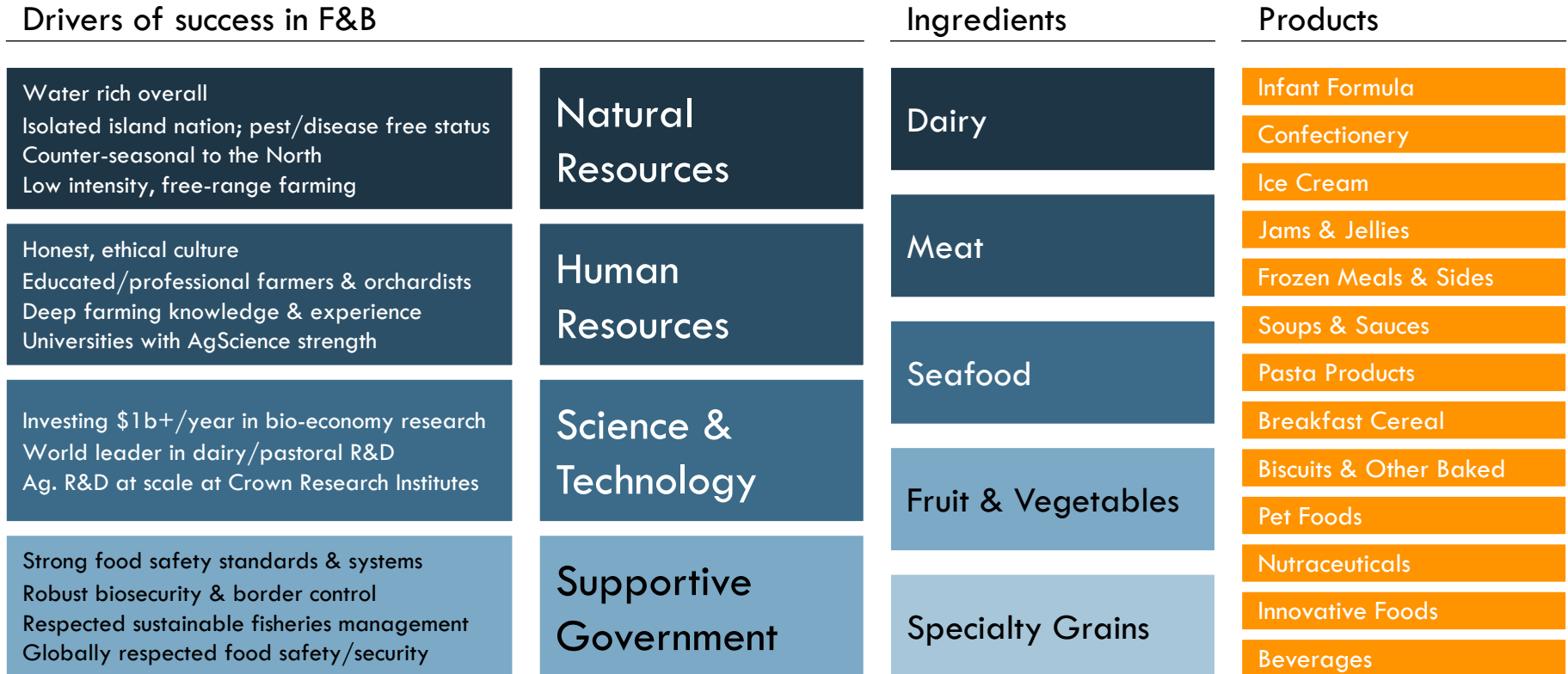


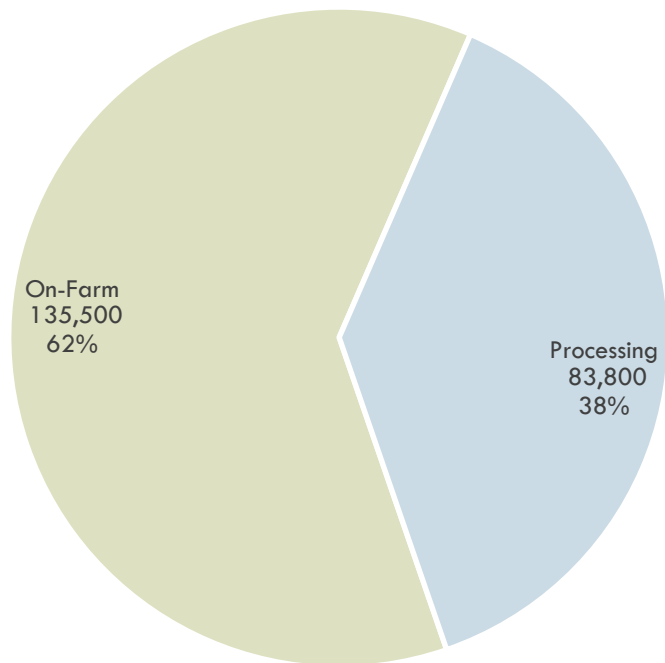
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The core New Zealand food & beverage industry (on-farm & processing) has a total headcount of about 219,000

F&B JOBS BY LOCATION*

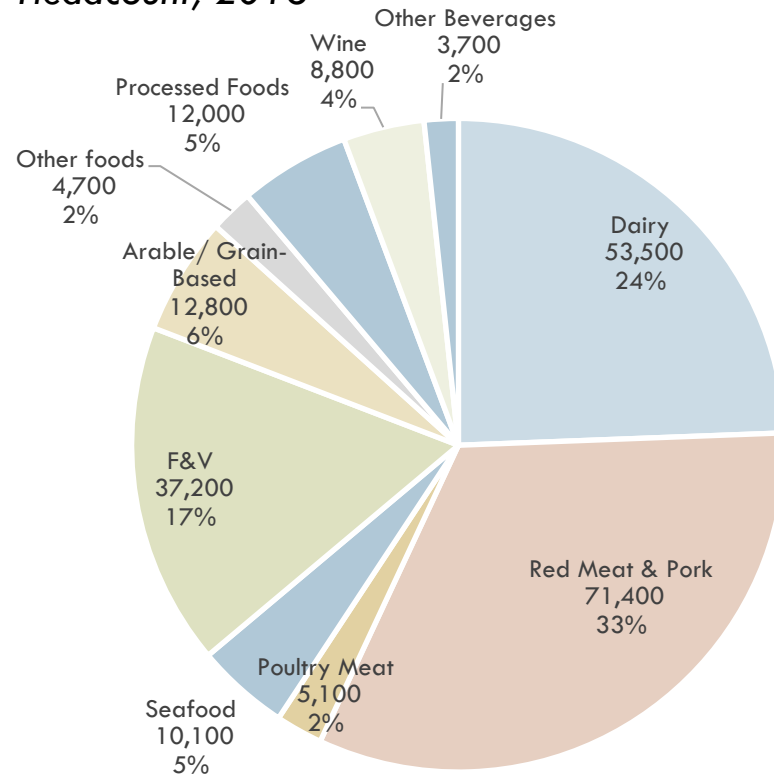
Headcount; 2018



Total = ~219,000

F&B JOBS BY SECTOR*

Headcount; 2018



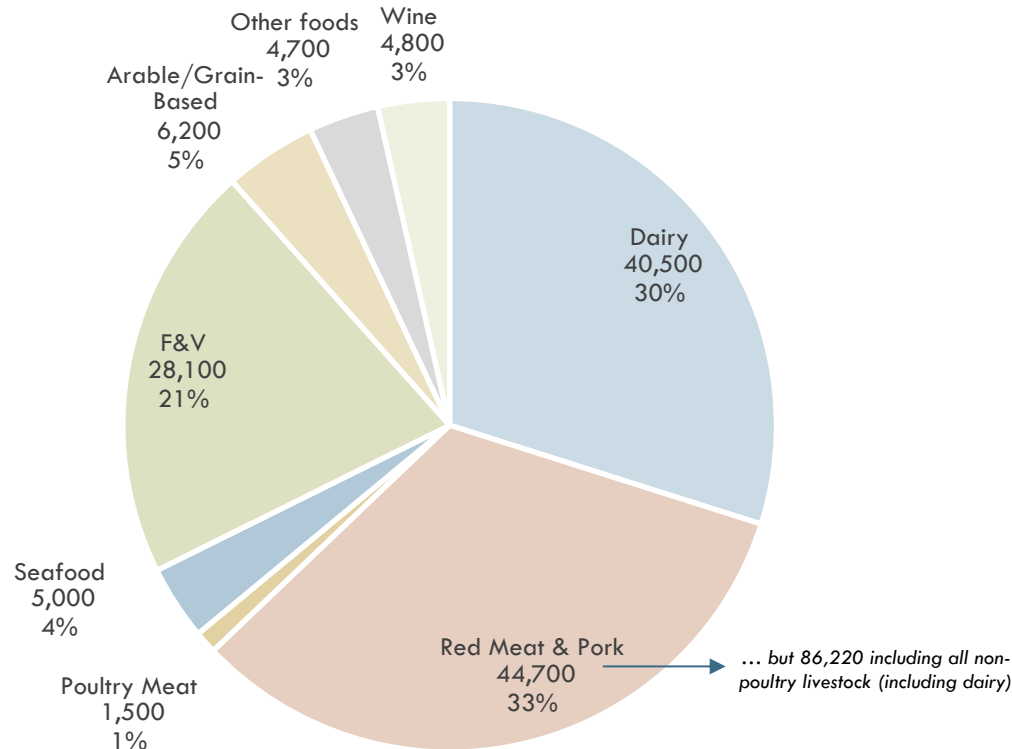
Total = 219,000

TOTALS ROUNDED

Note: Actual total will be larger as this data does not include contract labour (e.g. picking gangs) and other direct labour services to farming; *Including assumed owner-operators (i.e. non-PAYE); does not include most wholesaling (only seafood and produce); Source: Statistics NZ; Coriolis estimates, modelling and analysis

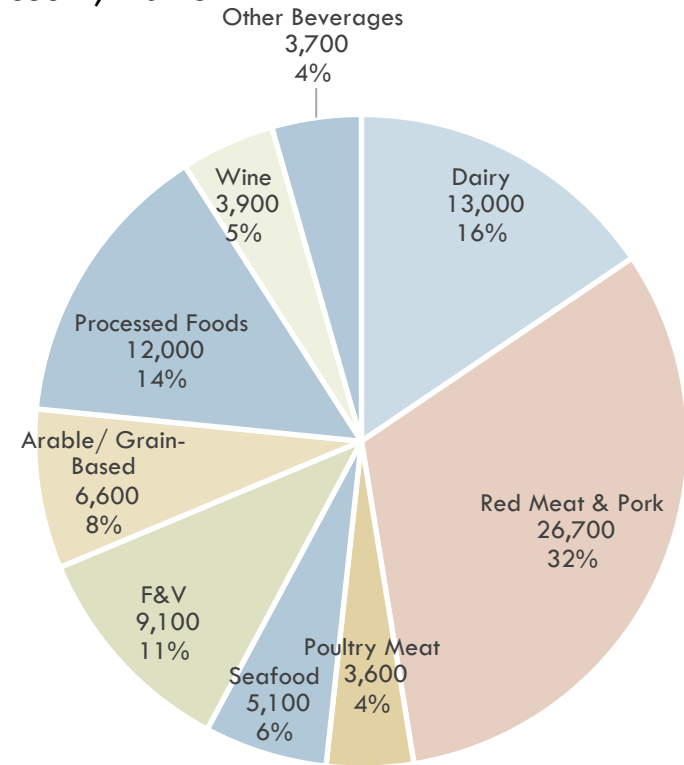
On-farm currently accounts for about 60% of jobs; post farmgate processing 40%

F&B JOBS ON-FARM*
Headcount; 2018



Total = 135,500
~60%

F&B JOBS IN PROCESSING**
Headcount; 2018



Total = 83,800
~40%

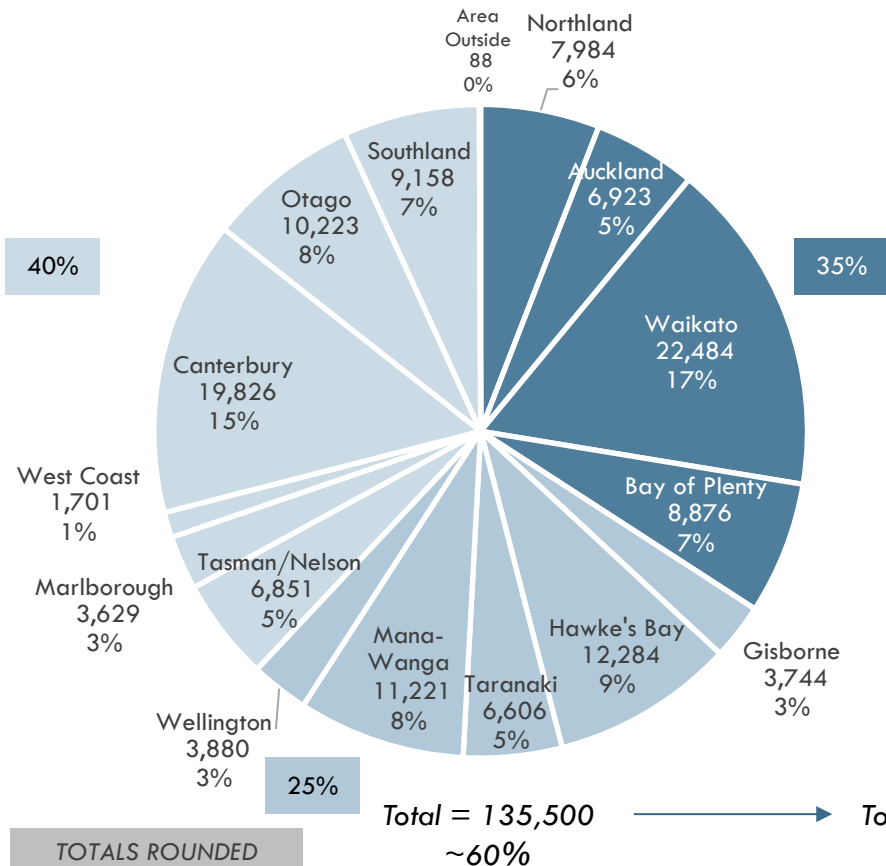
TOTALS ROUNDED

*Including assumed owner-operators (i.e. non-PAYE); **Some sectors include wholesaling; Note: Other foods (honey & eggs), when processed, are not broken out by Statistics NZ and are therefore included in our defined 'processed foods'; Source: Statistics NZ; Coriolis estimates, modelling and analysis

Both on-farm and processing jobs are spread across the country

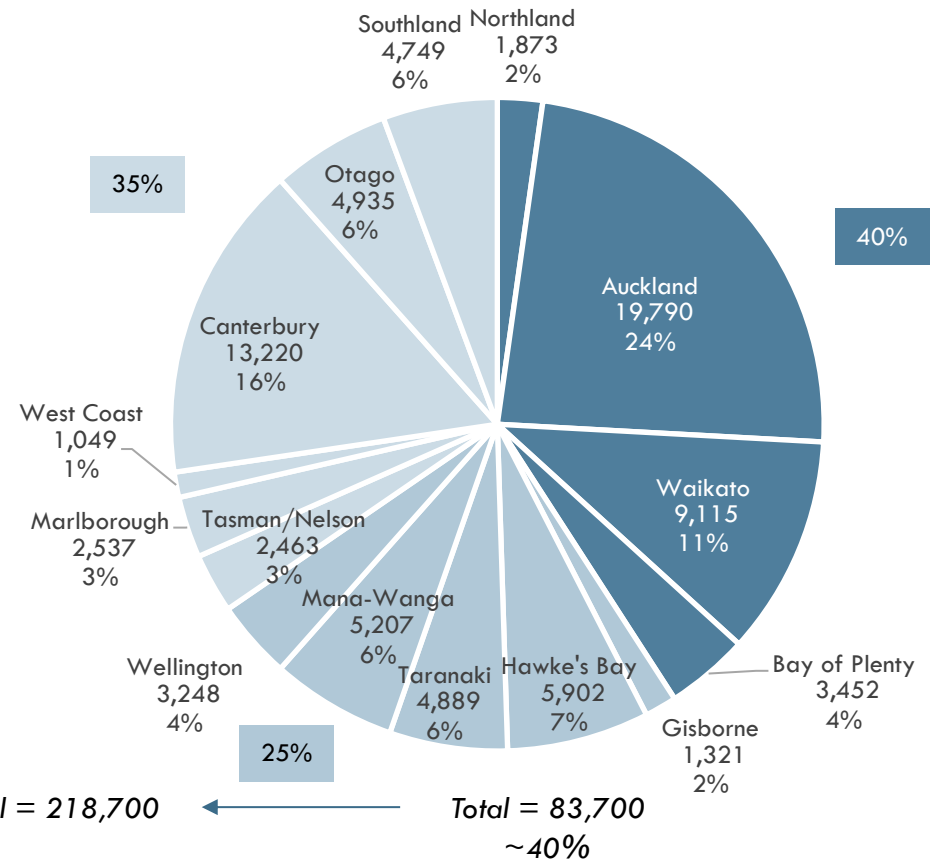
F&B JOBS ON-FARM*

Headcount; 2018



F&B JOBS IN PROCESSING**

Headcount; 2018



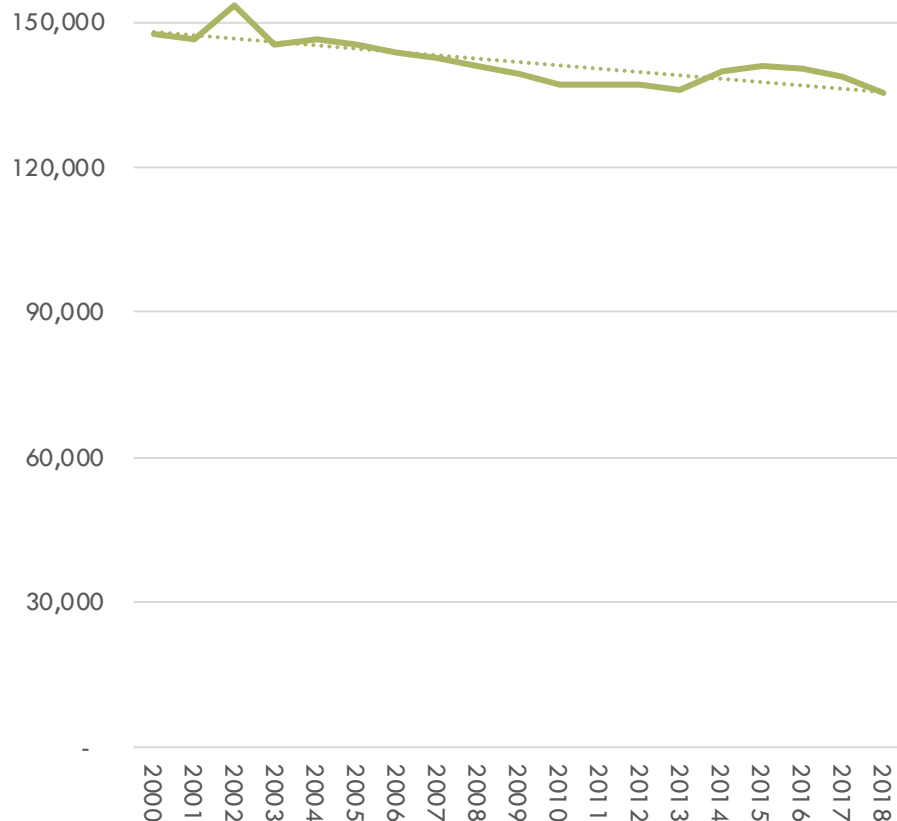
TOTALS ROUNDED

Note: Area Outside = at sea; *Including assumed owner-operators (i.e. non-PAYE); **Some sectors include wholesaling; Source: Statistics NZ; Coriolis estimates, modelling and analysis

On-farm employment is falling while processing employment is growing; NZ is adding more jobs (or value) beyond the farm

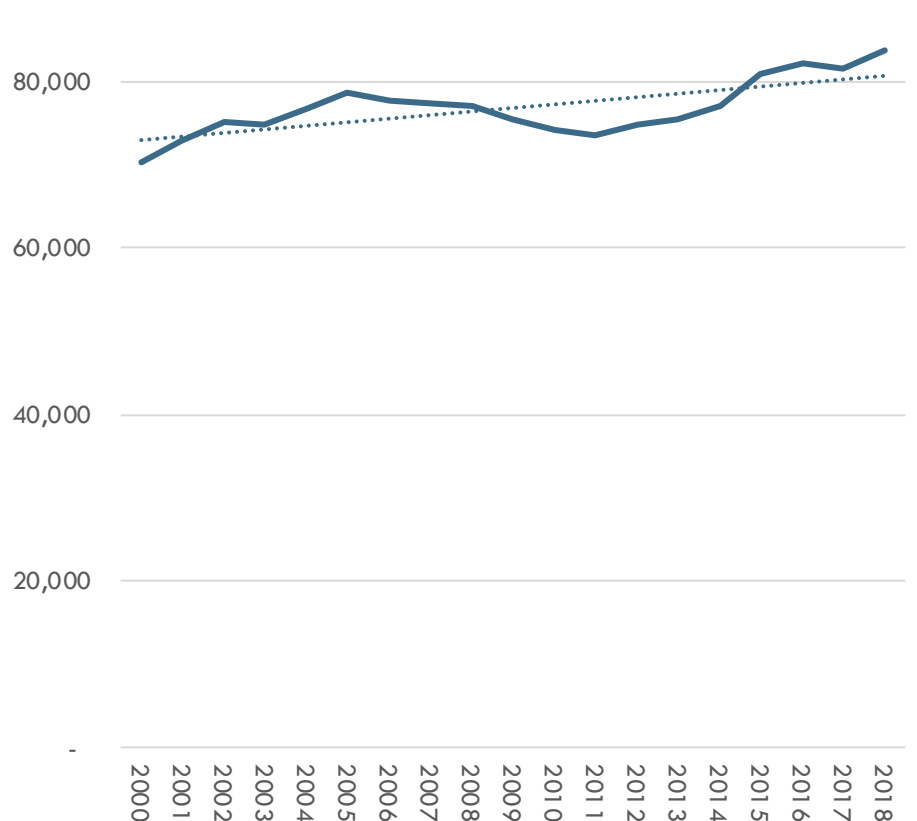
F&B JOBS ON-FARM*

Headcount; 2000-2018



F&B JOBS IN PROCESSING**

Headcount; 2000-2018

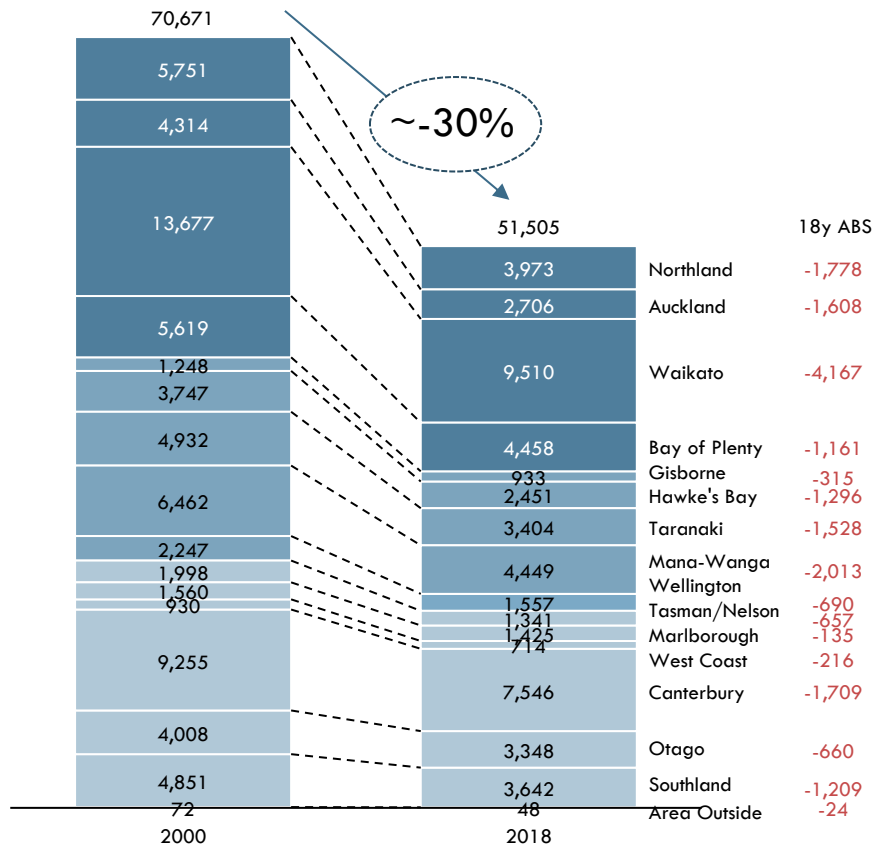


*Including assumed owner-operators (i.e. non-PAYE); **Some sectors include wholesaling; Note: Other foods (honey & eggs), when processed, are not broken out by Statistics NZ and are therefore included in our defined 'processed foods'; Source: Statistics NZ; Coriolis estimates, modelling and analysis

This on-farm shift to fewer units is playing out in New Zealand across all regions and most sectors

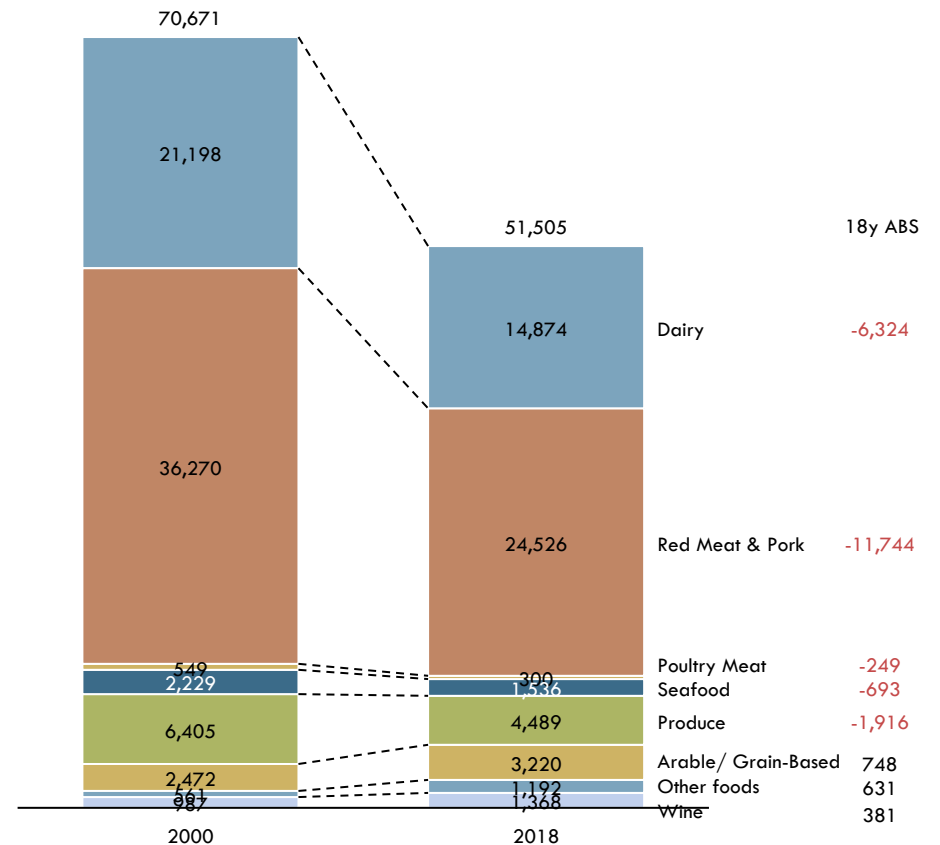
OF FARM UNITS BY REGION

Geographic units; 2000 vs 2018



OF FARM UNITS BY SECTOR

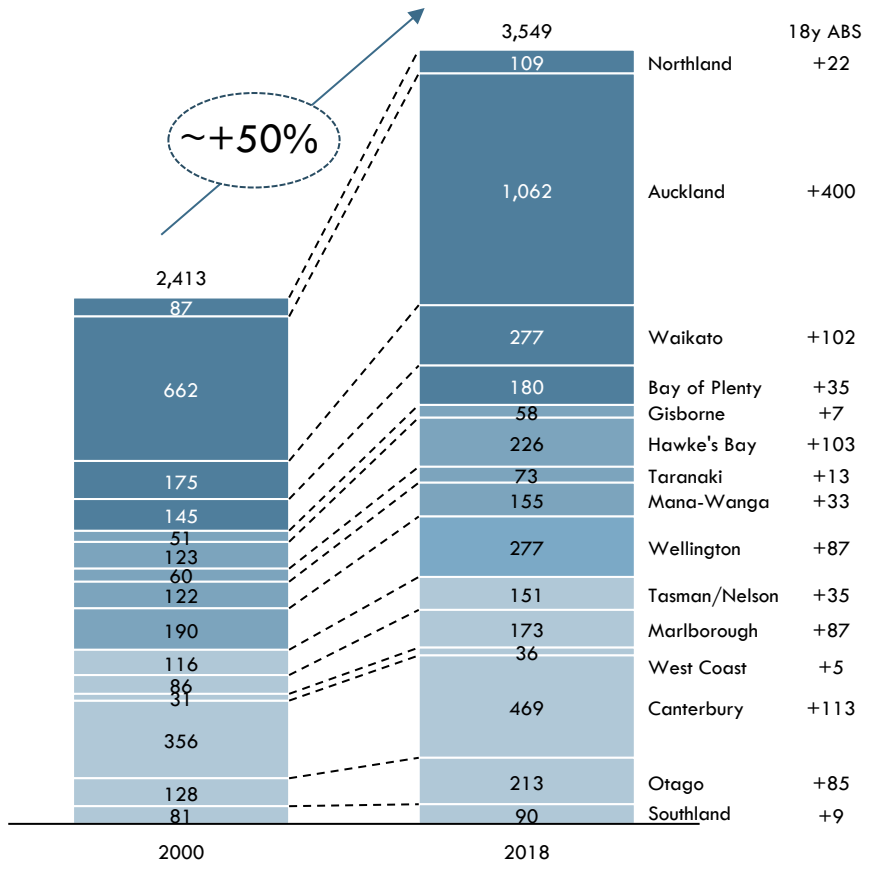
Geographic units; 2000 vs 2018



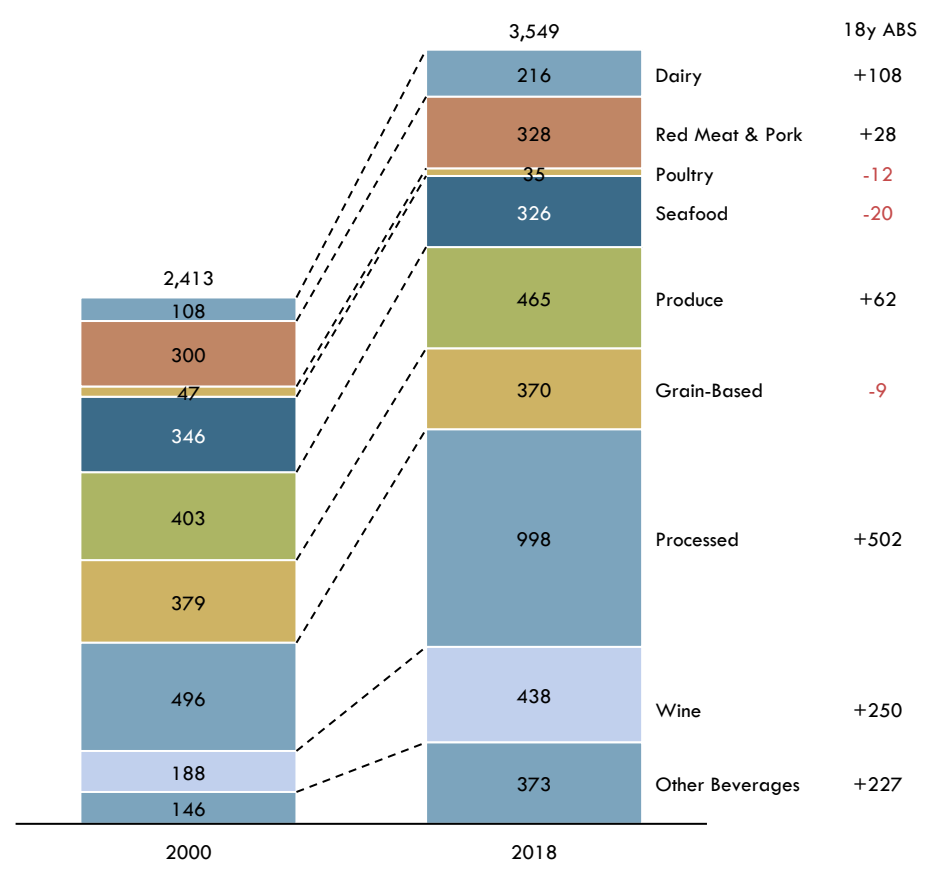
Source: Statistics NZ; Coriolis estimates, modelling and analysis

At the same time, New Zealand has a large and growing food processing sector that is creating new firms

OF PROCESSING UNITS BY REGION
Geographic units; 2000 vs 2018



OF PROCESSING UNITS BY SECTOR
Geographic units; 2000 vs 2018

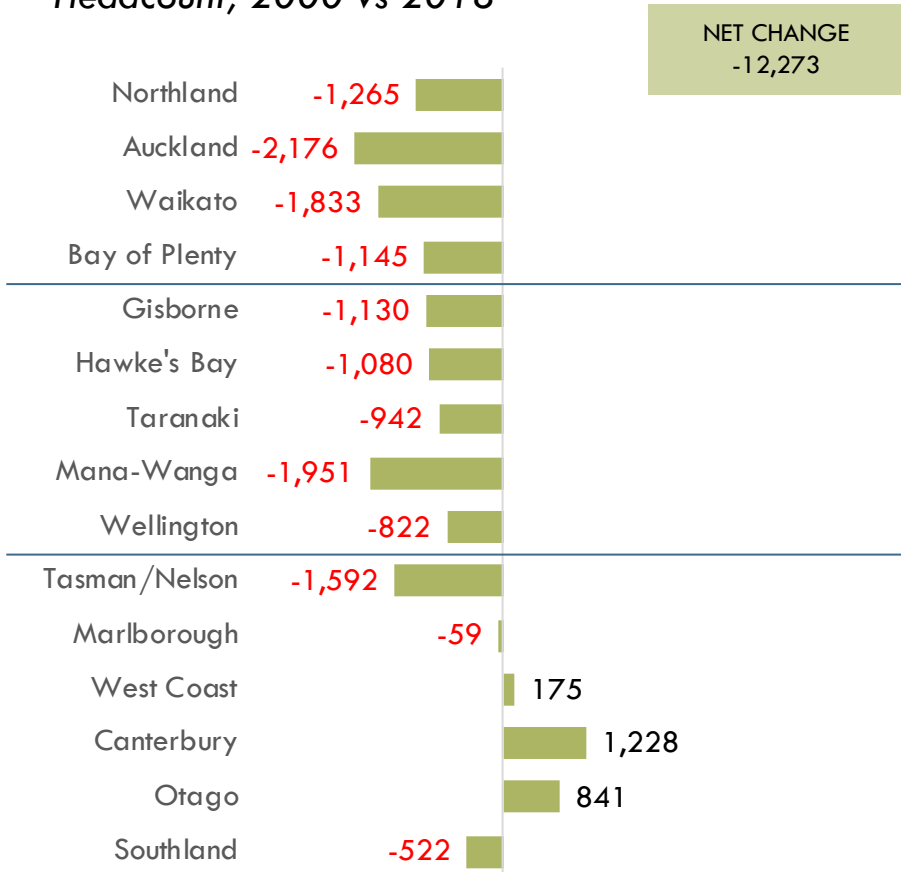


Source: Statistics NZ; Coriolis estimates, modelling and analysis

Job creation performance varies by region, with on-farm generally down and processing generally up

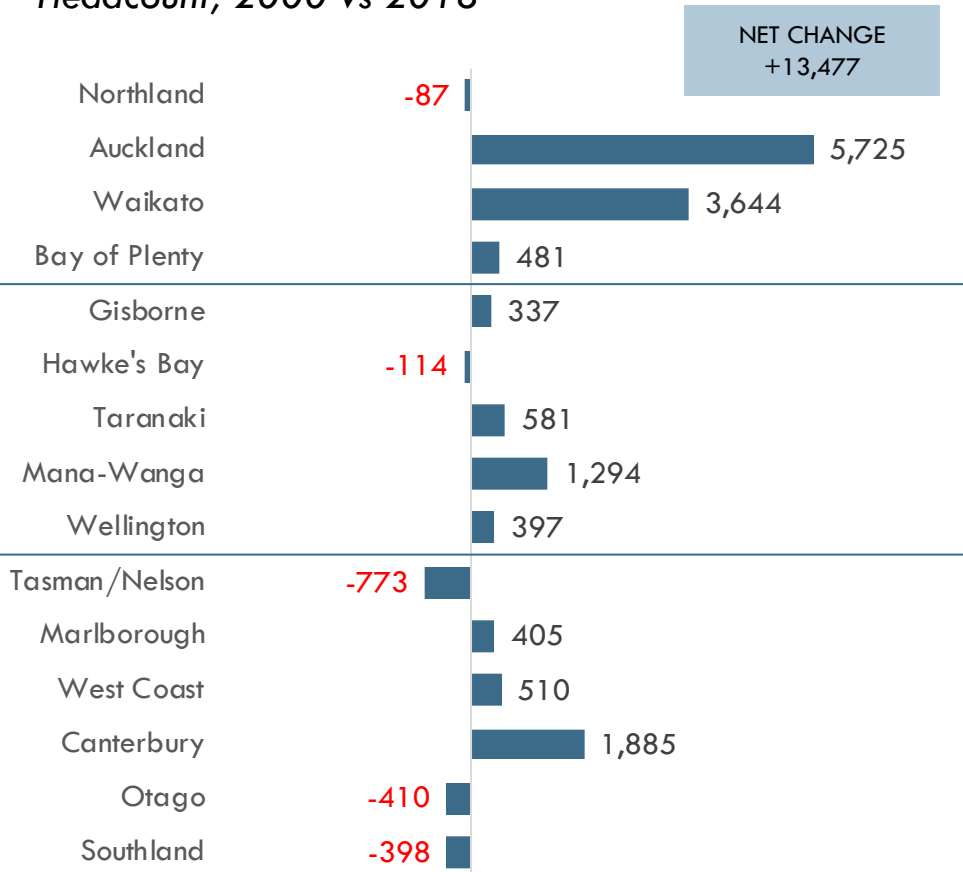
18Y CHANGE IN TOTAL ON-FARM JOBS*

Headcount; 2000 vs 2018



18Y CHANGE IN TOT. PROCESSING JOBS*

Headcount; 2000 vs 2018



*Including assumed owner-operators (i.e. non-PAYE); **Some sectors include wholesaling; Note: Other foods (honey & eggs), when processed, are not broken out by Statistics NZ and are therefore included in our defined 'processed foods'; Source: Statistics NZ; Coriolis estimates, modelling and analysis

Most regions created processing jobs since 2000, but lost on-farm jobs; only Canterbury and West Coast created both

Have you created new processing jobs since 2000?

Yes

Auckland Waikato Bay of Plenty Gisborne Taranaki Manawatu-Wanganui Wellington Nelson/Tasman Marlborough	Canterbury West Coast
---	--------------------------

No

Northland Hawke's Bay Southland	Otago
---------------------------------------	-------

No

Yes

Have you created new on-farm jobs since 2000?

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SUMMARY FINDINGS: The dairy industry has been creating modest on-farm jobs and significant processing employment

PRODUCTION

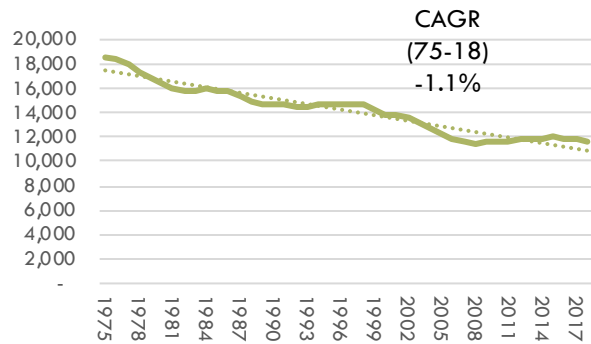
- New Zealand is in a long term trend to fewer, larger dairy units, increasing both total dairy area and animals per hectare
- Average dairy farm size varies by region, with traditional large regions typically having smaller farms (e.g. Taranaki, Waikato)
- Dairy cow density varies by region, with Canterbury having +56% more cows per hectare than West Coast
- While some regions are growing dairy cow densities per hectare, others are not
- There are more cows making more milk, but with fewer farmers, leading to relatively flat on-farm employment

PROCESSING

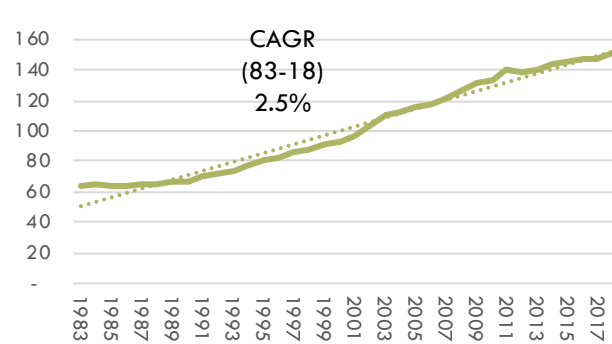
- Dairy processing is creating new firms and employment is growing
- Some regions of New Zealand are creating net new dairy processing units, while others are not
- Auckland, West Coast & Canterbury have created significantly more jobs from their milk over the last decade

New Zealand is in a long term trend to fewer, larger dairy units, increasing both total dairy area and animals per hectare

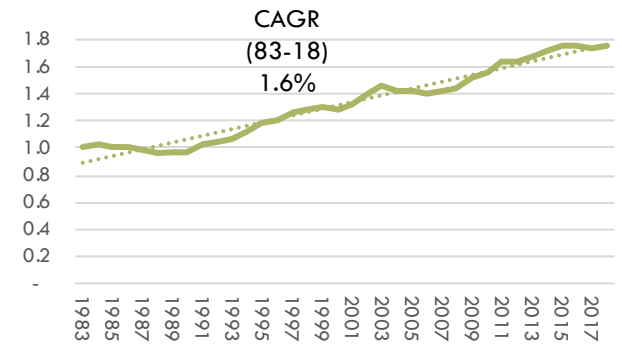
NUMBER OF DAIRY FARMS
Herds; 1975-2018



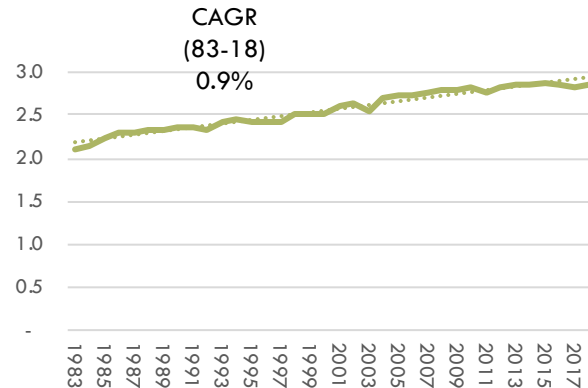
AVERAGE FARM SIZE
Ha/herd; 1983-2018



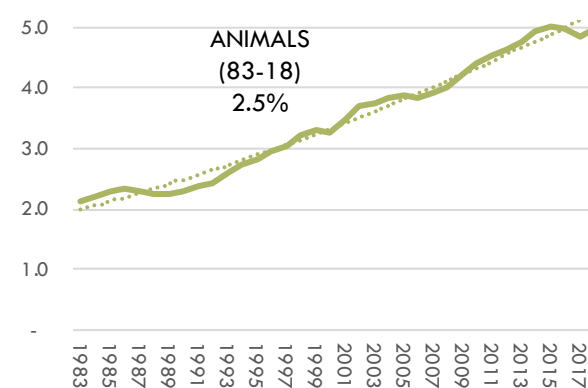
HECTARES IN DAIRY
Ha; million; 1983-2018



AVG. DAIRY COWS/HA
Animals/ha; 1983-2018



DAIRY COWS
Animals; 1983-2018

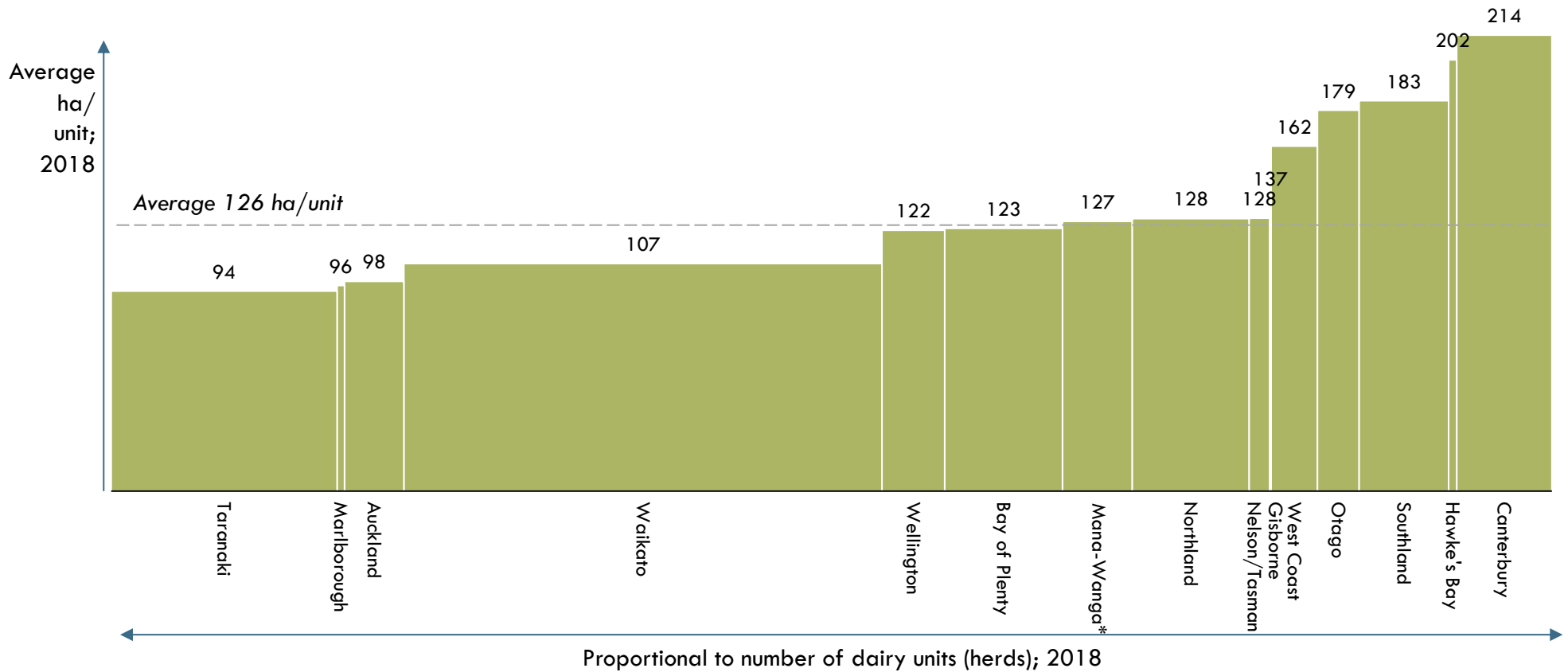


Note: This analysis uses herds rather than Statistics NZ geographic or operational units (as used some other places in this document); these vary for known and understood reasons (e.g. non-bovine farms); Source: Statistics NZ; DairyNZ; Coriolis analysis

Average dairy farm size varies by region, with traditional large regions typically having smaller farms (e.g. Taranaki, Waikato)

NUMBER OF DAIRY FARM OPERATIONS VS AVERAGE FARM SIZE

Herds; ha/herd; 2018

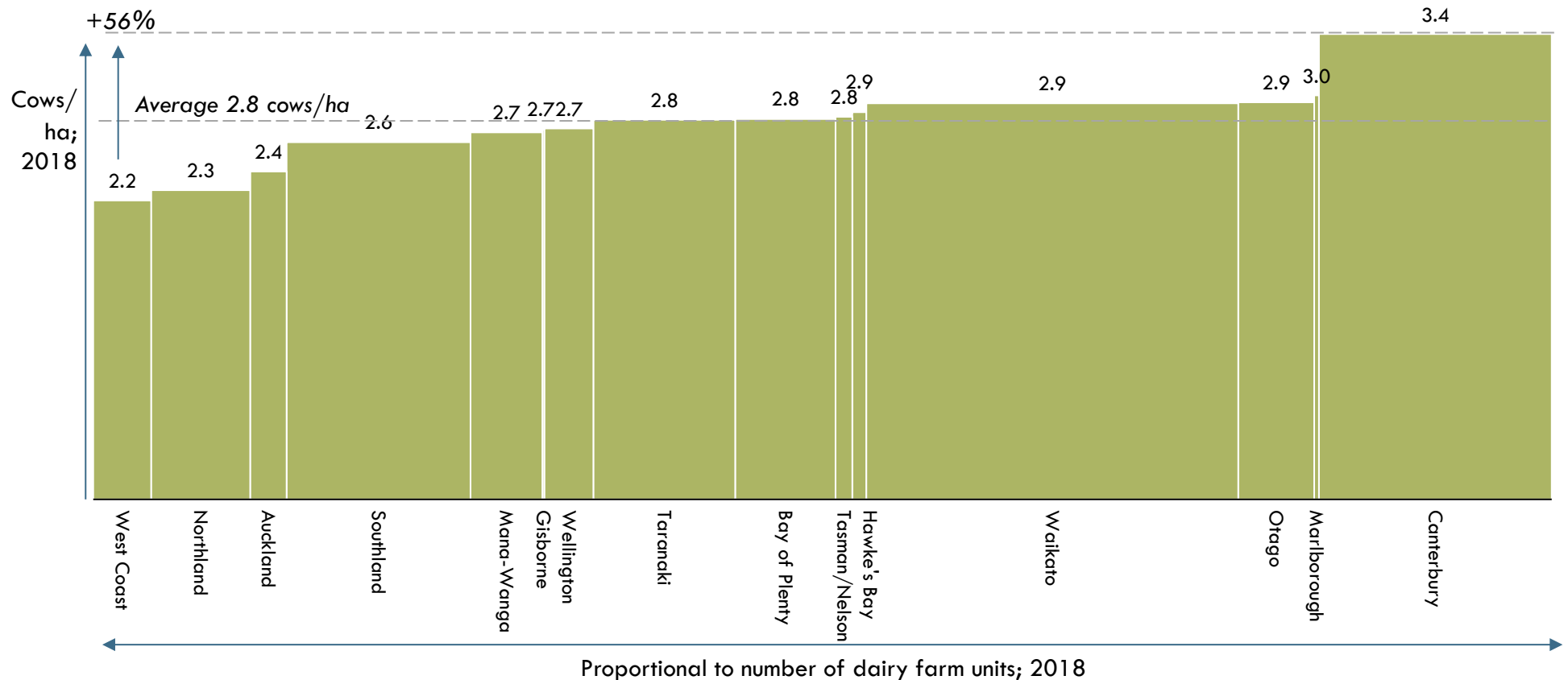


*Manawatu-Wanganui; Note: this suggests less competitive pressure on traditional regions towards consolidation (likely do to higher profitability and lower costs); Source: Statistics NZ; DairyNZ; Coriolis analysis

Dairy cow density varies by region, with Canterbury having +56% more cows per hectare than the West Coast

NUMBER OF DAIRY COWS/HECTARES VS DAIRY AREA

Ha; cows/ha; 2018

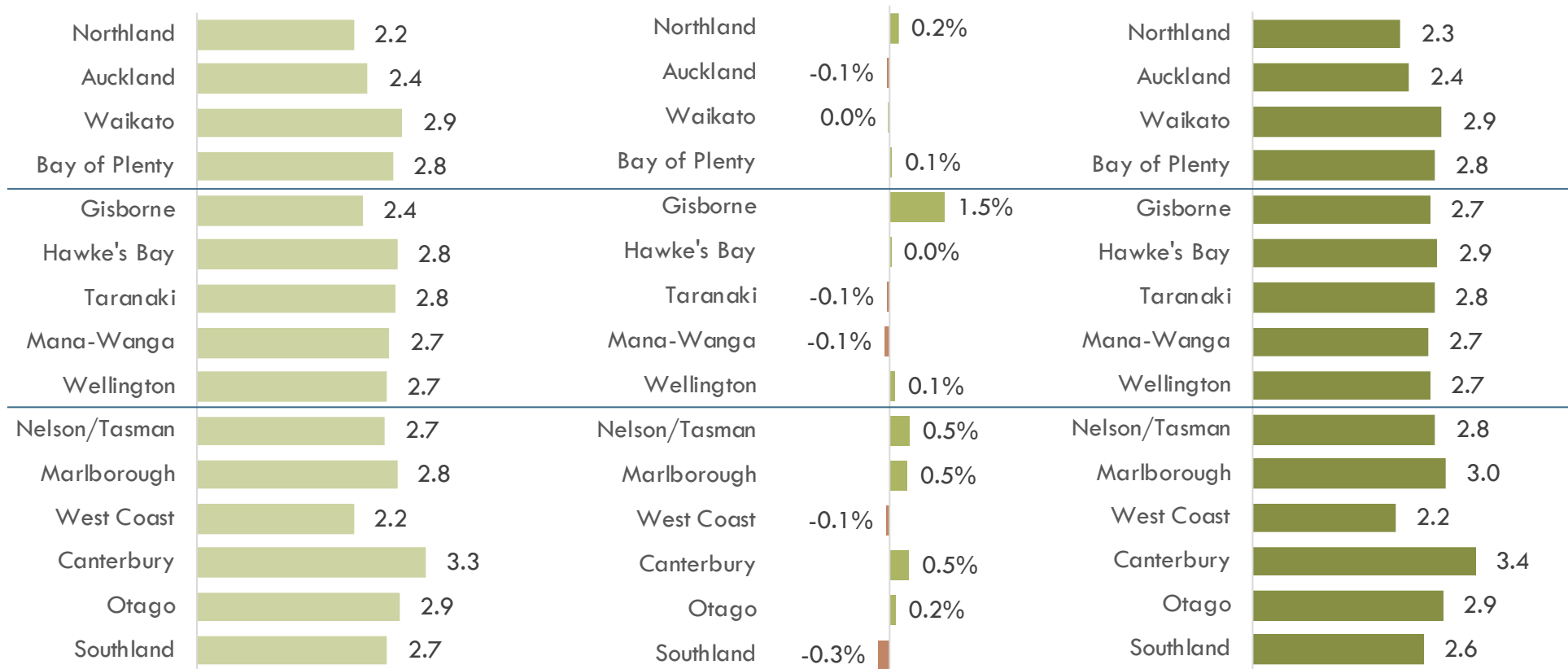


While some regions are growing dairy cow densities per hectare, others are not

DAIRY COWS/HA 2008
Animals/ha; 2008

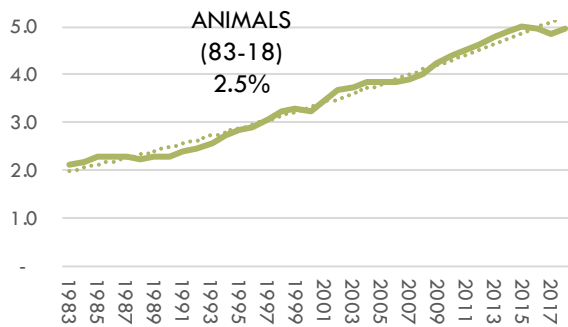
10Y CAGR
%; 08vs18

DAIRY COWS/HA 2018
Animals/ha; 2018

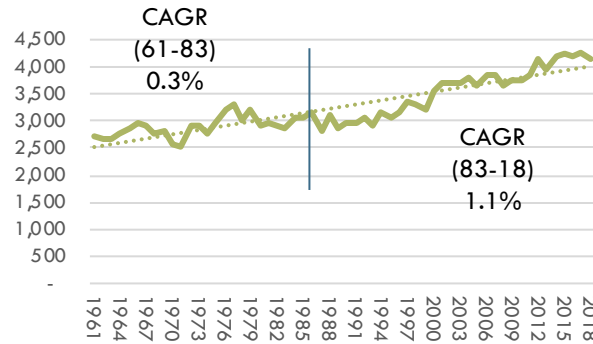


There are more cows making more milk, but with fewer farmers, leading to relatively flat on-farm employment

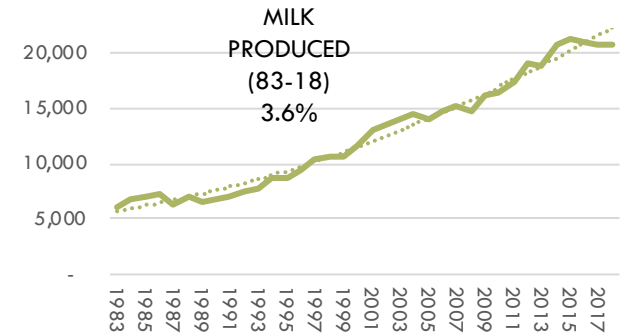
DAIRY COWS
Animals; 1983-2018



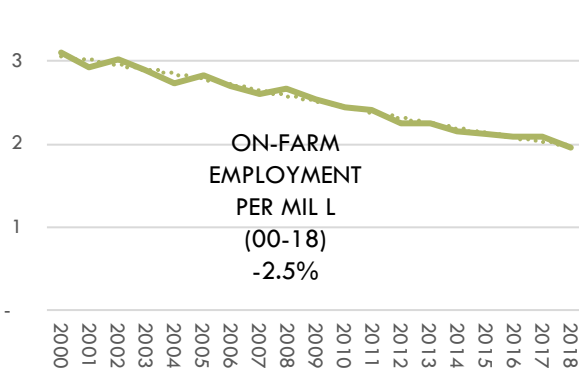
AVERAGE MILK/COW
L/cow/year; 1961-2018



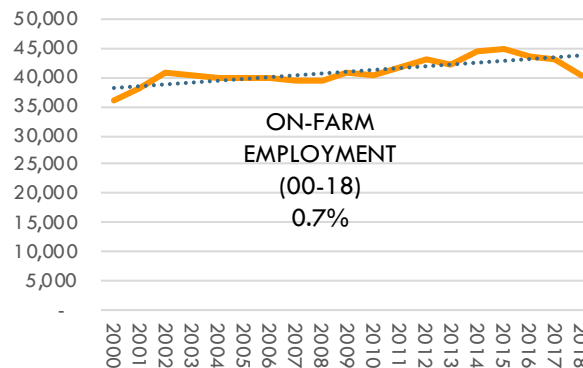
NZ MILK PRODUCTION
L; m; 1983-2018



ON-FARM EMPL./MIL LITRE
Headcount/l(m); 2000-2018

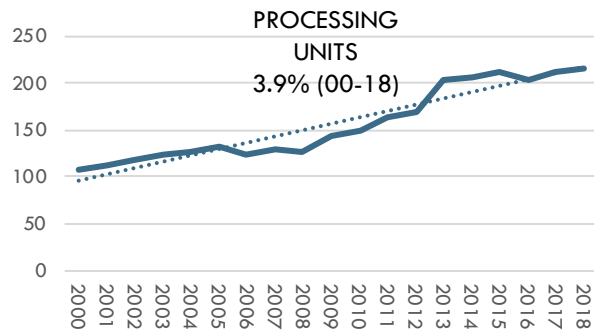


TOTAL ON-FARM EMPL.
Headcount; 2000-2018

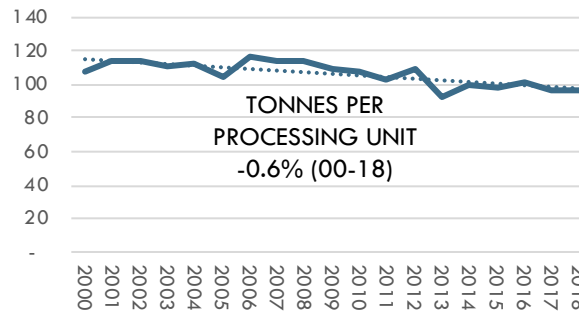


Turning to processing, the sector is creating new firms and employment is growing

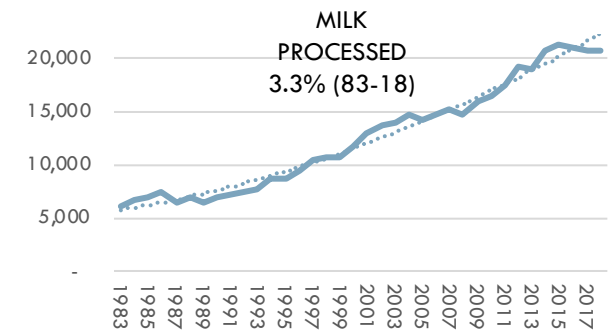
DAIRY PROCESSING UNITS
Geographic units; 2000-2018



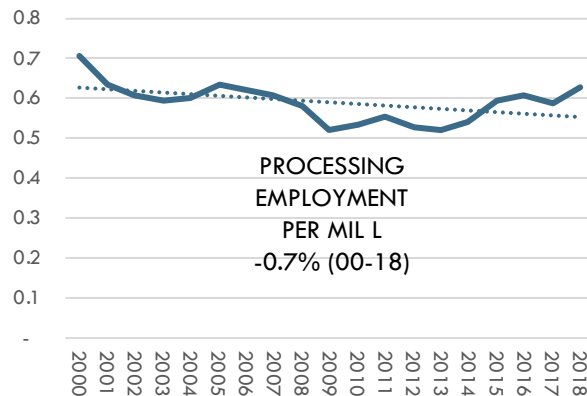
VOLUME PER UNIT
Mil L/unit; 2000-2018



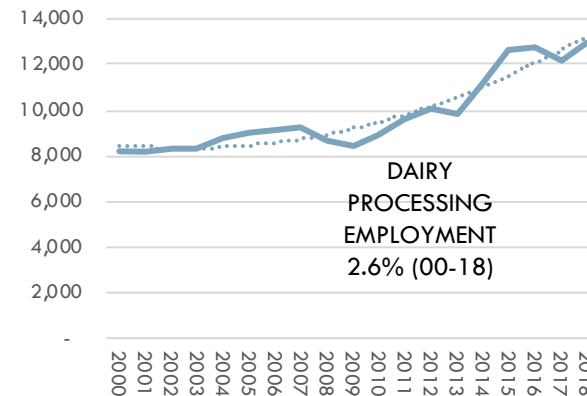
NZ MILK PRODUCTION
L; m; 1983-2018



PROC. EMPL./MIL LITRE
Headcount/mil l; 2000-2018



PROC. EMPLOYMENT
Headcount; 2000-2018

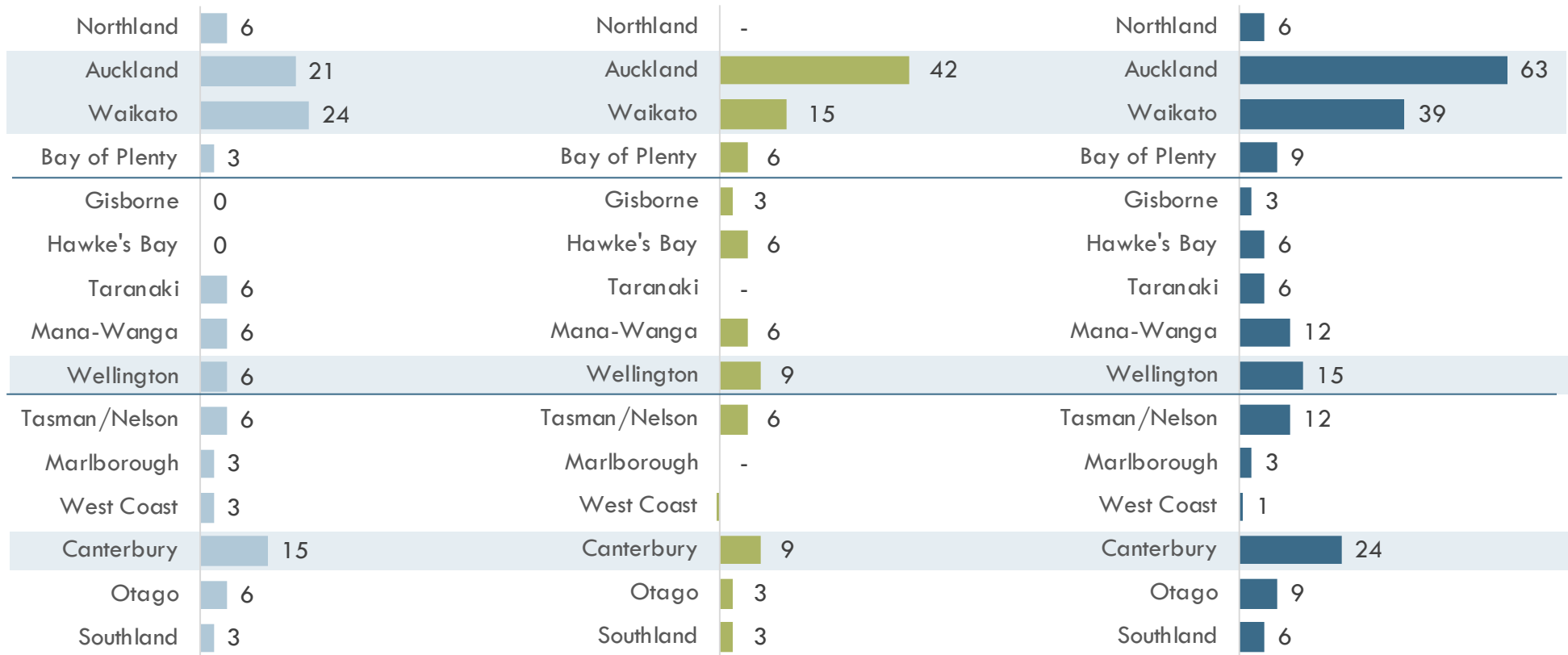


Some regions of New Zealand are creating net new dairy processing units, while others are not

UNIT COUNT IN 2000
Geographic units; 2000

UNIT GROWTH
Geographic units; 00vs18

UNIT COUNT IN 2018
Geographic units; 2018



Auckland, West Coast & Canterbury have created significantly more jobs from their milk over the last decade

JOBS/BIL L OF MILK IN 2008 **10Y CHANGE JOBS/BIL L** **JOBS/BIL L OF MILK IN 2018**
Headcount/bil l; 2008 *Headcount/bil l; 08vs18* *Headcount/bil l; 2018*

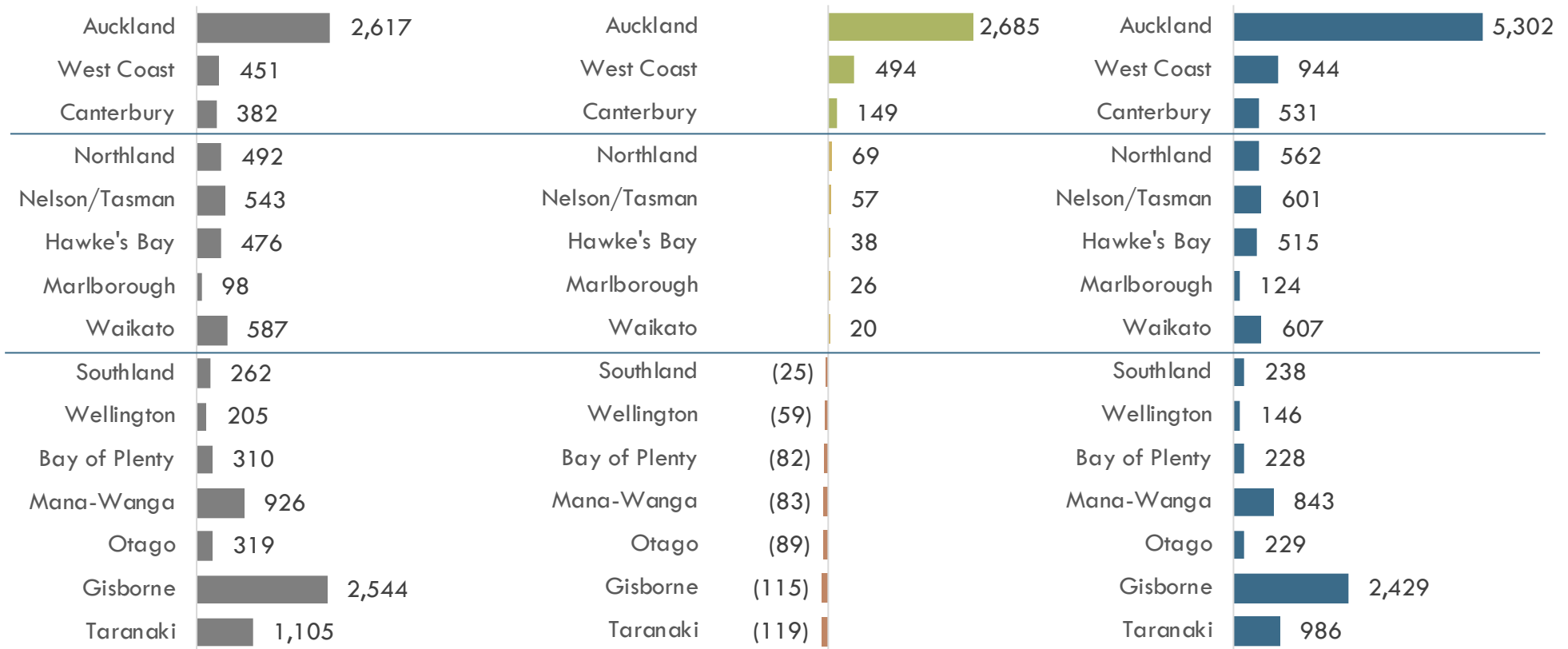


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<hr/> <i>7. Fruit & Vegetables</i> <hr/>	<hr/> <i>8. Arable Crops & Grain Based Foods</i> <hr/>	<hr/> <i>9. Processed Foods & Other</i> <hr/>	<hr/> <i>10. Wine</i> <hr/>	<hr/> <i>5. Other Beverages</i> <hr/>	<hr/> <i>Appendices Regions Snapshot</i> <hr/>

SUMMARY FINDINGS: The New Zealand red meat industry has not been creating employment

PRODUCTION

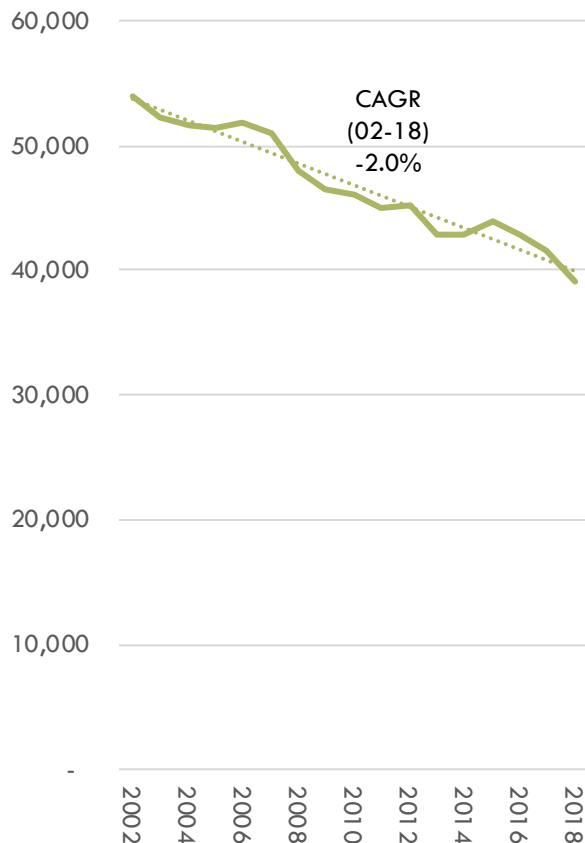
- New Zealand has falling livestock farm area driven by a long term trend to fewer, larger farms and less land overall
- All regions of New Zealand are experiencing falling 'meat-producing' farm numbers
- As a result of less land and fewer animals per hectare, New Zealand has falling annual livestock head produced
- As a result of flat meat production and falling jobs per tonne, on-farm jobs in 'meat producing farms' are falling
- On-farm jobs losses are coming from non-dairy livestock and exiting owner-operators
- 'Meat producing' farms are not creating major on-farm employment growth in any region

PROCESSING

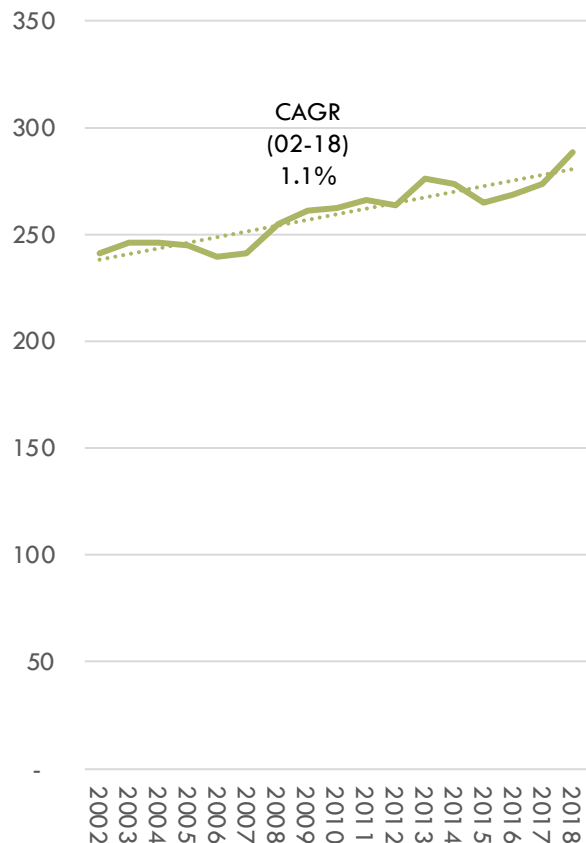
- Overall, meat processing operational units are growing modestly (0.5% CAGR) and operations are spread across New Zealand
- Some regions are creating new meat processing operational units, while others are shrinking
- Meat processing has flat employment per tonne of meat and employment is relatively flat
- Meat processing supports a large number of jobs across all regions of the country
- About half of regions are creating significant new meat processing employment, the other half are shrinking

New Zealand has falling livestock farm area driven by less land overall and a long term trend to fewer, larger farms

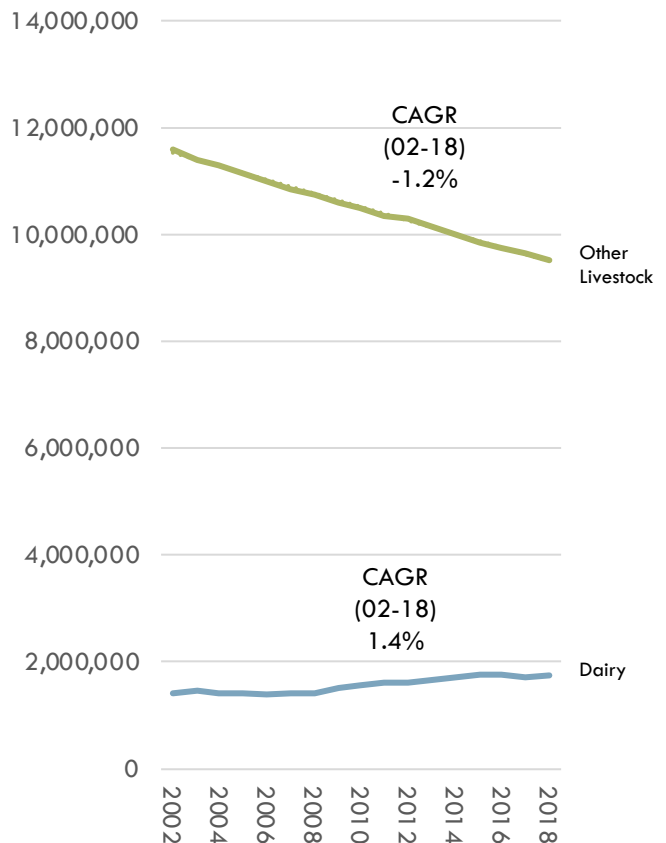
OF LIVESTOCK FARMS
Units; 2002-2018



AVERAGE FARM SIZE
Ha/unit; 2002-2018



HECTARES
Ha; 2002-2018



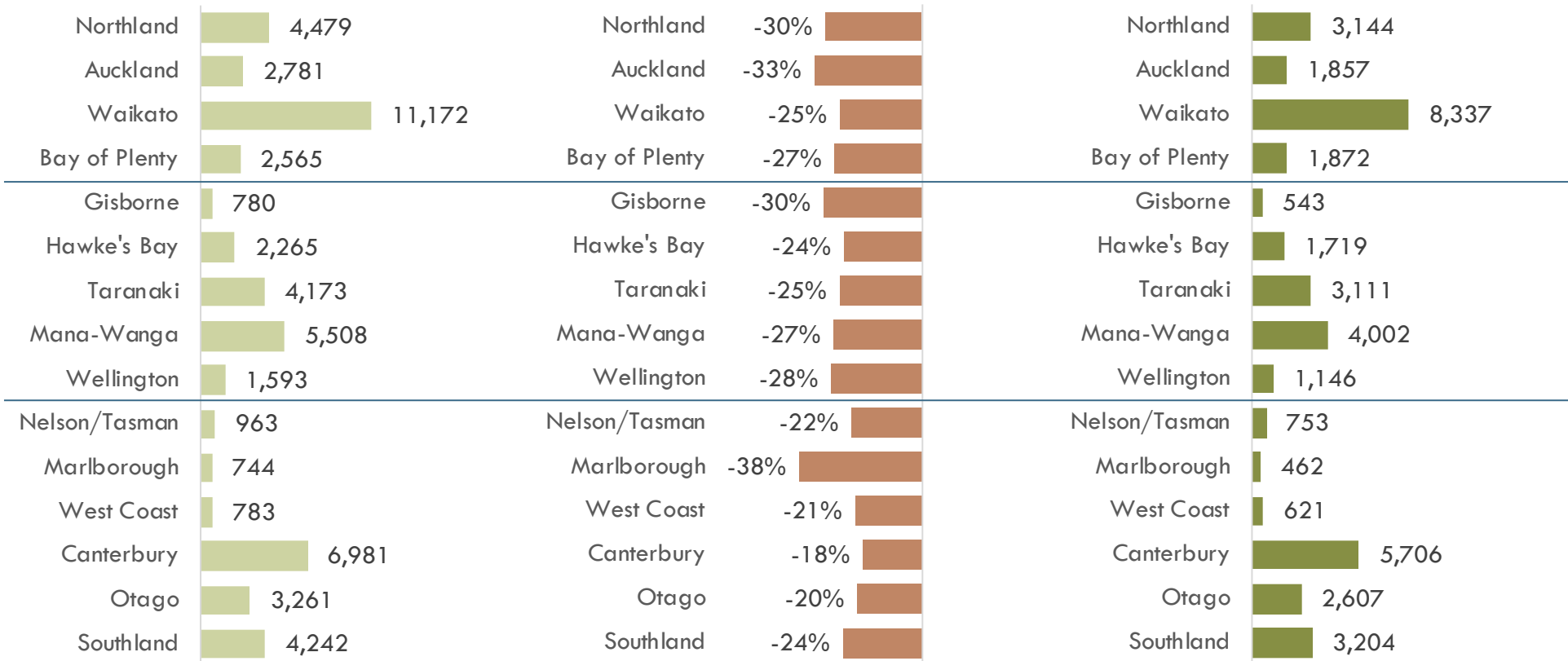
Source: Statistics NZ; MAF/MPI; Coriolis analysis

All regions of New Zealand are experiencing falling ‘meat-producing’ farm numbers

MEAT FARMS 2003 Units; 2003

15Y % CHANGE % of units; 03vs18

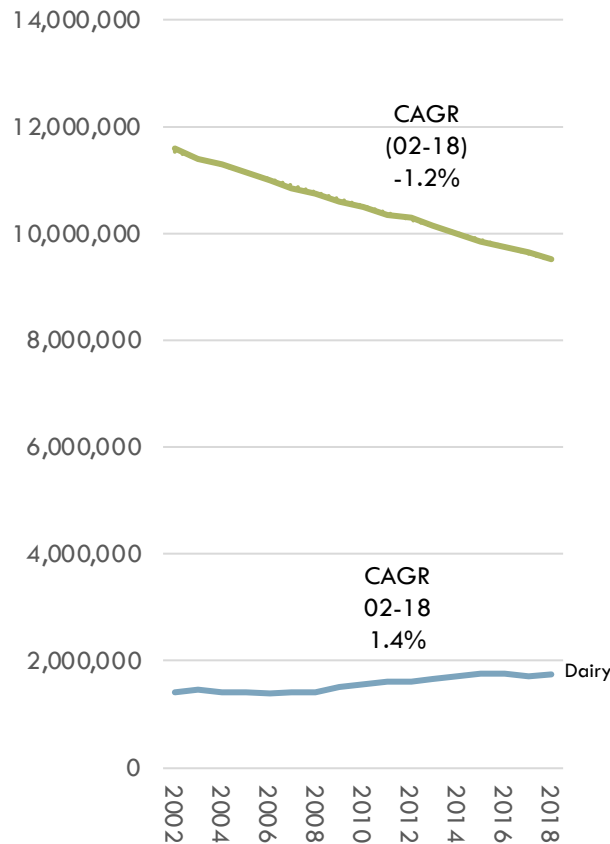
MEAT FARMS 2018 Units; 2018



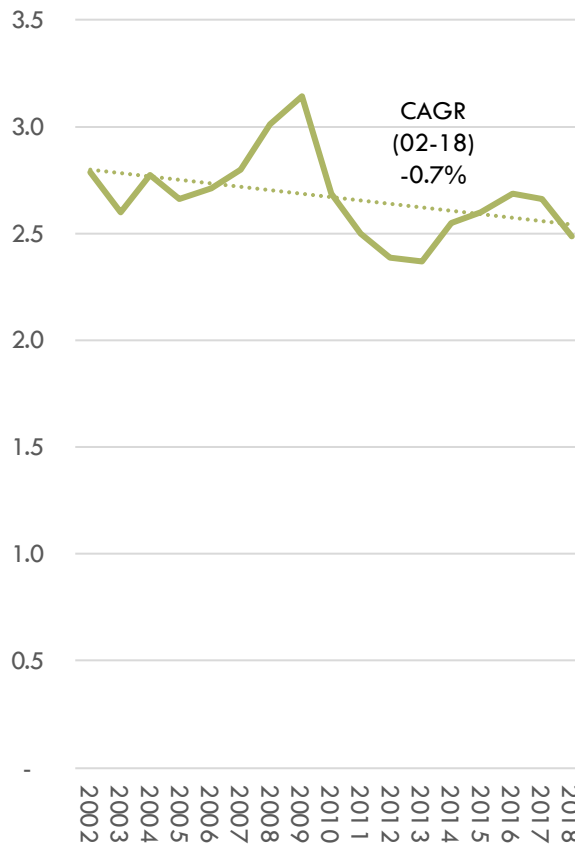
Note: Total includes dairy farms as these produce significant amounts of cattle; Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

As a result of less land and fewer animals per hectare, New Zealand has falling annual livestock head produced

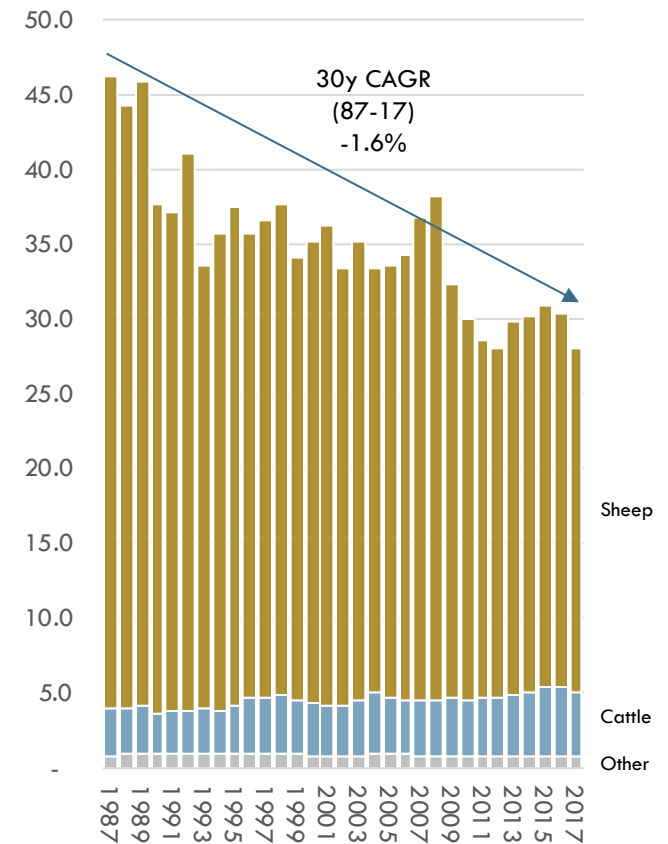
HECTARES
Ha; 2002-2018



ANIMALS PER HECTARE
Processed head/ha; 2002-2018



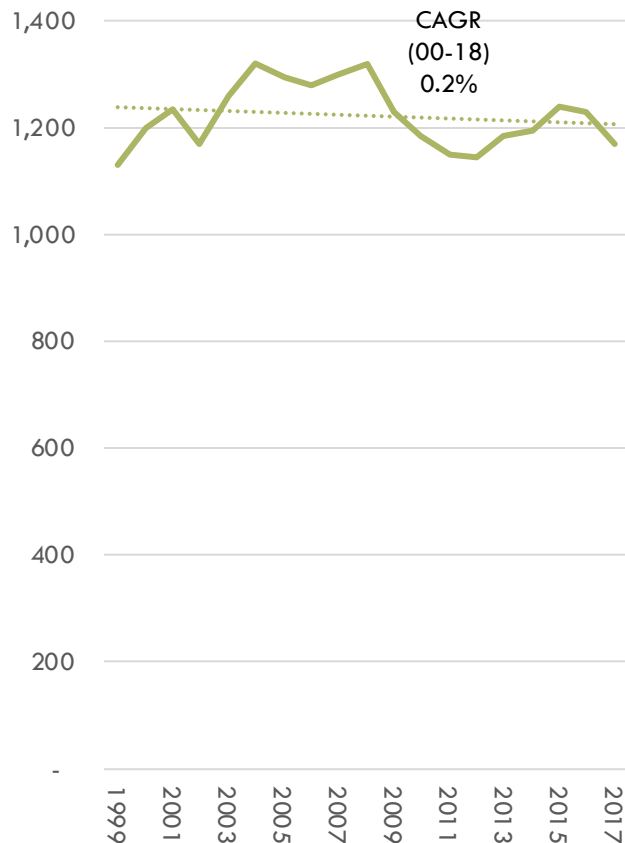
HEAD PRODUCED
Head; 1987-2017



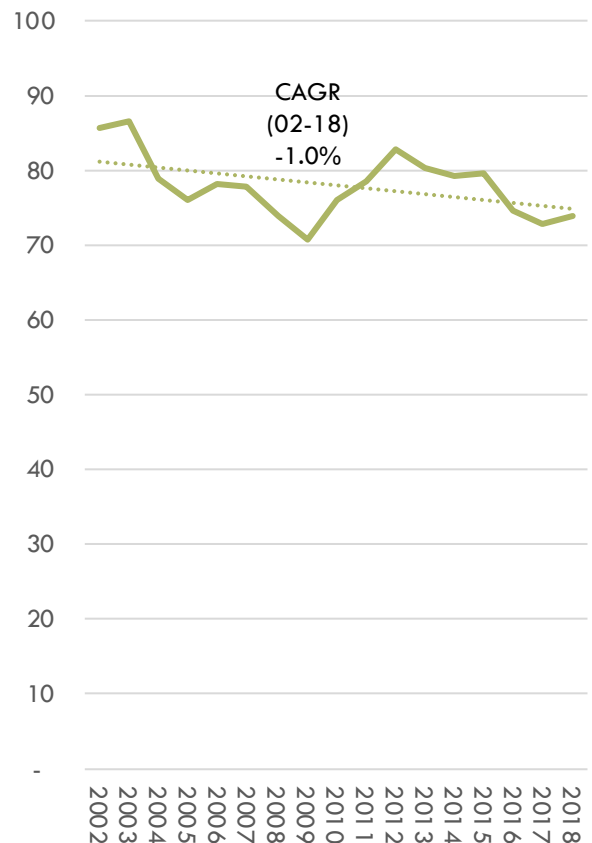
Source: Statistics NZ; MAF/MPI; Coriolis analysis

As a result of flat meat production and falling jobs per tonne, on-farm jobs in 'meat producing farms' are falling

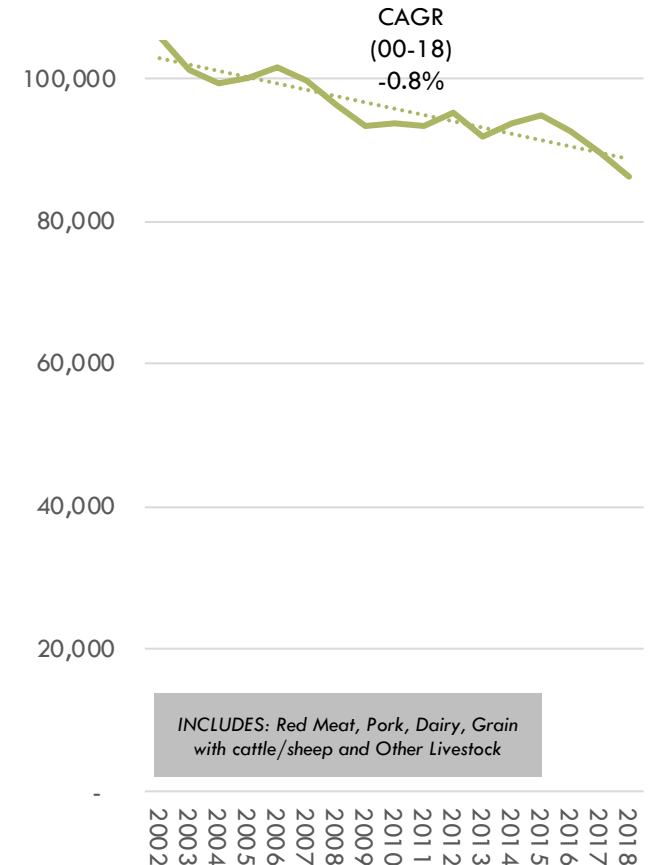
MEAT PRODUCED*
T; 000; 1999-2017



ON-FARM JOBS/TONNE***
Headcount/t; 000; 00-18



ON-FARM JOBS
Headcount**, 2002-2018

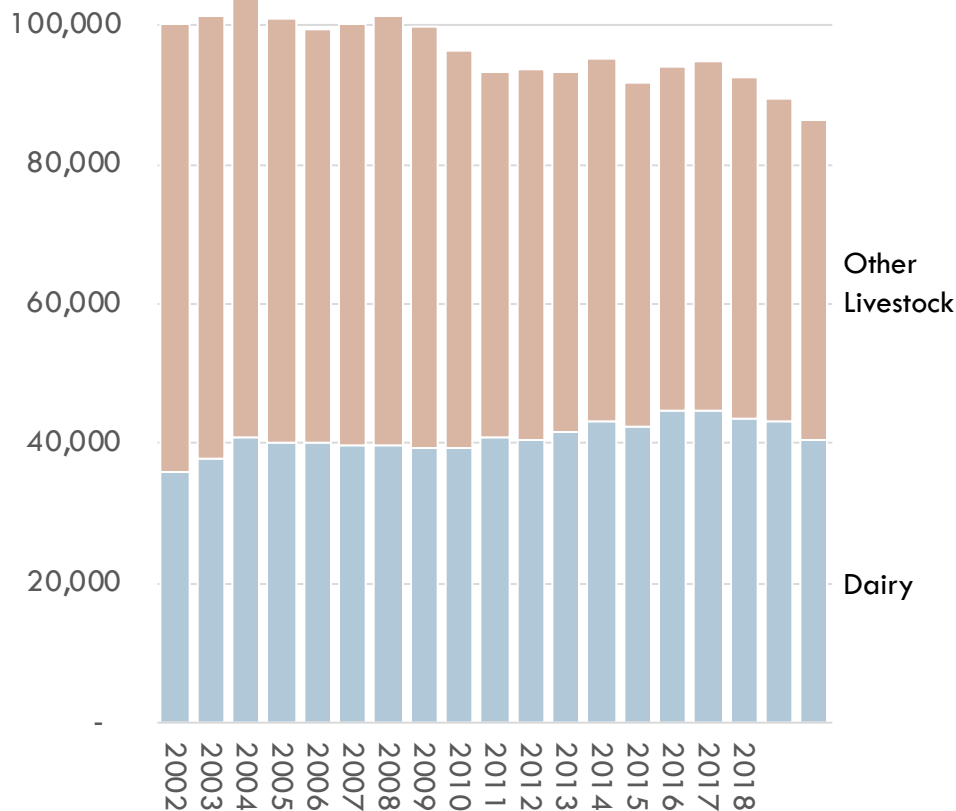


INCLUDES: Red Meat, Pork, Dairy, Grain with cattle/sheep and Other Livestock

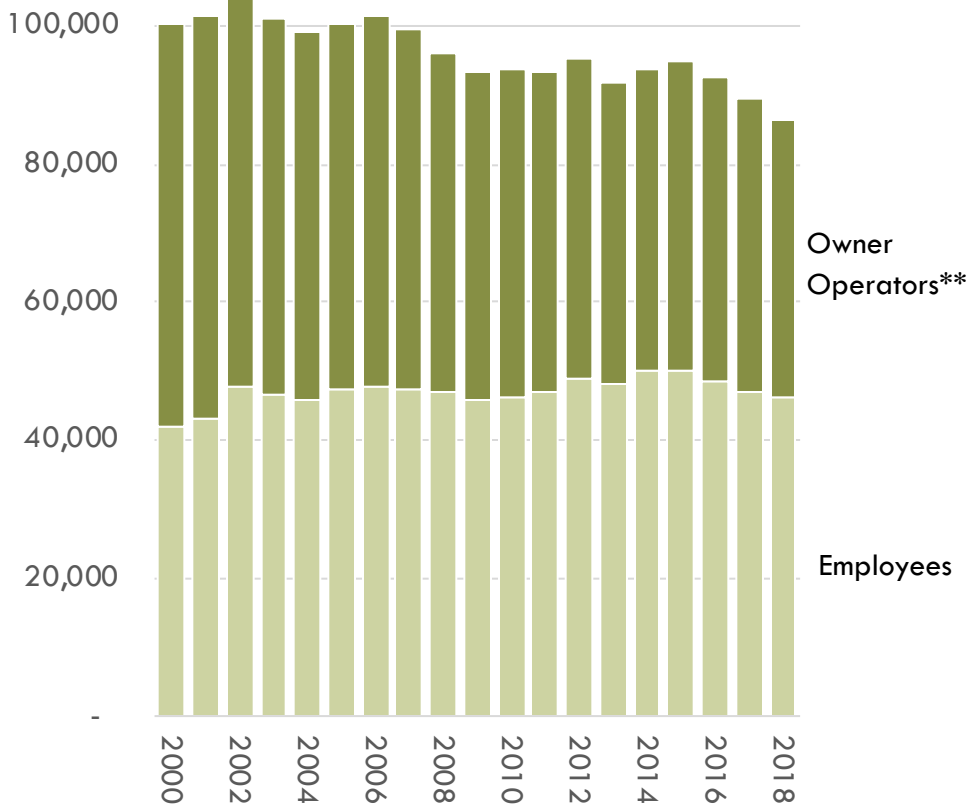
*Red meat and pork, excluding poultry and seafood; **Including owner-operators (i.e. non-PAYE); ***Calculation is jobs per previous, trailing year volume (for data related reasons); Source: Statistics NZ; Coriolis analysis and estimates

On-farm job losses are coming from non-dairy livestock and exiting owner-operators

ON-FARM JOBS: DAIRY & ALL OTHER*
Headcount; 2002-2018



ON-FARM JOBS: OWNERS & EMP.**
Headcount; 2002-2018



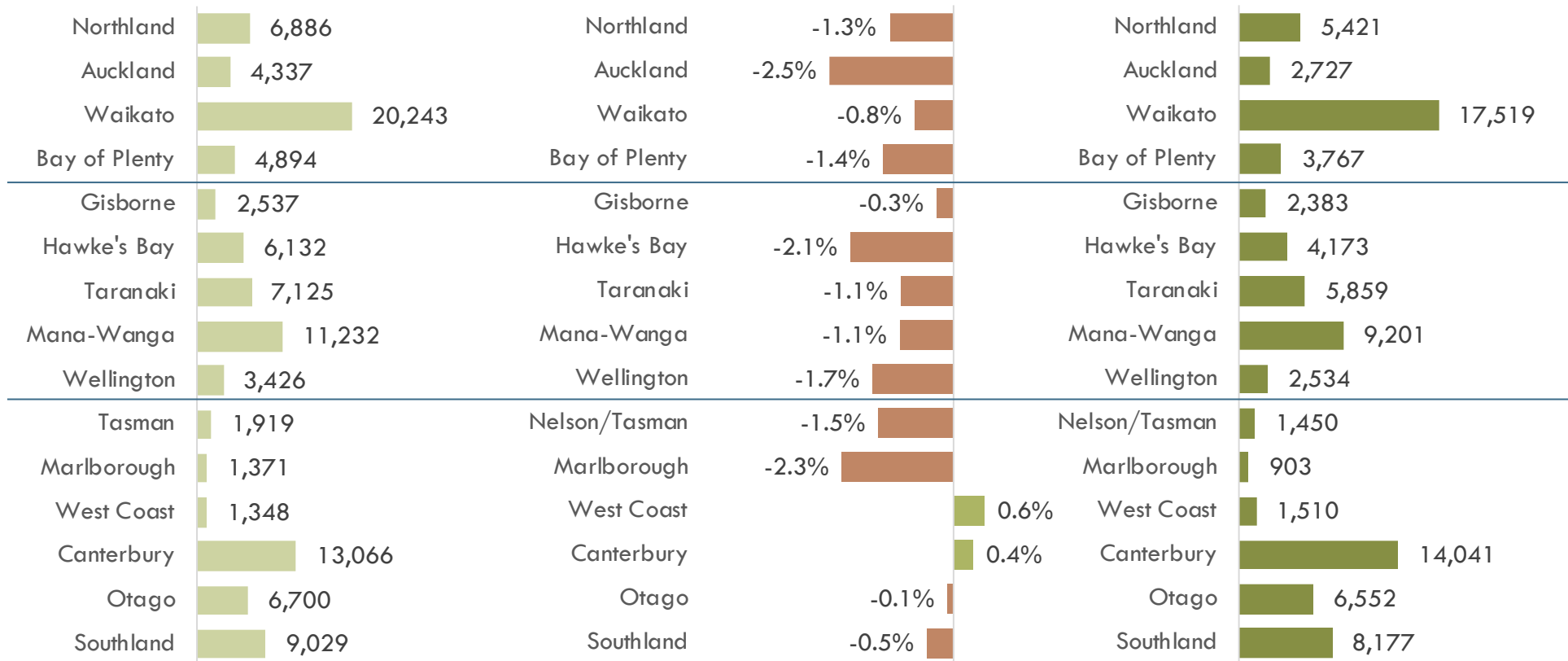
*Red meat and pork livestock, excluding poultry and seafood; **Including assumed owner-operators (i.e. non-PAYE) at one per farm; Source: Statistics NZ; Coriolis analysis and estimates

'Meat producing' farms are not creating major on-farm employment growth in any region

ON-FARM EMPLOYMENT 2000
Headcount; 2000

18Y CAGR
% head; 00vs18

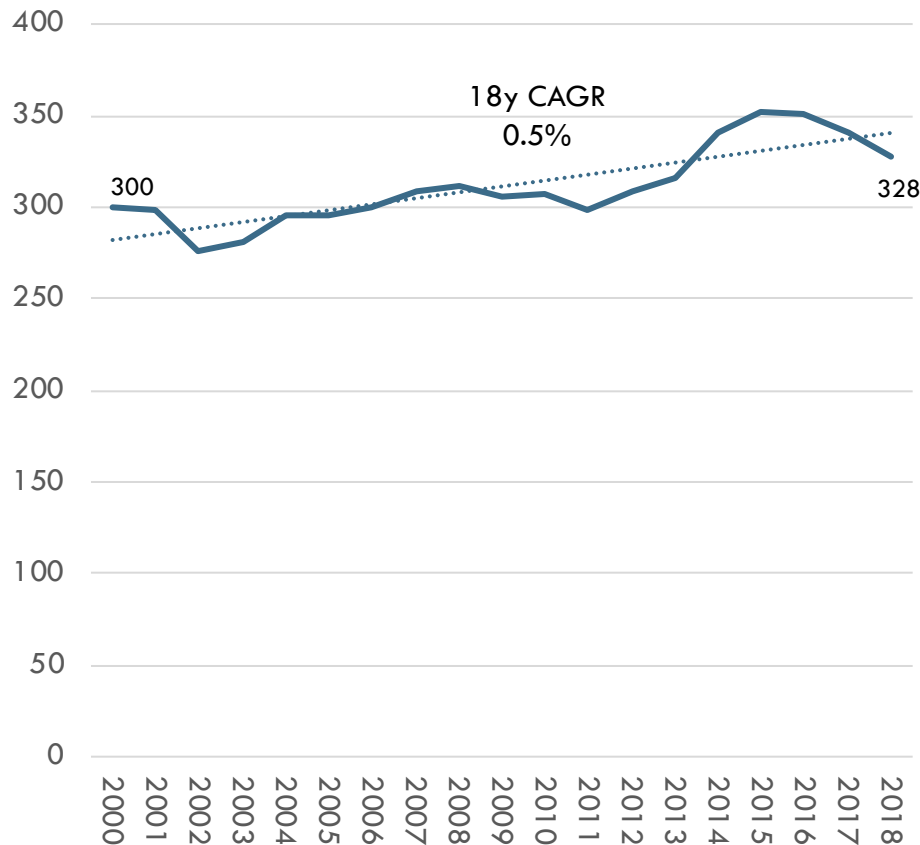
ON-FARM EMPLOYMENT 2018
Headcount; 2018



Turning to processing, meat processing units are growing modestly (0.5% CAGR) and operations are spread across NZ

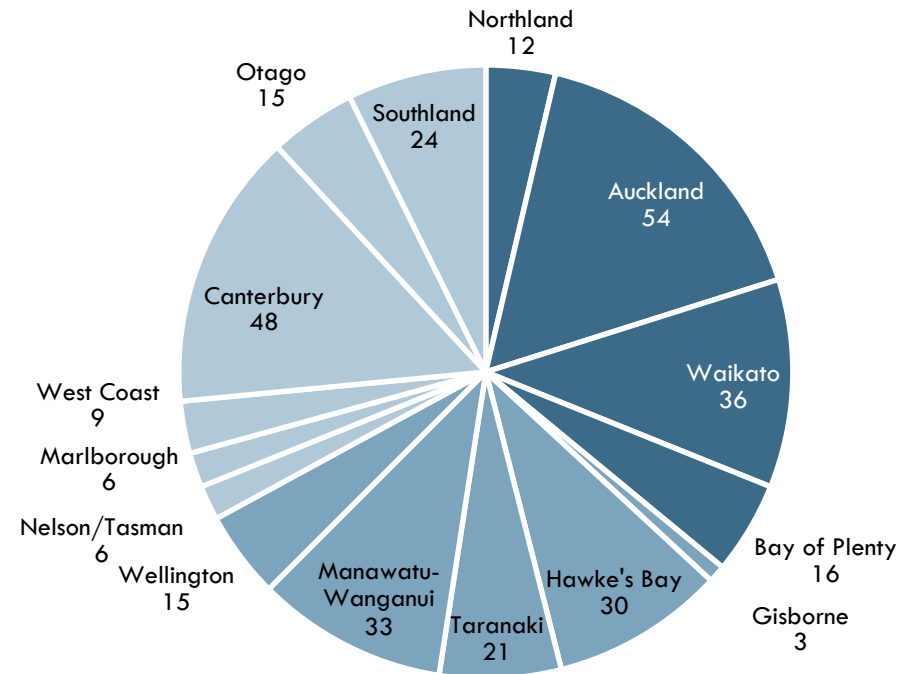
MEAT PROCESSING OPERATIONS

Geographic units; 2000-2018



MEAT PROCESSING OPS BY REGION

Geographic units; 2018



TOTAL = 328 meat processing operational units

Some regions are creating new meat processing operational units, while others are shrinking

UNIT COUNT IN 2000

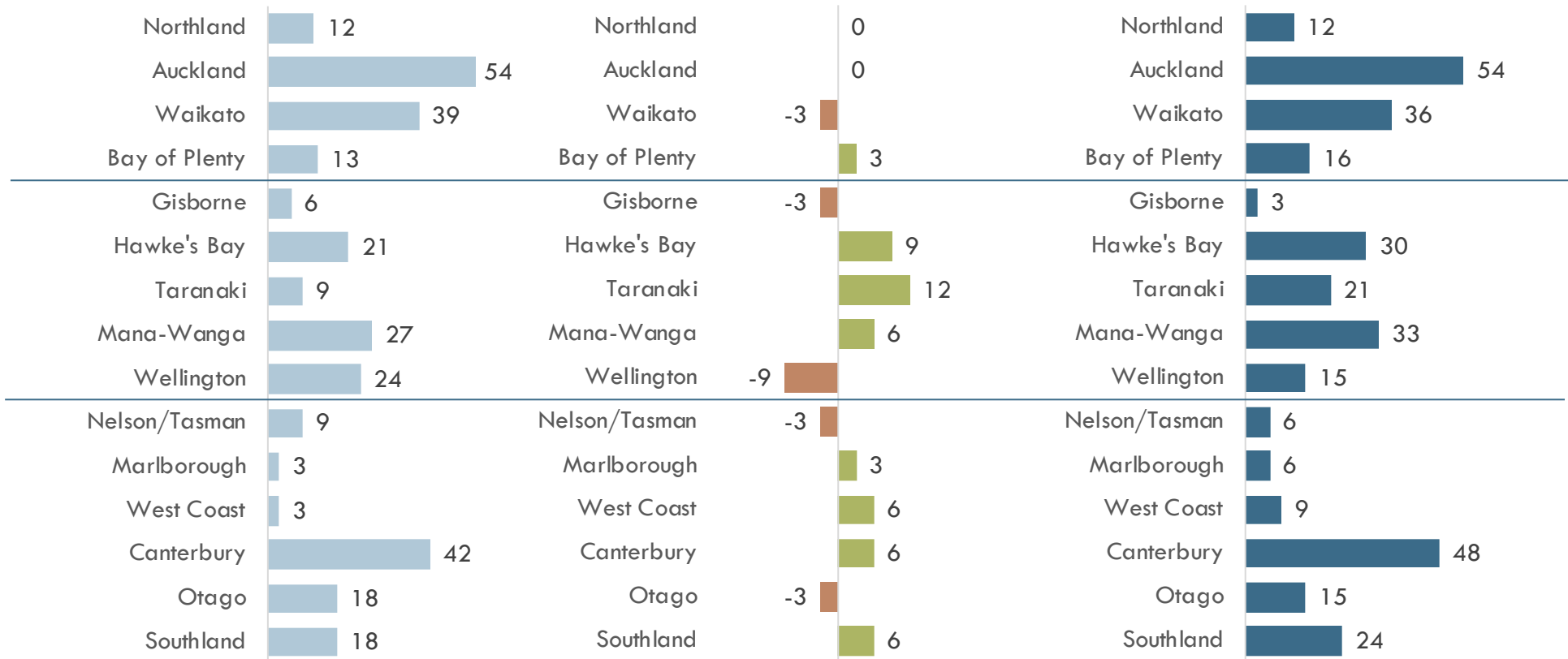
Geographic units; 2000

NET NEW UNITS ADDED

Geographic units; 00vs18

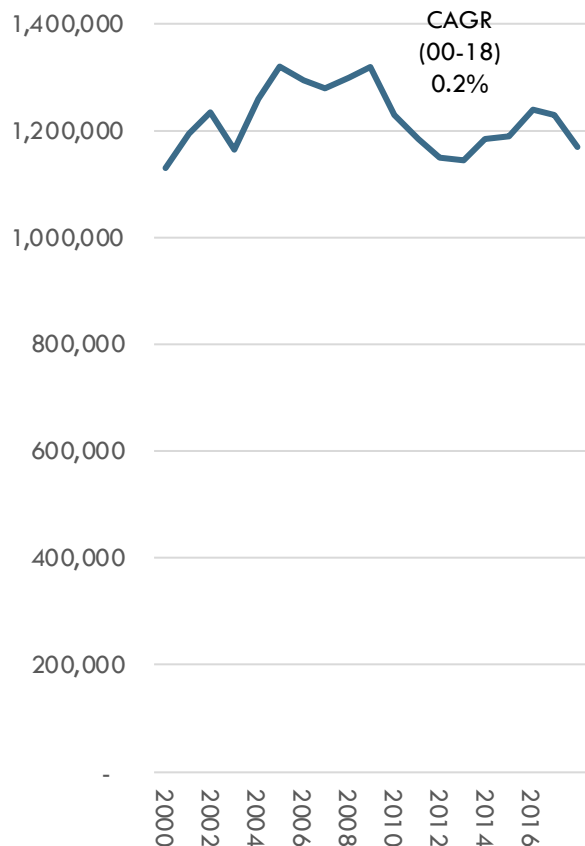
UNIT COUNT IN 2018

Geographic units; 2018

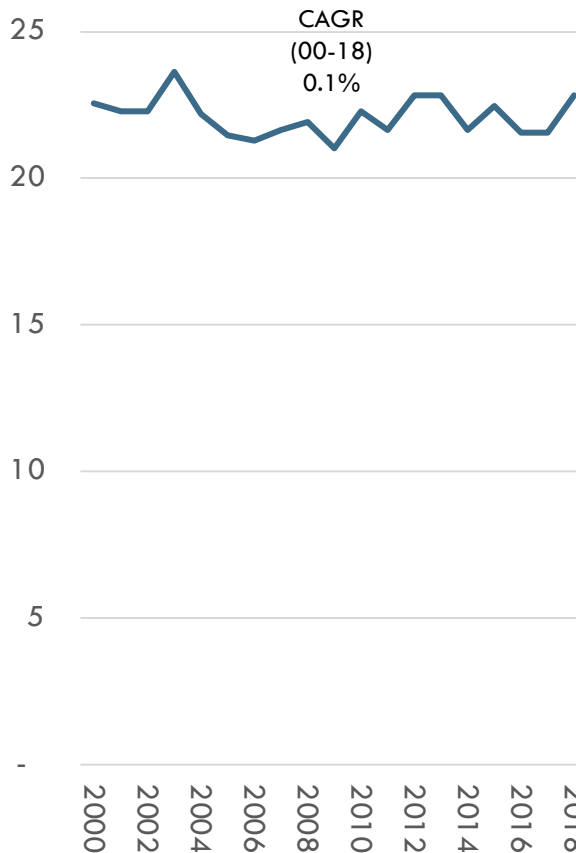


Meat processing has flat employment per tonne of meat and total meat employment is relatively flat

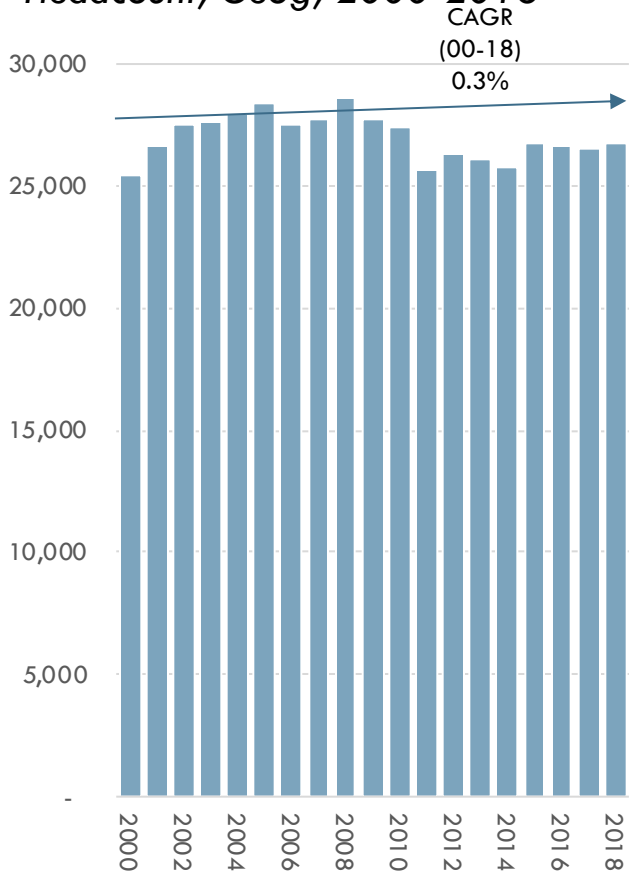
TONNES PROCESSED
T; 2000-2018



PROC. EMPL./TONNE
Headcount/1,000t; 2000-2018



PROCESSING EMPL.
Headcount; Geog; 2000-2018

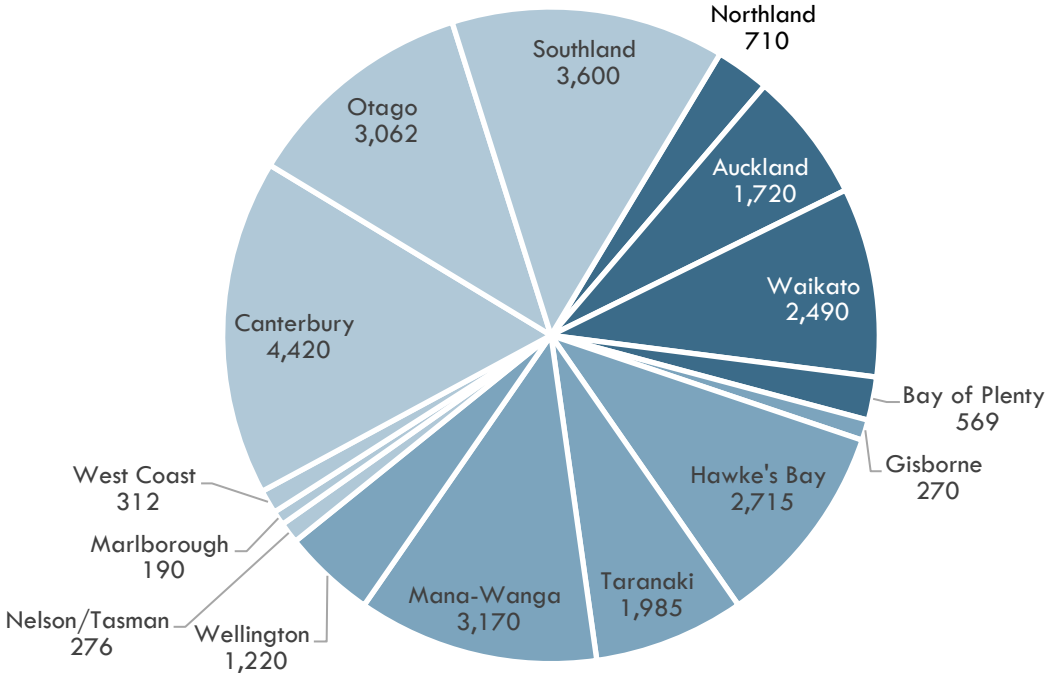


Note: Employment per tonne uses current year employment over previous year tonnage for data driven reasons; Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Meat processing supports a large number of jobs across all regions of the country

MEAT PROCESSING EMPLOYMENT BY REGION

Headcount; 2018



TOTAL = 26,709 meat processing employees

About half of regions are creating significant new meat processing employment, the other half are shrinking

EMPLOYMENT 2000

Headcount; 2000

18Y CAGR

% head; 00vs18

EMPLOYMENT 2018

Headcount; 2018

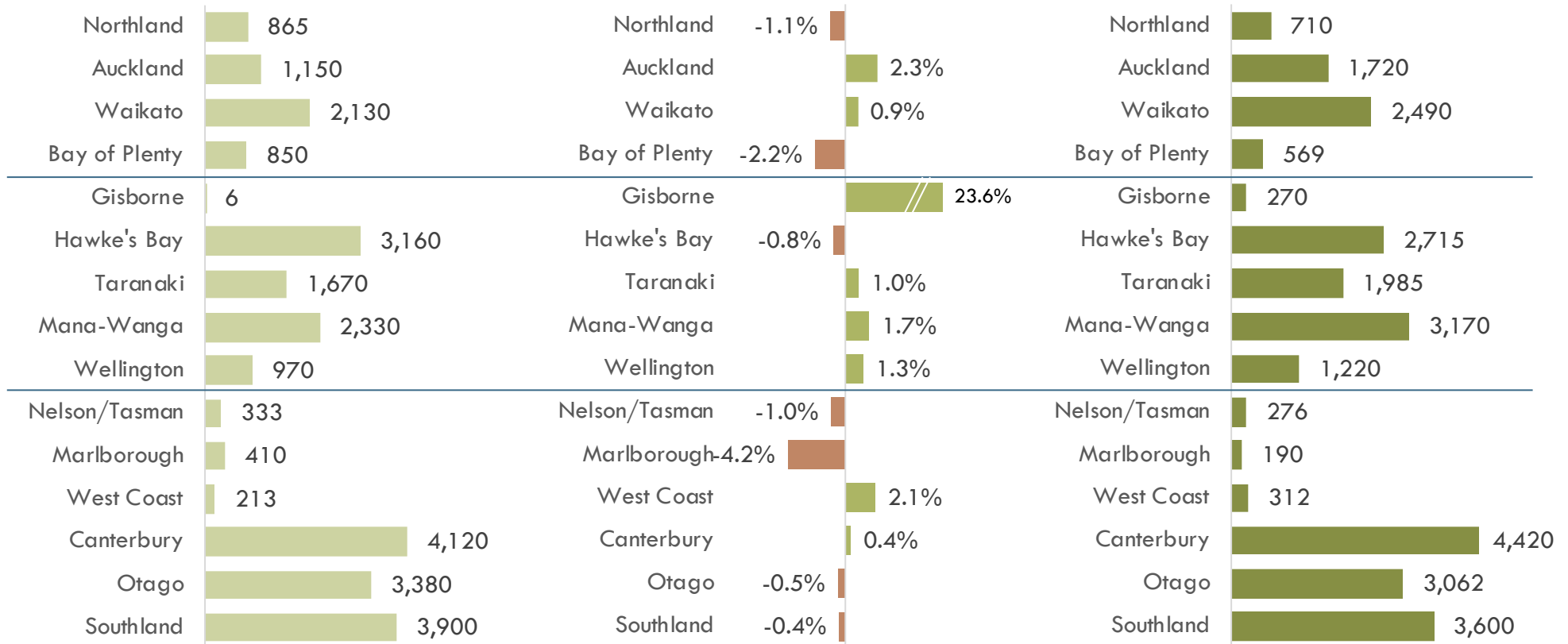


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SUMMARY FINDINGS: The New Zealand poultry industry has been creating employment

PRODUCTION

- Poultry meat farm units are clustered in the four key regions where the major processors have plants
- New Zealand is in a long term trend to larger poultry farms producing more birds per unit
- New Zealand is producing larger birds, more overall poultry meat and more on-farm employment in poultry
- Only two regions – Waikato and Taranaki – are creating major on-farm employment in poultry meat

PROCESSING

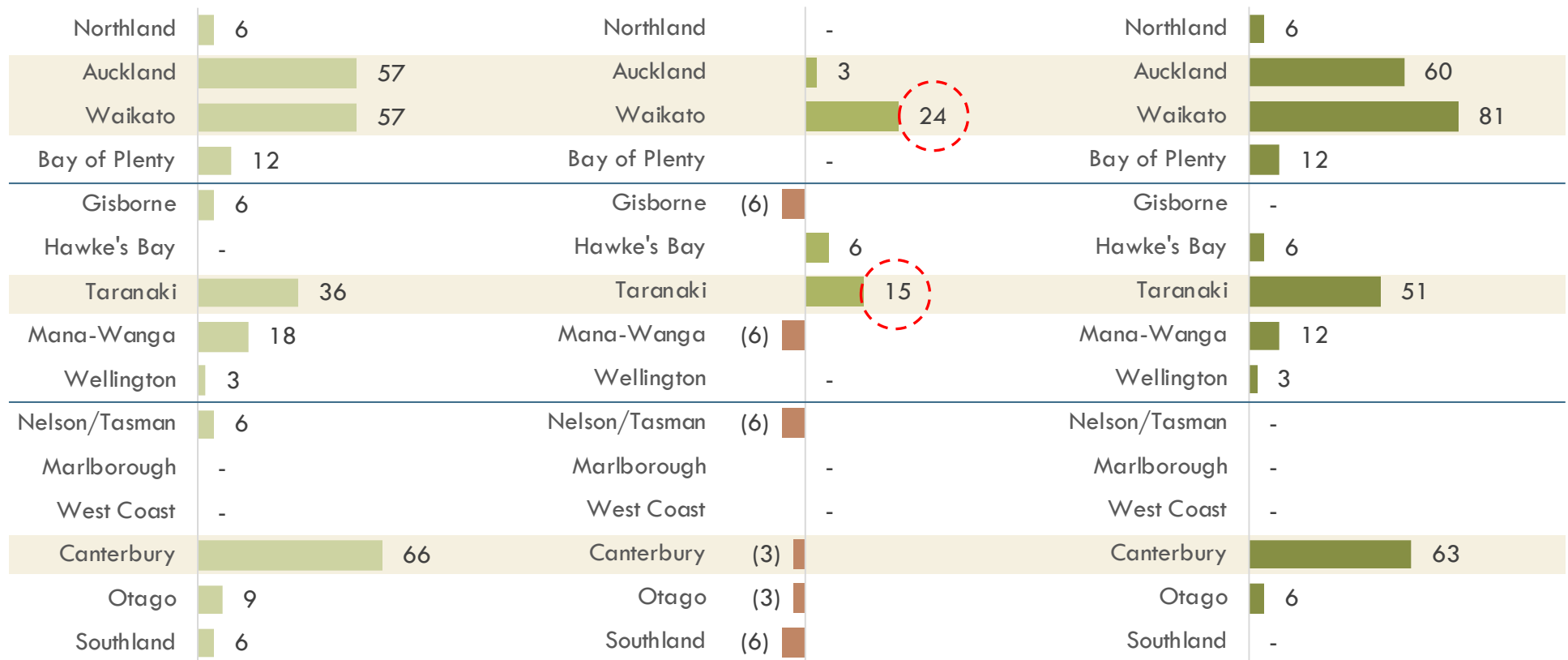
- Poultry processing is clustered in six regions
- Poultry processing has falling employment per tonne of meat throughput, but growing overall employment
- Auckland, Waikato, Taranaki and Canterbury created significant new poultry processing employment

Poultry meat farm units are clustered in the four key regions where the major processors have plants

MEAT POULTRY FARMS 2003
Units; 2003

15Y CHANGE
Units; 03vs18

MEAT POULTRY FARMS 2018
Units; 2018

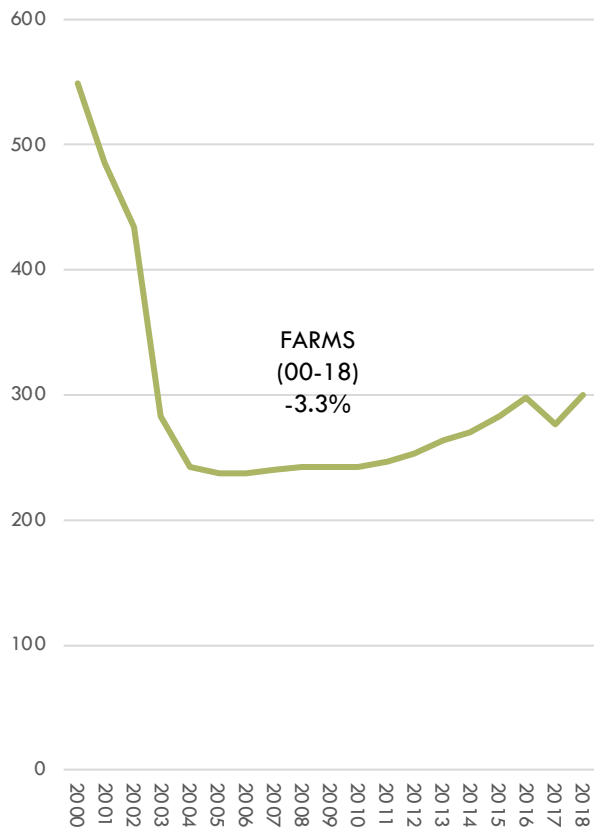


Note: data is 51%+ poultry farms; may exclude some units on diversified farms; Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

New Zealand is in a long term trend to larger poultry farms producing more birds per unit

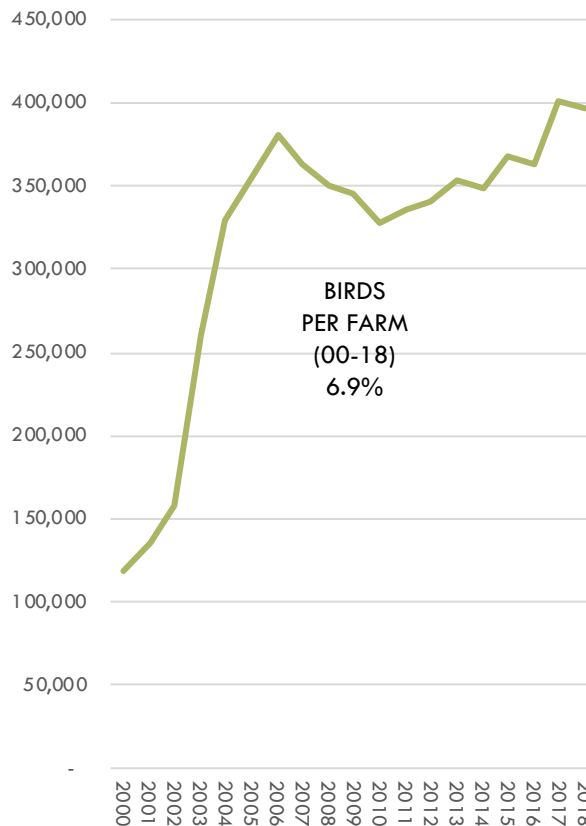
POULTRY FARMS

Geographic unit; 2000-2018



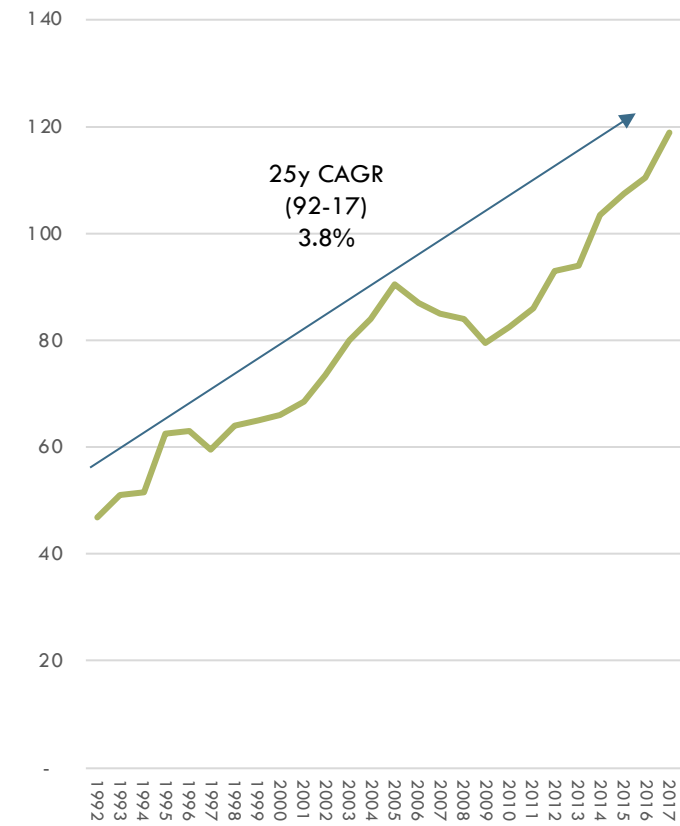
BIRDS PER FARM

Annual birds/unit; 2000-2018



ANNUAL BIRDS

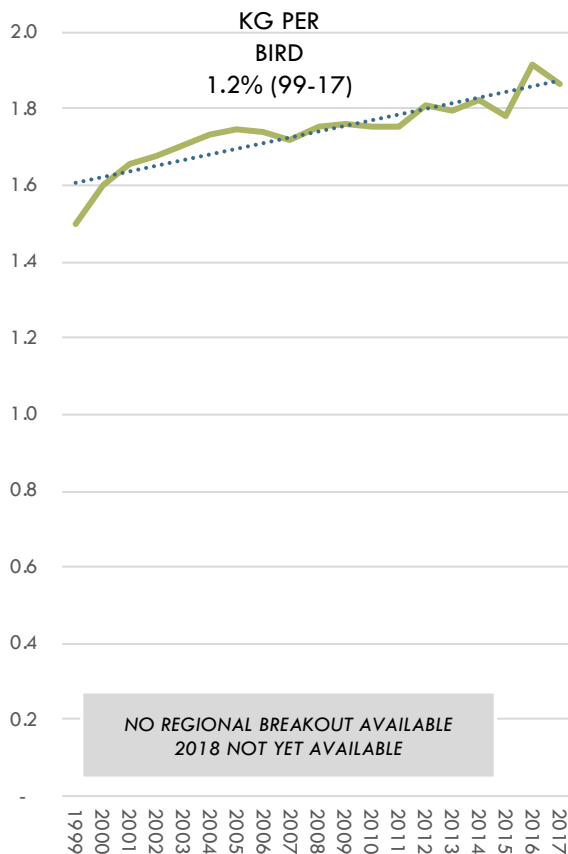
Head; 1992-2017



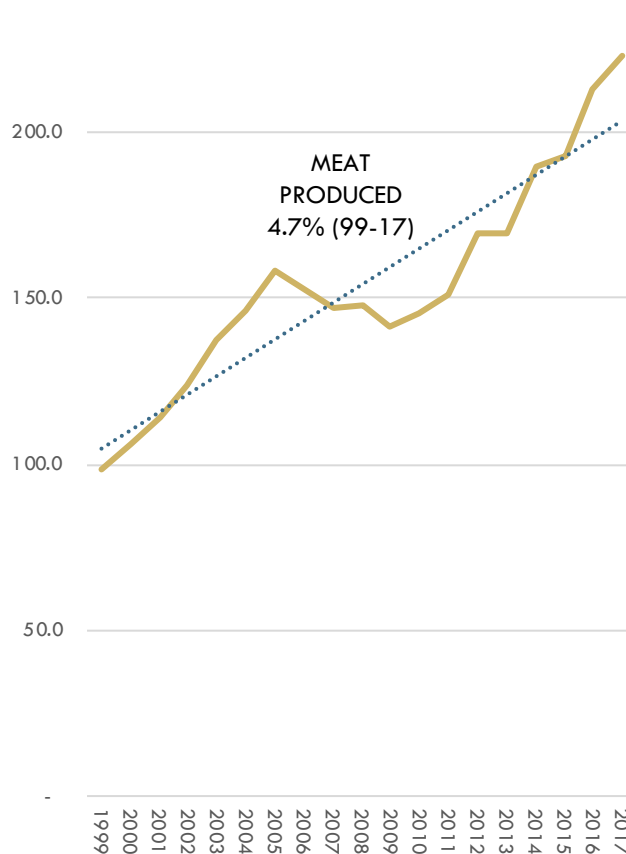
Note: calculation is previous year bird kill over current year farm unit numbers (for data reasons); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

New Zealand is producing larger birds, more overall poultry meat, but fewer on-farm jobs per tonne

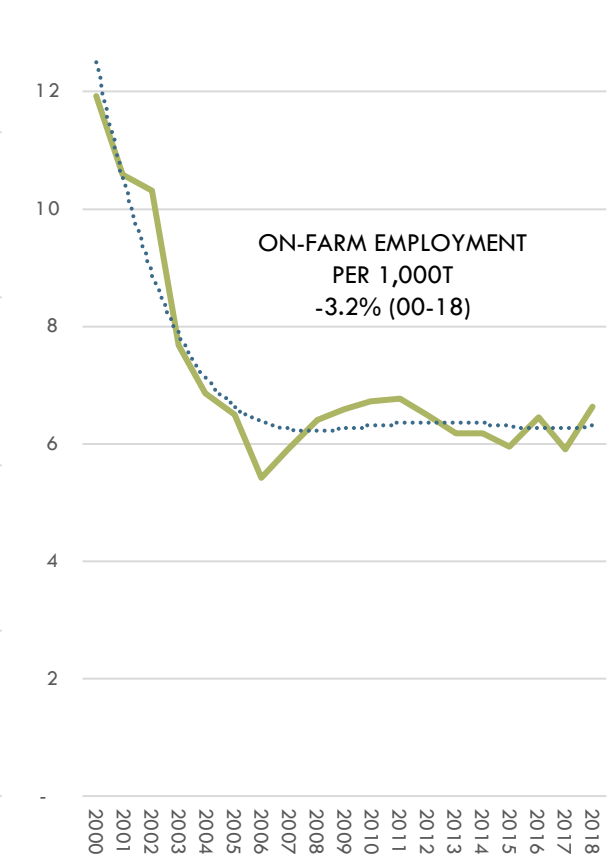
AVERAGE KILL WEIGHT
Kg/bird; 1999-2017



TOTAL MEAT PRODUCED
T; 1999-2017



ON-FARM EMP./1,000 T
Headcount/1,000t; 2000-2018



Note: calculation is previous year bird kill over current year farm unit numbers (for data reasons); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Only two regions – Waikato and Taranaki – are creating major on-farm employment in poultry meat

ON-FARM EMPLOYMENT 2003
Headcount; 2003

15Y CHANGE
Headcount; 03vs18

ON-FARM EMPLOYMENT 2018
Headcount; 2018

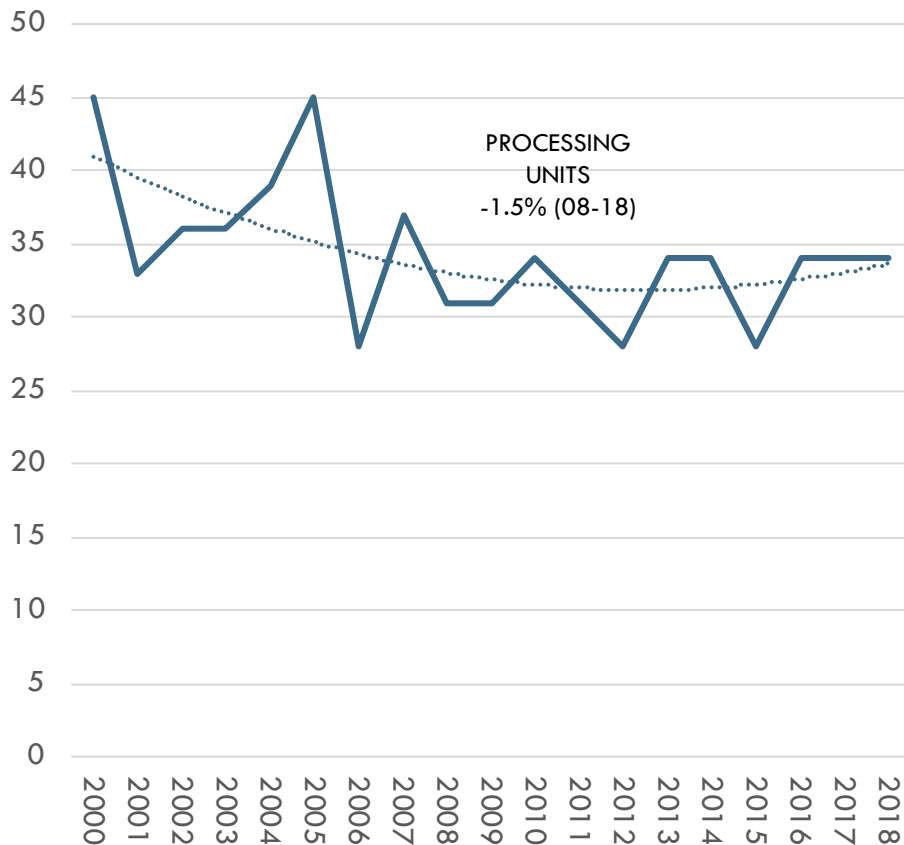
Region	2003 Headcount	15Y Change (%)	2018 Headcount
Northland	6	0.0%	6
Auckland	167	0.7%	190
Waikato	317	3.6%	601
Bay of Plenty	12	7.2%	42
Gisborne	12	-100%	-
Hawke's Bay	-	0.0%	56
Taranaki	186	2.9%	311
Mana-Wanga	36	1.5%	47
Wellington	18	-3.8%	9
Nelson/Tasman	6	-100%	-
Marlborough	-	-	-
West Coast	-	-	-
Canterbury	186	0.5%	203
Otago	9	1.6%	12
Southland	12	-100%	-

Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Turning to processing, the sector is clustered in six regions

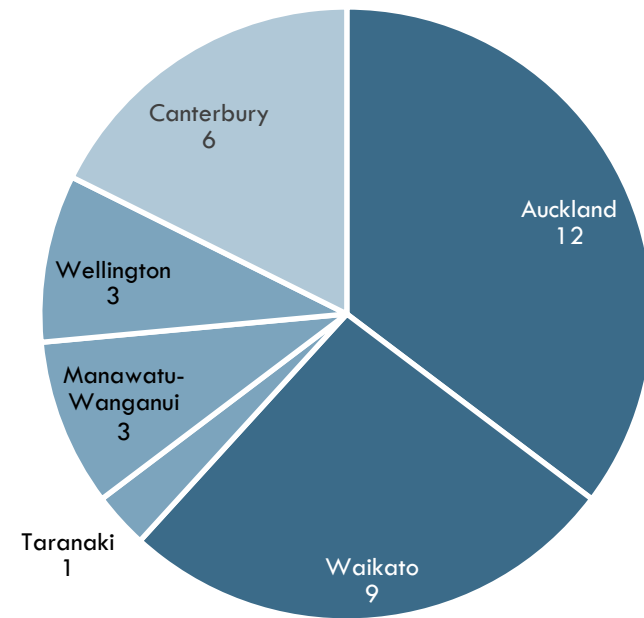
POULTRY MEAT PROCESSING OPERATIONS

Geographic units; 2000-2018



POULTRY PROCESSING OPS BY REGION

Geographic units; 2018

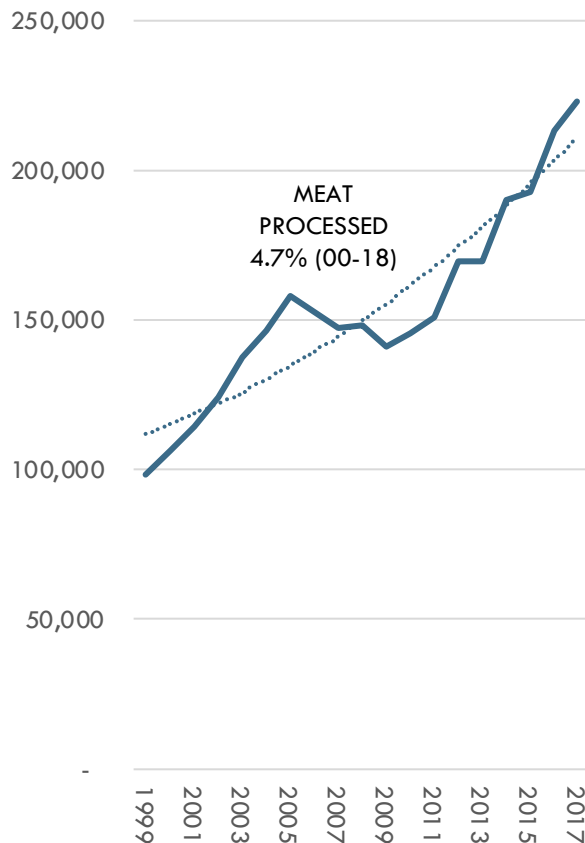


TOTAL = 34 processing units

Poultry processing has falling employment per tonne of meat throughput, but growing overall employment

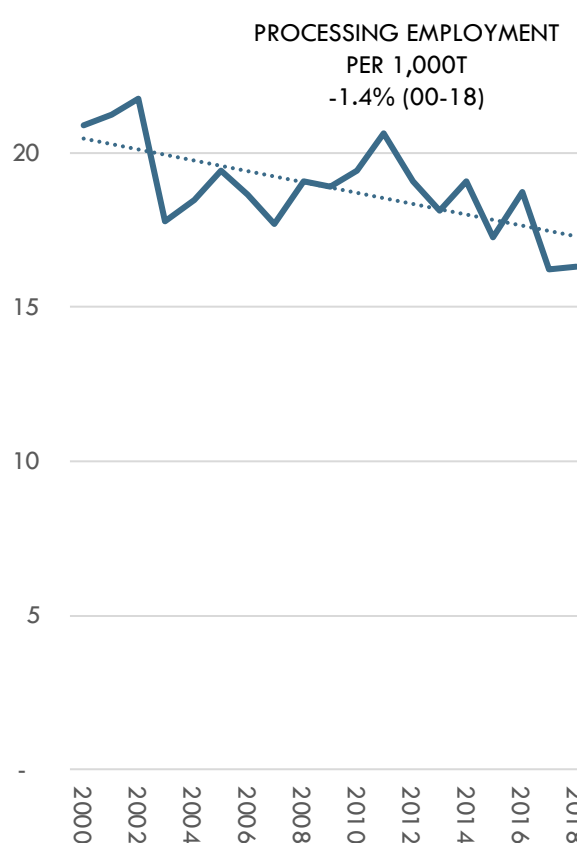
TONNES PROCESSED

Tonnes; 1999-2017



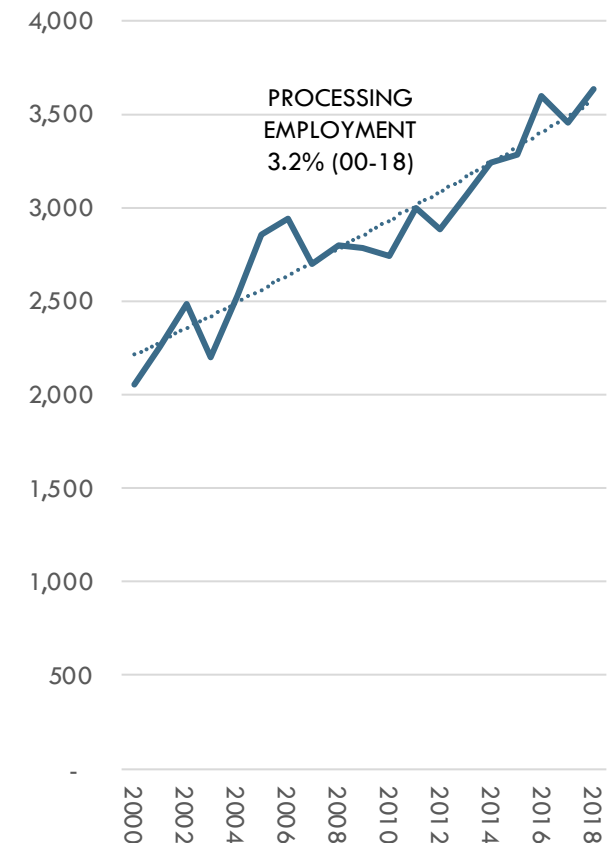
EMPL. PER 1,000 TONNE

Headcount/1,000t proc; 2000-18



PROC. EMPLOYMENT

Headcount; 2000-2018



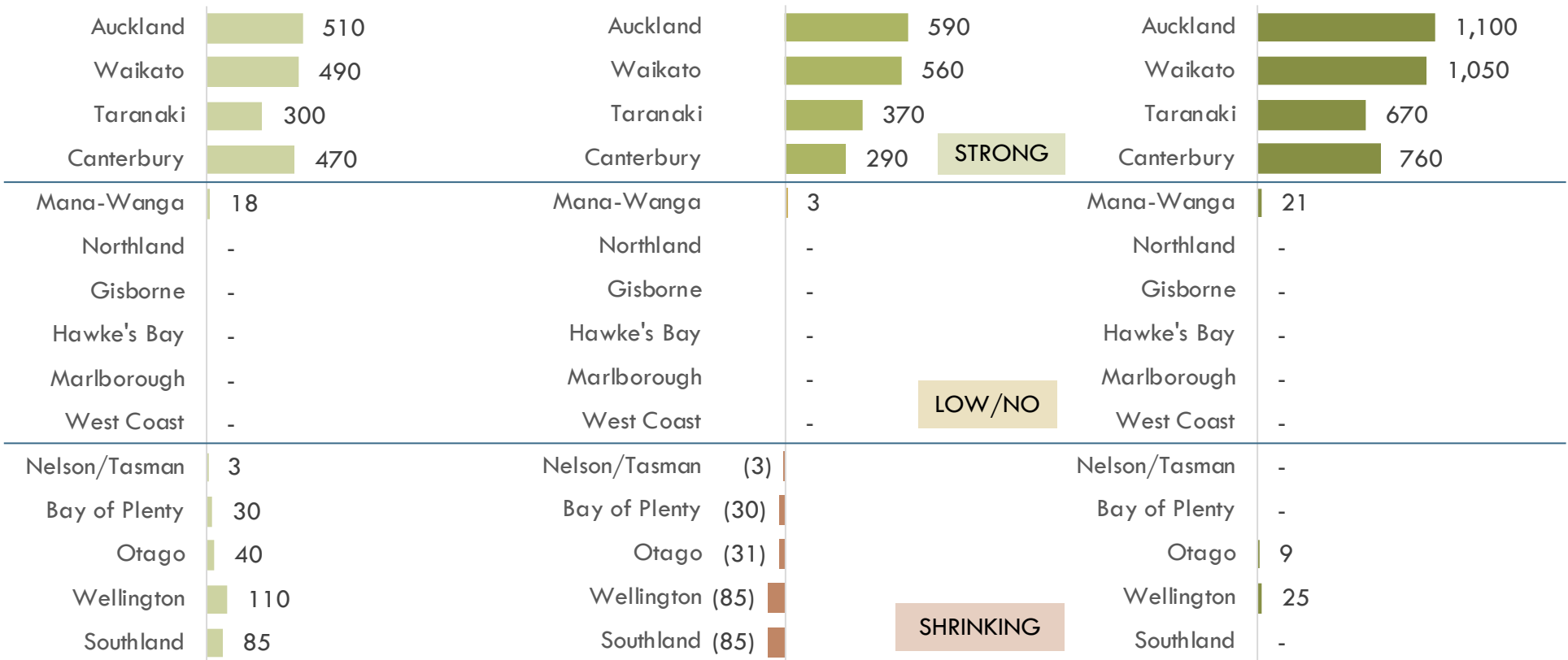
Note: calculation is previous year bird kill over current year farm employment numbers (for data reasons); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Auckland, Waikato, Taranaki and Canterbury created significant new poultry processing employment

EMPLOYMENT 2003
Headcount; 2003

15Y CHANGE
Headcount; 03vs18

EMPLOYMENT 2018
Headcount; 2003



Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

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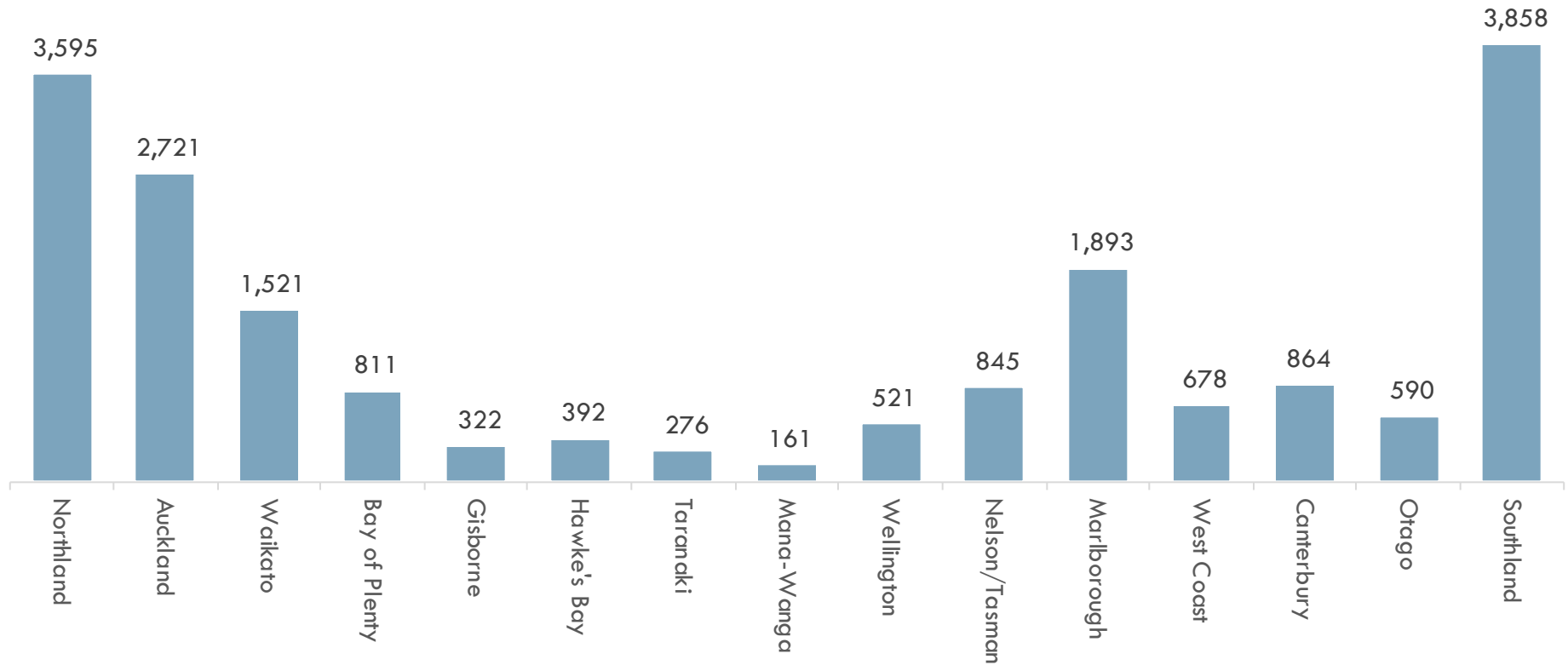
SUMMARY FINDINGS: The New Zealand seafood industry has declining employment in the seafood chain

- New Zealand has an abundance of coastline spread across all regions
- Realised production of wild capture per kilometre of coastline has been falling and aquaculture has stalled
- Total New Zealand seafood volumes are falling
- The South Island, particularly Nelson/Tasman and Canterbury, lead in terms of share of total seafood production
- All regions of New Zealand have falling seafood industry geographic/activity units numbers (includes boats, plants etc.)
- There is a trend to fewer, larger seafood operations with more throughput and employees per unit
- Limited growth in employment per tonne is not counteracting falling total tonnes leading to net job losses
- Seafood is creating jobs in some regions, but not others; job losses in Nelson/Tasman the standout

New Zealand has an abundance of coastline spread across all regions

COASTLINE BY REGION

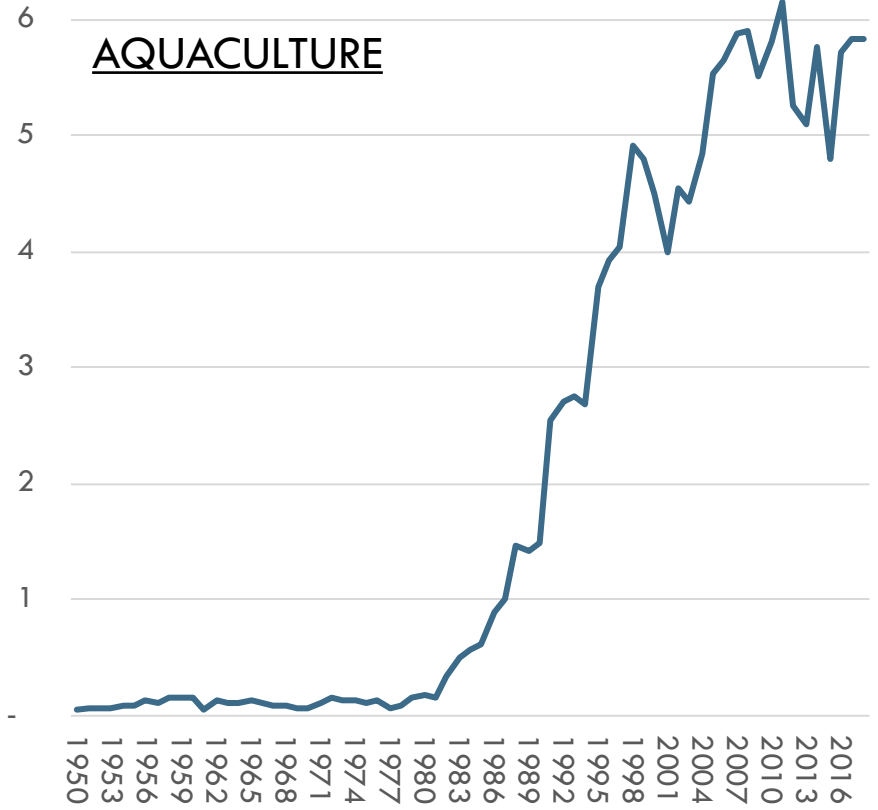
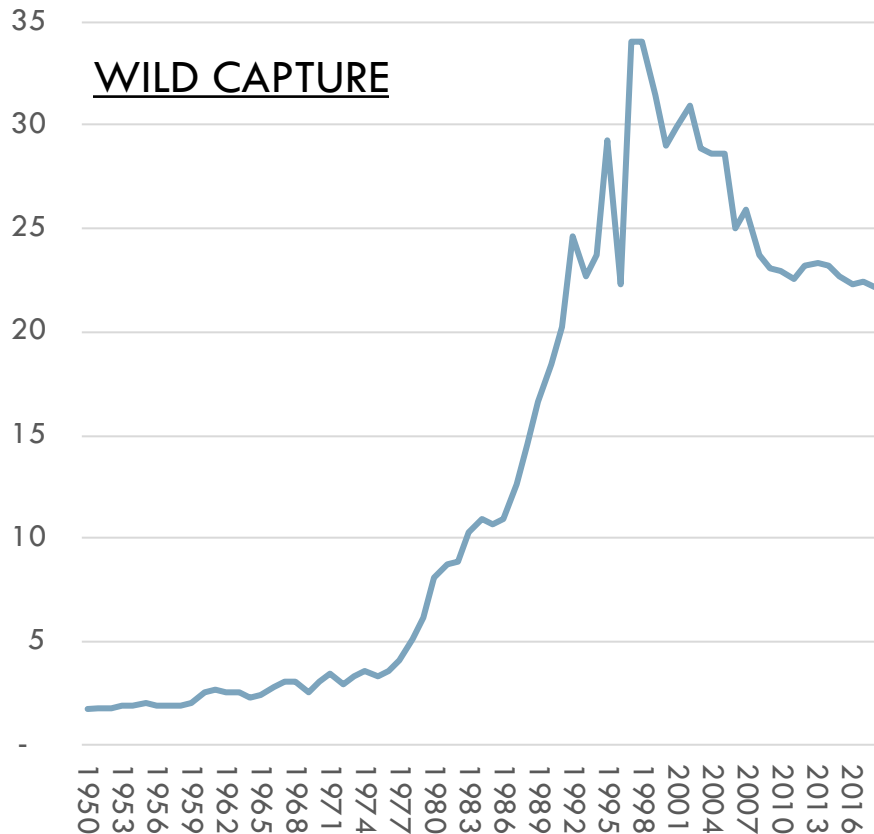
Kilometres; 2019



Note: May not be comparable to other sources, but uses common measure (polygon size) across all regions; Source: LINZ dataset; Statistics NZ; Coriolis analysis

Realised production of wild capture per kilometre of coastline has been falling and aquaculture has stalled

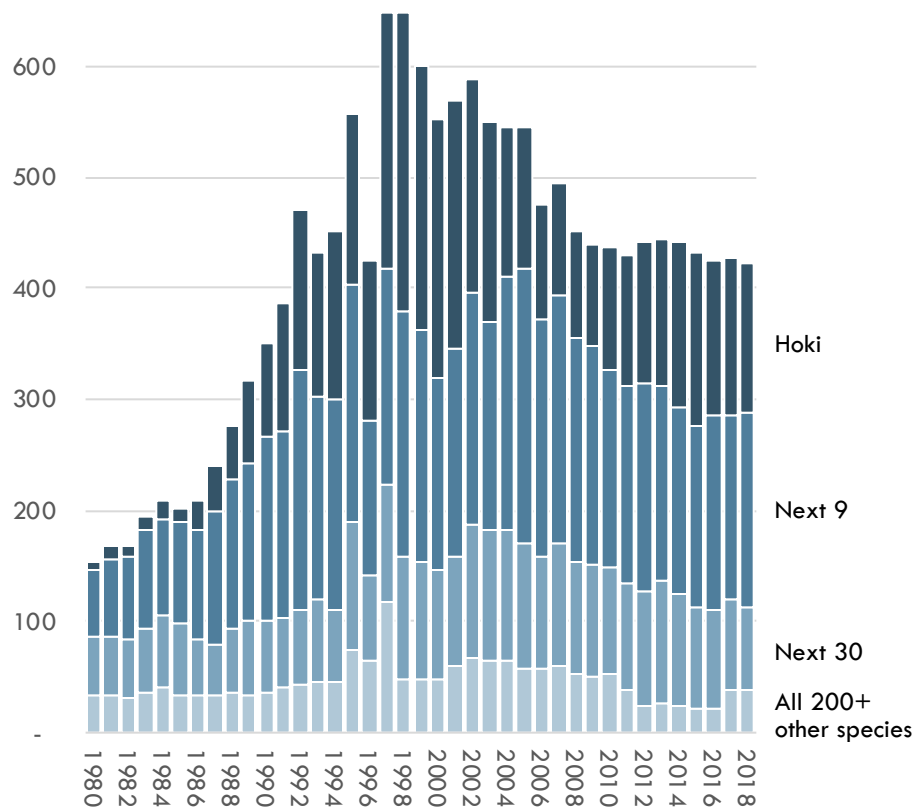
LANDED TONNES PER KM COASTLINE
T/km; 1950-2018



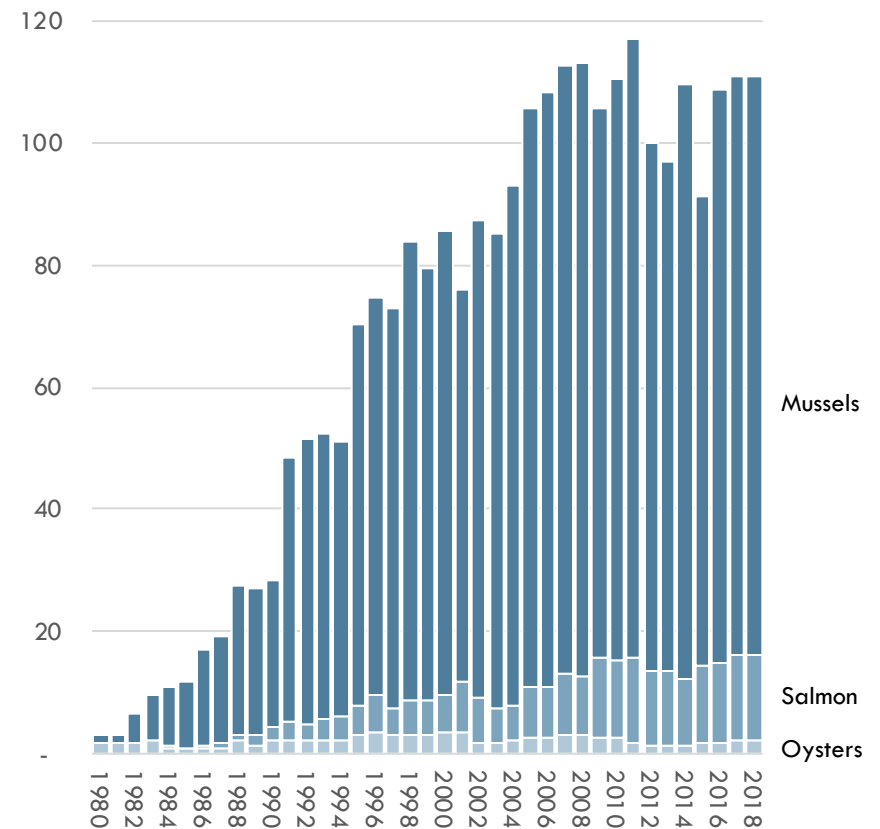
Source: UN FishStat; Statistics NZ; MPI/MAF/MoF; Coriolis analysis

Total New Zealand seafood volumes are falling

TONNES WILD CAPTURE
T; 000; 1980-2018



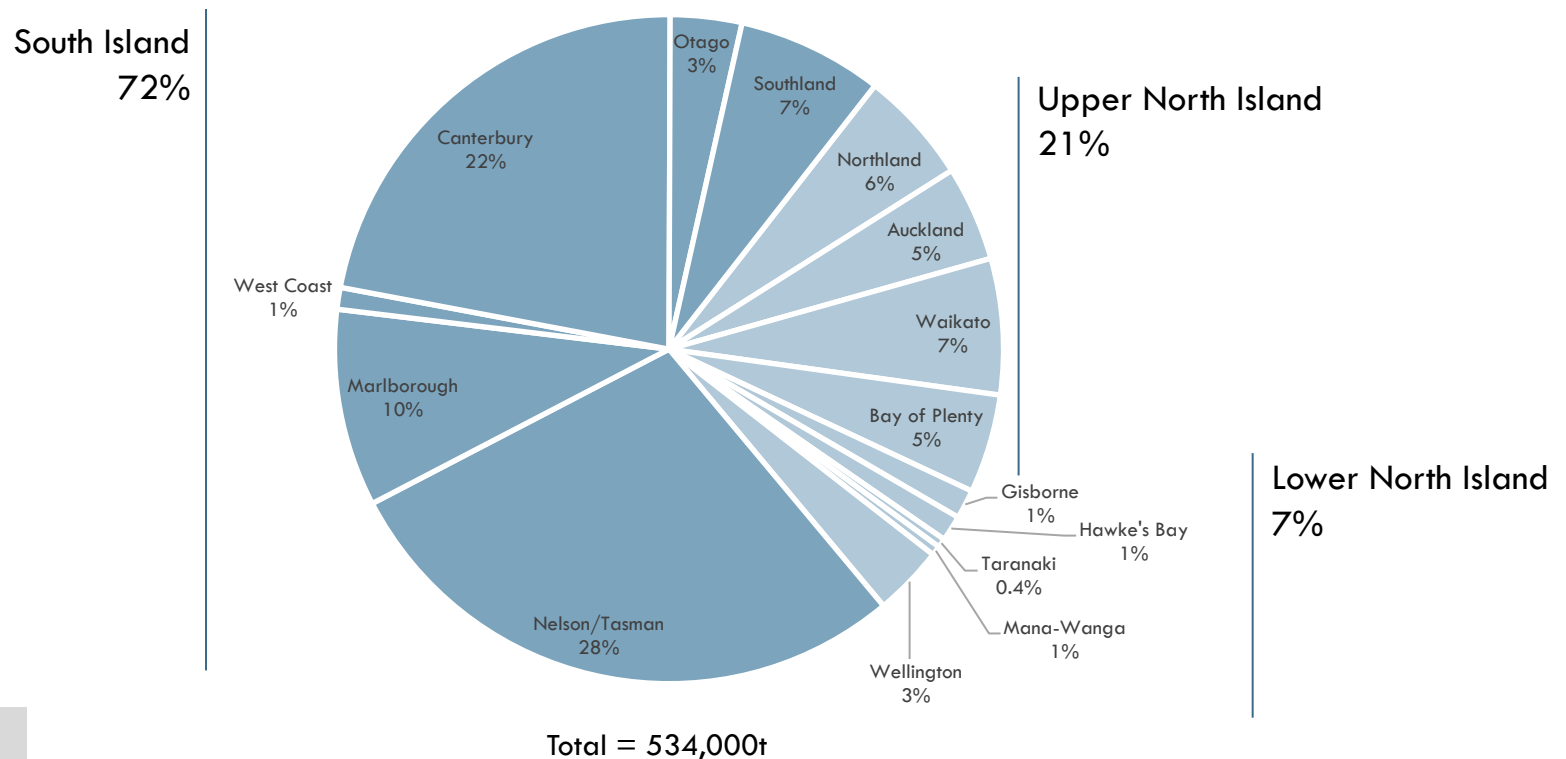
TONNES AQUACULTURE
T; 000; 1980-2018



Source: UN FishStat; Statistics NZ; MPI/MAF/MoF; industry sources; Coriolis analysis and estimates

The South Island, particularly Nelson/Tasman and Canterbury, lead in terms of share of total seafood production

ESTIMATED SHARE OF LANDED WILD & AQUACULTURE VOLUME BY REGION
% of tonnes; 2018



CORIOLIS ESTIMATE
Regional data is not collected

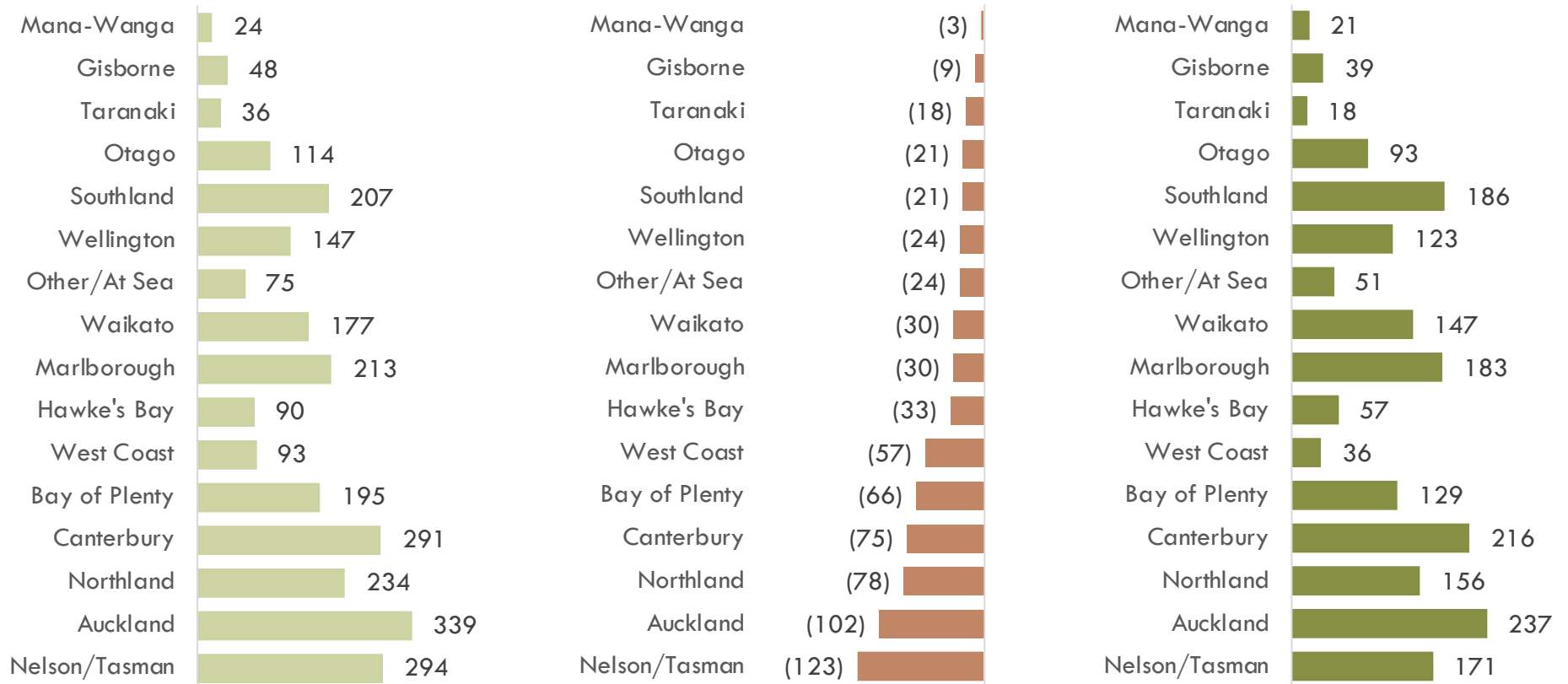
Note: point of landing not location of capture; Source: Coriolis modelling

All regions of New Zealand have falling seafood industry geographic/activity units numbers (boats, processing plants etc.)

OPERATIONAL UNITS 2000
Units; 2000

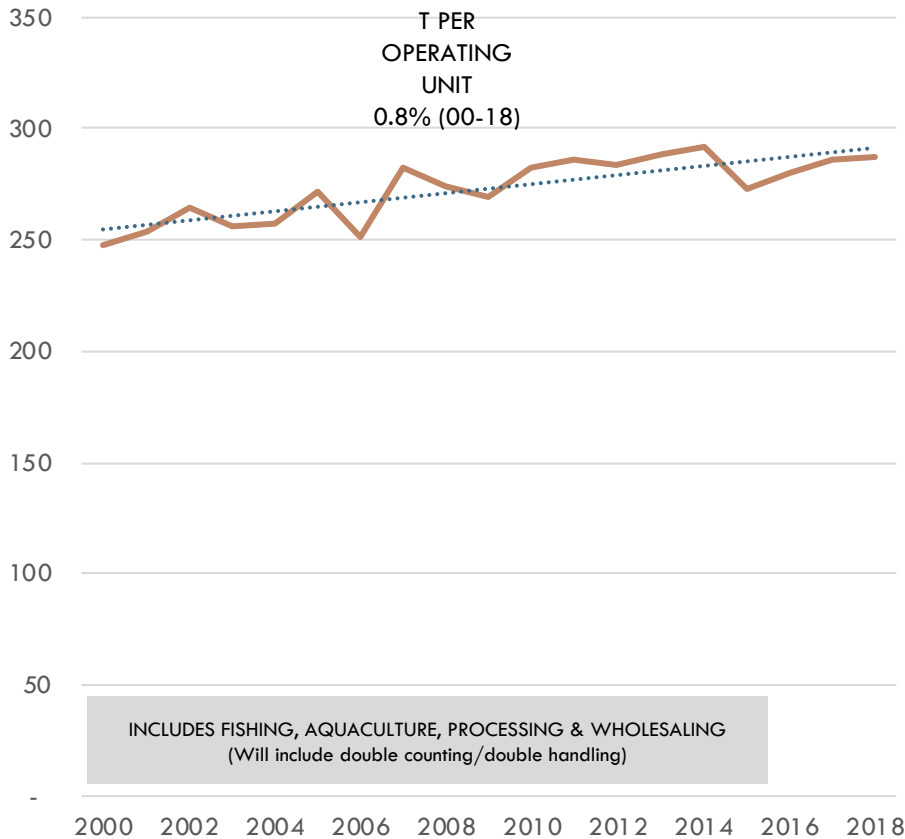
18Y CHANGE
Units; 00vs18

OPERATIONAL UNITS 2018
Units; 2018

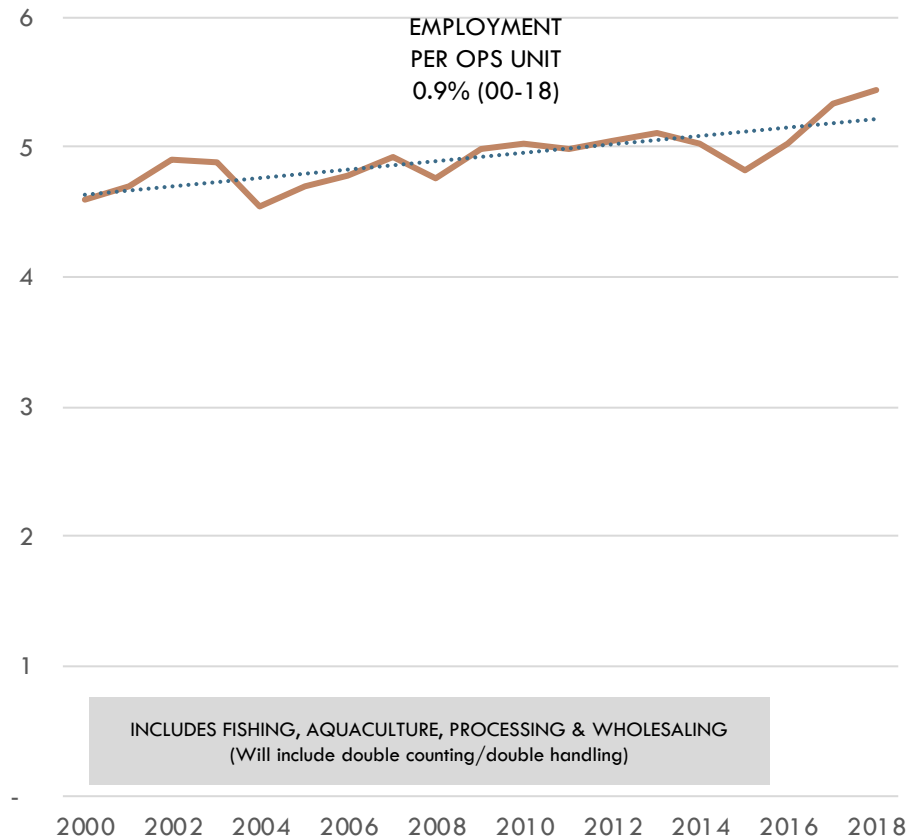


There is a trend to fewer, larger seafood operations with more throughput and employees per unit

TONNES PER TOTAL INDUSTRY OPS UNIT
T/unit; 2000-2018



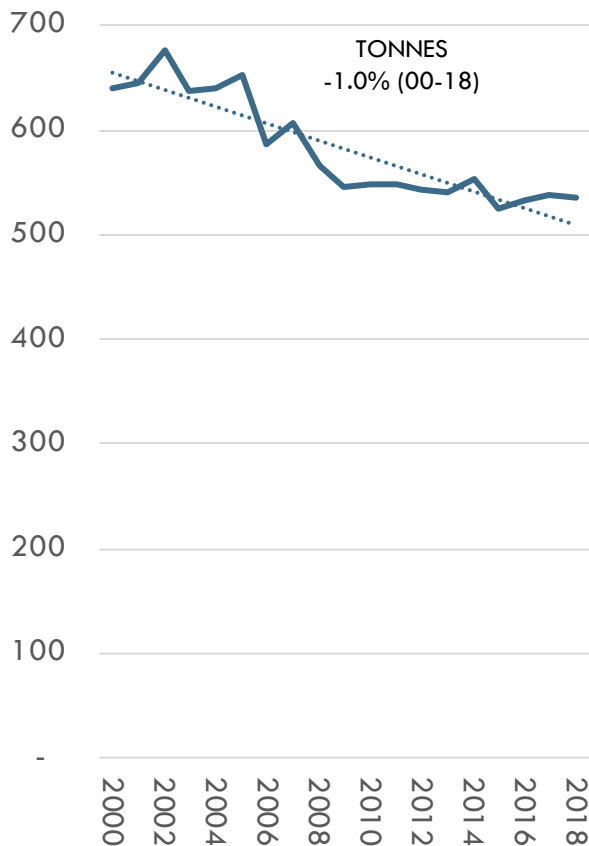
EMPLOY. PER TOTAL INDUSTRY OPS UNIT
Headcount/unit; 2000-2018



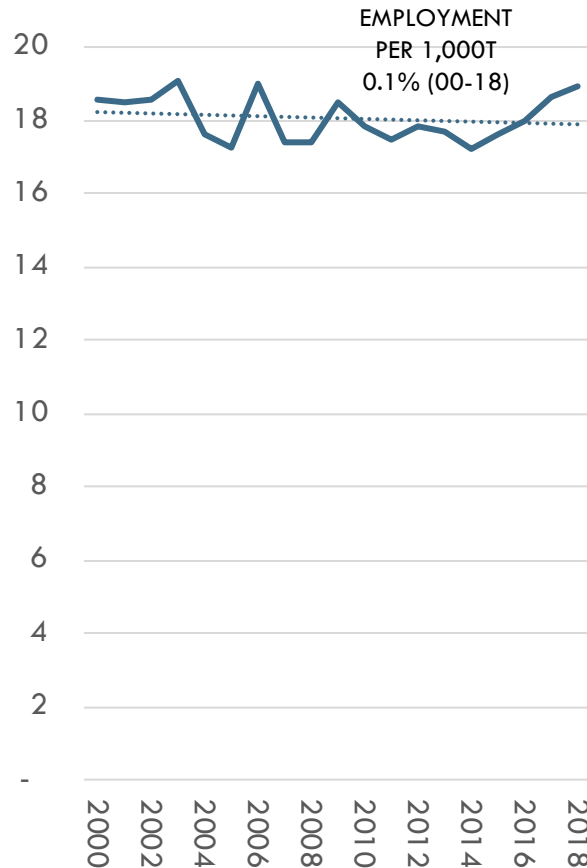
Source: UN FishStat; Statistics NZ; MPI/MAF/MoF; industry sources; Coriolis analysis and estimates

Limited growth in employment per tonne is not counteracting falling total tonnes leading to net job losses

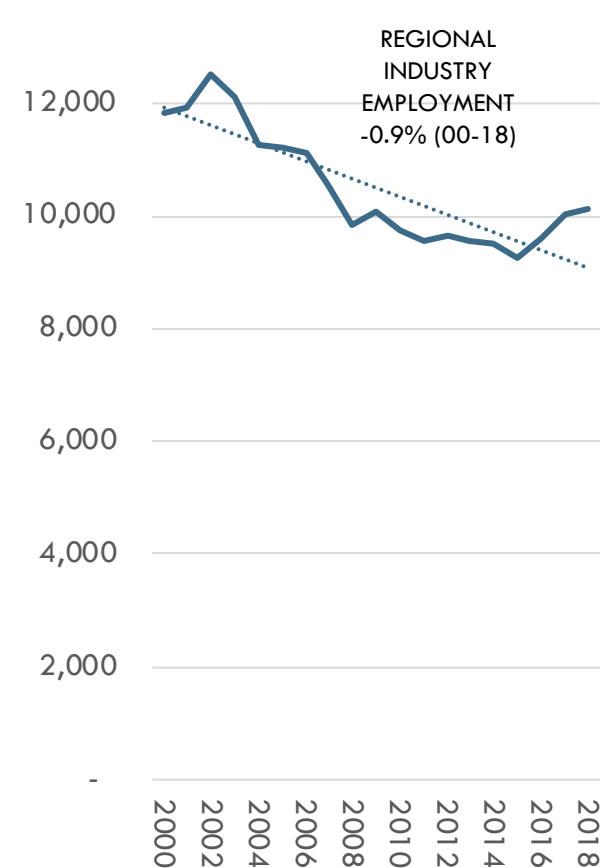
TONNES: WILD & AQUA
Tonne; 000; 2000-2018



EMP. PER 1,000 TONNE
Headcount/1,000t; 2000-2018



TOTAL EMPLOYMENT
Headcount; 2000-2018



Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Seafood is creating jobs in some regions, but not others; job losses in Nelson/Tasman are the standout

EMPLOYMENT 2000

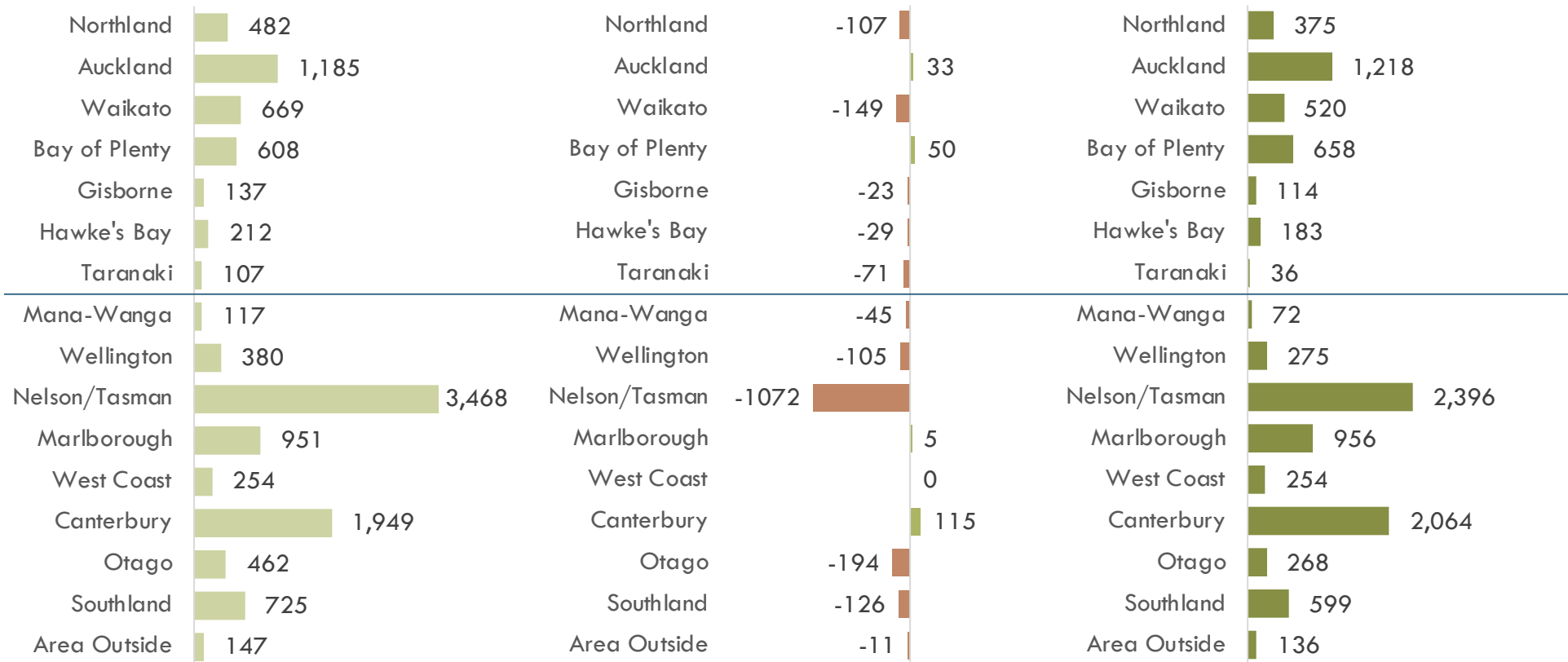
Headcount; 2000

18Y CHANGE

Headcount; 00vs18

EMPLOYMENT 2018

Headcount; 2018



Note: Area Outside = at sea; Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

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SUMMARY FINDINGS: The produce (fruit & vegetable) industry has declining on-farm jobs and mild post-farm job growth

PRODUCTION

- The total area in produce (fruit & vegetable (f&v)) is declining
- The number of produce (fruit & vegetable) geographic farm units is declining
- On-farm jobs on produce (fruit & vegetable) geographic farm units are declining

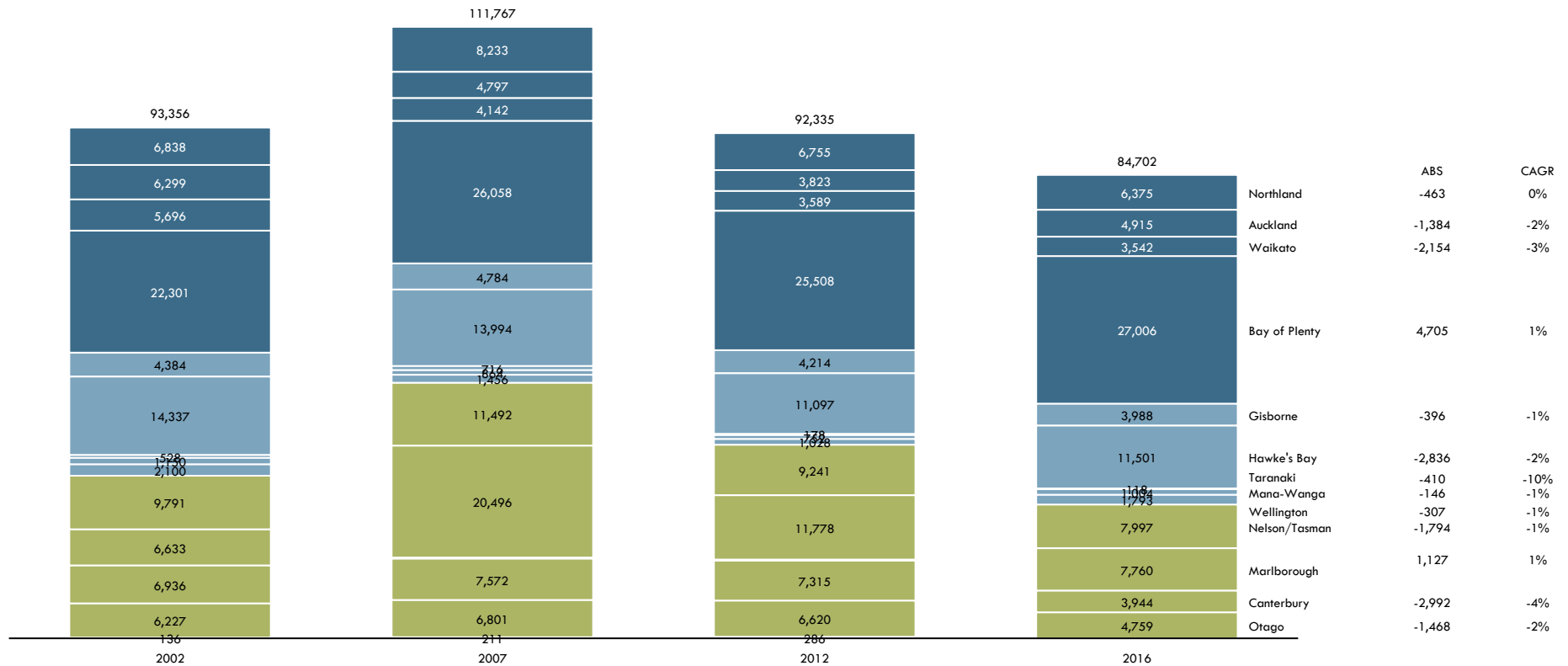
WHOLESALING & PROCESSING

- Overall, fruit & vegetable processors and wholesalers are spread across the country; however, unit growth is low
- Fruit & vegetable processor/wholesaler numbers showing moderate growth across most regions
- Overall, New Zealand is trending to more, smaller fruit & vegetable processing and wholesaling units
- New Zealand produce processors/wholesalers are creating modest numbers of new jobs and jobs are spread across all regions
- Mild overall employment growth masks regional shifts, with the Upper North Island leading growth and many others declining

The total area in produce (fruit & vegetable(f&v)) is declining

AREA OF FRUIT, NUT & VEGETABLE (EXCLUDING (X) WINE) BY REGION

Hectares; actual; 2000-2018*

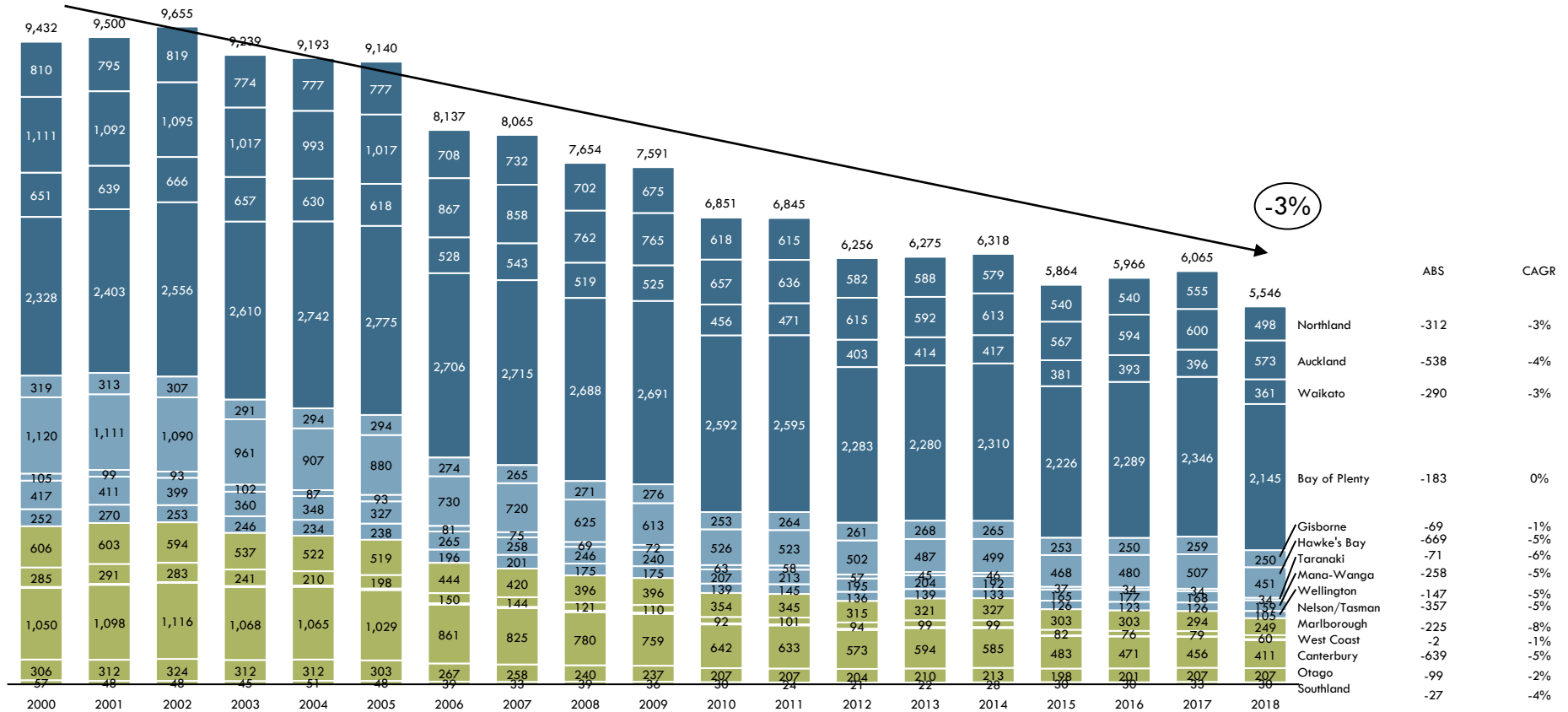


* All available data; Note: West Coast and Southland have no area in 2016 (at source) and show are not shown on the right, but historical area is in the totals; Source: MfE/Statistics New Zealand; Coriolis modelling, analysis and classification

The number of produce (fruit & vegetable) geographic farm units is declining

NUMBER OF FRUIT, NUT & VEGETABLE (X WINE) GEOGRAPHIC UNITS BY REGION

Units; actual; 2000-2018*

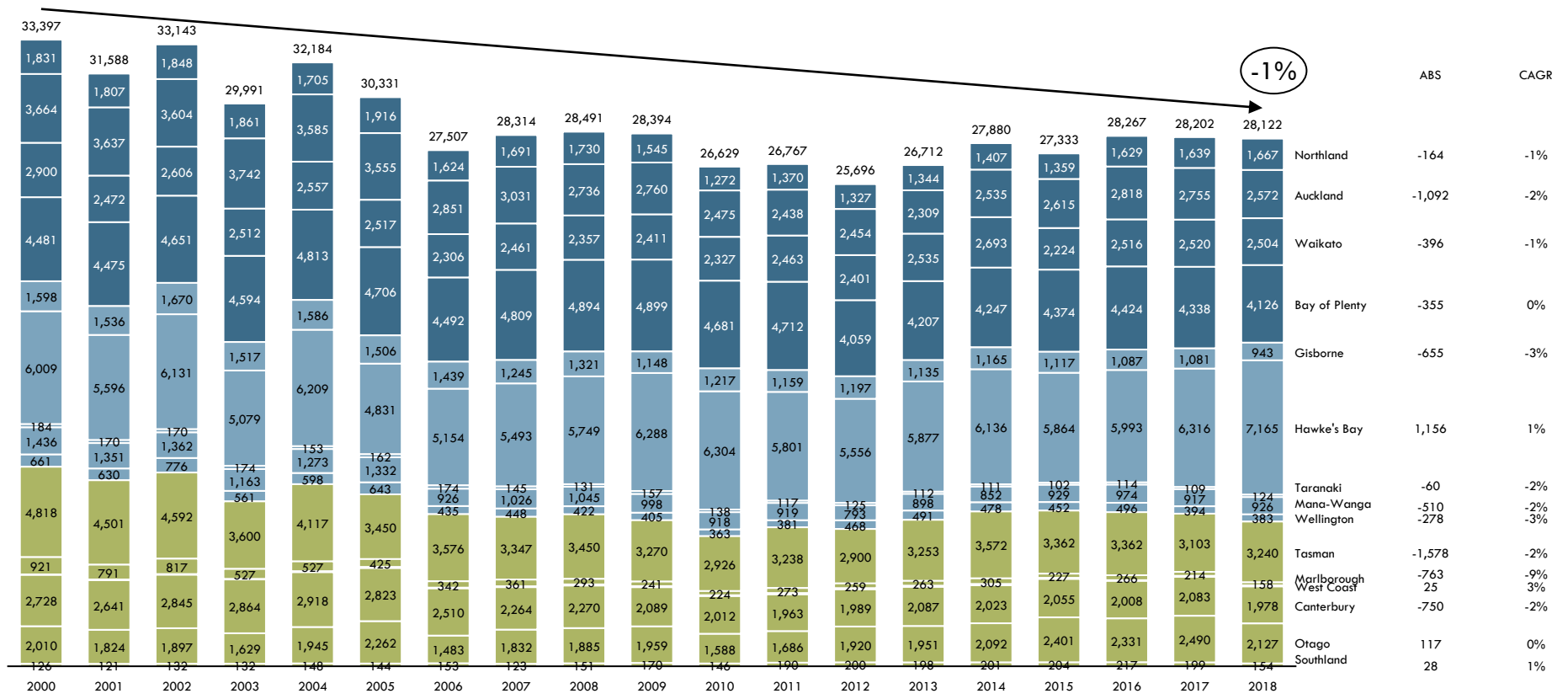


* All available data; Note: defined as A012 & A013 (excludes A011); Source: Statistics New Zealand; Coriolis analysis and classification

On-farm jobs on produce (fruit & vegetable) geographic farm units are declining

EMPLOYMENT ON FRUIT, NUT & VEGETABLE (X WINE) GEOGRAPHIC UNITS BY REGION

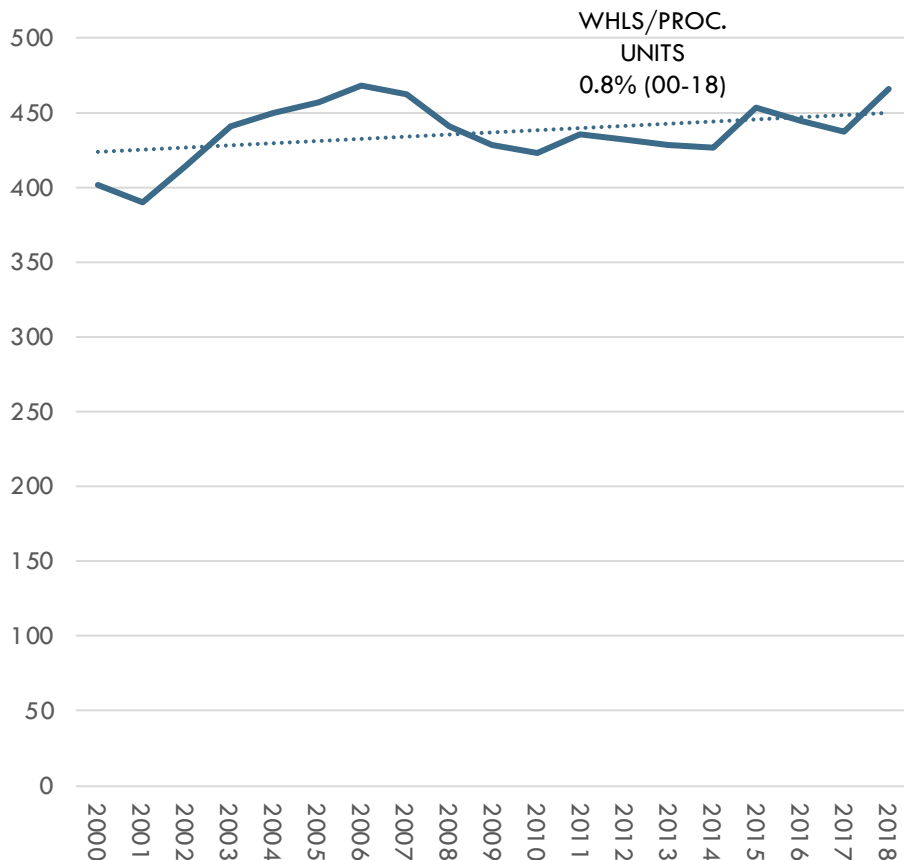
Headcount (including owner-operators); actual; 2000-2018*



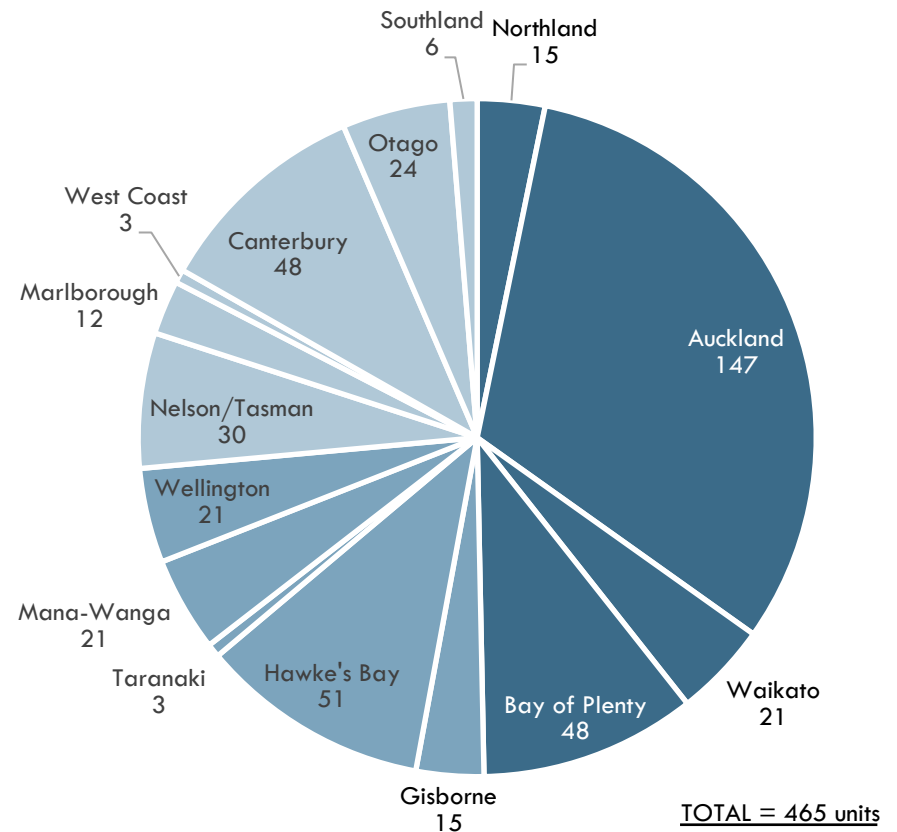
* All available data; Note: West Coast totals not shown to aid chart legibility; defined as A012 & A013 (excludes A011); Source: Statistics New Zealand; Coriolis analysis and classification

Turning to processing and wholesaling, units are spread across the country; however, unit growth is low (0.8% CAGR)

PRODUCE PROCESSING/WHOLESALE
Geographic units; 2000-2018



PRODUCE PROC/WHLS BY REGION
Geographic units; 2018

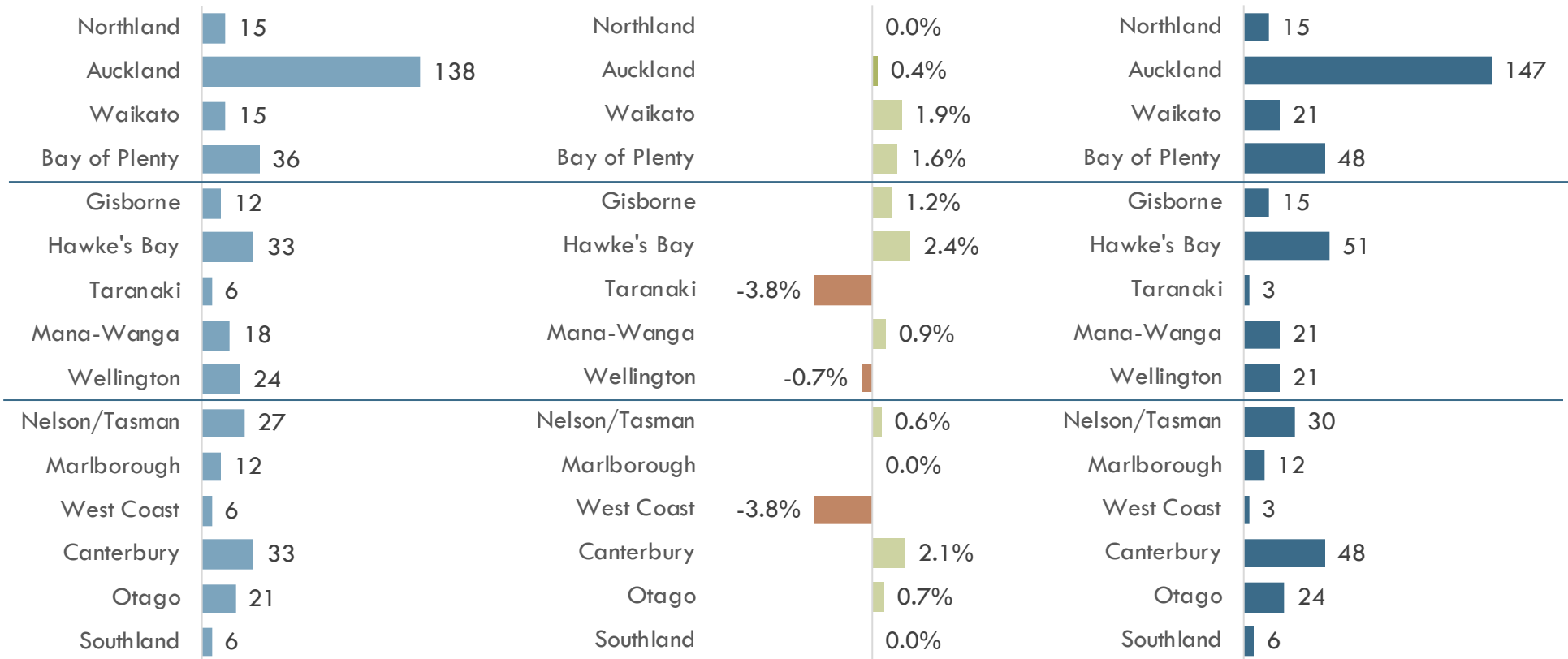


Fruit & vegetable processor/wholesaler numbers showing modest growth across most regions

OPERATIONS IN 2000
Geographic units; 2000

18Y UNIT CHANGE (CAGR)
%; 2000-2018

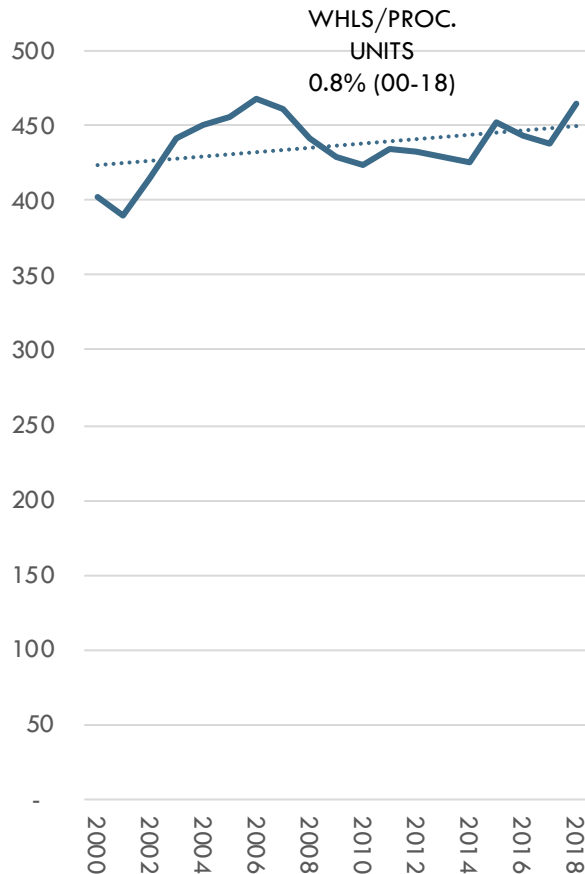
OPERATIONS IN 2018
Geographic units; 2018



Overall, New Zealand is trending to more, smaller fruit & vegetable processing and wholesaling units

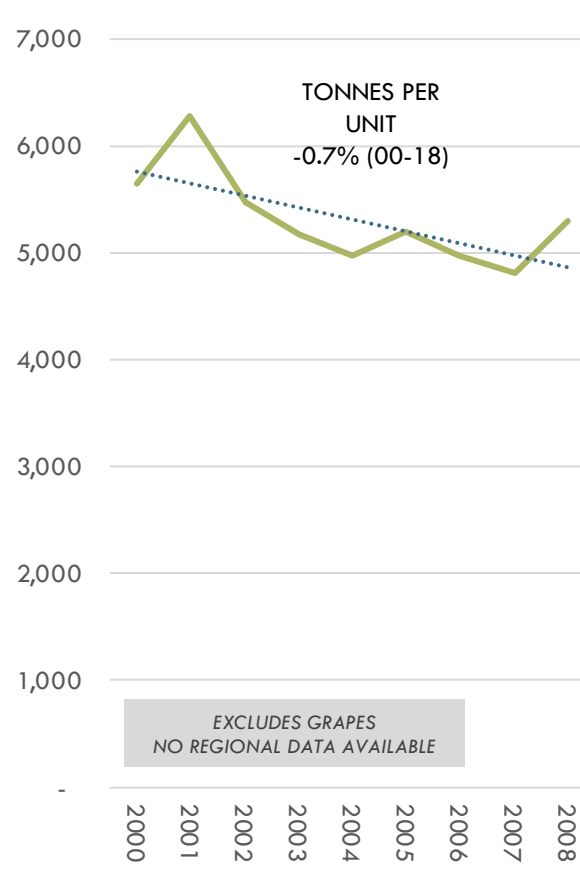
OF PROC/WHLS

Units; 2000-2018



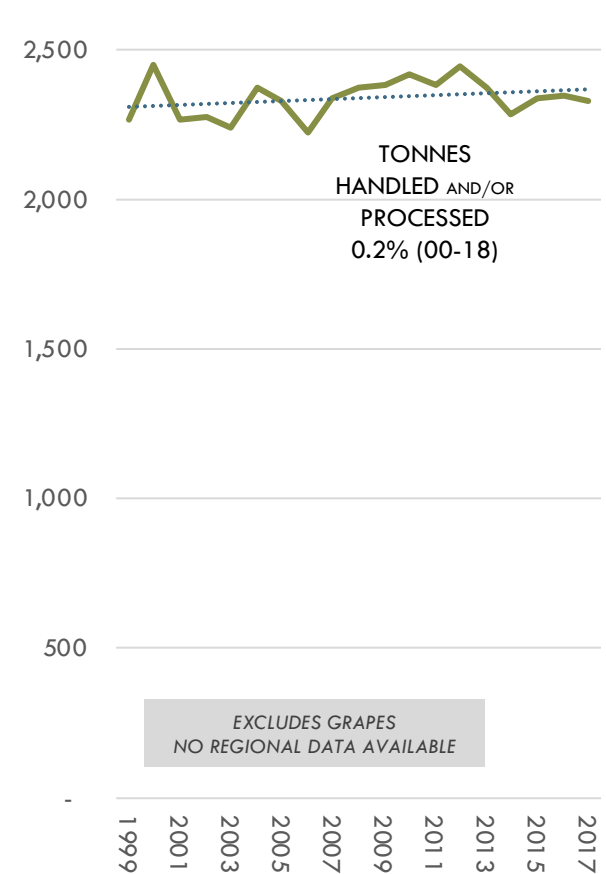
TONNES/UNIT

T/geographic unit; 2000-2018*



TONNES OF PRODUCE

T; 000; 1999-2017



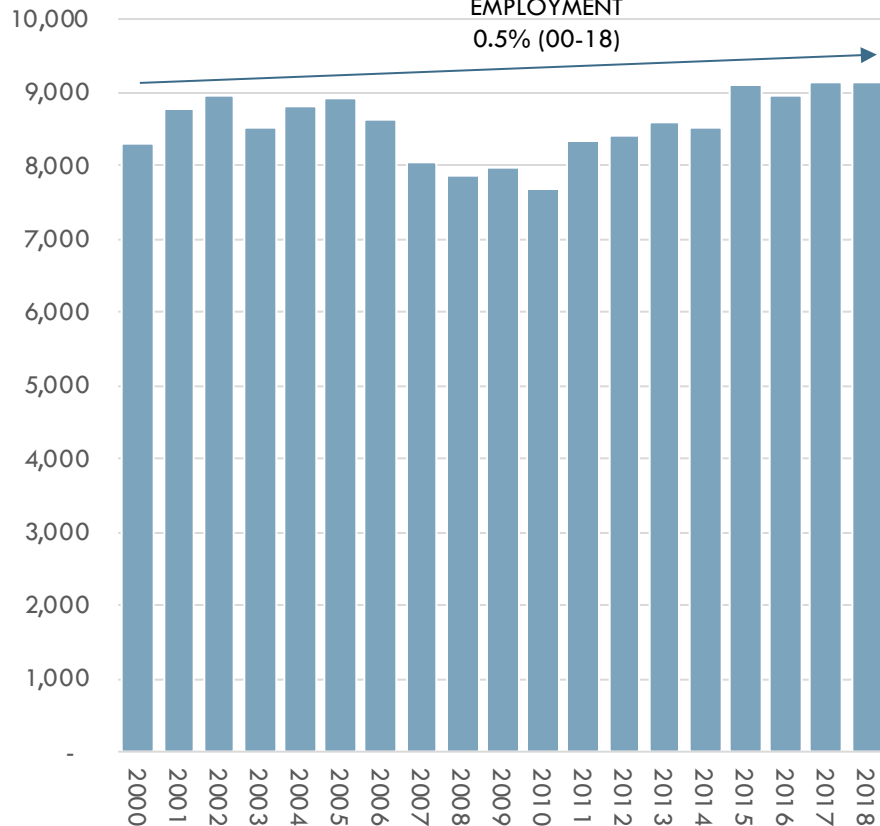
*Uses 2017 volume over 2018 units (for data related reasons); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

New Zealand produce processors/wholesalers are creating modest numbers of new jobs and jobs are spread across regions

PRODUCE PROC/WHLS EMPLOYMENT

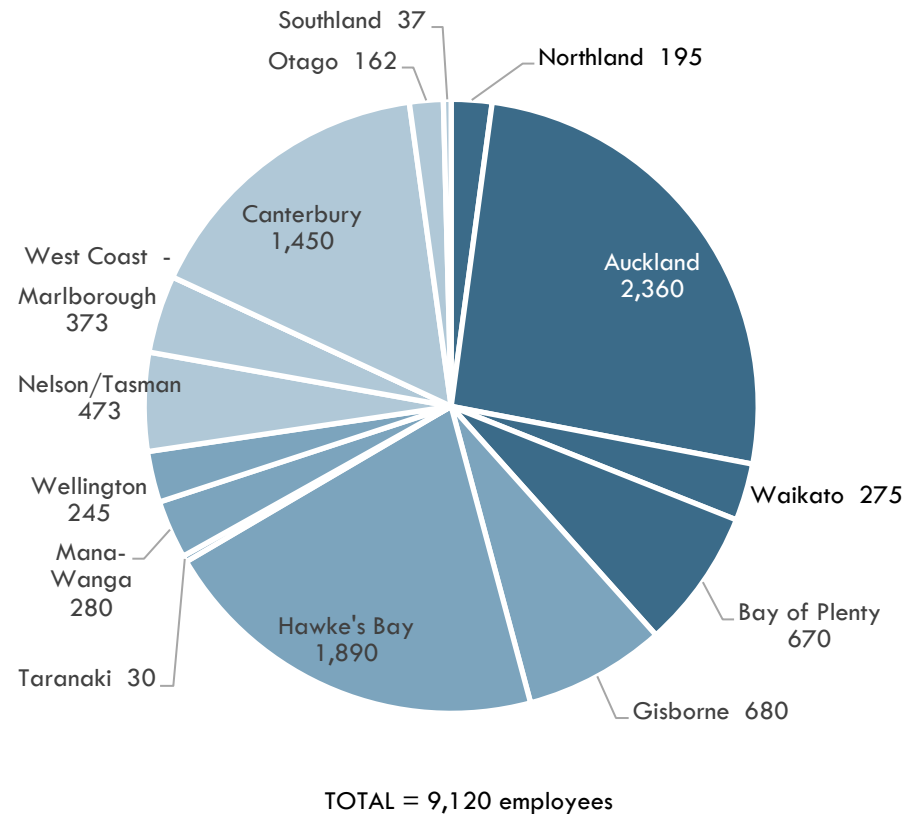
Headcount; 2000-2018

WHOLESALE & PROCESSING EMPLOYMENT 0.5% (00-18)



PRODUCE PROC/WHLS EMPLOYMENT

Headcount; 2018



Mild overall employment growth masks regional shifts, with the Upper North Island leading growth and many others declining

EMPLOYMENT 2000

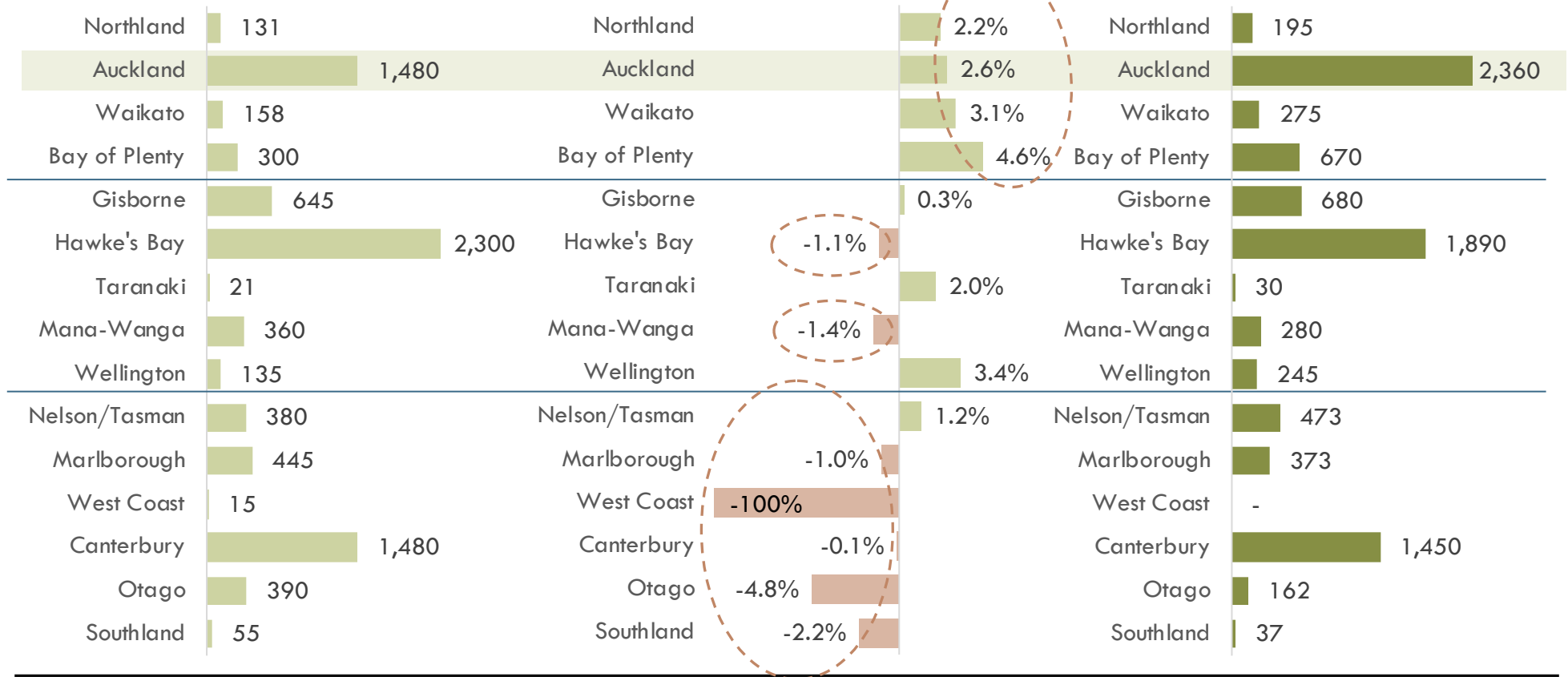
Headcount; 2000

18Y CHANGE (CAGR)

Headcount; 00vs18

EMPLOYMENT 2018

Headcount; 2018



Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

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SUMMARY FINDINGS: New Zealand has growing employment in the overall arable grains chain

GRAIN/ARABLE CROP PRODUCTION

- New Zealand is moving to more crop farms with more area per farm and more overall area in arable crops
- However, area growth is coming from crops grown for on-farm consumption (e.g. feed) rather than 'cash crop' grains for market
- The number of arable crop farms is growing across most regions, but declining in Canterbury
- Average crop farm sizes are growing
- Total crop area is growing across all regions
- On-farm employment in crops is growing
- Crop farms are creating employment across many regions

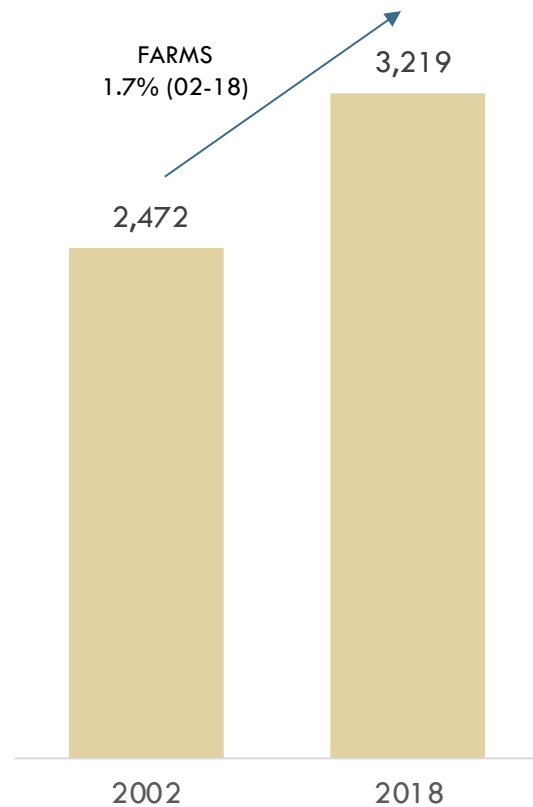
GRAIN WHOLESALING & PROCESSING

- Grain processors and wholesalers are located predominantly in Auckland and Canterbury, with overall numbers flat to declining
- Grain processors and wholesalers numbers are growing in Auckland, Waikato, Marlborough and Otago; shrinking elsewhere
- Overall, New Zealand is seeing limited change in the number of grain processing and wholesaling units
- Grain processors/wholesalers jobs are predominantly in Auckland and Canterbury and employment is not growing
- Mild overall decline masks regional shifts, with Auckland, Canterbury and Otago growing jobs while all others are declining

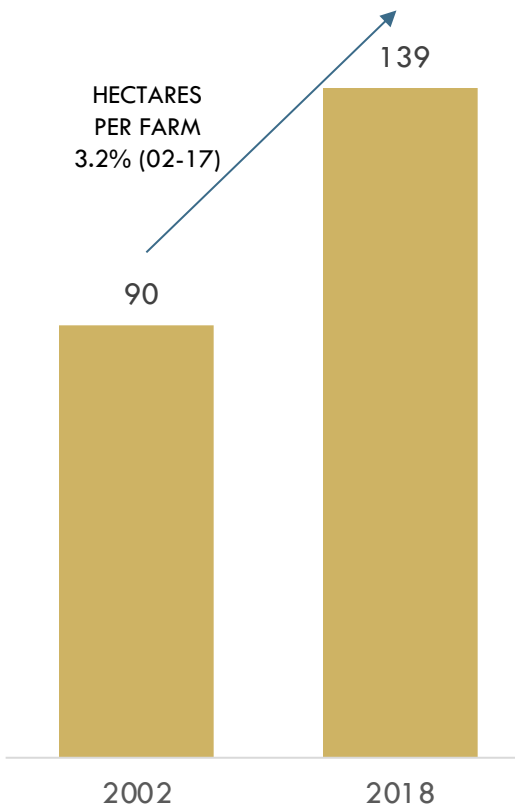
New Zealand is moving to more crop farms with more area per farm and more overall area in arable crops

Note: Different sources; data issues exist; treat as directional

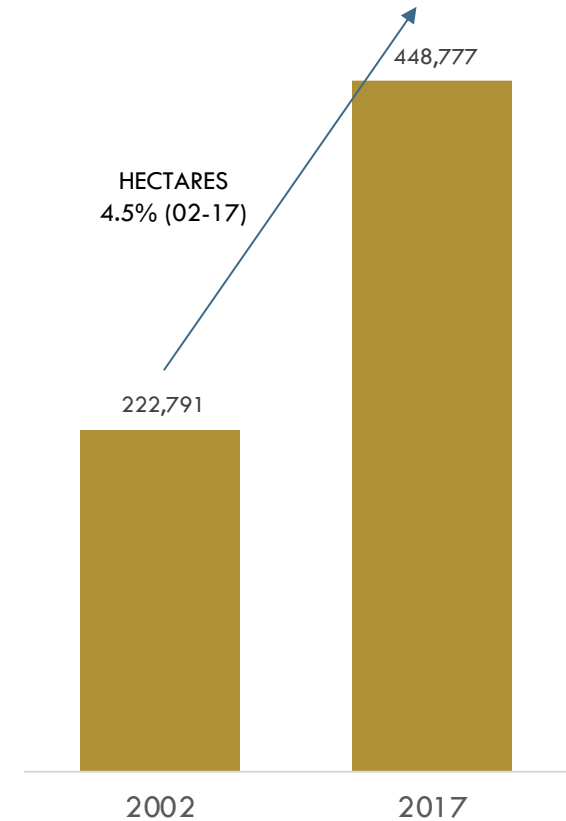
CROP FARM UNITS
#; 02vs18



AVERAGE AREA/UNIT
m²; 02vs17/18*



TOTAL AREA IN CROPS
m²; 02vs17



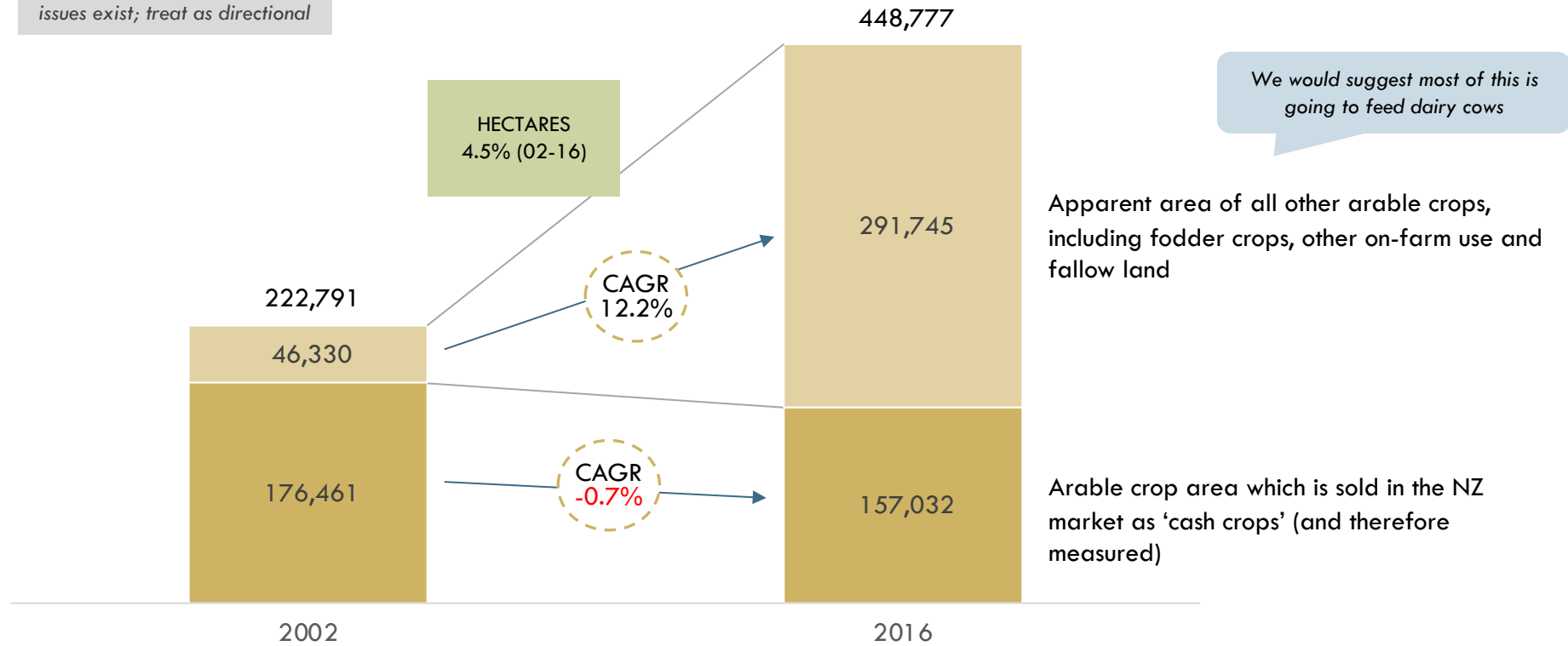
*Uses 2017 area over 2018 units (no 2018 area available); Source: Statistics NZ; UN FAO; MAF/MPI; Ministry for the Environment; Coriolis analysis

However, area growth is coming from crops grown for on-farm consumption (e.g. feed) rather than ‘cash crop’ grains for market

TOTAL NEW ZEALAND ARABLE CROP AREA BY USE

Ha; 02vs16

Note: Different sources; data issues exist; treat as directional



The number of arable crop farms is growing across most regions, but declining in Canterbury

CROP FARMING UNITS Units; 2002

16Y UNIT CHANGE (CAGR) %; 02vs18

CROP FARMING UNITS Units; 2018

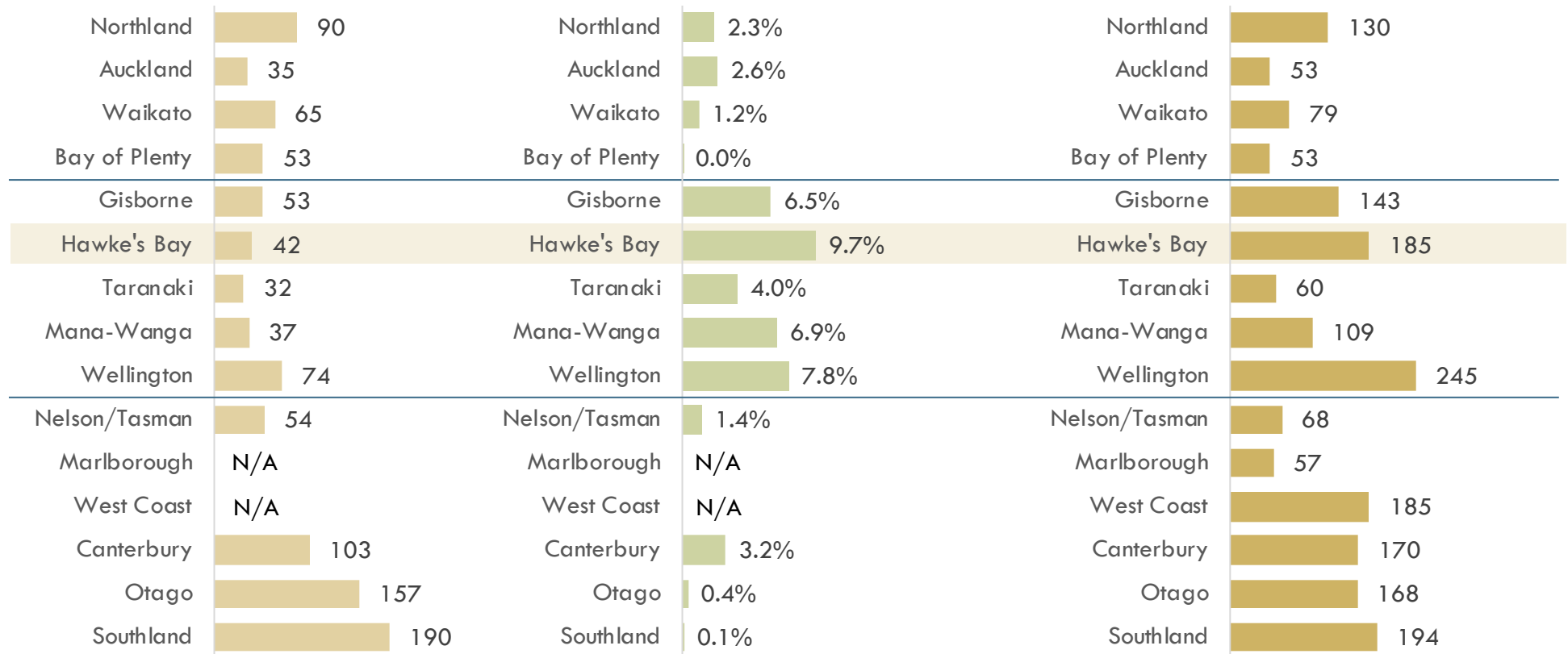
Region	Units; 2002	16Y Unit Change (CAGR) %; 02vs18	Units; 2018
Northland	24	6.8%	69
Auckland	42	3.9%	78
Waikato	177	6.1%	459
Bay of Plenty	96	1.4%	120
Gisborne	66	-2.8%	42
Hawke's Bay	87	0.0%	87
Taranaki	24	11.8%	144
Mana-Wanga	219	-0.2%	213
Wellington	48	1.7%	63
Nelson/Tasman	36	4.7%	75
Marlborough	54	-1.1%	45
West Coast	6	9.1%	24
Canterbury	1,338	-0.3%	1,275
Otago	126	4.6%	258
Southland	123	5.0%	267

Average crop farm sizes are growing

AVERAGE CROP FARM SIZE
Ha/unit; 2002

16Y SIZE GROWTH (CAGR)
%; 02vs18

AVERAGE CROP FARM SIZE
Ha/unit; 2018*



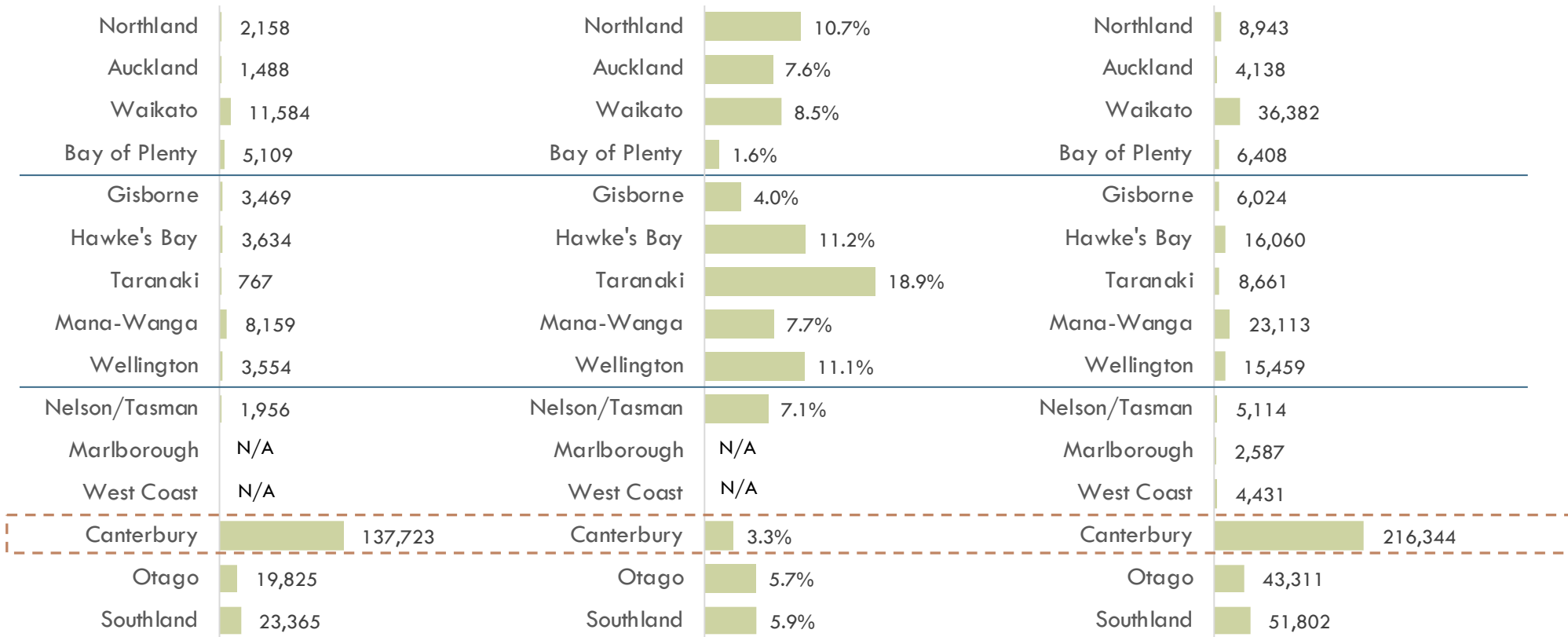
*Uses 2016 area over 2018 farm numbers (for data reasons); Source: Statistics NZ; Ministry for the Environment; Coriolis analysis

Total crop area is growing across all regions

CROP HECTARES Ha; 2002

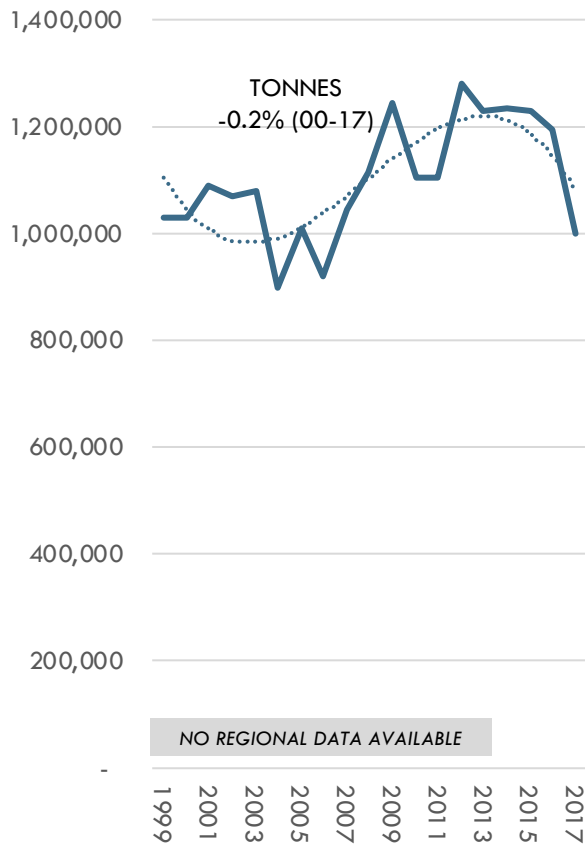
14Y GROWTH (CAGR) CAGR; 02vs16

CROP HECTARES Ha; 2016

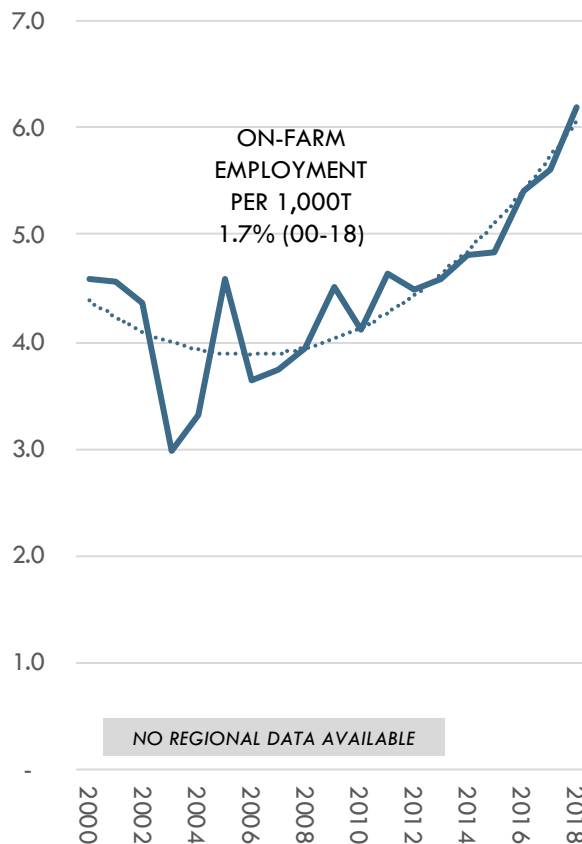


On-farm employment in crops is growing

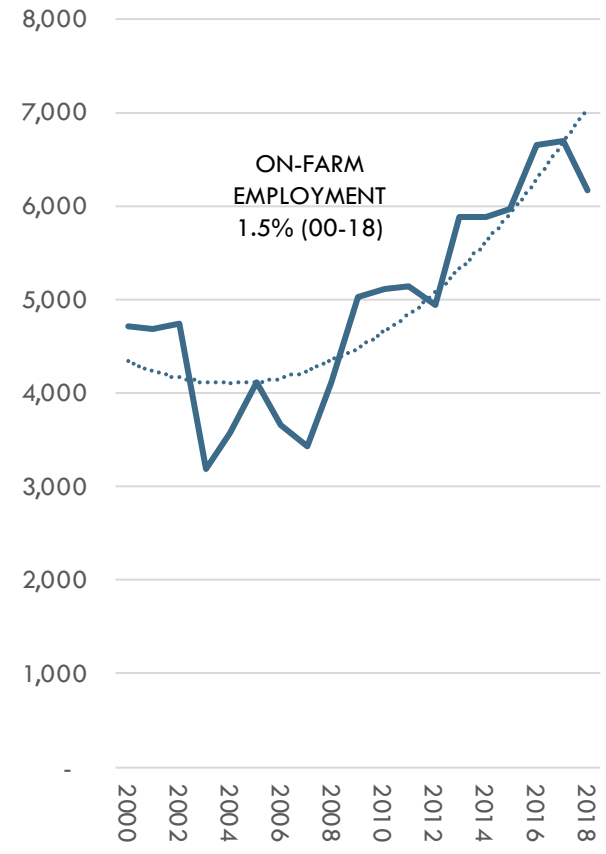
TONNES: CROPS
T; 1999-2017



EMPLOYMENT/1,000T
Headcount/1,000t; 2000-2018



EMPLOYMENT
Headcount; 2000-2018



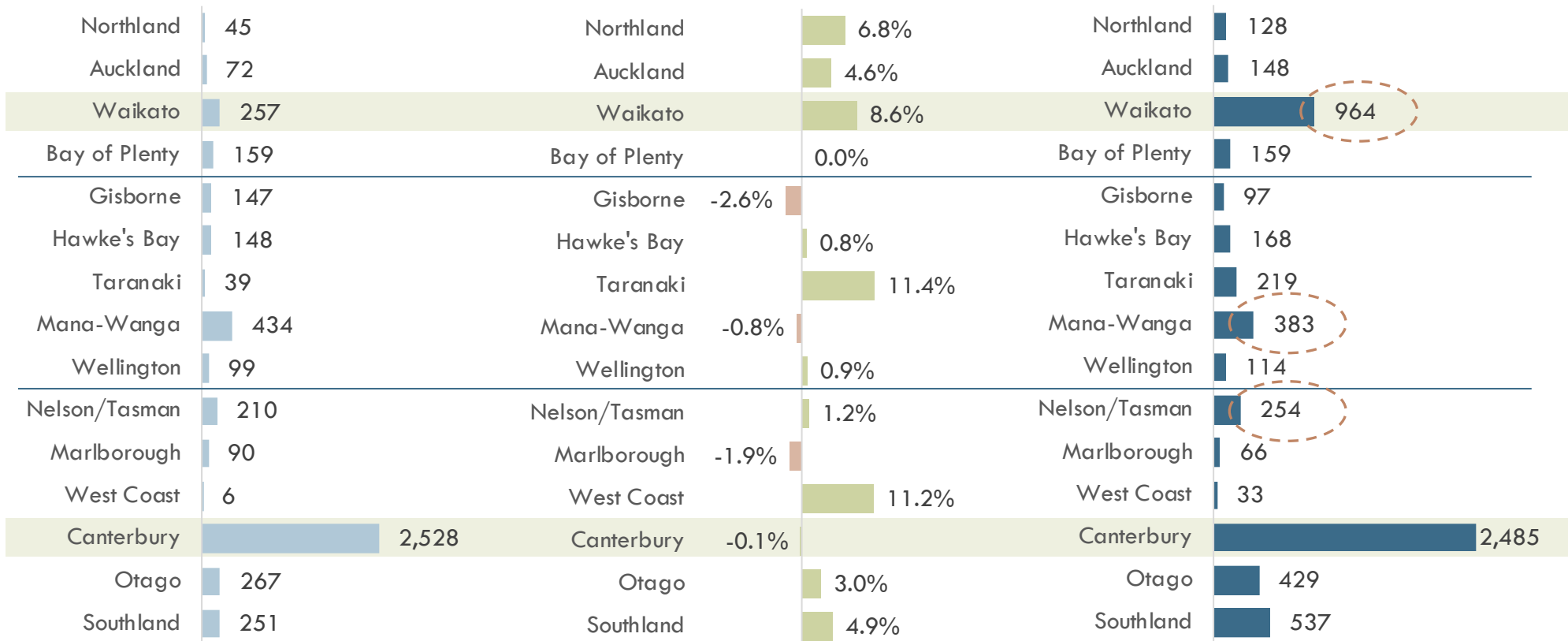
Caution: Will not agree with totals elsewhere; caution against double counting (e.g. grain and cattle/sheep); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Crop farms are creating employment across many regions

ON-FARM EMPLOYMENT 2002
Headcount; 2002

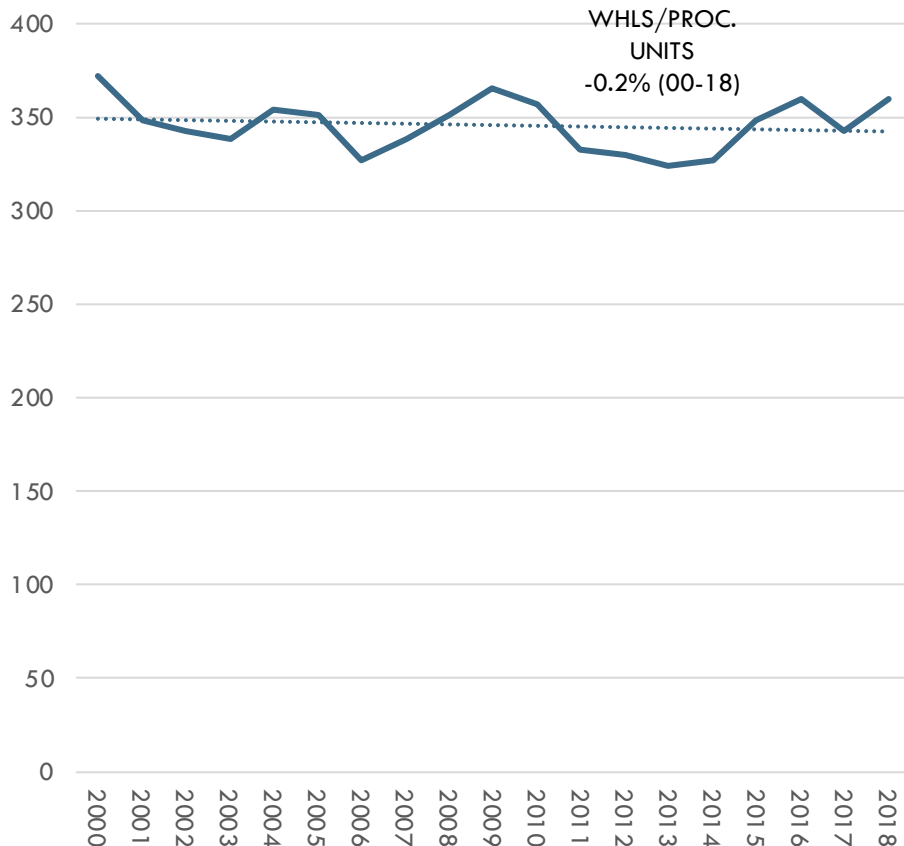
16Y CHANGE (CAGR)
%; 02vs18

ON-FARM EMPLOYMENT 2018
Headcount; 2018

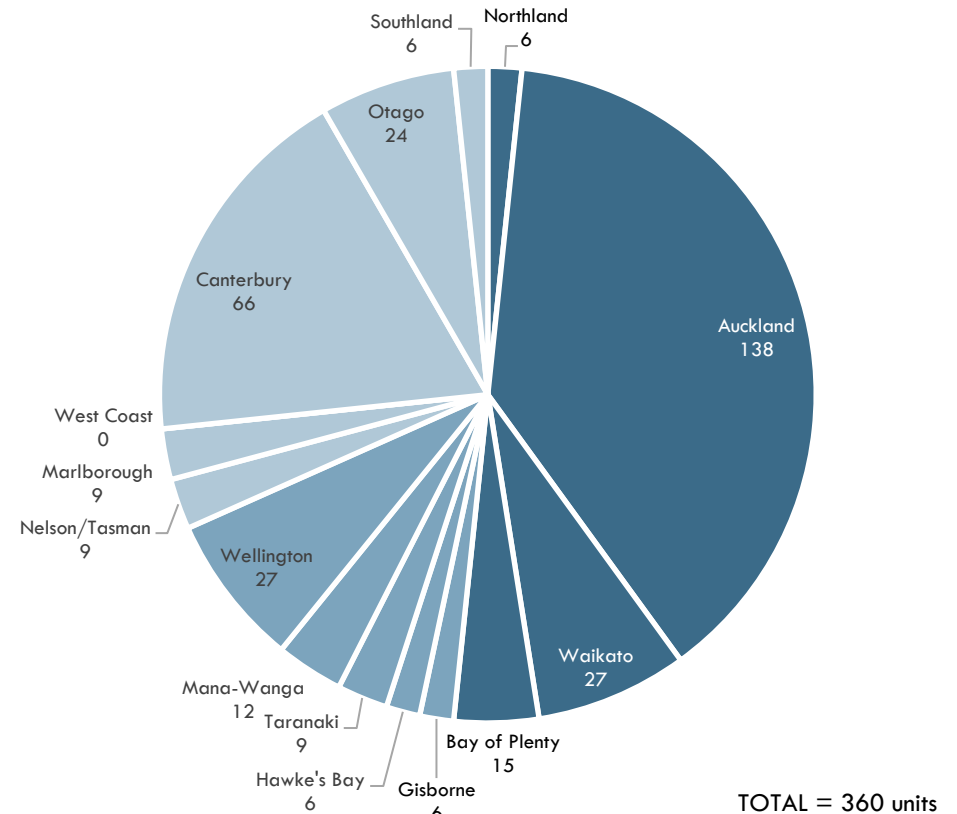


Turning to processing/wholesaling, units are located primarily in Auckland and Canterbury, with overall numbers flat to declining

GRAIN PROCESSING/WHOLESALE
Geographic units; 2000-2018



GRAIN PROC/WHLS BY REGION
Geographic units; 2018



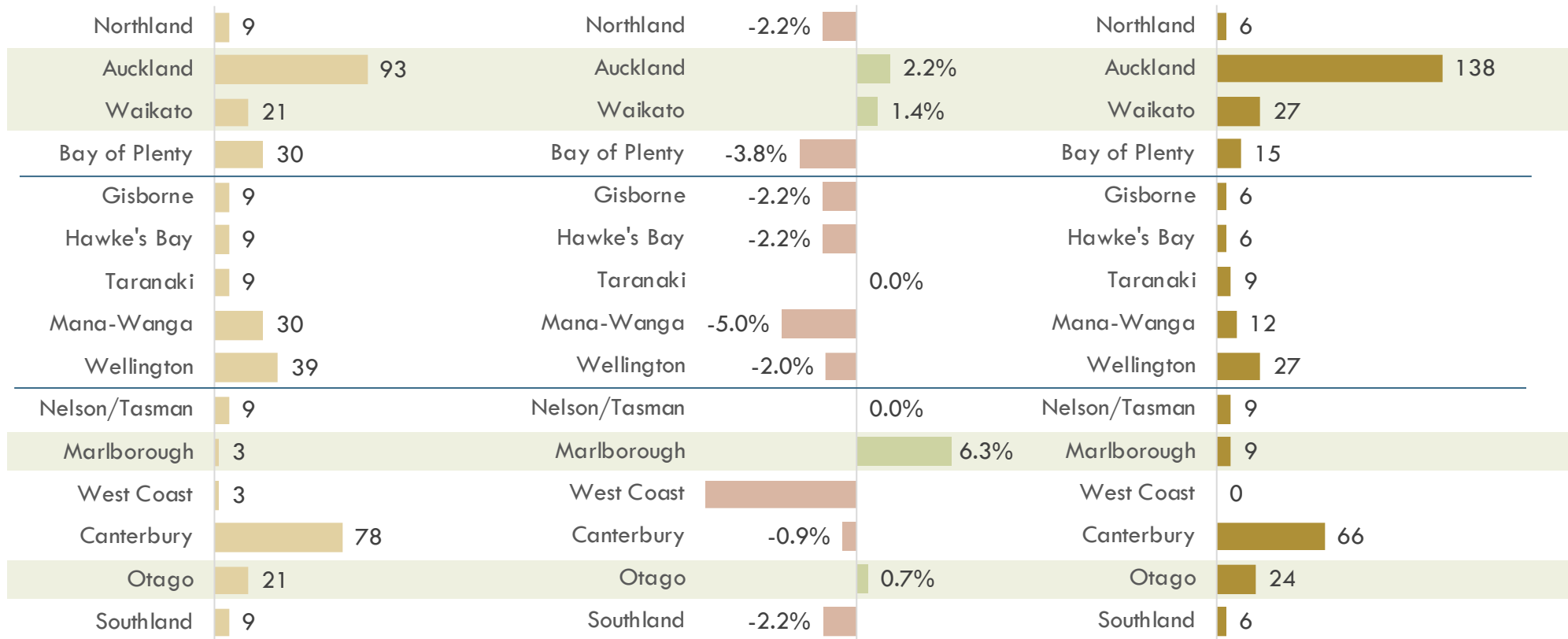
Source: Statistics NZ; Coriolis analysis

Grain processors and wholesalers numbers are growing in Auckland, Waikato, Marlborough and Otago; shrinking elsewhere

OPERATIONS IN 2000
Geographic units; 2000

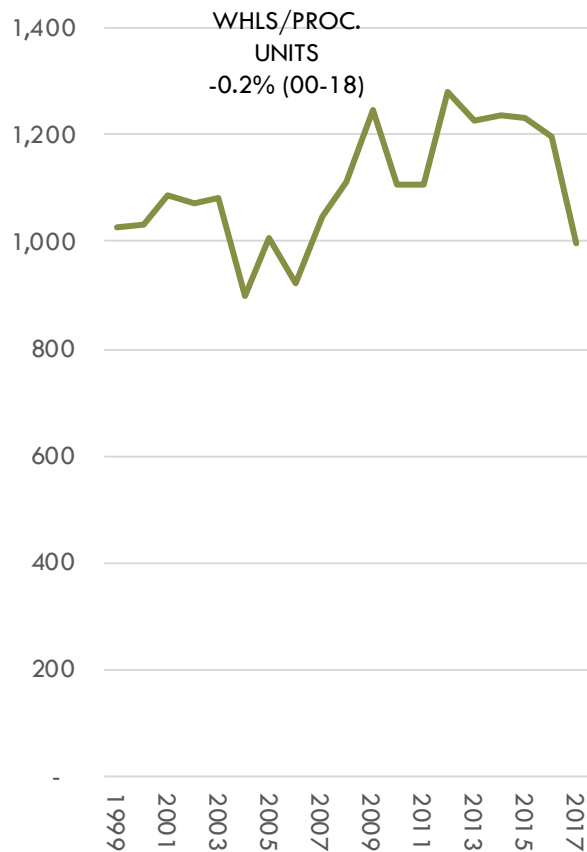
18Y UNIT CHANGE (CAGR)
%; 00vs18

OPERATIONS IN 2018
Geographic units; 2018



Overall, New Zealand is seeing limited change in the number of grain processing and wholesaling units

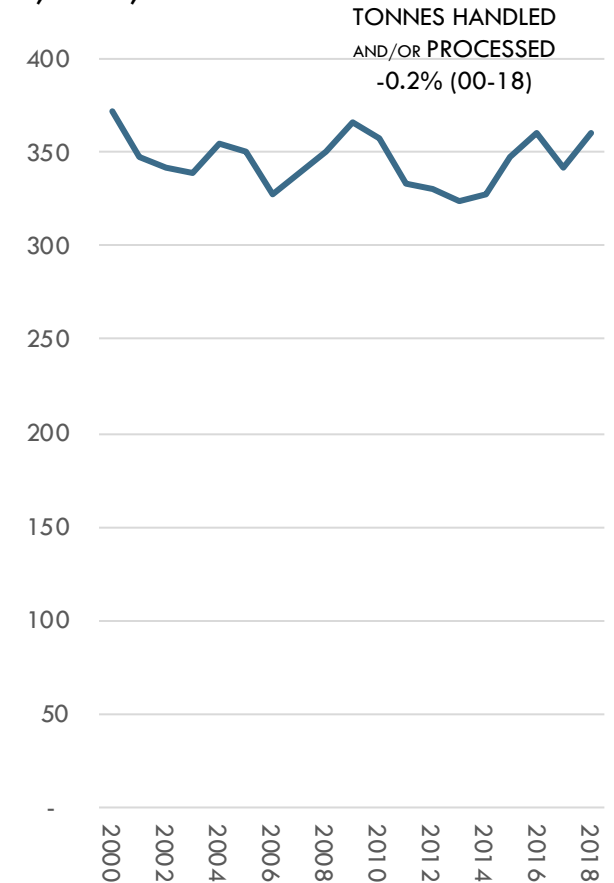
OF GRAIN PROC/WHLS Units; 2000-2018



TONNES/PROC/WHLS UNIT T/geographic unit; 2000-2018*



TONNES OF MARKET CROPS T; 000; 1999-2017

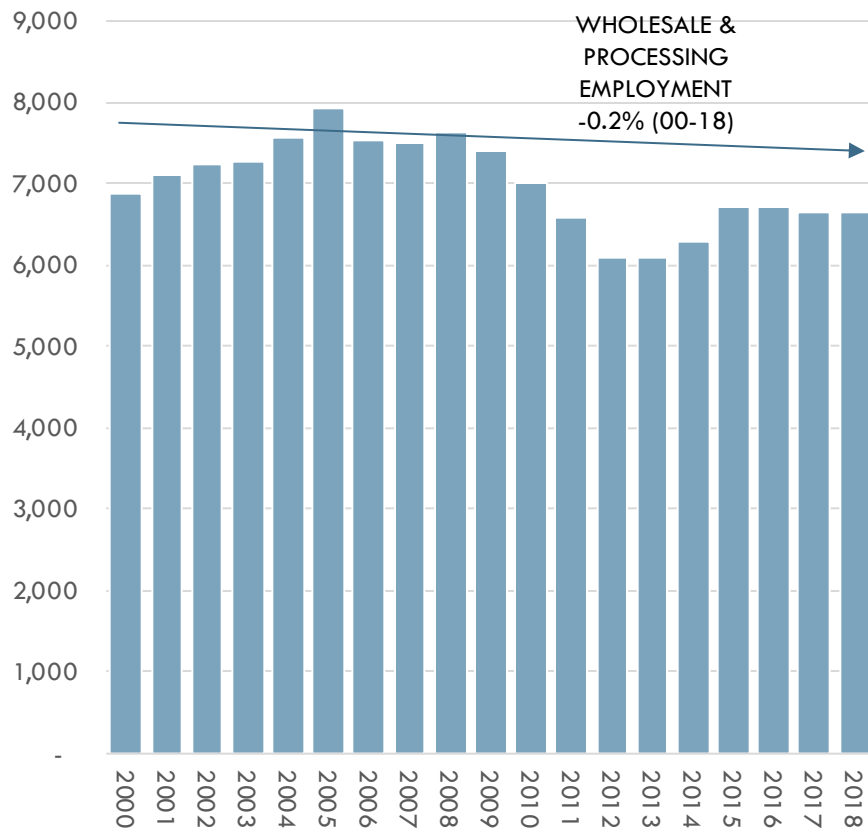


*Uses 2017 volume over 2018 units (for data related reasons); Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Grain processors/wholesalers jobs are predominantly in Auckland and Canterbury and employment is not growing

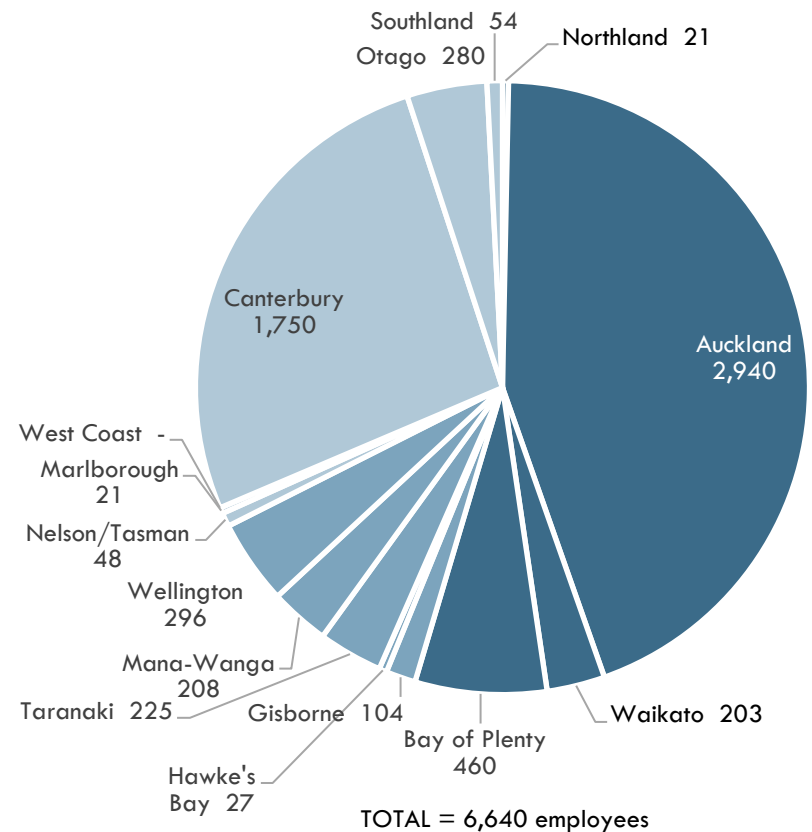
GRAIN PROC/WHLS EMPLOYMENT

Headcount; 2000-2018



GRAIN PROC/WHLS EMPLOYMENT

Headcount; 2018



Mild overall decline masks regional shifts, with Auckland, Canterbury and Otago growing jobs while all others are declining

EMPLOYMENT 2000
Headcount; 2000

18Y CHANGE (CAGR)
Headcount; 00vs18

EMPLOYMENT 2018
Headcount; 2018

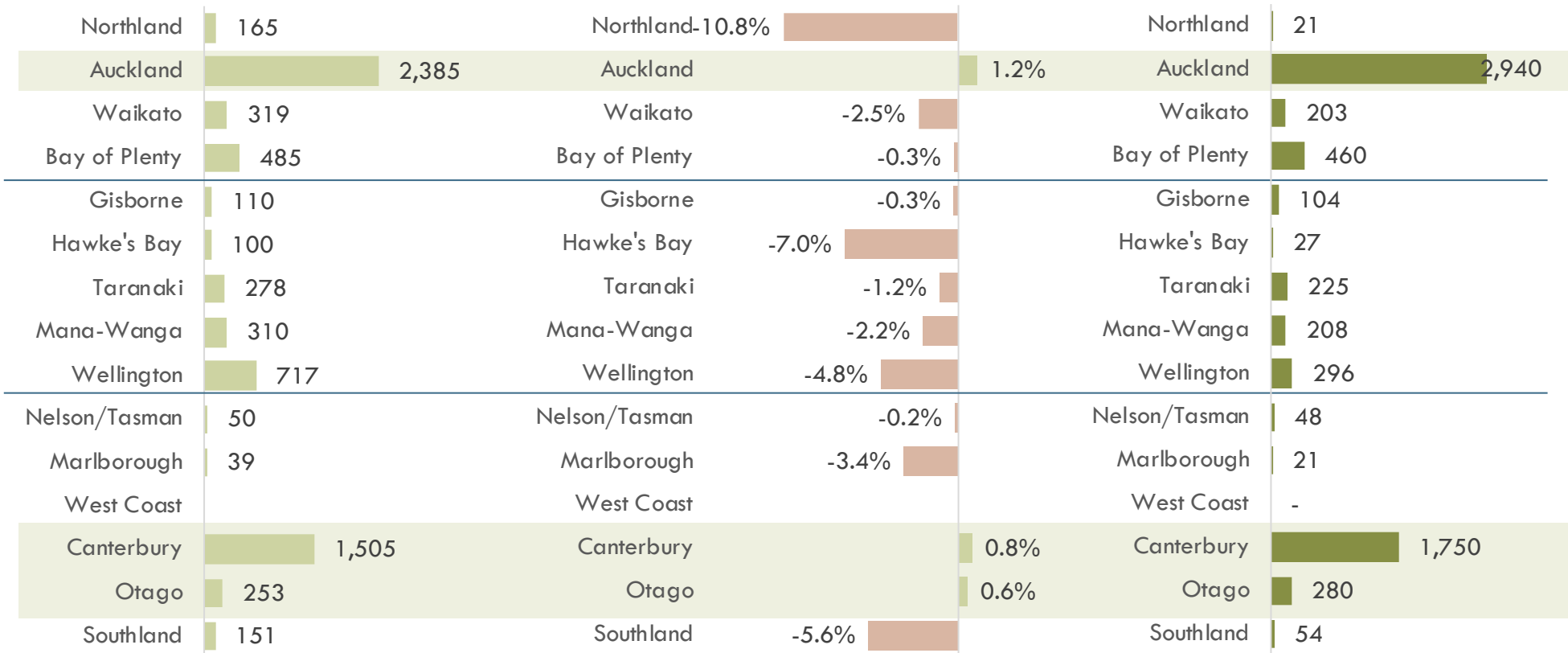


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SUMMARY FINDINGS: New Zealand has growing processed foods employment

- 'Processed foods' captures a wide range of products that are made from a combination of ingredients
- Overall, the number of processed foods manufacturing operations is growing and units are spread across the country
- All regions (other than Gisborne) are creating significant numbers of new geographic units
- The rapid growth of new processing operations is driving down average employment per unit, but growing total employment
 - Employment per unit change varies across regions, but the industry is still primarily small firms (12 employees average)
- Processed foods firms are creating jobs; however, jobs are currently concentrated in Auckland
- Employment growth varies by region; Northland, Hawke's Bay, Wellington and Nelson/Tasman achieving high growth rates

'Processed foods' captures a wide range of products that are made from a combination of ingredients

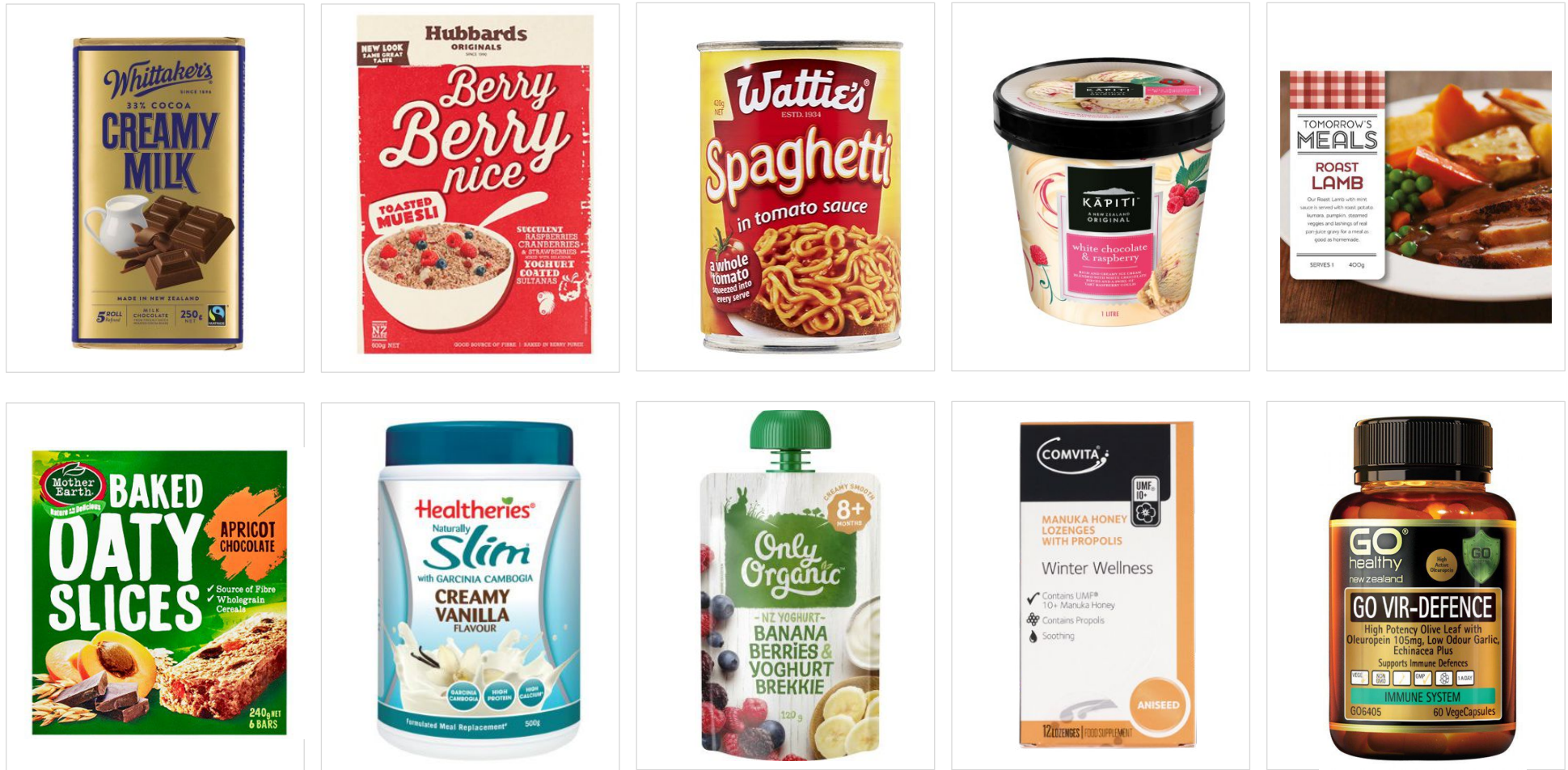
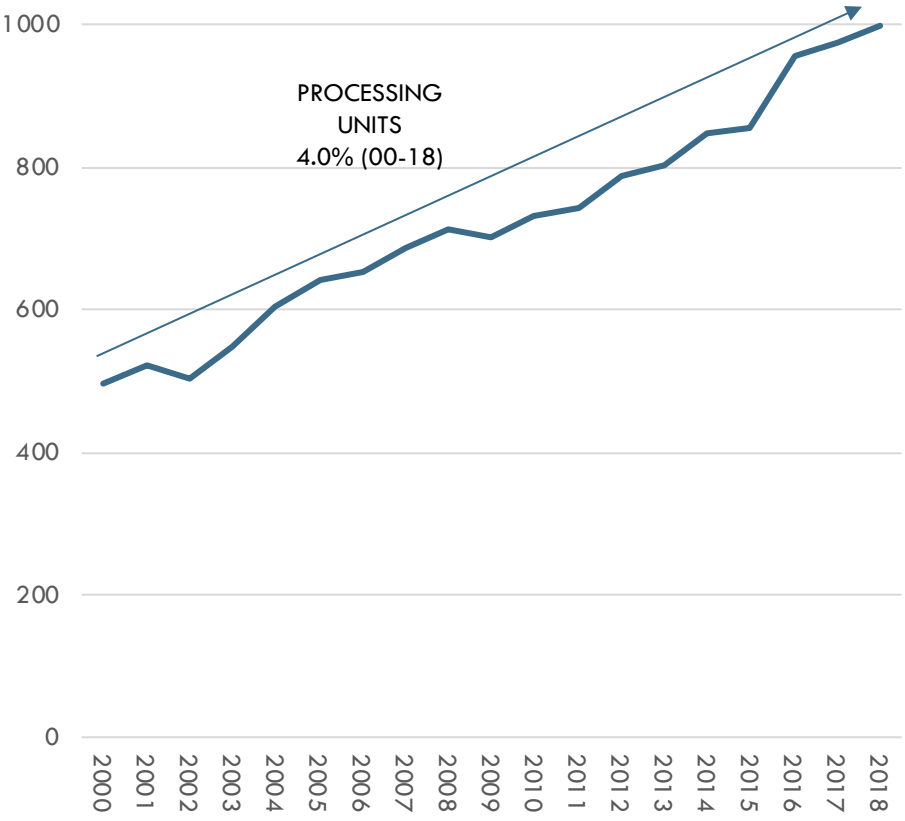


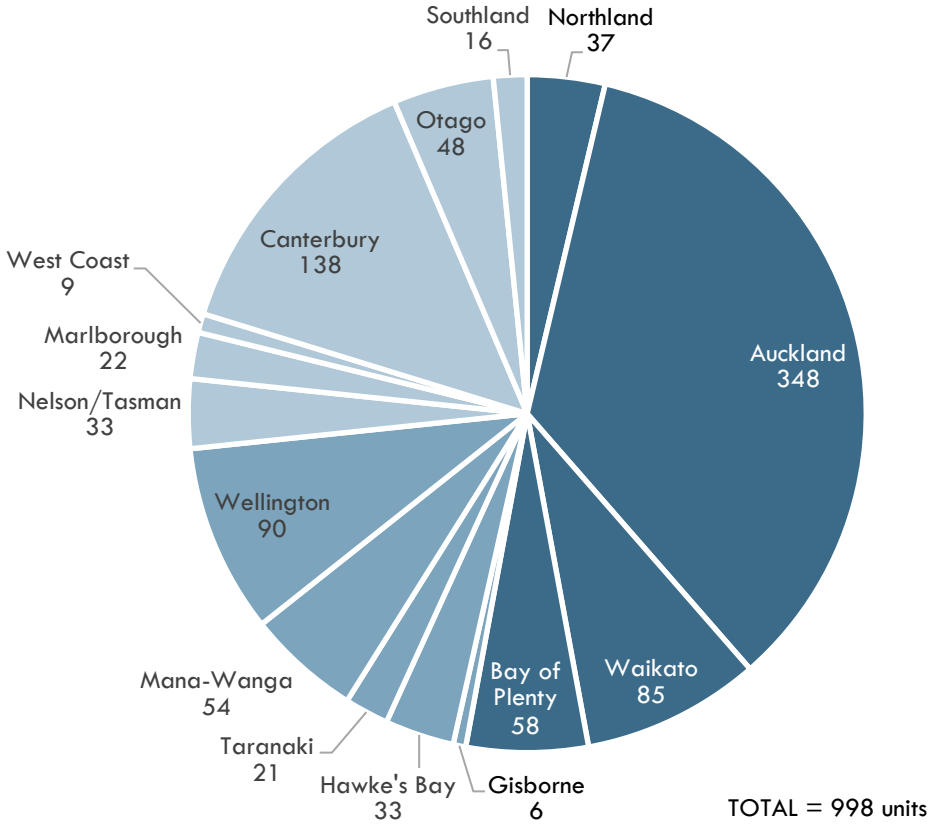
Photo credit: various firms or fair use; low resolution; complete product/brand for illustrative purposes; Source: Coriolis analysis

Overall, the number of processed foods manufacturing operations is growing and units are spread across the country

PROCESSED FOODS UNITS
Geographic units; 2000-2018



PROCESSED FOODS UNITS BY REGION
Geographic units; 2018



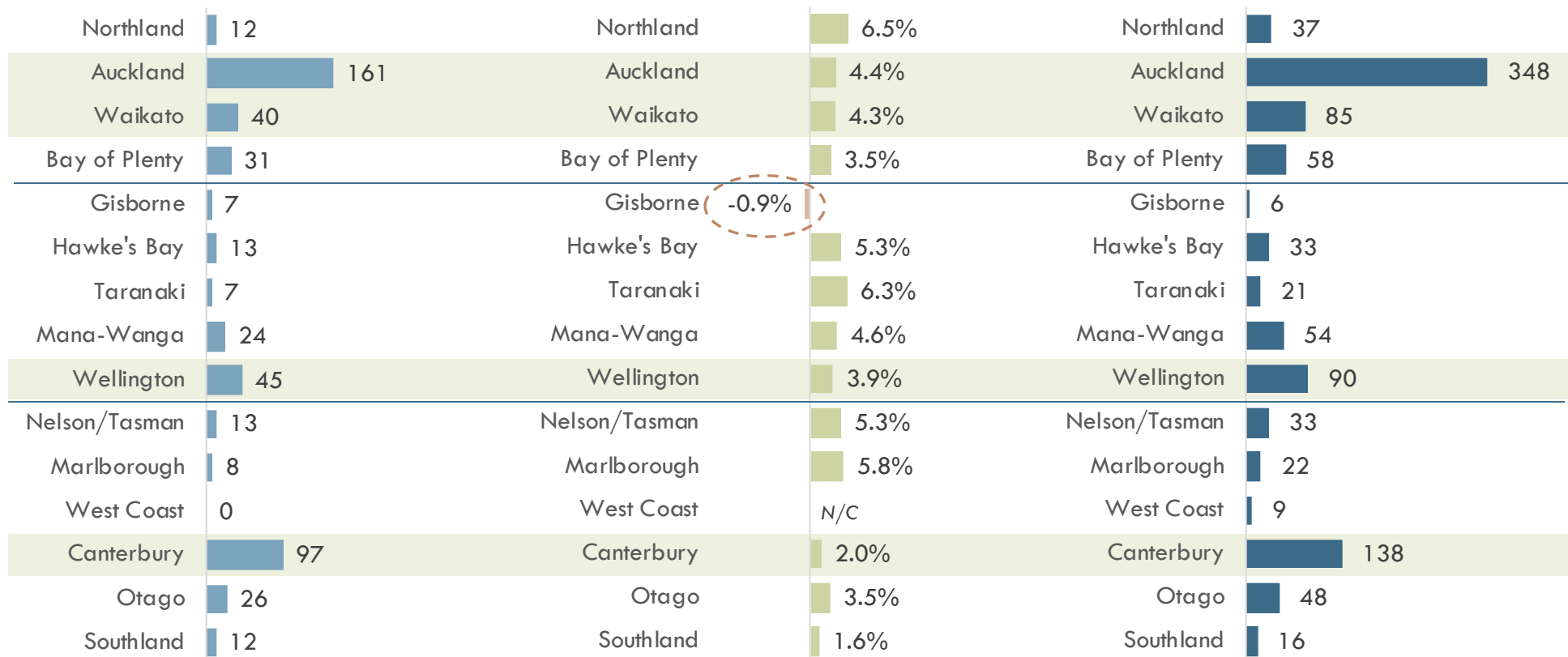
Note: Excludes wineries and dairy based beverages; Source: Statistics NZ; Coriolis analysis

All regions (other than Gisborne) are creating significant numbers of new geographic units

OPERATIONS IN 2000
Geographic units; 2000

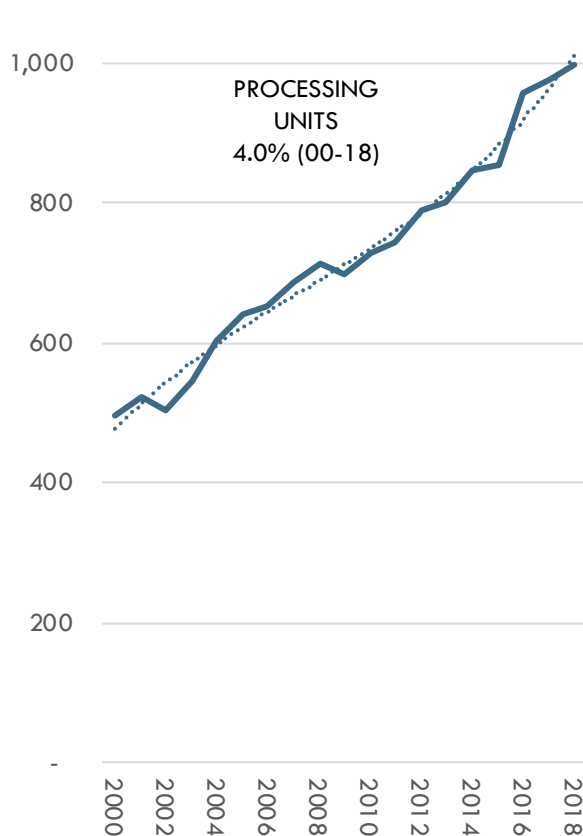
18Y UNIT GROWTH (CAGR)
%; 00vs18

OPERATIONS IN 2018
Geographic units; 2018

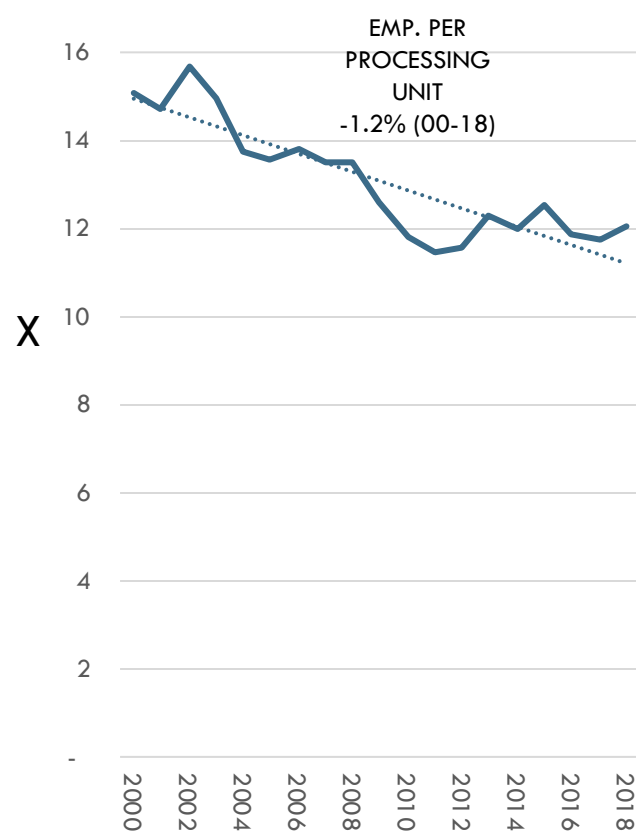


The rapid growth of new processing operations is driving down average employment per unit, but growing total employment

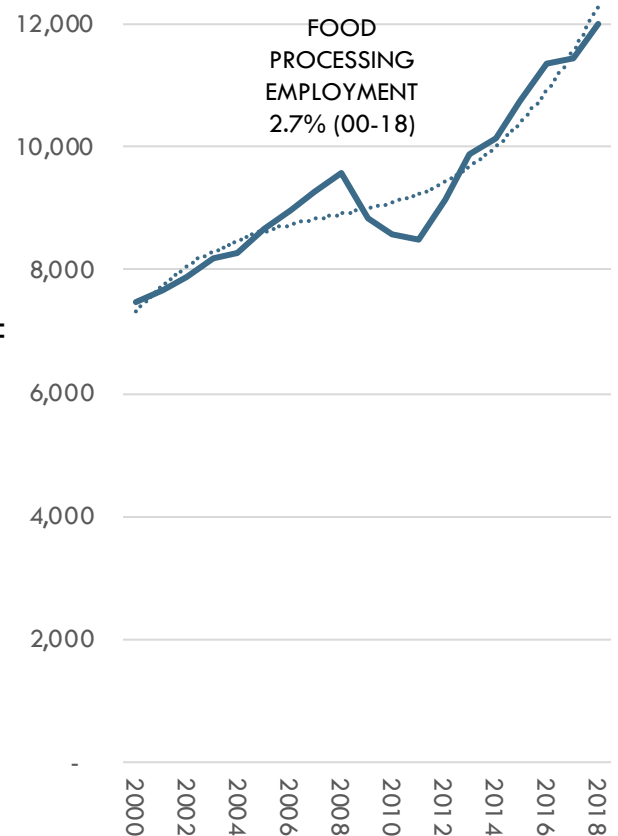
PROCESSED UNITS
Geographic units; 2000-2018



JOBS/UNIT
Headcount/unit; 2000-2018



TOTAL EMPLOYMENT
Headcount; 2000-2018



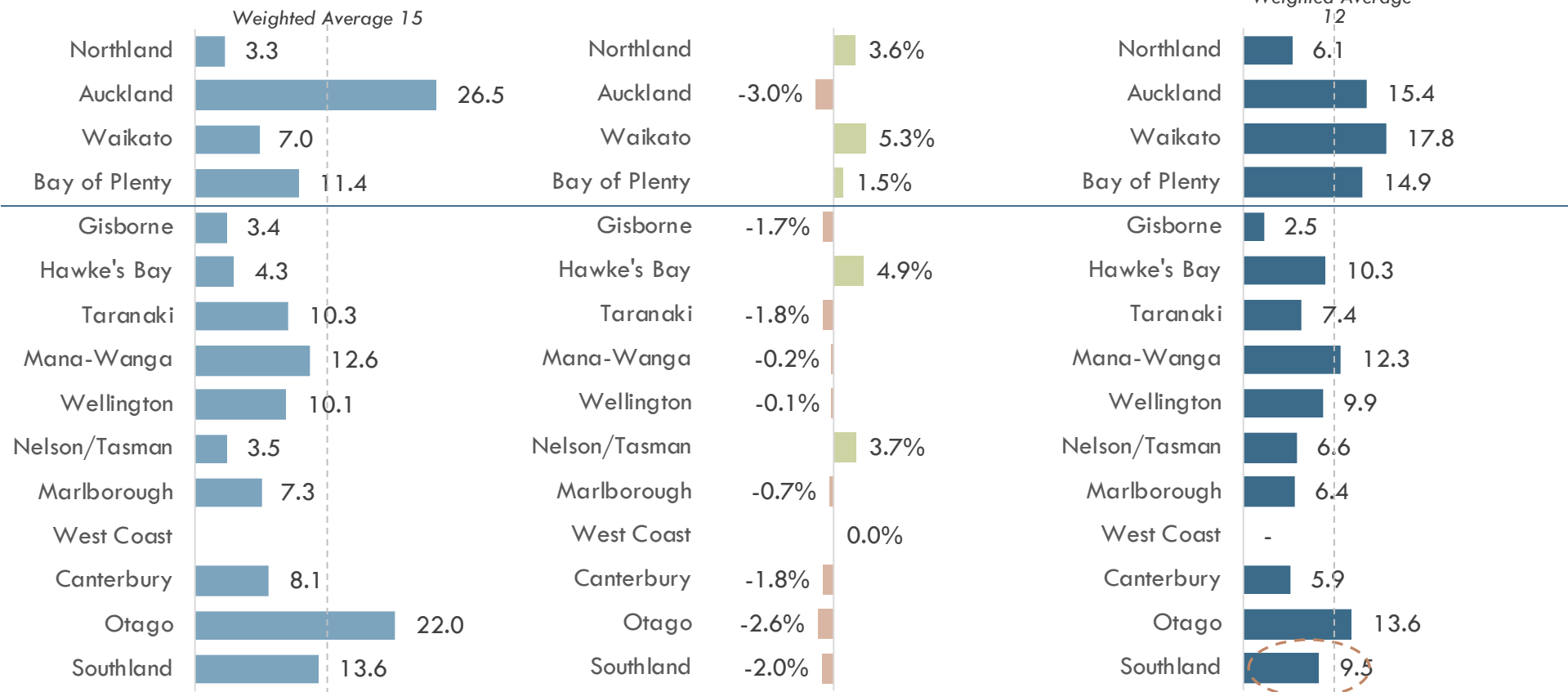
X =

Employment per unit change varies across regions, but the industry is still primarily small firms (12 employees average)

EMPLOYMENT/UNIT 2000
Headcount/units; 2000

18Y GROWTH (CAGR)
%; 00vs18

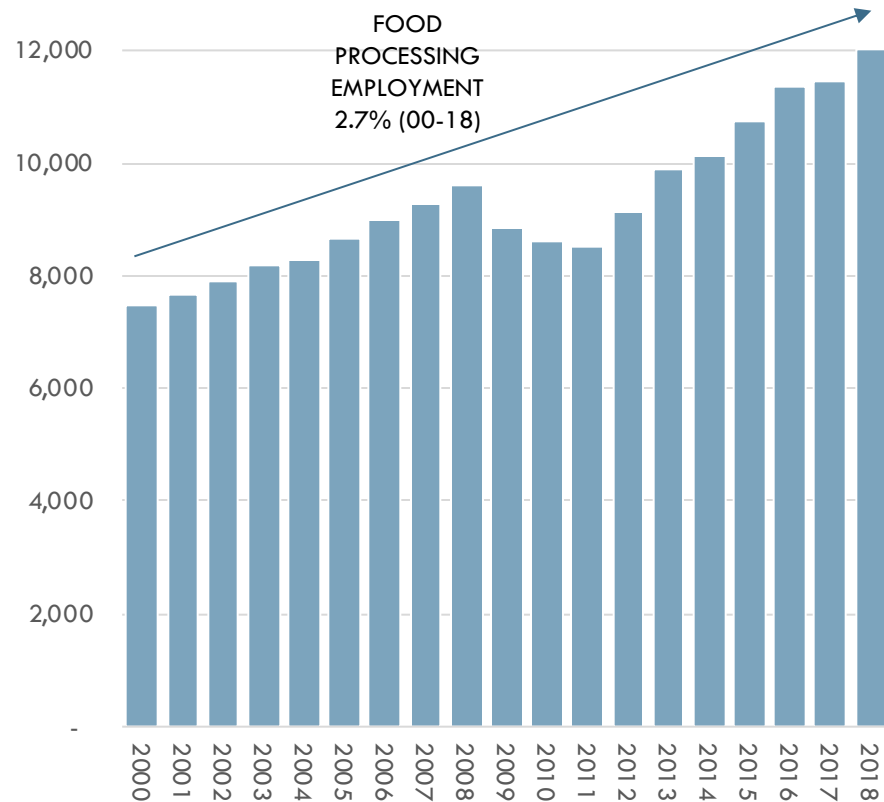
EMPLOYMENT/UNIT 2018
Headcount/units; 2018



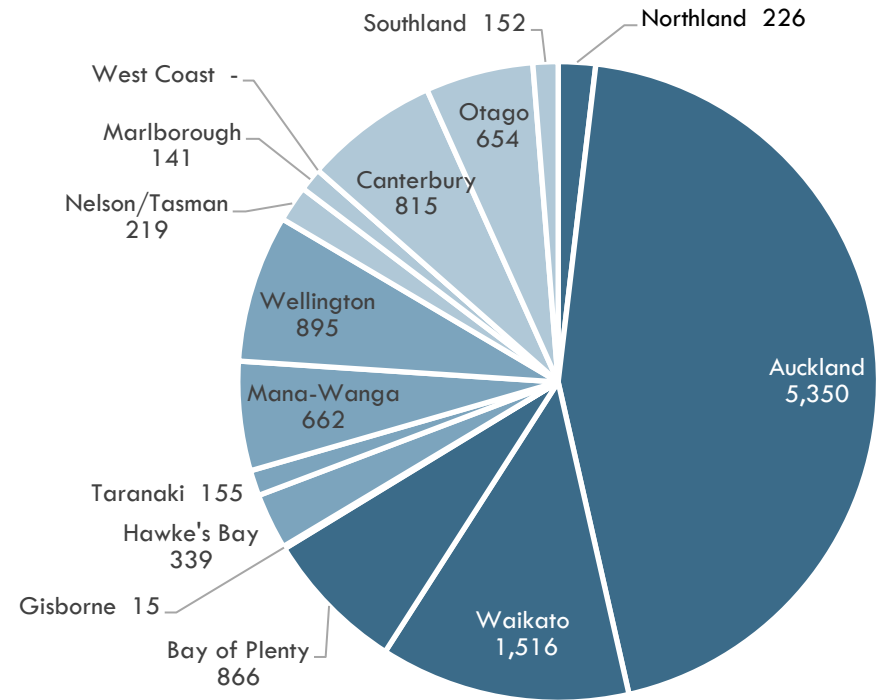
Note: the West Coast's nine processed foods operations appear to only have non-employee 'owner operators'; Source: Statistics NZ; Coriolis analysis

Processed foods firms are creating jobs; however, jobs are currently concentrated in Auckland

PROCESSING EMPLOYMENT
Headcount; 2000-2018



PROCESSING EMPLOYMENT
Headcount; 2018



TOTAL = 12,005 processed foods employees

Employment growth varies by region; Northland, Hawke's Bay, Wellington and Nelson/Tasman achieving high growth rates

EMPLOYMENT 2000
Headcount; 2000

18Y GROWTH (CAGR)
%; 00vs18

EMPLOYMENT 2018
Headcount; 2018

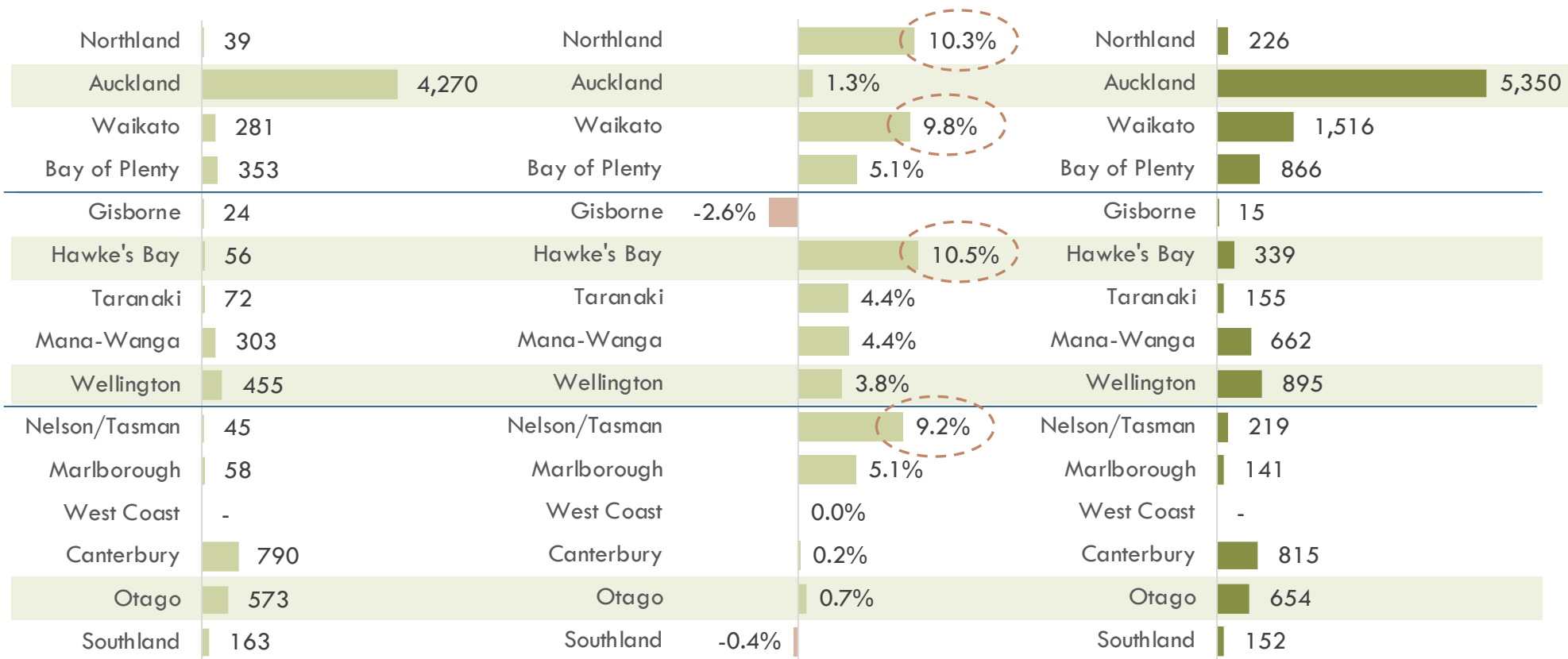


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<hr/> <i>7. Fruit & Vegetables</i> <hr/>	<hr/> <i>8. Arable Crops & Grain Based Foods</i> <hr/>	<hr/> <i>9. Processed Foods & Other</i> <hr/>	<hr/> <i>10. Wine</i> <hr/>	<hr/> <i>5. Other Beverages</i> <hr/>	<hr/> <i>Appendices Regions Snapshot</i> <hr/>

SUMMARY FINDINGS: New Zealand has growing wine employment overall

GRAPE PRODUCTION

- Average grape growing “geographic unit” size is growing, as is total hectares in grapes
- Regions differ in the number of new growing units they are creating
- Average yield has been growing across leading regions; mixed results elsewhere
- Total wine grape production is growing, driven primarily by Marlborough
- Growing production has counteracted falling employment per tonne, leading to relatively stable recent employment (~5,000)

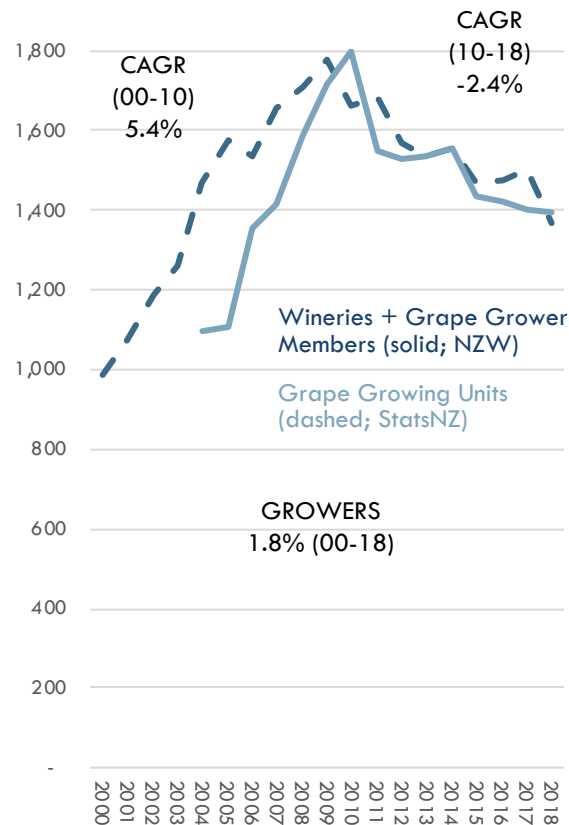
WINE PROCESSING

- Turning to production, winery numbers are growing and wineries are spread across the country
- Regions vary in the number of new wineries they have created in the recent period
- Tonnes processed per winery is growing, though growth in scale is leading to fewer employees per tonne
- Performance varies by region, with Marlborough in particular moving to higher volume wineries
- Due to production growth, New Zealand wineries are creating jobs and jobs are spread across key wine regions
- Marlborough, Auckland, Hawke’s Bay, Otago and Canterbury are creating significant new wine processing employment

Average grape growing “geographic unit” size is growing, as is total hectares in grapes

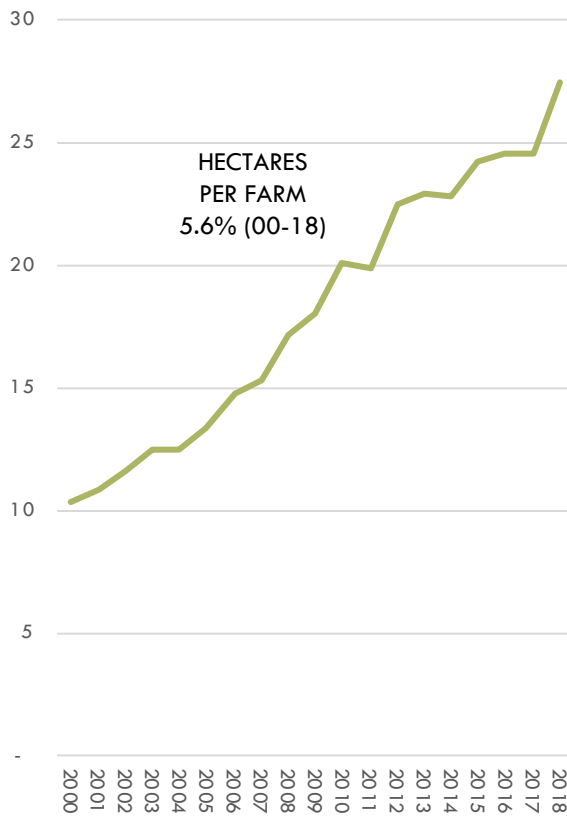
OF GROWING UNITS

Geographic units; 2000-2018



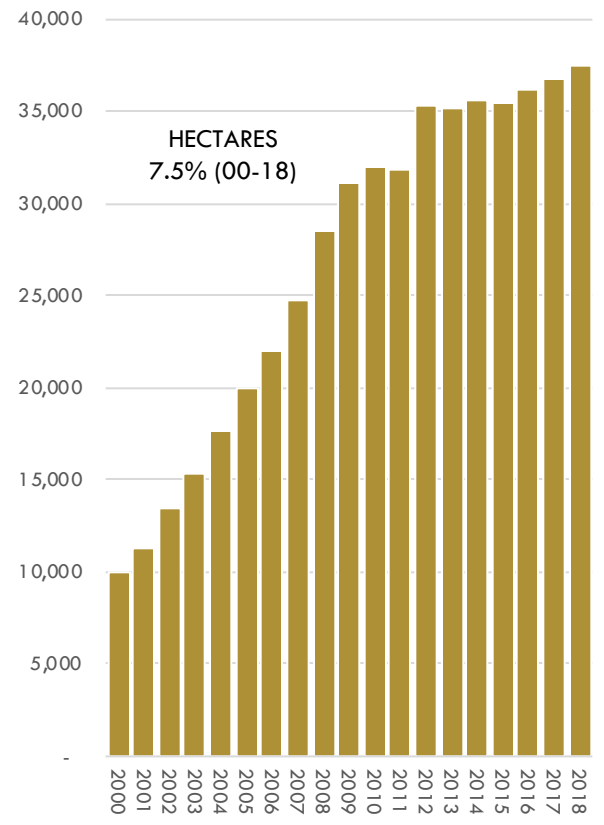
HECTARES/UNIT

Ha/unit; 2000-2018



HECTARES OF GRAPES

Ha; 2000-2018

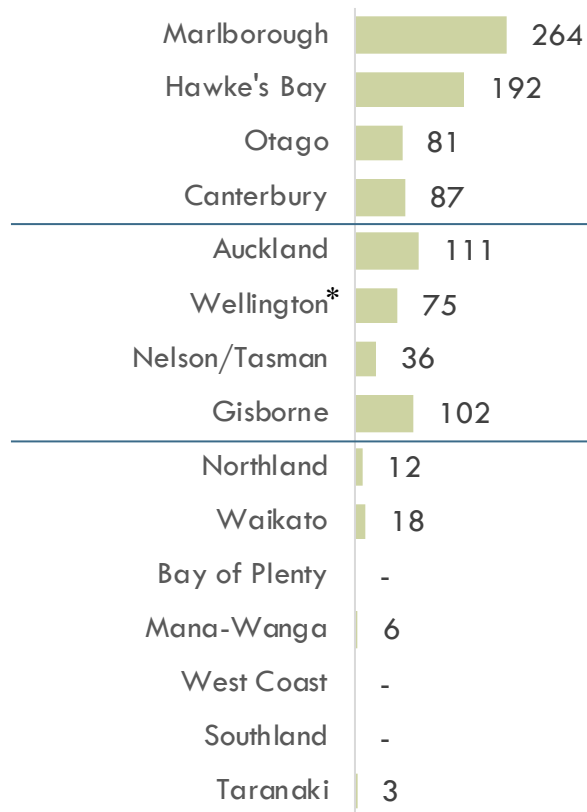


Note: NZW uses number of grape growers + wineries (on assumption that all wineries have some grapes somewhere); Source: Statistics NZ; UN FAO; MAF/MPI; New Zealand Winegrowers; Coriolis analysis

Regions differ in the number of new growing units they are creating

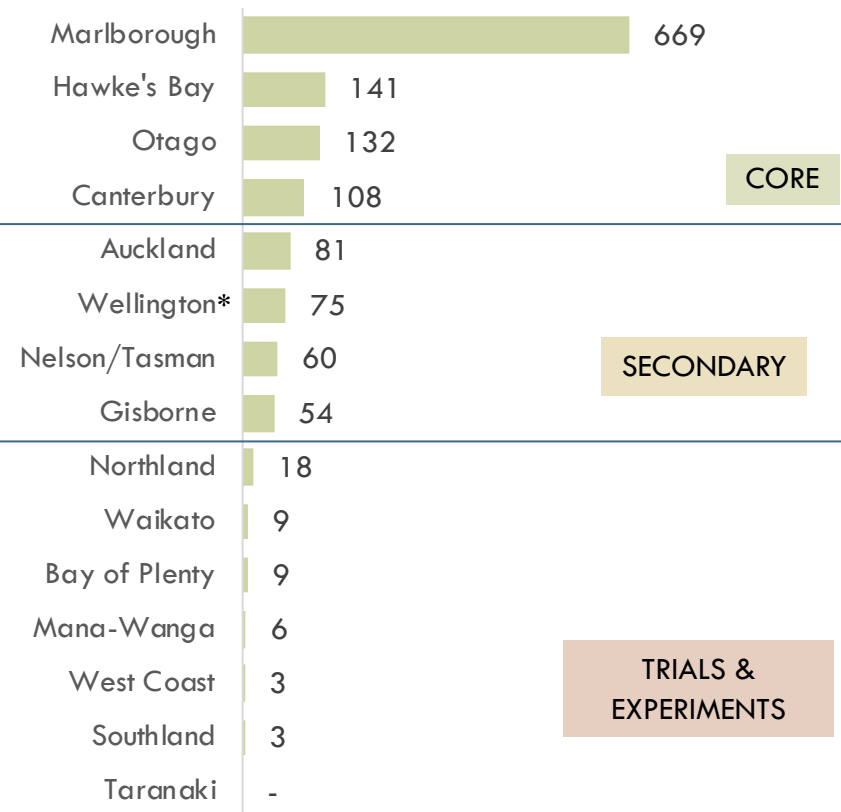
GRAPE GROWING UNITS

Units; 2000



GRAPE GROWING UNITS

Units; 2018

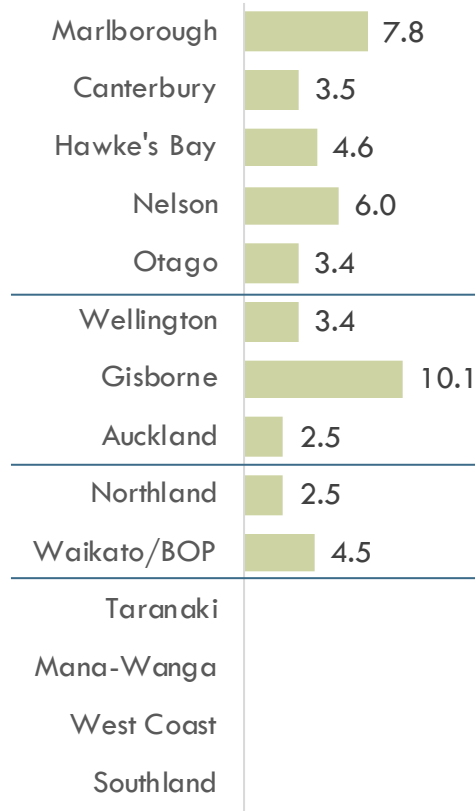


*Primarily Wairarapa; Note: Southland appears to be operators with vineyards actually in Otago (?); we are not aware of any vineyards in Southland (Yet?); Source: Statistics NZ; New Zealand Winegrowers; Coriolis analysis

Average yield has been growing across leading regions; mixed results elsewhere

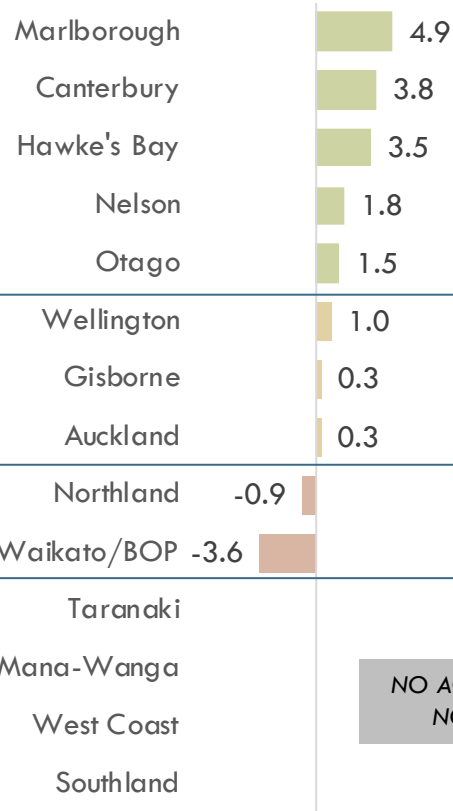
GRAPE YIELD

T/ha; average 2001-2003



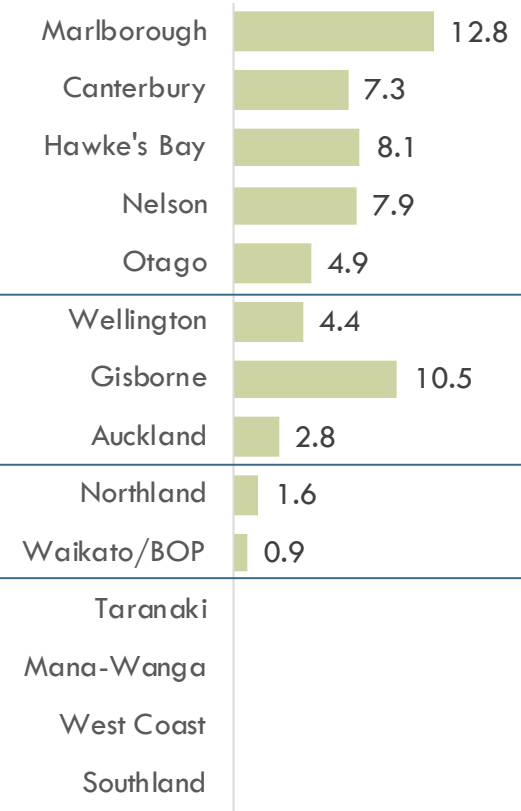
15Y YIELD CHANGE

T/ha; 01-03 vs 16-18



GRAPE YIELD

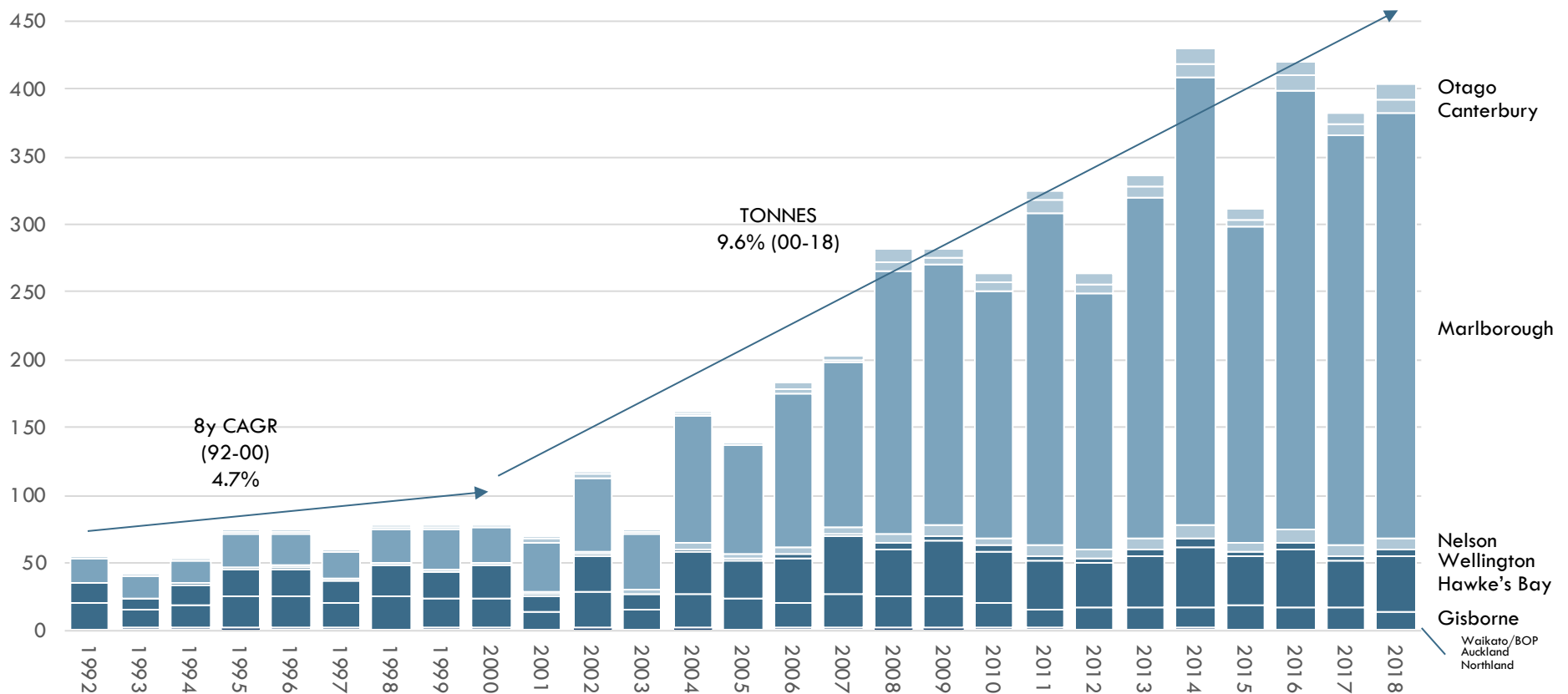
T/ha; average 2016-2018



NO ACTIVITY OR
NO DATA

Total wine grape production is growing, driven primarily by Marlborough

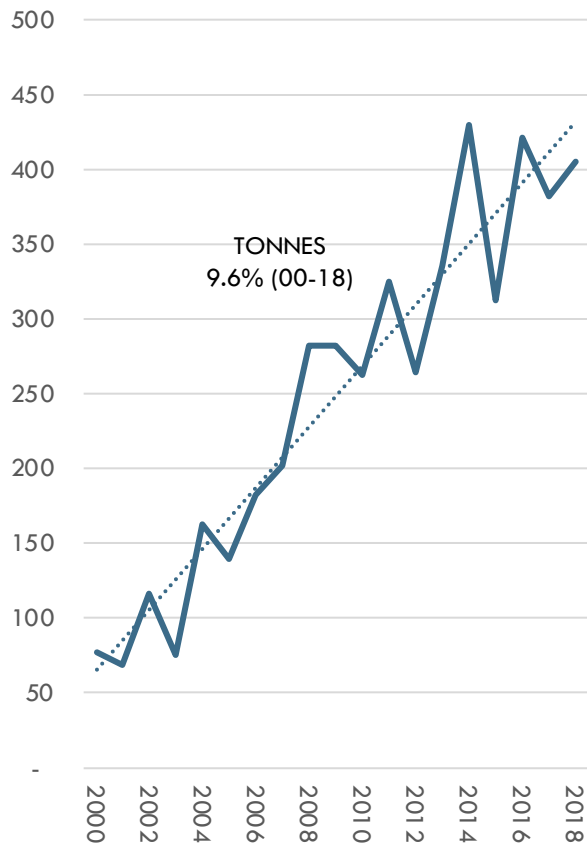
TOTAL NEW ZEALAND WINE GRAPE PRODUCTION
T; 000; 1992-2018



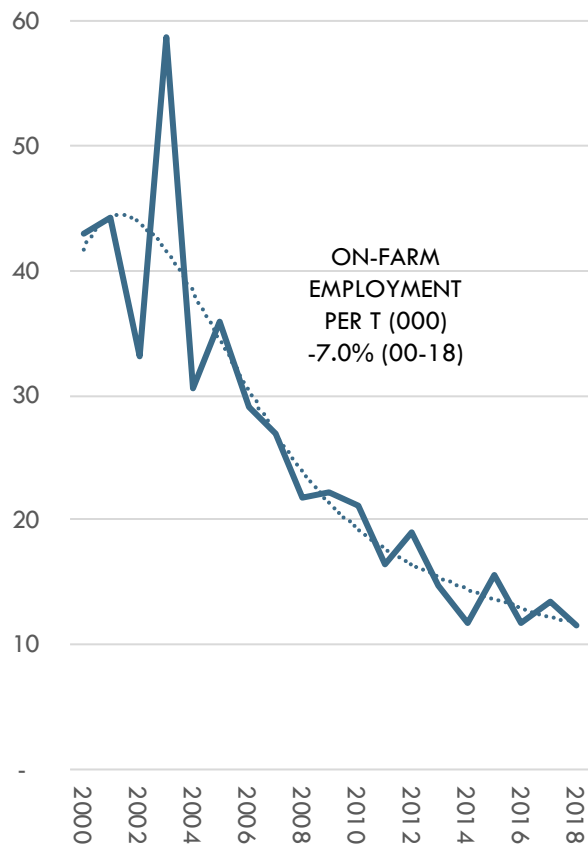
Source: Statistics NZ; UN FAO; MAF/MPI; New Zealand Winegrowers; Coriolis analysis

Growing production has counteracted falling employment per tonne, leading to relatively stable recent employment (~5,000)

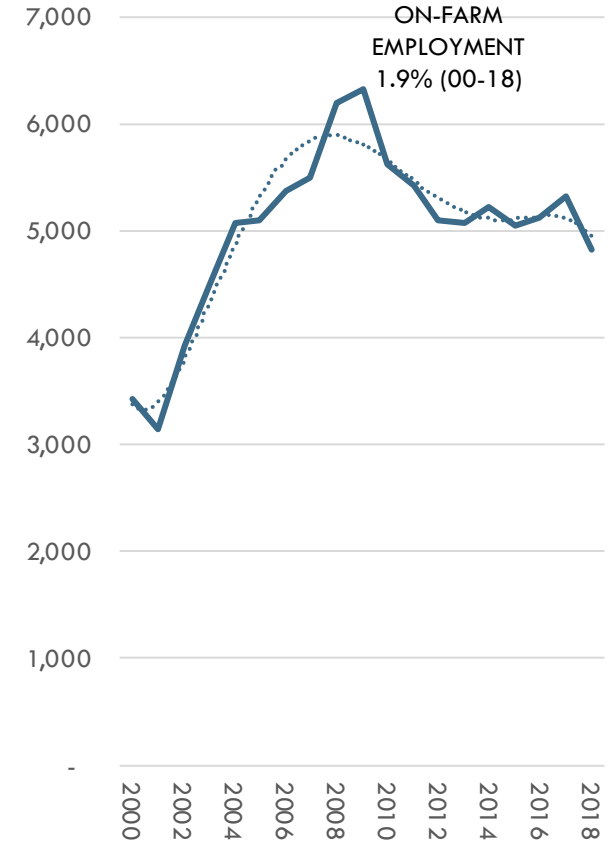
TONNES
T; 000; 2000-2018



EMPLOYMENT/1,000T
Headcount/1,000t; 2000-2018



ON-FARM EMPLOYMENT
Headcount; 2000-2018

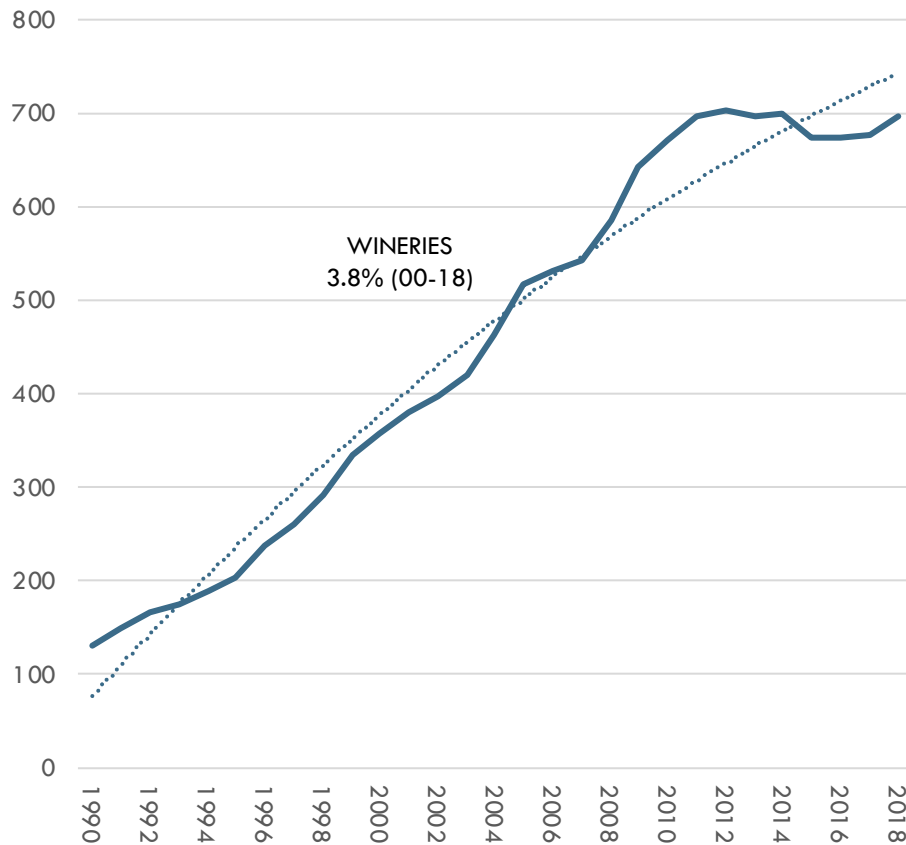


Source: Statistics NZ; UN FAO; MAF/MPI; New Zealand Winegrowers; Coriolis analysis

Turning to production, winery numbers are growing and wineries are spread across the country

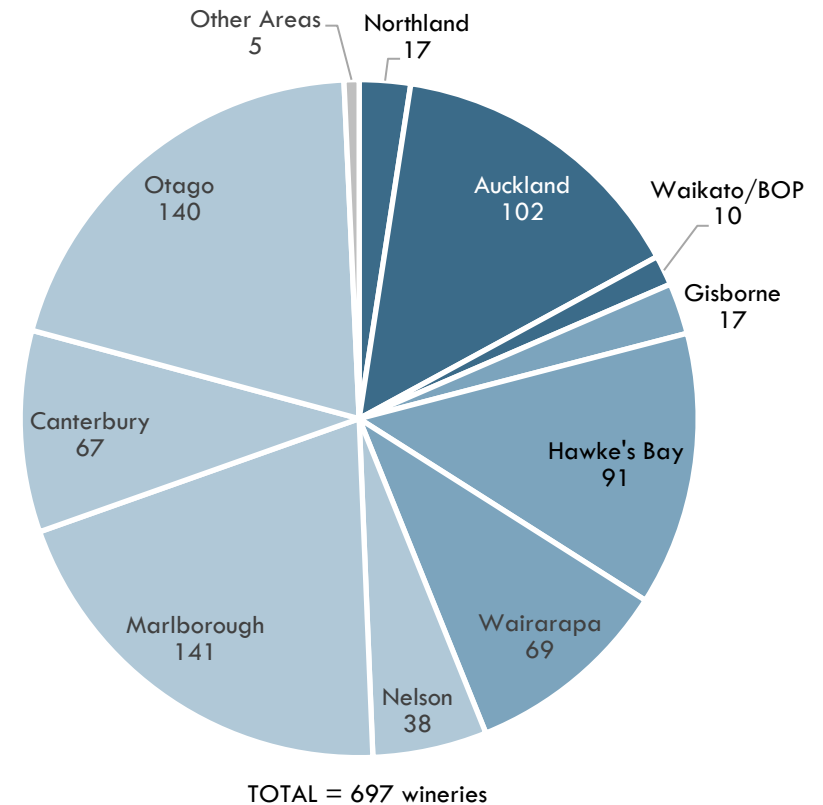
WINERIES IN NEW ZEALAND

NZW members; 1990-2018



WINERIES IN NEW ZEALAND BY REGION

NZW members; 2018



Regions vary in the number of new wineries they have created in the recent period

WINERIES IN 2011

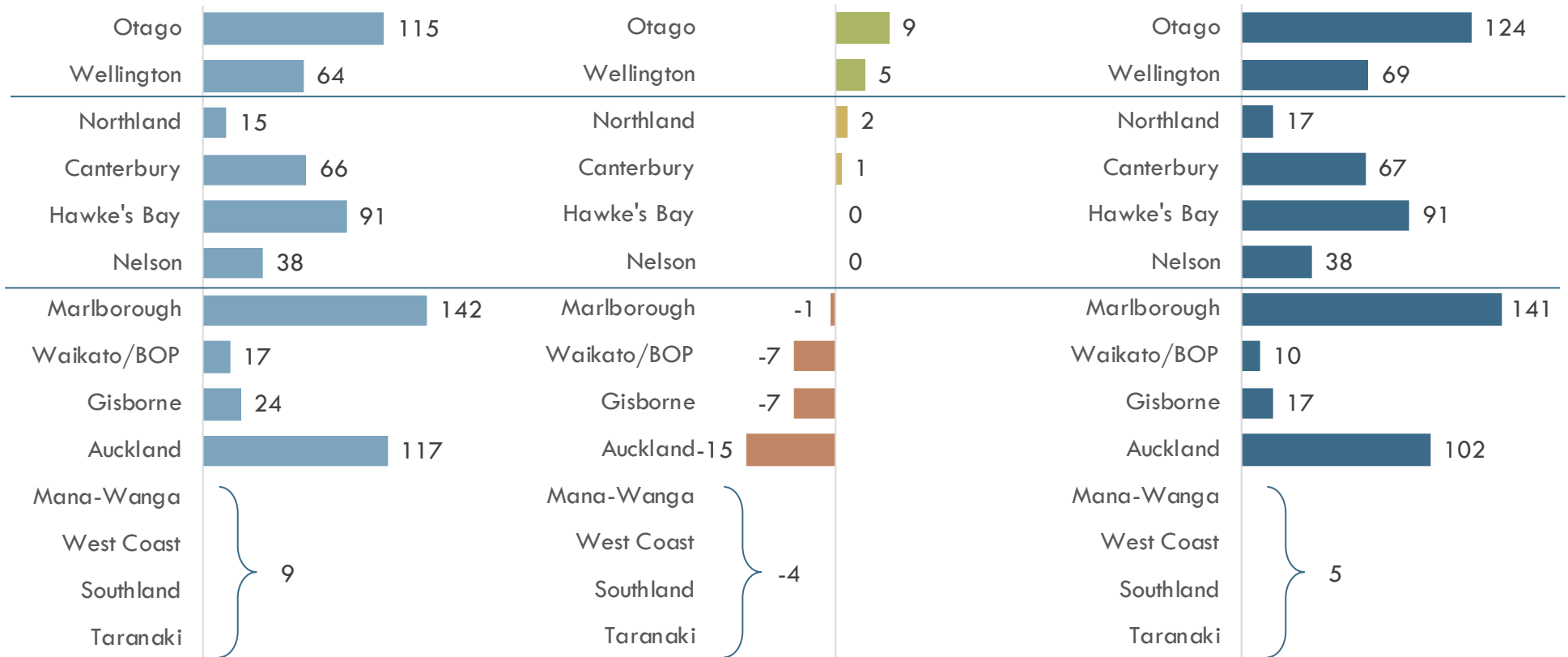
NZW members; 2011

NET NEW UNITS ADDED

NZW members; 11vs18

UNIT COUNT IN 2018

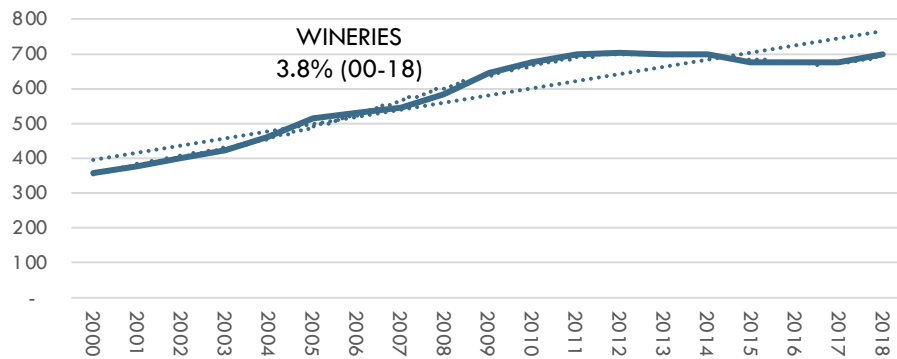
NZW members; 2018



Tonnes processed per winery is growing, though growth in scale is leading to fewer employees per tonne

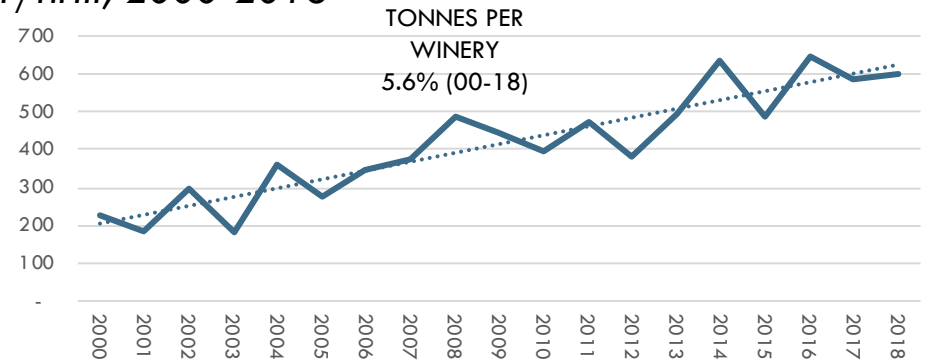
WINERIES

NZW members; 2000-2018



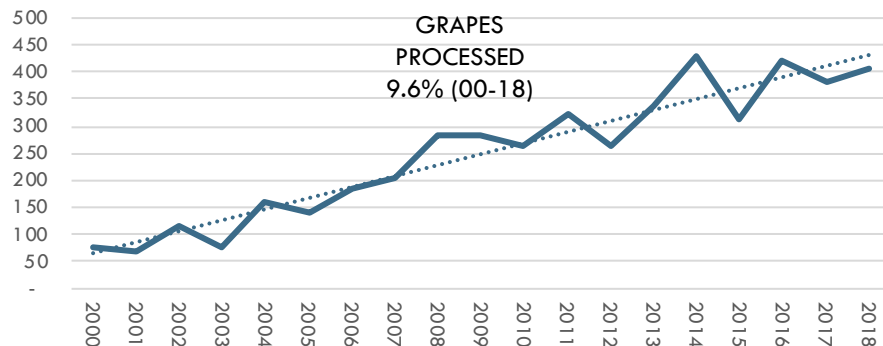
TONNES/WINERY

T/firm; 2000-2018



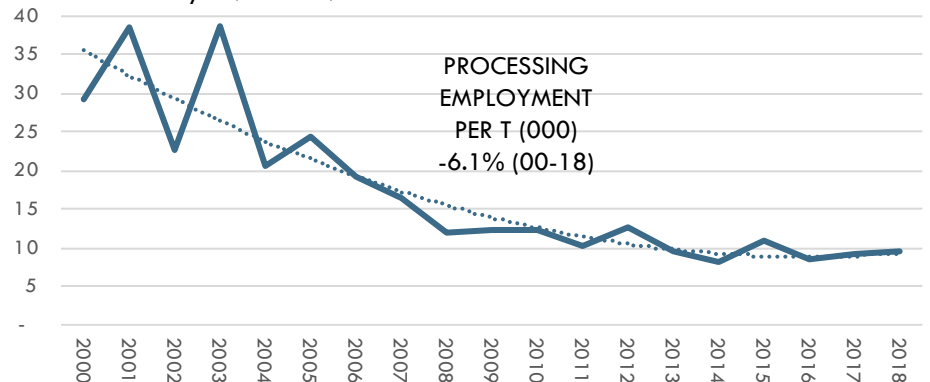
TONNES OF GRAPES

T; 2000-2018



EMP. PER 1,000 TONNES

Headcount/1,000t; 2000-2018

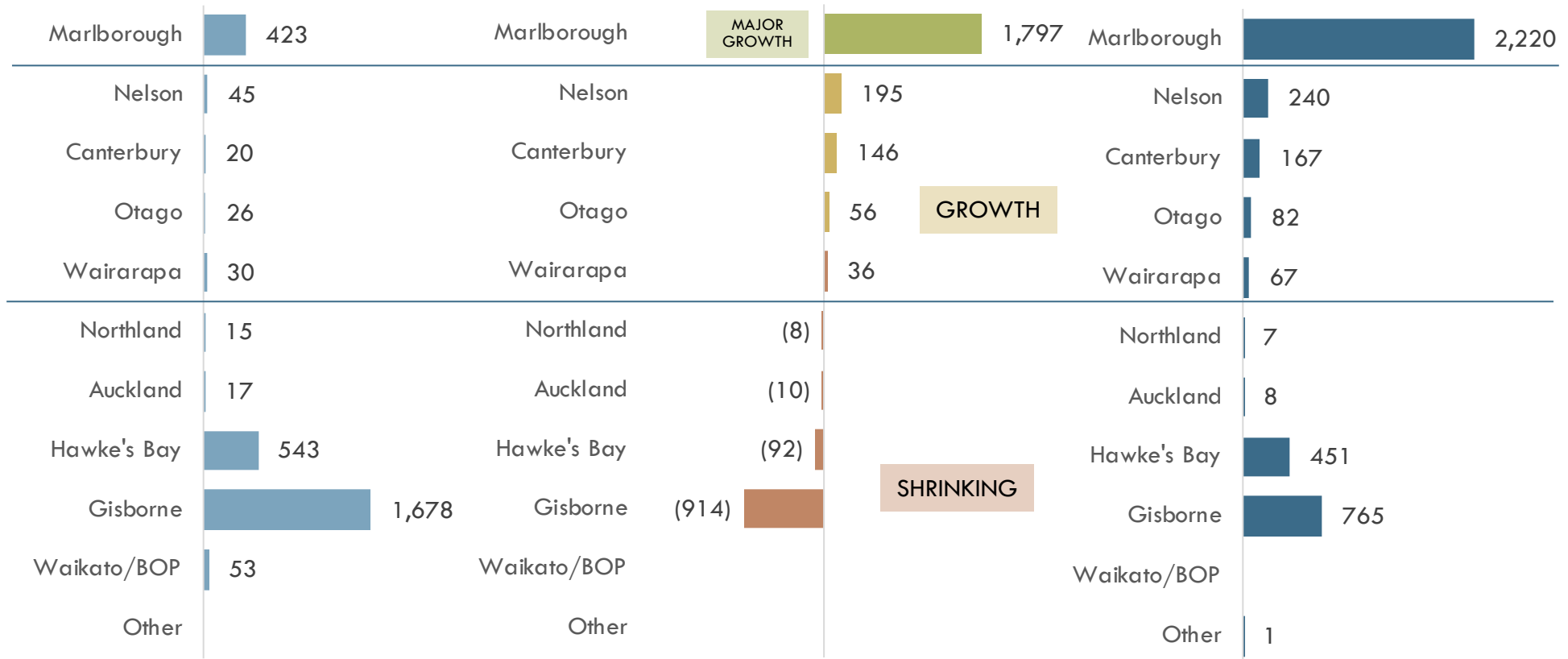


Performance varies by region, with Marlborough in particular moving to higher volume wineries

TONNES/WINERY
T/firm; 2000

18Y CHANGE
T/firm; 00vs18

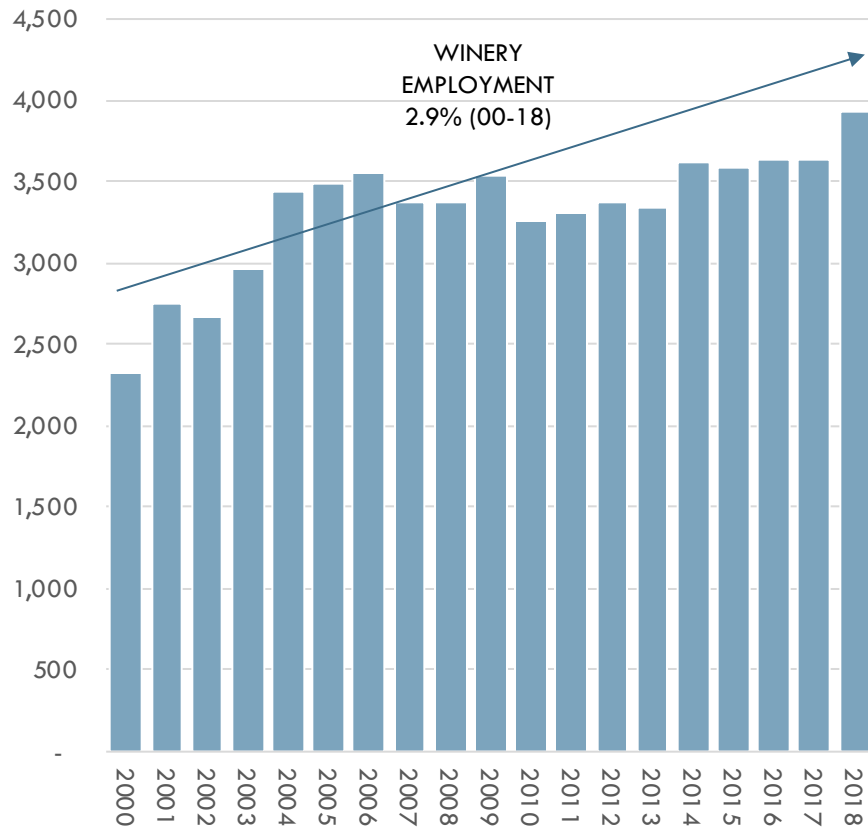
TONNES/WINERY
T/firm; 2018



Due to production growth, New Zealand wineries are creating jobs and jobs are spread across key wine regions

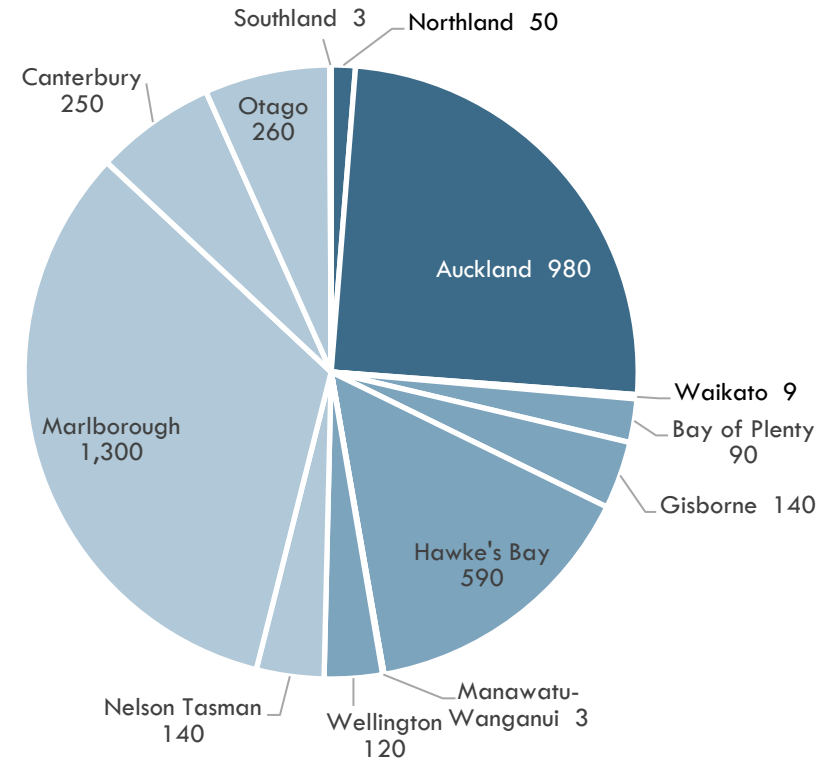
WINE PROCESSING EMPLOYMENT

Headcount; 2000-2018



WINE PROCESSING EMPLOYMENT

Headcount; 2018

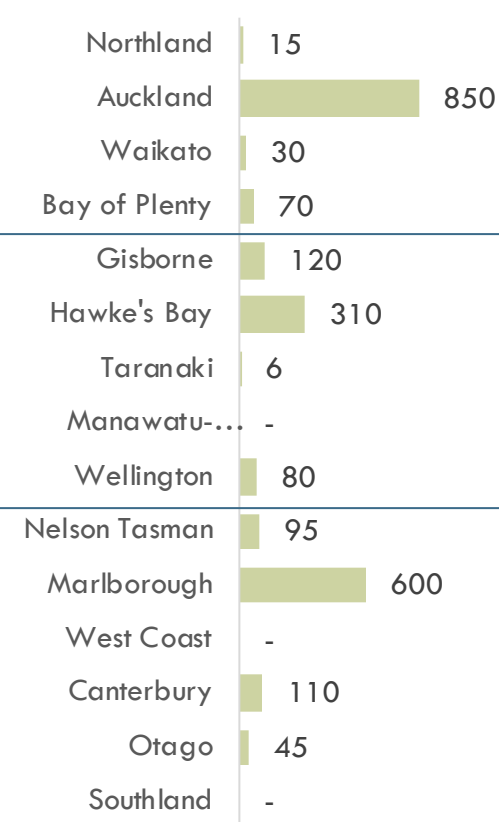


TOTAL = 3,935 wine processing employees

Marlborough, Auckland, Hawke's Bay, Otago and Canterbury are creating significant new wine processing employment

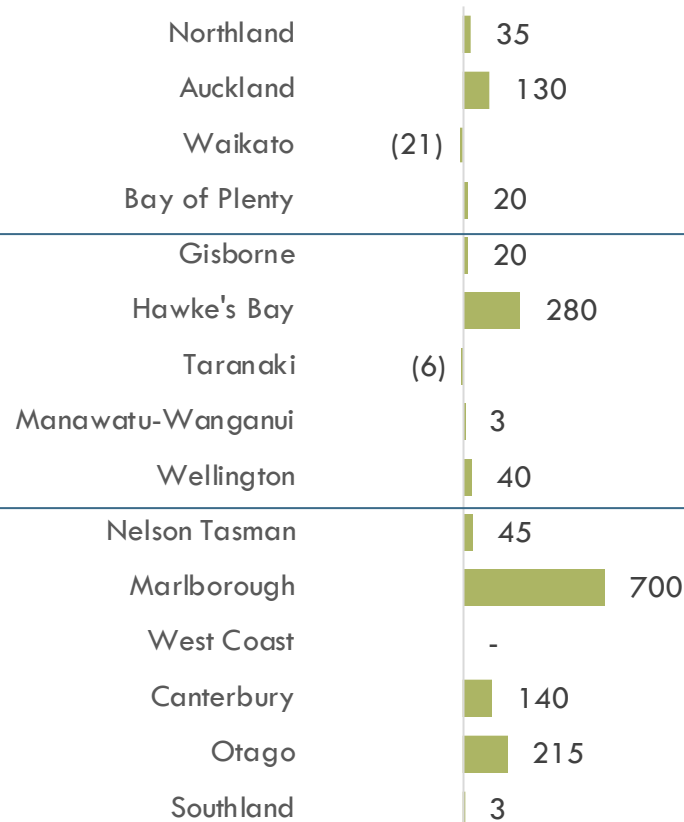
EMPLOYMENT 2000

Headcount; 2000



18Y CHANGE

Headcount; 00vs18



EMPLOYMENT 2018

Headcount; 2018

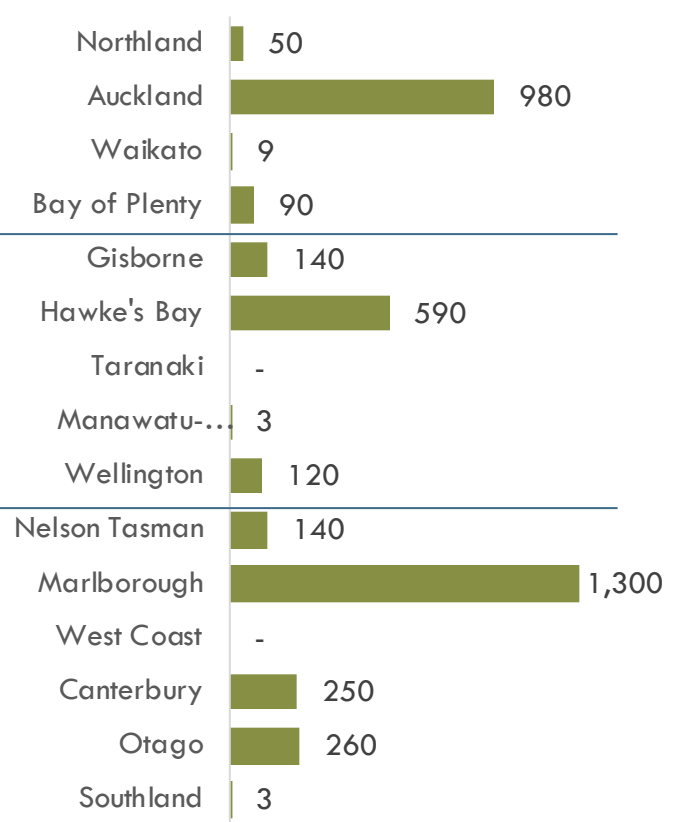


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SUMMARY FINDINGS: New Zealand has growing beverage processing employment

- New Zealand produces a range of non-wine beverages
- Overall, the number of non-wine beverage manufacturing operations is growing and units are spread across the country
 - All regions (other than BOP) are creating new operational units
- The rapid growth of new processing operations is driving down average employment per unit but growing total employment
 - Employment per unit is falling in many areas, particularly in Auckland, but growing in others
- Beverage processing is creating jobs; however, most jobs are concentrated in Auckland
 - Beverage employment growth varies by region; Auckland, Waikato, Hawke's Bay, Wellington and Otago doing well

New Zealand produces a range of non-wine beverages



BEER

Water (~90-95%)
Barley/other grains
Hops
Flavours



SPIRITS

Water (60-70%)
Alcohol (whey, grains or other)
Flavours



SOFT DRINKS

Water (90%+)
Juices
Sugar/sweeteners
Caffeine (from coffee)
Flavours



JUICE

Fruit
(Water 85-90%)



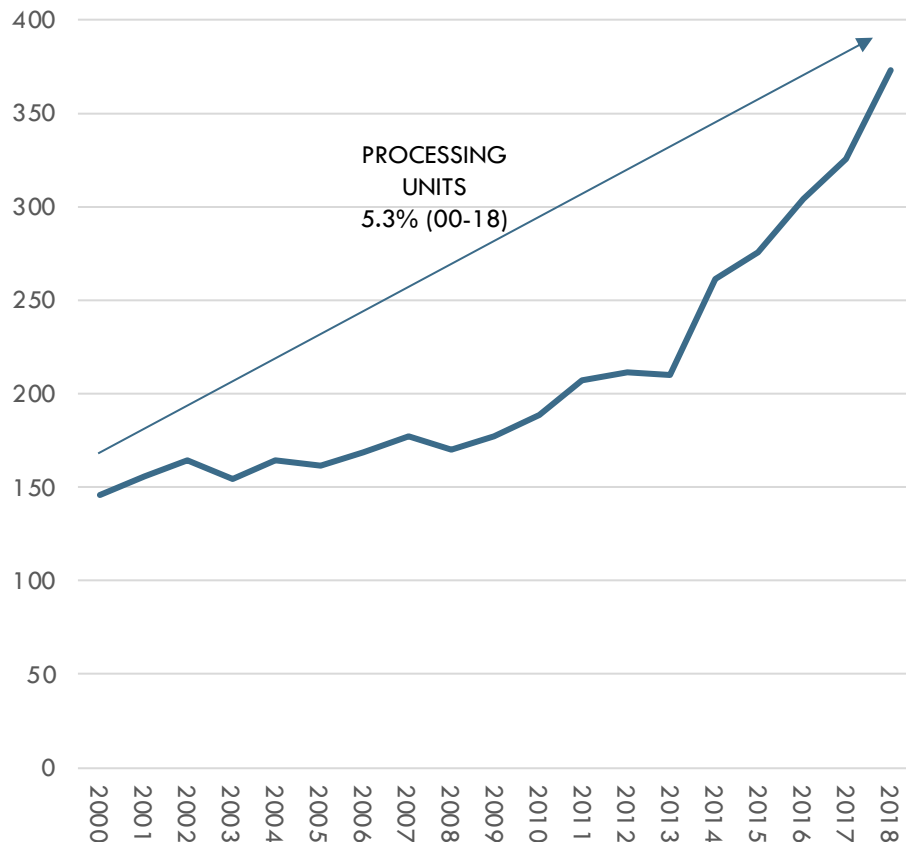
WATER

Water

Overall, the number of non-wine beverage manufacturing operations is growing and units are spread across the country

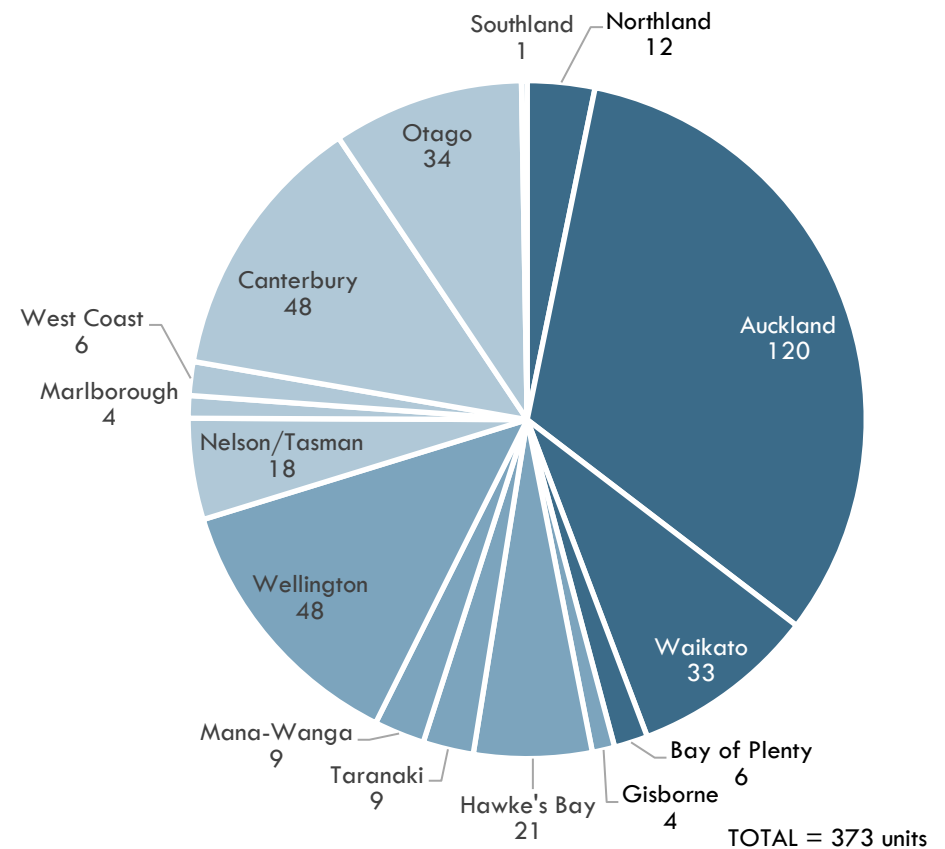
BEVERAGE PROCESSING UNITS IN NZ

Geographic units; 2000-2018



BEVERAGE UNITS BY REGION

Geographic units; 2018



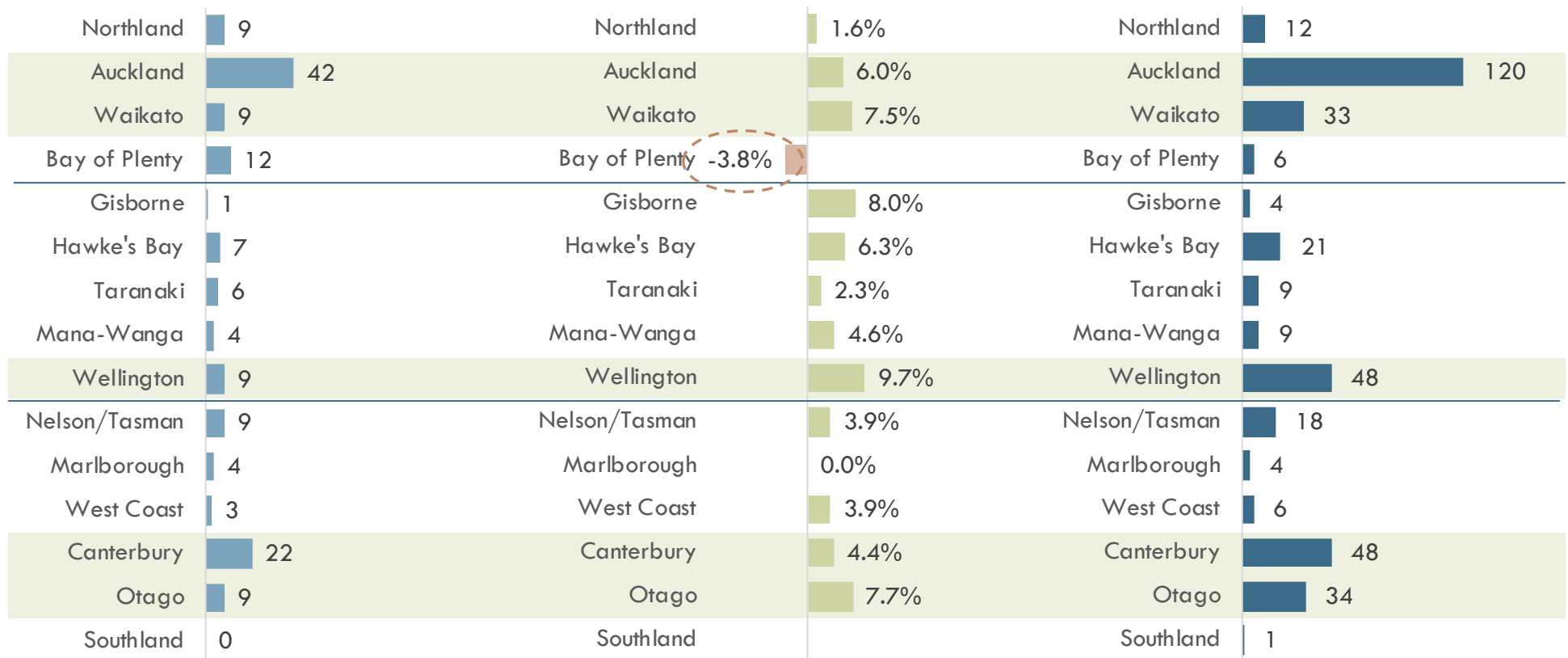
Note: Excludes wineries and dairy based beverages; Source: Statistics NZ; Coriolis analysis

All regions (other than BOP) are creating new operational units

OPERATIONS IN 2000
Geographic units; 2000

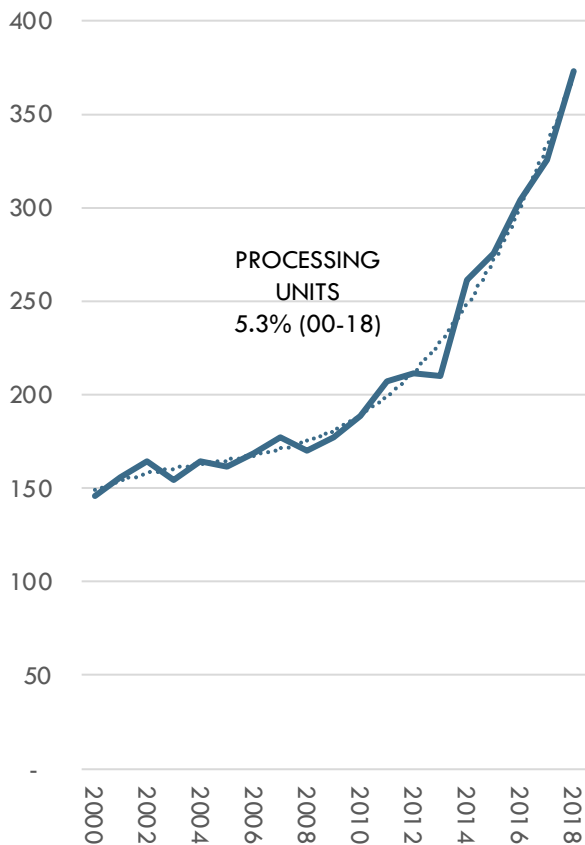
18Y UNIT GROWTH (CAGR)
%; 00vs18

OPERATIONS IN 2018
Geographic units; 2018

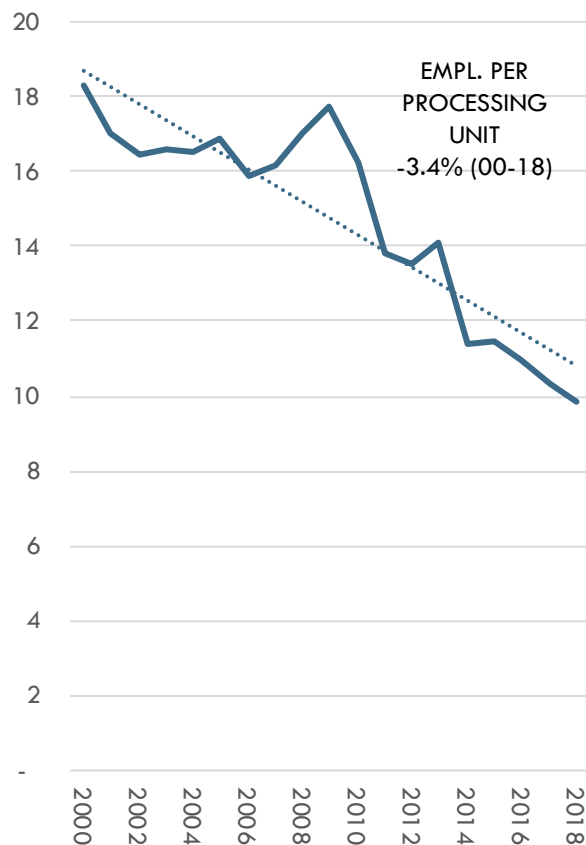


The rapid growth of new processing operations is driving down average employment per unit but growing total employment

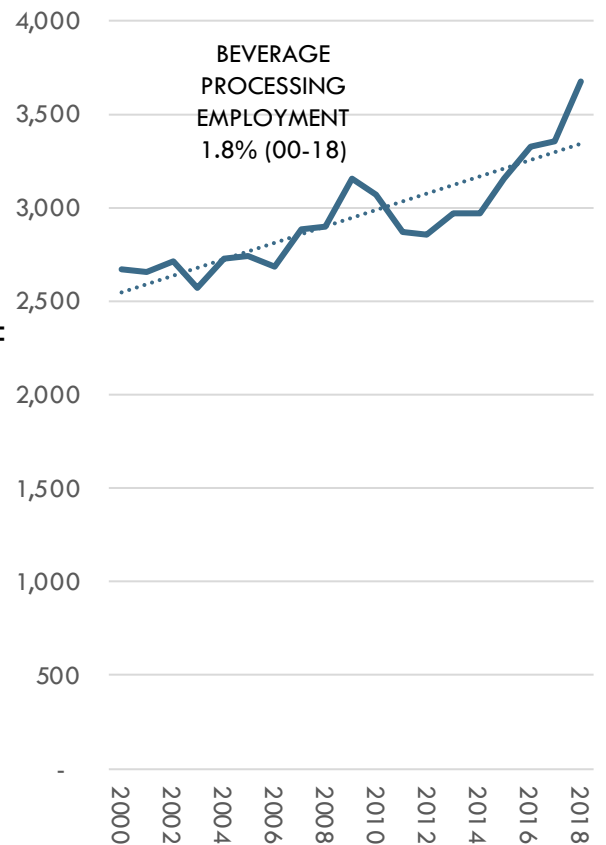
BEVERAGE PROC. UNITS
Geographic units; 2000-2018



JOBS/UNIT
Headcount/unit; 2000-2018



TOTAL EMPLOYMENT
Headcount; 2000-2018



X =

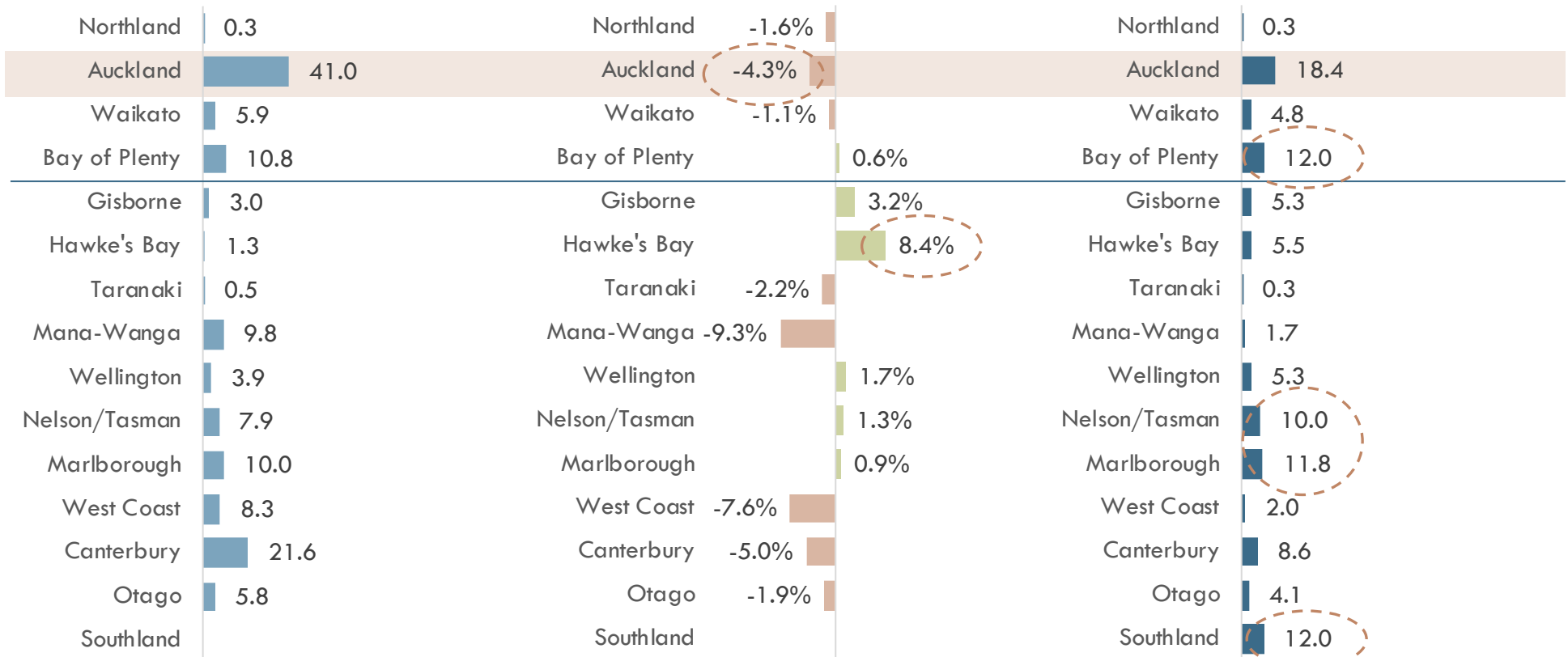
Source: Statistics NZ; UN FAO; MAF/MPI; Coriolis analysis

Employment per unit is falling in many areas, particularly in Auckland, but growing in others

EMPLOYMENT/UNIT 2000
Headcount/units; 2000

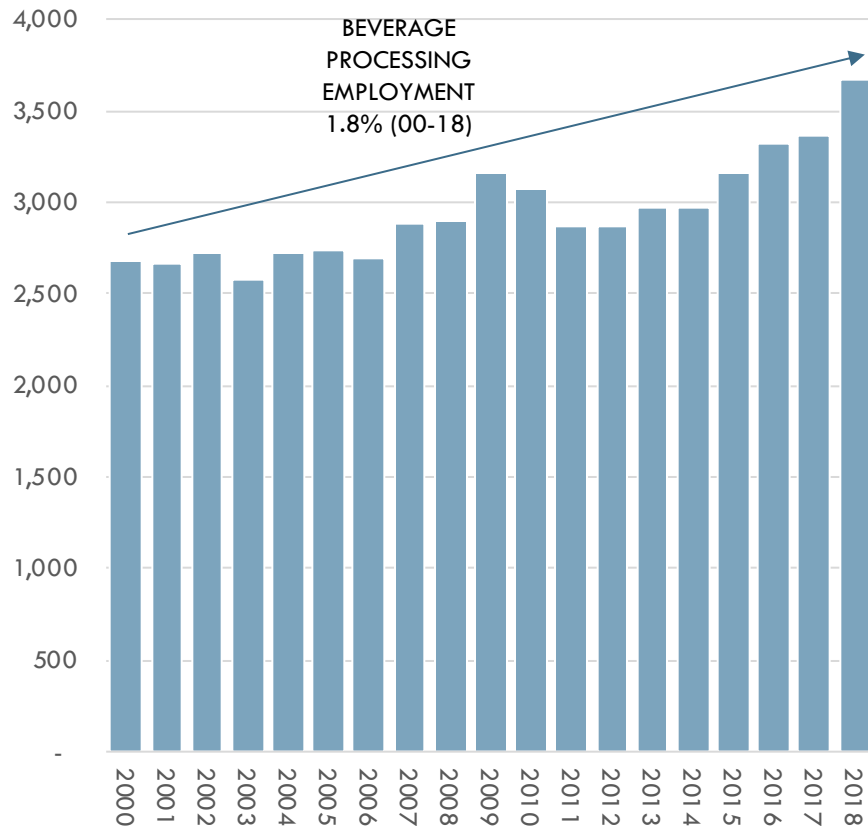
18Y CHANGE (CAGR)
%; 00vs18

EMPLOYMENT/UNIT 2018
Headcount/units; 2018

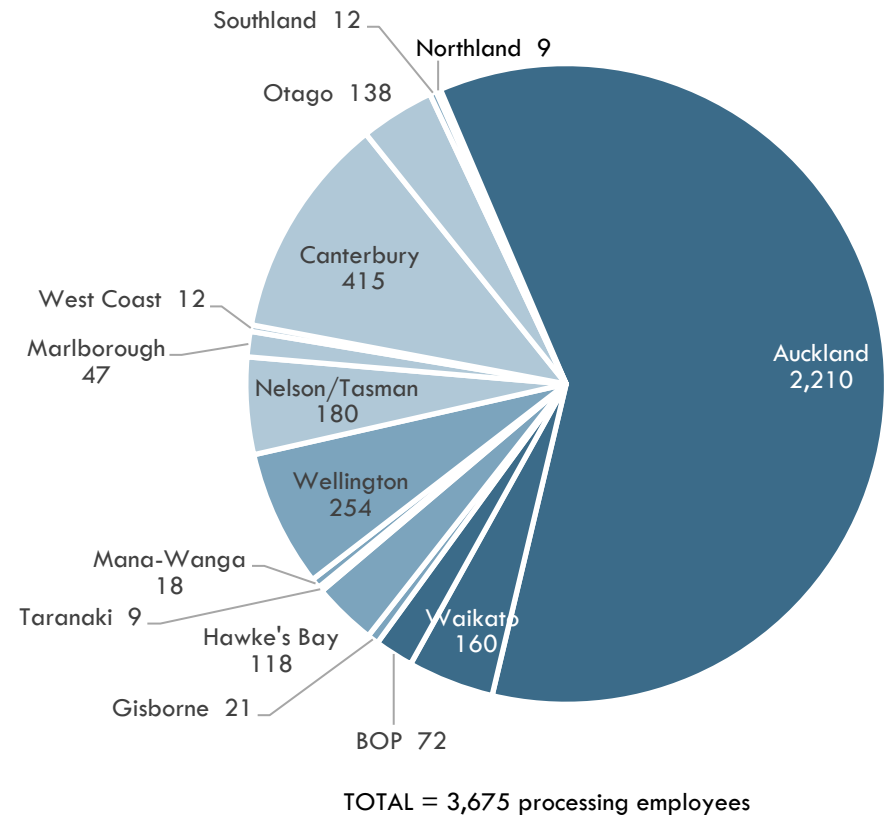


Beverage processing is creating jobs; however, most jobs are concentrated in Auckland

BEVERAGE PROCESSING EMPLOYMENT
Headcount; 2000-2018



BEVERAGE PROCESSING EMPLOYMENT
Headcount; 2018



Beverage employment growth varies by region; Auckland, Waikato, Hawke's Bay, Wellington and Otago doing well

EMPLOYMENT 2000

Headcount; 2000

18Y CHANGE (CAGR)

%; 00vs18

EMPLOYMENT 2018

Headcount; 2018

Region	2000 Headcount	18Y CAGR (%)	2018 Headcount
Northland	9	0.0%	9
Auckland	1,720	1.4%	2,210
Waikato	53	6.3%	160
Bay of Plenty	132	-3.3%	72
Gisborne	3	11.4%	21
Hawke's Bay	9	15.4%	118
Taranaki	3	6.3%	9
Mana-Wanga	39	-4.2%	18
Wellington	38	11.1%	254
Nelson/Tasman	74	5.1%	180
Marlborough	40	0.9%	47
West Coast	25	-4.0%	12
Canterbury	475	-0.7%	415
Otago	52	5.6%	138
Southland	-	-	12

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APPENDIX

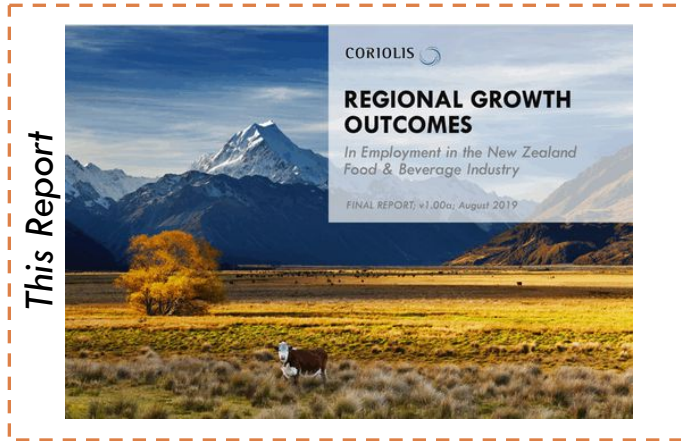
A1. Regional Growth Opportunities project context

A2. Regional Metrics Snapshot

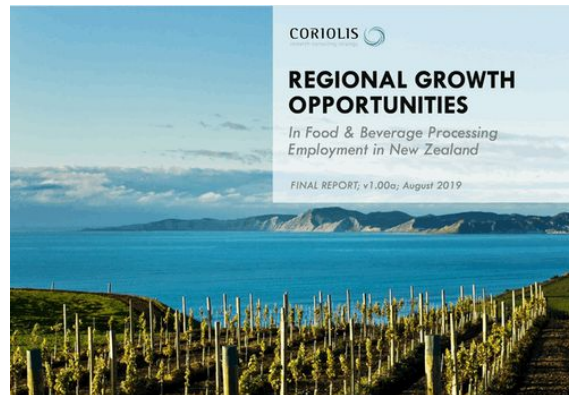
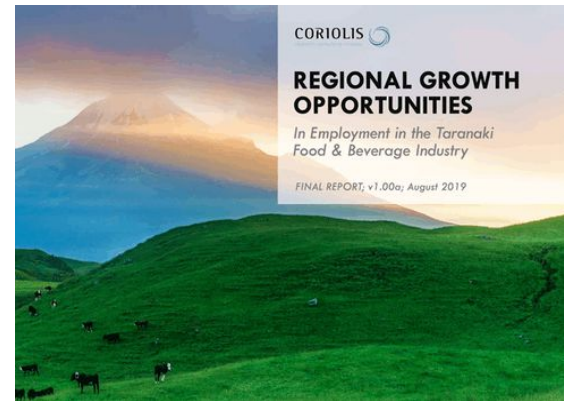
A3. Abbreviations

A1: This work is part of the Regional Growth Opportunities research

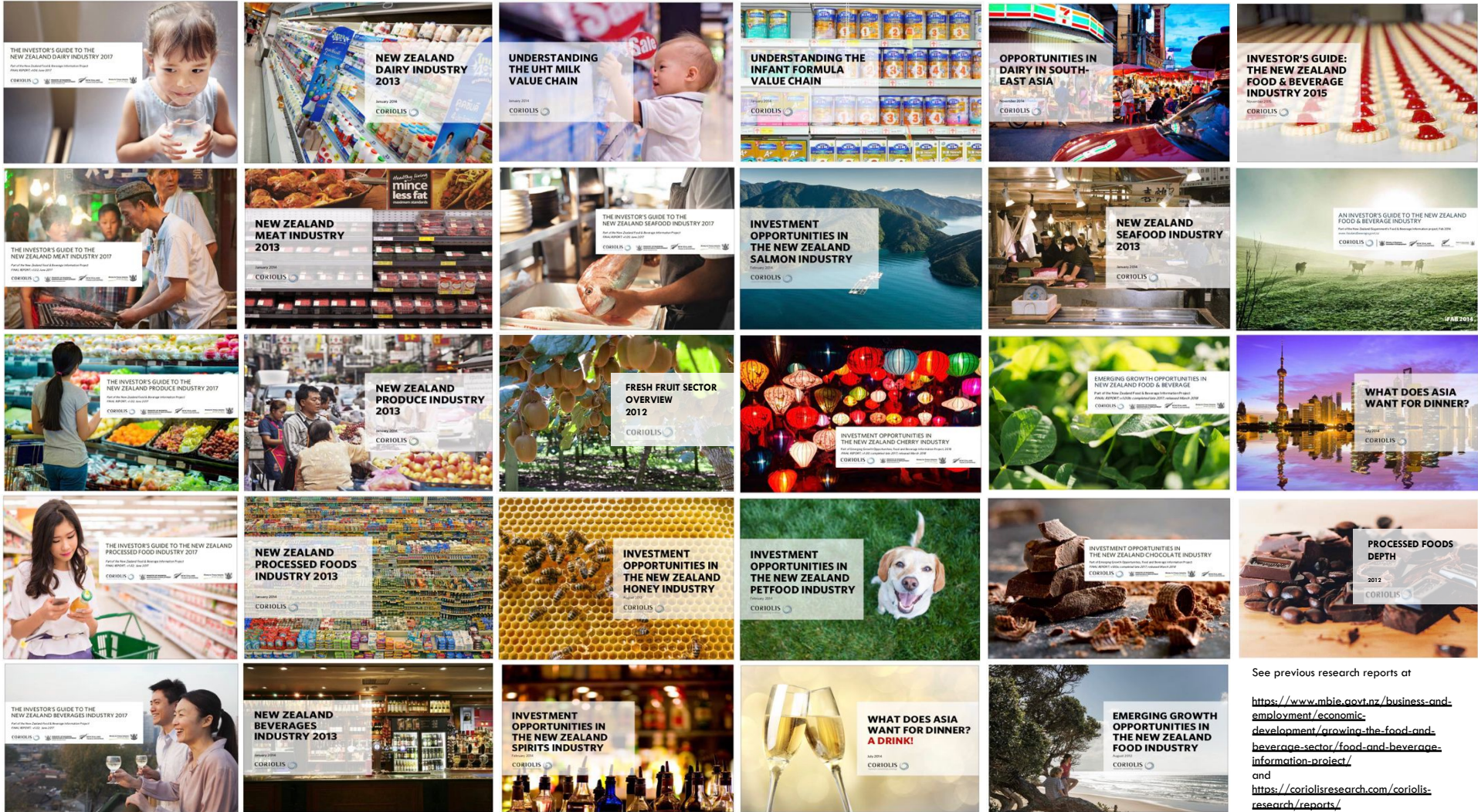
NATIONAL



SELECT REGIONS



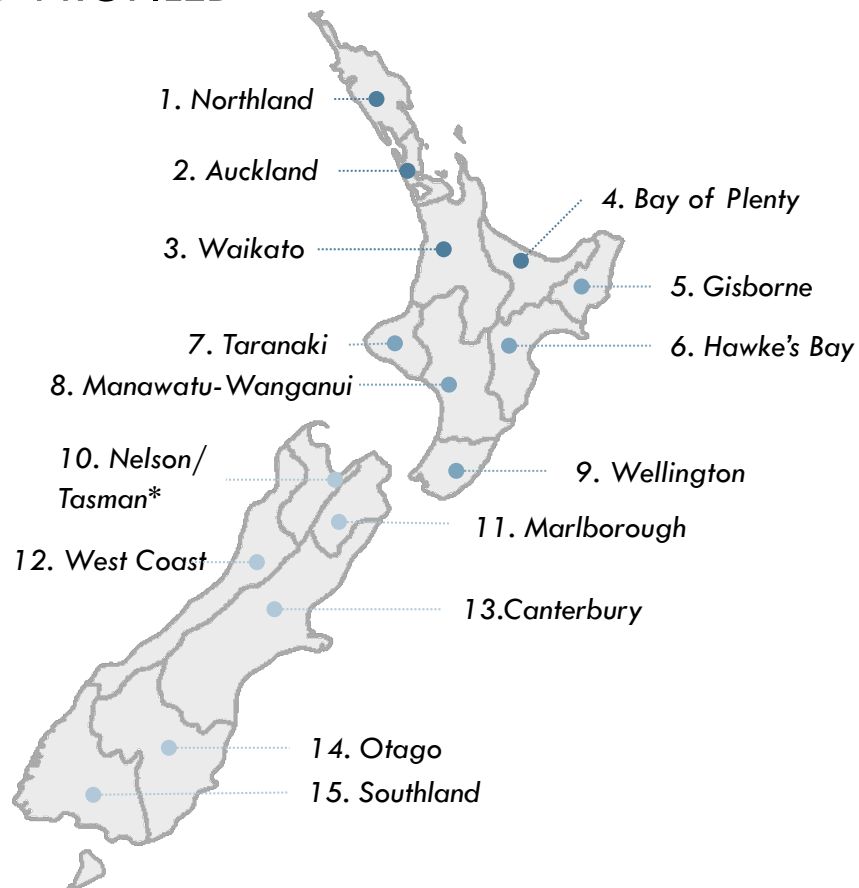
This work builds on previous research as part of the F&BIP



See previous research reports at
<https://www.mbie.govt.nz/business-and-employment/economic-development/growing-the-food-and-beverage-sector/food-and-beverage-information-project/>
 and
<https://coriolisresearch.com/coriolis-research/reports/>

A2. APPENDICES: REGIONS SNAPSHOT

REGIONS OF NEW ZEALAND PROFILED



1. NORTHLAND – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: NORTHLAND

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	8.3%	1,008	6.8%	-1,077	-4.0%	2,358	5.8%	-777	-1.6%
Red Meat & Pork	4.2%	2,172	8.9%	-645	-1.4%	3,048	6.8%	-691	-1.1%
Poultry Meat	N/A	6	2.0%	-24	-8.6%	6	0.4%	-27	-9.0%
Seafood	18.9%	141	9.2%	-75	-2.3%	276	5.5%	-110	-1.8%
Arable Crops	2.0%	70	1.6%	49	6.9%	129	2.1%	96	7.9%
Produce	6.2%	411	12.8%	-135	-1.6%	1,667	5.9%	-164	-0.5%
Other Foods	N/A	147	12.3%	123	10.6%	427	9.1%	362	11.0%
Grapes	0.2%	18	1.3%	6	2.3%	73	1.5%	46	5.7%
TOTAL	4.7%	3,973	7.7%	-1,778	-2.0%	7,984	5.9%	-1,265	-0.8%

ABS = Absolute change; CAGR = Compound Annual Growth Rate; *Seafood uses share of coastline; poultry meat and other foods (eggs and honey) are not directly area dependent; Source: Statistics NZ; DairyNZ; MAF/MPI; MfE; Coriolis analysis and estimates

1. NORTHLAND – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: NORTHLAND

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	6	2.8%	0	0%	0.0%	↓	560	4.3%	-80	-2%	-0.7%	↓
Red Meat & Pork	12	3.7%	0	0%	0.0%	↓	710	2.7%	-155	-13%	-1.1%	↓
Poultry Meat	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Seafood	15	4.6%	-3	-	-1.0%	↓	99	1.9%	3	-	0.2%	↑
Produce	15	3.2%	0	0%	0.0%	↓	195	2.1%	64	8%	2.2%	↑
Grain-Based	6	1.6%	-3	-	-2.2%	↓	24	0.4%	-141	-	-10.2%	↓
Processed Foods	37	3.7%	25	5%	6.5%	↑	226	1.9%	187	4%	10.3%	↑
Wine	6	1.4%	0	0%	0.0%	↓	50	1.3%	35	2%	6.9%	↑
Other Beverages	12	3.2%	3	1%	1.6%	↓	9	0.2%	0	0%	0.0%	↓
TOTAL	109	3.1%	22	2%	1.3%	↓	1,873	2.2%	-87	-1%	-0.3%	↓

2. AUCKLAND – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: AUCKLAND

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	3.2%	417	2.8%	-585	-4.8%	747	1.8%	-705	-3.6%
Red Meat & Pork	1.6%	1,542	6.3%	-768	-2.2%	1,974	4.4%	-896	-2.1%
Poultry Meat	N/A	60	20.0%	-51	-3.4%	190	12.9%	-31	-0.8%
Seafood	14.3%	132	8.6%	-108	-3.3%	238	4.7%	-177	-3.0%
Arable Crops	0.9%	78	1.7%	42	4.4%	148	2.4%	106	7.2%
Produce	7.1%	273	8.5%	-165	-2.6%	2,572	9.1%	-1,092	-1.9%
Other Foods	N/A	123	10.3%	57	3.5%	433	9.3%	229	4.3%
Grapes	0.9%	81	5.9%	-30	-1.7%	621	12.8%	390	5.6%
TOTAL	1.9%	2,706	5.3%	-1,608	-2.6%	6,923	5.1%	-2,176	-1.5%

2. AUCKLAND – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: AUCKLAND

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	63	29.2%	42	39%	6.3%	↑	2,150	16.6%	1,220	26%	4.8%	↑
Red Meat & Pork	54	16.5%	0	0%	0.0%	↓	1,720	6.4%	570	47%	2.3%	↑
Poultry Meat	12	34.3%	0	0%	0.0%	↑	1,100	30.3%	590	37%	4.4%	↑
Seafood	105	32.2%	6	-	0.3%	↑	980	19.2%	210	-	1.3%	↑
Produce	147	31.6%	9	15%	0.4%	↓	2,360	25.9%	880	106%	2.6%	↑
Grain-Based	138	37.3%	45	-	2.2%	↑	2,940	44.2%	555	-	1.2%	↑
Processed Foods	348	34.9%	187	37%	4.4%	↑	5,350	44.5%	1,080	24%	1.3%	↓
Wine	75	17.1%	33	13%	3.3%	↓	980	24.9%	130	8%	0.8%	↓
Other Beverages	120	32.2%	78	34%	6.0%	↑	2,210	60.1%	490	49%	1.4%	↓
TOTAL	1,062	29.9%	400	35%	2.7%	↑	19,790	23.6%	5,725	42%	1.9%	↑

3. WAIKATO – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: WAIKATO

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	28.2%	5,055	34.0%	-2,928	-2.5%	12,055	29.8%	-778	-0.3%
Red Meat & Pork	9.0%	3,390	13.8%	-1,416	-1.9%	5,421	12.1%	-1,935	-1.7%
Poultry Meat	N/A	81	27.0%	-9	-0.6%	601	40.7%	281	3.6%
Seafood	8.0%	126	8.2%	-33	-1.3%	311	6.2%	-98	-1.5%
Arable Crops	8.1%	459	10.2%	303	6.2%	964	15.6%	752	8.8%
Produce	8.5%	246	7.6%	-150	-2.6%	2,504	8.9%	-396	-0.8%
Other Foods	N/A	144	12.1%	75	4.2%	594	12.7%	375	5.7%
Grapes	0.0%	9	0.7%	-9	-3.8%	34	0.7%	-34	-3.8%
TOTAL	9.0%	9,510	18.5%	-4,167	-2.0%	22,484	16.6%	-1,833	-0.4%

3. WAIKATO – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: WAIKATO

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	39	18.1%	15	14%	2.7%	↓	3,200	24.7%	1,450	31%	3.4%	↑
Red Meat & Pork	36	11.0%	-3	-11%	-0.4%	↓	2,490	9.3%	360	29%	0.9%	↑
Poultry Meat	9	25.7%	6	-	6.3%	↑	1,050	28.9%	560	35%	4.3%	↑
Seafood	21	6.4%	3	-	0.9%	↑	209	4.1%	-51	-	-1.2%	↑
Produce	21	4.5%	6	10%	1.9%	↑	275	3.0%	117	14%	3.1%	↑
Grain-Based	27	7.3%	6	-	1.4%	↑	206	3.1%	-113	-	-2.4%	↓
Processed Foods	85	8.5%	45	9%	4.3%	↑	1,516	12.6%	1,235	27%	9.8%	↑
Wine	6	1.4%	0	0%	0.0%	↓	9	0.2%	-21	-1%	-6.5%	↓
Other Beverages	33	8.8%	24	11%	7.5%	↑	160	4.4%	107	11%	6.3%	↑
TOTAL	277	7.8%	102	9%	2.6%	↑	9,115	10.9%	3,644	27%	2.9%	↑

4. BAY OF PLENTY – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: BAY OF PLENTY

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	8.0%	867	5.8%	-489	-2.5%	2,167	5.3%	-389	-0.9%
Red Meat & Pork	1.2%	1,056	4.3%	-648	-2.6%	1,594	3.6%	-723	-2.1%
Poultry Meat	N/A	12	4.0%	-24	-5.9%	42	2.8%	6	0.9%
Seafood	4.3%	108	7.0%	-69	-2.7%	243	4.8%	-50	-1.0%
Arable Crops	1.4%	120	2.7%	18	0.9%	159	2.6%	-12	-0.4%
Produce	12.4%	2,103	65.3%	-84	-0.2%	4,126	14.7%	-355	-0.5%
Other Foods	N/A	183	15.4%	126	6.7%	518	11.1%	351	6.5%
Grapes	0.0%	9	0.7%	9	N/A	27	0.6%	27	N/A
TOTAL	4.6%	4,458	8.7%	-1,161	-1.3%	8,876	6.6%	-1,145	-0.7%

ABS = Absolute change; CAGR = Compound Annual Growth Rate; *Seafood uses share of coastline; poultry meat and other foods (eggs and honey) are not directly area dependent; Source: Statistics NZ; DairyNZ; MAF/MPI; MfE; Coriolis analysis and estimates

4. BAY OF PLENTY – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: BAY OF PLENTY

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	9	4.2%	6	6%	6.3%	↑	310	2.4%	-120	-3%	-1.8%	↓
Red Meat & Pork	16	4.9%	3	11%	1.2%	↑	569	2.1%	-281	-23%	-2.2%	↓
Poultry Meat	-	0.0%	-1	-	-100.0%	↓	-	0.0%	-30	-2%	-100.0%	↓
Seafood	21	6.4%	3	-	0.9%	↑	415	8.1%	100	-	1.5%	↑
Produce	48	10.3%	12	19%	1.6%	↑	670	7.3%	370	45%	4.6%	↑
Grain-Based	16	4.3%	-14	-	-3.4%	↓	460	6.9%	-31	-	-0.4%	↓
Processed Foods	58	5.8%	27	5%	3.5%	↓	866	7.2%	513	11%	5.1%	↑
Wine	6	1.4%	5	2%	10.5%	↑	90	2.3%	20	1%	1.4%	↓
Other Beverages	6	1.6%	-6	-3%	-3.8%	↓	72	2.0%	-60	-6%	-3.3%	↓
TOTAL	180	5.1%	35	3%	1.2%	↓	3,452	4.1%	481	4%	0.8%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

5. GISBORNE – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: GISBORNE

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	0.1%	9	0.1%	-12	-4.6%	49	0.1%	-2	-0.2%
Red Meat & Pork	3.9%	534	2.2%	-240	-2.0%	2,305	5.2%	-148	-0.3%
Poultry Meat	N/A	-	0.0%	0	N/A	-	0.0%	0	N/A
Seafood	1.7%	33	2.1%	-6	-0.9%	68	1.4%	4	0.3%
Arable Crops	1.3%	42	0.9%	-36	-3.4%	97	1.6%	-79	-3.3%
Produce	5.9%	228	7.1%	9	0.2%	943	3.4%	-655	-2.9%
Other Foods	N/A	33	2.8%	18	4.5%	108	2.3%	78	7.4%
Grapes	3.9%	54	3.9%	-48	-3.5%	174	3.6%	-328	-5.7%
TOTAL	3.2%	933	1.8%	-315	-1.6%	3,744	2.8%	-1,130	-1.5%

5. GISBORNE – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: GISBORNE

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	
Dairy	3	1.4%	3	3%	N/A	↑	45	0.3%	45	1%	N/A	↑
Red Meat & Pork	3	0.9%	-3	-11%	-3.8%	↓	270	1.0%	264	22%	23.6%	↑
Poultry Meat	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Seafood	7	2.1%	-2	-	-1.4%	↓	46	0.9%	-27	-	-2.5%	↓
Produce	15	3.2%	3	5%	1.2%	↑	680	7.5%	35	4%	0.3%	↓
Grain-Based	8	2.2%	-2	-	-1.2%	↓	104	1.6%	-6	-	-0.3%	↓
Processed Foods	6	0.6%	-1	0%	-0.9%	↓	15	0.1%	-12	0%	-3.2%	↓
Wine	12	2.7%	6	2%	3.9%	↓	140	3.6%	20	1%	0.9%	↓
Other Beverages	4	1.1%	3	1%	8.0%	↑	21	0.6%	18	2%	11.4%	↑
TOTAL	58	1.6%	7	1%	0.7%	↓	1,321	1.6%	337	3%	1.6%	↑

6. HAWKE'S BAY – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: HAWKE'S BAY

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	0.9%	87	0.6%	-51	-2.5%	407	1.0%	109	1.7%
Red Meat & Pork	7.3%	1,647	6.7%	-684	-1.9%	3,718	8.3%	-2,056	-2.4%
Poultry Meat	N/A	6	2.0%	-3	-2.2%	56	3.8%	41	7.6%
Seafood	2.1%	45	2.9%	-39	-3.4%	60	1.2%	-74	-4.4%
Arable Crops	3.6%	87	1.9%	0	0.0%	168	2.7%	21	0.7%
Produce	12.4%	384	11.9%	-492	-4.5%	7,165	25.5%	1,156	1.0%
Other Foods	N/A	54	4.5%	24	3.3%	219	4.7%	54	1.6%
Grapes	13.1%	141	10.3%	-51	-1.7%	491	10.2%	-331	-2.8%
TOTAL	5.4%	2,451	4.8%	-1,296	-2.3%	12,284	9.1%	-1,080	-0.5%

6. HAWKE'S BAY – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: HAWKE'S BAY

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	6	2.8%	6	6%	N/A	↑	100	0.8%	100	2%	N/A	↑
Red Meat & Pork	30	9.1%	9	32%	2.0%	↑	2,715	10.2%	-445	-36%	-0.8%	↓
Poultry Meat	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Seafood	12	3.7%	6	-	3.9%	↑	123	2.4%	45	-	2.6%	↑
Produce	51	11.0%	18	29%	2.4%	↑	1,890	20.7%	-410	-50%	-1.1%	↓
Grain-Based	7	1.9%	-3	-	-2.0%	↓	27	0.4%	-76	-	-7.2%	↓
Processed Foods	33	3.3%	20	4%	5.3%	↑	339	2.8%	283	6%	10.5%	↑
Wine	66	15.1%	33	13%	3.9%	↓	590	15.0%	280	17%	3.6%	↑
Other Beverages	21	5.6%	14	6%	6.3%	↑	118	3.2%	109	11%	15.4%	↑
TOTAL	226	6.4%	103	9%	3.4%	↑	5,902	7.0%	-114	-1%	-0.1%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

7. TARANAKI – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: TARANAKI

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	11.7%	2,088	14.0%	-1,512	-3.0%	4,338	10.7%	-1,112	-1.3%
Red Meat & Pork	2.2%	1,056	4.3%	-105	-0.5%	1,521	3.4%	-139	-0.5%
Poultry Meat	N/A	51	17.0%	12	1.5%	311	21.1%	187	5.2%
Seafood	1.4%	15	1.0%	-12	-3.2%	21	0.4%	-31	-4.9%
Arable Crops	1.9%	144	3.2%	120	10.5%	219	3.5%	168	8.4%
Produce	0.7%	22	0.7%	-38	-5.4%	124	0.4%	-60	-2.2%
Other Foods	N/A	28	2.3%	10	2.5%	72	1.5%	48	6.3%
Grapes	0.0%	-	0.0%	-3	-100.0%	-	0.0%	-3	-100.0%
TOTAL	2.7%	3,404	6.6%	-1,528	-2.0%	6,606	4.9%	-942	-0.7%

7. TARANAKI – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: TARANAKI

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	6	2.8%	0	0%	0.0%	↓	1,800	13.9%	-100	-2%	-0.3%	↓
Red Meat & Pork	21	6.4%	11	39%	4.2%	↑	1,985	7.4%	315	26%	1.0%	↑
Poultry Meat	1	2.9%	-5	-	-9.5%	↓	670	18.4%	370	23%	4.6%	↑
Seafood	3	0.9%	-6	-	-5.9%	↓	15	0.3%	-40	-	-7.0%	↓
Produce	3	0.6%	-3	-5%	-3.8%	↓	30	0.3%	9	1%	2.0%	↑
Grain-Based	9	2.4%	0	0%	0.0%	↑	225	3.4%	-56	-	-1.2%	↓
Processed Foods	21	2.1%	14	3%	6.3%	↑	155	1.3%	83	2%	4.4%	↑
Wine	-	0.0%	-1	0%	-100.0%	↓	-	0.0%	-6	0%	-100.0%	↓
Other Beverages	9	2.4%	3	1%	2.3%	↓	9	0.2%	6	1%	6.3%	↑
TOTAL	73	2.1%	13	1%	1.1%	↓	4,889	5.8%	581	4%	0.7%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

8. MANAWATU-WANGANUI – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: MANAWATU-WANGANUI

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	4.9%	1,017	6.8%	-573	-2.5%	3,067	7.6%	177	0.3%
Red Meat & Pork	11.8%	3,030	12.4%	-1,389	-2.1%	6,080	13.6%	-2,044	-1.6%
Poultry Meat	N/A	12	4.0%	-21	-5.5%	47	3.2%	-36	-3.1%
Seafood	0.8%	15	1.0%	-3	-1.0%	27	0.5%	3	0.7%
Arable Crops	5.2%	213	4.7%	-12	-0.3%	383	6.2%	-12	-0.2%
Produce	10.8%	66	2.0%	-69	-3.9%	926	3.3%	-510	-2.4%
Other Foods	N/A	90	7.6%	54	5.2%	660	14.1%	446	6.5%
Grapes	0.0%	6	0.4%	0	0.0%	31	0.6%	25	9.6%
TOTAL	8.4%	4,449	8.6%	-2,013	-2.1%	11,221	8.3%	-1,951	-0.9%

8. MANAWATU-WANGANUI – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: MANAWATU-WANGANUI

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	12	5.6%	6	6%	3.9%	↓	800	6.2%	340	7%	3.1%	↑
Red Meat & Pork	33	10.1%	6	21%	1.1%	↑	3,170	11.9%	840	69%	1.7%	↑
Poultry Meat	3	8.6%	-3	-	-3.8%	↓	21	0.6%	3	0%	0.9%	↓
Seafood	6	1.8%	-1	-	-0.9%	↓	45	0.9%	-48	-	-4.0%	↓
Produce	21	4.5%	3	5%	0.9%	↑	280	3.1%	-80	-10%	-1.4%	↓
Grain-Based	14	3.8%	-16	-	-4.1%	↓	208	3.1%	-102	-	-2.2%	↓
Processed Foods	54	5.4%	30	6%	4.6%	↑	662	5.5%	359	8%	4.4%	↑
Wine	3	0.7%	3	1%	N/A	↑	3	0.1%	3	0%	N/A	↑
Other Beverages	9	2.4%	5	2%	4.6%	↓	18	0.5%	-21	-2%	-4.2%	↓
TOTAL	155	4.4%	33	3%	1.3%	↓	5,207	6.2%	1,294	10%	1.6%	↑

9. WELLINGTON – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: WELLINGTON

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	4.2%	222	1.5%	-204	-3.6%	692	1.7%	-174	-1.2%
Red Meat & Pork	3.0%	948	3.9%	-450	-2.1%	1,830	4.1%	-643	-1.7%
Poultry Meat	N/A	3	1.0%	-9	-7.4%	9	0.6%	-28	-7.6%
Seafood	2.7%	99	6.4%	-18	-0.9%	172	3.4%	12	0.4%
Arable Crops	3.4%	63	1.4%	15	1.5%	114	1.8%	-59	-2.3%
Produce	1.4%	72	2.2%	-75	-3.9%	383	1.4%	-278	-3.0%
Other Foods	N/A	75	6.3%	51	6.5%	445	9.5%	378	11.1%
Grapes	2.7%	75	5.5%	0	0.0%	235	4.9%	-30	-0.7%
TOTAL	3.0%	1,557	3.0%	-690	-2.0%	3,880	2.9%	-822	-1.1%

9. WELLINGTON – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: WELLINGTON

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	15	6.9%	9	8%	5.2%	↑	90	0.7%	-30	-1%	-1.6%	↓
Red Meat & Pork	15	4.6%	-9	-32%	-2.6%	↓	1,220	4.6%	250	20%	1.3%	↑
Poultry Meat	3	8.6%	2	-	6.3%	↑	25	0.7%	-85	-5%	-7.9%	↓
Seafood	24	7.4%	-6	-	-1.2%	↓	103	2.0%	-117	-	-4.1%	↓
Produce	21	4.5%	-3	-5%	-0.7%	↓	245	2.7%	110	13%	3.4%	↑
Grain-Based	28	7.6%	-11	-	-1.8%	↓	296	4.5%	-421	-	-4.8%	↓
Processed Foods	90	9.0%	45	9%	3.9%	↓	895	7.4%	434	10%	3.8%	↑
Wine	33	7.5%	21	8%	5.8%	↑	120	3.0%	40	2%	2.3%	↓
Other Beverages	48	12.9%	39	17%	9.7%	↑	254	6.9%	216	22%	11.1%	↑
TOTAL	277	7.8%	87	8%	2.1%	↓	3,248	3.9%	397	3%	0.7%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

10. NELSON/TASMAN – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: NELSON/TASMAN

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	1.4%	174	1.2%	-105	-2.6%	505	1.2%	-83	-0.8%
Red Meat & Pork	1.0%	609	2.5%	-231	-1.8%	945	2.1%	-380	-1.9%
Poultry Meat	N/A	-	0.0%	-18	-100.0%	-	0.0%	-18	-100.0%
Seafood	4.4%	153	10.0%	-114	-3.0%	1,398	27.8%	-10	-0.0%
Arable Crops	1.1%	75	1.7%	39	4.2%	254	4.1%	134	4.3%
Produce	5.7%	213	6.6%	-285	-4.6%	3,240	11.5%	-1,578	-2.2%
Other Foods	N/A	57	4.8%	33	4.9%	266	5.7%	184	6.8%
Grapes	3.1%	60	4.4%	24	2.9%	243	5.0%	159	6.1%
TOTAL	3.8%	1,341	2.6%	-657	-2.2%	6,851	5.1%	-1,592	-1.2%

10. NELSON/TASMAN – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: NELSON/TASMAN

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	12	5.6%	6	6%	3.9%	↓	126	1.0%	-64	-1%	-2.3%	↓
Red Meat & Pork	6	1.8%	-3	-11%	-2.2%	↓	276	1.0%	-57	-5%	-1.0%	↓
Poultry Meat	-	0.0%	-3	-	-100.0%	↓	-	0.0%	-3	0%	-100.0%	↓
Seafood	18	5.5%	-9	-	-2.2%	↓	998	19.6%	-1,062	-	-3.9%	↓
Produce	30	6.5%	3	5%	0.6%	↓	473	5.2%	93	11%	1.2%	↑
Grain-Based	10	2.7%	0	0%	0.0%	↑	48	0.7%	-8	-	-0.9%	↓
Processed Foods	33	3.3%	20	4%	5.3%	↑	222	1.8%	177	4%	9.3%	↑
Wine	24	5.5%	12	5%	3.9%	↓	140	3.6%	45	3%	2.2%	↓
Other Beverages	18	4.8%	9	4%	3.9%	↓	180	4.9%	106	11%	5.1%	↑
TOTAL	151	4.3%	35	3%	1.5%	↓	2,463	2.9%	-773	-6%	-1.5%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

11. MARLBOROUGH – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: MARLBOROUGH

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	0.4%	66	0.4%	-42	-2.7%	146	0.4%	-62	-1.9%
Red Meat & Pork	4.1%	408	1.7%	-309	-3.1%	754	1.7%	-367	-2.2%
Poultry Meat	N/A	-	0.0%	-6	-100.0%	-	0.0%	-6	-100.0%
Seafood	9.9%	171	11.1%	-30	-0.9%	506	10.1%	25	0.3%
Arable Crops	0.6%	45	1.0%	-12	-1.3%	66	1.1%	-18	-1.3%
Produce	2.3%	42	1.3%	-150	-8.1%	158	0.6%	-763	-9.3%
Other Foods	N/A	24	2.0%	9	2.6%	80	1.7%	47	5.0%
Grapes	66.9%	669	48.9%	405	5.3%	1,919	39.7%	1,085	4.7%
TOTAL	4.0%	1,425	2.8%	-135	-0.5%	3,629	2.7%	-59	-0.1%

11. MARLBOROUGH – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: MARLBOROUGH

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	3	1.4%	0	0%	0.0%	↓	9	0.1%	-61	-1%	-10.8%	↓
Red Meat & Pork	6	1.8%	3	11%	3.9%	↑	190	0.7%	-220	-18%	-4.2%	↓
Poultry Meat	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Seafood	12	3.7%	0	0%	0.0%	↑	453	8.9%	-17	-	-0.2%	↑
Produce	12	2.6%	0	0%	0.0%	↓	373	4.1%	-72	-9%	-1.0%	↓
Grain-Based	9	2.4%	4	-	3.3%	↑	24	0.4%	-15	-	-2.7%	↓
Processed Foods	22	2.2%	14	3%	5.8%	↑	141	1.2%	83	2%	5.1%	↑
Wine	105	24.0%	66	26%	5.7%	↑	1,300	33.0%	700	44%	4.4%	↑
Other Beverages	4	1.1%	0	0%	0.0%	↓	47	1.3%	7	1%	0.9%	↓
TOTAL	173	4.9%	87	8%	4.0%	↑	2,537	3.0%	405	3%	1.0%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

12. WEST COAST – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: WEST COAST

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	4.1%	384	2.6%	-60	-0.8%	1,154	2.8%	330	1.9%
Red Meat & Pork	0.9%	243	1.0%	-144	-2.6%	356	0.8%	-165	-2.1%
Poultry Meat	N/A	-	0.0%	-3	-100.0%	-	0.0%	-6	-100.0%
Seafood	3.6%	30	2.0%	-51	-5.4%	51	1.0%	-70	-4.7%
Arable Crops	1.0%	24	0.5%	18	8.0%	33	0.5%	27	9.9%
Produce	0.1%	9	0.3%	9	N/A	55	0.2%	25	3.4%
Other Foods	N/A	21	1.8%	12	4.8%	46	1.0%	28	5.4%
Grapes	0.0%	3	0.2%	3	N/A	6	0.1%	6	N/A
TOTAL	8.8%	714	1.4%	-216	-1.5%	1,701	1.3%	175	0.6%

12. WEST COAST – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: WEST COAST

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS growth in sector (00-18)	% of new unit 18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average		
Dairy	3	1.4%	0	0%	0.0%	↓	510	3.9%	360	8%	7.0%	↑
Red Meat & Pork	9	2.7%	5	18%	4.6%	↑	312	1.2%	99	8%	2.1%	↑
Poultry Meat	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Seafood	6	1.8%	-6	-	-3.8%	↓	203	4.0%	70	-	2.4%	↑
Produce	3	0.6%	-3	-5%	-3.8%	↓	3	0.0%	-12	-1%	-8.6%	↓
Grain-Based	-	0.0%	-3	-	-100.0%	↓	-	0.0%	-3	-	-100.0%	↓
Processed Foods	9	0.9%	9	2%	N/A	↑	9	0.1%	9	0%	N/A	↑
Wine	-	0.0%	0	0%	N/A	↑	-	0.0%	0	0%	N/A	↑
Other Beverages	6	1.6%	3	1%	3.9%	↓	12	0.3%	-13	-1%	-4.0%	↓
TOTAL	36	1.0%	5	0%	0.8%	↓	1,049	1.3%	510	4%	3.8%	↑

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

13. CANTERBURY – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: CANTERBURY

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	11.3%	1,665	11.2%	690	3.0%	6,765	16.7%	4,390	6.0%
Red Meat & Pork	20.9%	3,895	15.9%	-2,006	-2.3%	6,615	14.8%	-3,066	-2.1%
Poultry Meat	N/A	63	21.0%	-48	-3.1%	203	13.7%	-38	-0.9%
Seafood	4.5%	174	11.3%	-75	-2.0%	1,054	21.0%	600	4.8%
Arable Crops	48.2%	1,275	28.4%	-75	-0.3%	2,485	40.2%	-115	-0.3%
Produce	21.6%	228	7.1%	-252	-4.1%	1,978	7.0%	-750	-1.8%
Other Foods	N/A	138	11.6%	36	1.7%	438	9.4%	186	3.1%
Grapes	3.8%	108	7.9%	21	1.2%	288	6.0%	21	0.4%
TOTAL	16.9%	7,546	14.7%	-1,709	-1.1%	19,826	14.6%	1,228	0.4%

13. CANTERBURY – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: CANTERBURY

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	24	11.1%	9	8%	2.6%	↓	2,350	18.1%	1,460	31%	5.5%	↑
Red Meat & Pork	48	14.6%	6	21%	0.7%	↑	4,420	16.5%	300	25%	0.4%	↑
Poultry Meat	6	17.1%	-3	-	-2.2%	↓	760	20.9%	290	18%	2.7%	↓
Seafood	42	12.9%	0	0%	0.0%	↑	1,010	19.8%	-485	-	-2.2%	↓
Produce	48	10.3%	15	24%	2.1%	↑	1,450	15.9%	-30	-4%	-0.1%	↓
Grain-Based	67	18.1%	-11	-	-0.8%	↓	1,750	26.3%	245	-	0.8%	↑
Processed Foods	138	13.8%	41	8%	2.0%	↓	815	6.8%	25	1%	0.2%	↓
Wine	48	11.0%	30	12%	5.6%	↑	250	6.4%	140	9%	4.7%	↑
Other Beverages	48	12.9%	26	11%	4.4%	↓	415	11.3%	-60	-6%	-0.7%	↓
TOTAL	469	13.2%	113	10%	1.5%	↓	13,220	15.8%	1,885	14%	0.9%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

14. OTAGO – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: OTAGO

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	4.1%	600	4.0%	153	1.6%	2,100	5.2%	1,113	4.3%
Red Meat & Pork	19.5%	2,031	8.3%	-936	-2.1%	4,388	9.8%	-1,159	-1.3%
Poultry Meat	N/A	6	2.0%	-24	-8.6%	12	0.8%	-21	-5.5%
Seafood	3.1%	87	5.7%	-15	-0.9%	168	3.3%	48	1.9%
Arable Crops	9.7%	258	5.7%	138	4.3%	429	6.9%	165	2.7%
Produce	4.1%	177	5.5%	-36	-1.0%	2,127	7.6%	117	0.3%
Other Foods	N/A	57	4.8%	9	1.0%	307	6.6%	217	7.1%
Grapes	5.2%	132	9.6%	51	2.8%	692	14.3%	361	4.2%
TOTAL	11.8%	3,348	6.5%	-660	-1.0%	10,223	7.5%	841	0.5%

14. OTAGO – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: OTAGO

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	% of new NZ employment 18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	9	4.2%	3	3%	2.3%	↓	270	2.1%	0	0%	0.0%	↓
Red Meat & Pork	15	4.6%	-3	-11%	-1.0%	↓	3,062	11.5%	-318	-26%	-0.5%	↓
Poultry Meat	1	2.9%	-2	-	-5.9%	↓	9	0.2%	-31	-2%	-8.0%	↓
Seafood	7	2.1%	-5	-	-3.0%	↓	100	2.0%	-242	-	-6.6%	↓
Produce	24	5.2%	3	5%	0.7%	↓	162	1.8%	-228	-28%	-4.8%	↓
Grain-Based	24	6.5%	3	-	0.7%	↑	280	4.2%	27	-	0.6%	↑
Processed Foods	48	4.8%	22	4%	3.5%	↓	654	5.4%	81	2%	0.7%	↓
Wine	51	11.6%	39	16%	8.4%	↑	260	6.6%	215	13%	10.2%	↑
Other Beverages	34	9.1%	25	11%	7.7%	↑	138	3.8%	86	9%	5.6%	↑
TOTAL	213	6.0%	85	7%	2.9%	↑	4,935	5.9%	-410	-3%	-0.4%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

15. SOUTHLAND – ON-FARM

ON-FARM QUANTITATIVE METRICS SCORECARD: SOUTHLAND

Various units as given; 2000-2018

	Share of NZ area*	Units (2018)	% NZ units of this sector	Units 18y ABS (00-18)	Units 18y CAGR (00-18)	On-farm jobs (2018)	% NZ on-farm jobs in this sector	Employment 18y ABS (00-18)	Employment 18y CAGR (00-18)
Dairy	9.1%	1,215	8.2%	471	2.8%	3,965	9.8%	2,441	5.5%
Red Meat & Pork	9.2%	1,965	8.0%	-1,773	-3.5%	4,101	9.2%	-3,242	-3.2%
Poultry Meat	N/A	-	0.0%	-21	-100.0%	-	0.0%	-24	-100.0%
Seafood	20.3%	159	10.4%	-21	-0.7%	344	6.8%	-11	-0.2%
Arable Crops	11.5%	267	5.9%	141	4.3%	537	8.7%	293	4.5%
Produce	1.0%	15	0.5%	-3	-1.0%	154	0.5%	28	1.1%
Other Foods	N/A	18	1.5%	-6	-1.6%	54	1.2%	-10	-0.9%
Grapes	0.0%	3	0.2%	3	N/A	3	0.1%	3	N/A
TOTAL	11.8%	3,642	7.1%	-1,209	-1.6%	9,158	6.8%	-522	-0.3%

15. SOUTHLAND – PROCESSING

PROCESSING QUANTITATIVE METRICS SCORECARD: SOUTHLAND

Various units as given; 2000-2018

	Units (2018)	Region has this % of all NZ units in this sector	% of new unit 18y ABS (00-18)	% of new unit growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average	Processing jobs (2018)	Region has this % all NZ processing jobs in this sector	18y ABS (00-18)	% of new NZ employment growth in sector (00-18)	18y CAGR (00-18)	18y CAGR vs NZ average
Dairy	6	2.8%	3	3%	3.9%	↓	630	4.9%	210	4%	2.3%	↓
Red Meat & Pork	24	7.3%	6	21%	1.6%	↑	3,600	13.5%	-300	-25%	-0.4%	↓
Poultry Meat	-	0.0%	-3	-	-100.0%	↓	-	0.0%	-85	-5%	-100.0%	↓
Seafood	27	8.3%	0	0%	0.0%	↑	255	5.0%	-115	-	-2.0%	↓
Produce	6	1.3%	-1	-2%	-0.9%	↓	37	0.4%	-18	-2%	-2.2%	↓
Grain-Based	7	1.9%	-4	-	-2.5%	↓	57	0.9%	-97	-	-5.4%	↓
Processed Foods	16	1.6%	4	1%	1.6%	↓	155	1.3%	-8	0%	-0.3%	↓
Wine	3	0.7%	3	1%	N/A	↑	3	0.1%	3	0%	N/A	↑
Other Beverages	1	0.3%	1	0%	N/A	↑	12	0.3%	12	1%	N/A	↑
TOTAL	90	2.5%	9	1%	0.6%	↓	4,749	5.7%	-398	-3%	-0.4%	↓

ABS = Absolute change; CAGR = Compound Annual Growth Rate; Source: Statistics NZ; DairyNZ; MAF/MPI; Coriolis analysis and estimates

A3. ABBREVIATIONS

ABS	Absolute change	kg	Kilogram
ANZSIC	AU/NZ Standard Industry Classification	L	Litre
AU	Australia	m/ml	Million
Australasia	Australia and New Zealand	MFtE	Ministry for the Environment
b	Billion	MPI	Ministry of Primary Industries
CAGR	Compound Annual Growth Rate	mT/MT	Metric Tonne
F&B	Food and Beverage	n/a	Not available/not applicable
F&V	Fruit and Vegetables	Nec/nes/nei	Not elsewhere classified/specified/indicated
FAO	Food and Agriculture Organisation of the United Nations	N/C	Not calculable
FOB	Free on Board	NZ	New Zealand
f	Forecast	NZD/NZ\$	New Zealand Dollar
GEO	Geographic (unit)	T	Tonne
Ha	Hectare	US/USA	United States of America
HS Code	Harmonized Commodity Description and Coding System	US\$/USD	United States dollar
JV	Joint venture	Y	Year



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