

Food and  
Fibre  
Workforce  
Data 2021  
Spotlight



# Disclaimer

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) which are carefully managed by Stats NZ. For more information about the IDI and LBD please visit <https://www.stats.govt.nz/integrated-data/>

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements

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# Food and Fibre Workforce Data 2021 Spotlight

## **Purpose of this document**

- Share the updated data for 2021
- Highlight some interesting observations and insights

# Executive summary

## **Executive summary**

This presentation provides an analysis of the food and fibre workforce for the year ended 31 March 2021. This was the year after the borders were closed because of COVID-19. It presents a picture of what the workforce looked like in that year, comparing it to 2019 and 2020.

When New Zealand went into nationwide lockdown (alert level 4) on 25 March 2020, many of the food and fibre businesses (with exceptions in forestry and wood processing) were considered essential services and continued to operate. New Zealand then moved to Level 1 on 8 June 2020.

### **Overall conclusions**

Overall, the number of people that were employed across the food of fibre sector was similar to the year ending March 2020.

The total annual average number of people employed in the food and fibre sector was down slightly by 0.6% to 358,000 from 360,000 in 2020. However, annual averages do not tell the full story, the seasonality and diversity of sectors and roles within the whole sector mean it is important to look at a range of variables to understand any changes more fully.

The data was broken-down by monthly employment counts, and by sector, value chain analysis, visa status (because of the border closures) and self-employed/employee status.

In many sectors, there was a reduction in workforce numbers early in the lockdown period compared to previous years. We have not found any evidence to support why this was the case, nor are we able to explain why there was a reduction in the number of self-employed people across the sector. Stats NZ's Linked Employer-Employee Data (LEED) data suggests that this self employment phenomenon is not isolated to just the food & fibre sector.

- *(continued)*

# Executive summary (continued)

## **Executive summary (continued)**

### **Specific changes to note**

The number of people on temporary work visas did not materially change compared to the years immediately preceding. This may have been because of New Zealand's relative COVID-19 free status and the ability of people to extend their visas.

The number of people on RSE visas was higher than average in the winter months because of visa extensions, and because many workers were unable to return to their Pacific countries because of the constrained availability of commercial flights at the time.

At the time the COVID-19 lockdowns were put in place there were large numbers of working holiday workers already in the country. As the year progressed, the working holiday number in the food and fibre sector fell by 6,800 from 8,100 in April 2020 to 1,300 by March 2021, as people went home and the border remained closed.

Although the overall workforce number was similar to previous years, there was variation across the year for many sectors, especially at peak times. For example, seafood processing had a reduction in employment throughout the whole year.

### **Limitations with this data**

This was a period of considerable stress and uncertainty for all New Zealanders. However, throughout this period, employers and employees worked to ensure that these essential services continued to operate. The data can never fully reflect this or the fact that for some individual businesses, COVID-19 was extremely disruptive. In some cases, lower numbers may have reflected time off due to COVID-19 while others were working longer hours.

This data is for the March 2021 tax year. The impacts of COVID-19 will likely continue to be felt beyond the 2021 year. We will continue to explore this impact as new data becomes available.

# Food and Fibre Workforce Data 2021

## Context

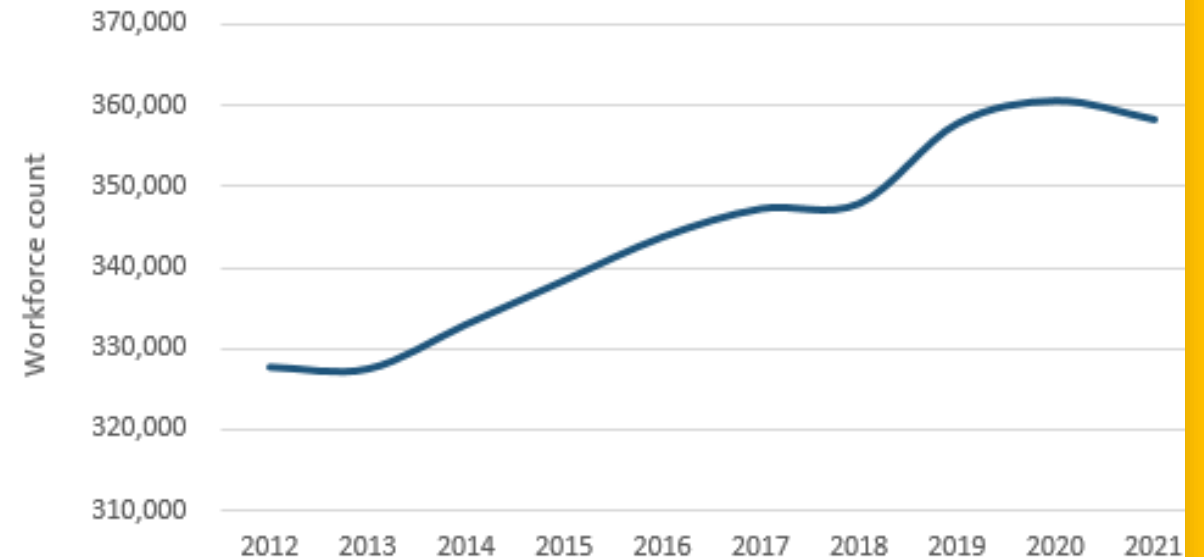
- The 2021 data covers the period from 1 April 2020 to 31 March 2021
- NZ went into nationwide lockdown (alert level 4) 25 March 2020 and the borders were closed
- Many of our food and fibre businesses were considered essential services (only some forestry and wood processing firms were considered essential services)
- Most of New Zealand moved to alert level 1 on 8 June 2020, except northern parts of the North Island which had some subsequent regional lockdowns

# Overview of the whole food and fibre workforce

- At a very high level, the overall annual average 2021 workforce number represents a slight change (-0.6%).
- The trajectory from previous years had been a period of continued employment growth (2013-2020). This flattened in 2021.
- The reduction is spread fairly evenly across all sectors.
- However, average annual counts are unlikely to fully demonstrate the changes over the year

Sector	Year		Change	
	2020	2021	Numerical	Percentage
Arable	23,416	23,322	-94	-0.4%
Dairy	54,817	55,192	375	0.7%
Forestry and wood processing	41,780	41,568	-212	-0.5%
Horticulture	66,178	65,878	-300	-0.5%
Pork, poultry, bees and other	26,917	26,525	-392	-1.5%
Red meat and wool	77,802	76,553	-1,249	-1.6%
Seafood	12,575	12,046	-529	-4.2%
Cross sector	66,534	66,157	-377	-0.6%
<b>Food &amp; Fibre Sector</b>	<b>360,518</b>	<b>358,215</b>	<b>-2,303</b>	<b>-0.6%</b>

Average annual workforce counts by sector  
All food and fibre sectors





# Approach to the analysis

To better understand any changes in the number of people employed we have broken the data down by:

- Position in the value chain – Core Production, Core Processing, Strongly Connected, etc.
- Employment status – self employed, employed
- New Zealand citizens and residents versus migrants - to better understand the impact of border closures
- We also analysed the monthly employment counts

## Sector/Designation changes

- To further understand the changes, the average annual counts have been disaggregated across the value chain.

Sector	March tax year	Core production	Core processing/ manufacturing	Strongly connected	Relevant	Other	Total
Arable	2021	4,883	1,992	16,225	280		23,322
	2020	4,850	2,042	16,317	282		23,416
	Change	33	-50	-92	-2		-94
Dairy	2021	39,525	14,500	1,258			55,192
	2020	39,583	13,958	1,333			54,817
	Change	-58	542	-75			375
Forestry and wood processing	2021	12,692	11,317	17,467	185		41,568
	2020	12,667	11,408	17,633	180		41,780
	Change	25	-91	-166	5		-212
Horticulture	2021	36,958	25,325	4,108	228		65,878
	2020	35,783	26,392	4,483	245		66,178
	Change	1,175	-1,067	-375	-17		-300
Pork, poultry, bees and other	2021	9,467	3,575	13,542			26,525
	2020	9,625	3,758	13,600			26,917
	Change	-158	-183	-58			-392
Red meat and wool	2021	47,208	23,983	5,208	370		76,553
	2020	48,558	24,025	5,158	369		77,802
	Change	-1,350	-42	50	1		-1,249
Seafood	2021	6,142	4,508	1,083	512		12,046
	2020	6,167	4,875	1,225	516		12,575
	Change	-25	-367	-142	-4		-529
Cross sector	2021			11,283	21,460	5,805	66,157
	2020			11,158	21,419	6,415	66,534
	Change			125	41	-610	-377
Indicative	2021	50%	24%	19%	6%	2%	358,215
	2020	50%	24%	20%	6%	2%	360,518
	Change	-0.1%	-0.3%	-0.2%	0.01%	-0.2%	-2,303

**Note:** The total indicates the overall unique numbers of people. Workforce counts for each designation and sector won't necessarily sum to the total - some people may work in more than one sector and designation.

# Self-employment analysis

There has been a reduction in self-employment numbers across the food and fibre sector

Year	Designation	Red Meat & Wool		Arable		Dairy		Forestry & Wood Processing		Horticulture		*PPBO		Seafood		Cross Sector	
		Self-employed	Employee	Self-employed	Employee	Self-employed	Employee	Self-employed	Employee	Self-employed	Employee	Self-employed	Employee	Self-employed	Employee	Self-employed	Employee
2020	Core production	31,200	17,408	2,800	2,100	16,300	23,342	5,400	7,258	8,300	27,550	4,100	5,567	2,700	3,442	8,700	18,975
2020	Core processing/mfg	430	23,567	100	1,892	130	13,808	410	10,983	1,100	25,325	18	3,725	880	4,025		
2020	Strongly connected	340	4,783	2,300	14,067	150	1,192	3,300	14,325	190	4,275	1,400	12,208	300	935	1,200	9,908
2020	<b>Total</b>	<b>31,970</b>	<b>45,758</b>	<b>5,200</b>	<b>18,059</b>	<b>16,580</b>	<b>38,342</b>	<b>9,110</b>	<b>32,566</b>	<b>9,590</b>	<b>57,150</b>	<b>5,518</b>	<b>21,500</b>	<b>3,880</b>	<b>8,402</b>	<b>9,900</b>	<b>28,883</b>
2021	Core production	30,100	17,092	2,700	2,208	16,000	23,483	5,400	7,375	7,900	29,067	3,900	5,500	2,600	3,533	8,700	18,933
2021	Core processing/mfg	410	23,575	100	1,875	160	14,342	420	10,908	1,100	24,242	20	3,567	800	3,708		
2021	Strongly connected	350	4,883	2,200	14,008	150	1,100	3,400	14,142	180	3,950	1,400	12,183	220	849	1,200	10,158
2021	<b>Total</b>	<b>30,860</b>	<b>45,550</b>	<b>5,000</b>	<b>18,091</b>	<b>16,310</b>	<b>38,925</b>	<b>9,220</b>	<b>32,425</b>	<b>9,180</b>	<b>57,259</b>	<b>5,320</b>	<b>21,250</b>	<b>3,620</b>	<b>8,090</b>	<b>9,900</b>	<b>29,091</b>
Self-employment changes 2020-2021		-1,110		-200		-270		110		-410		-198		-260		0	

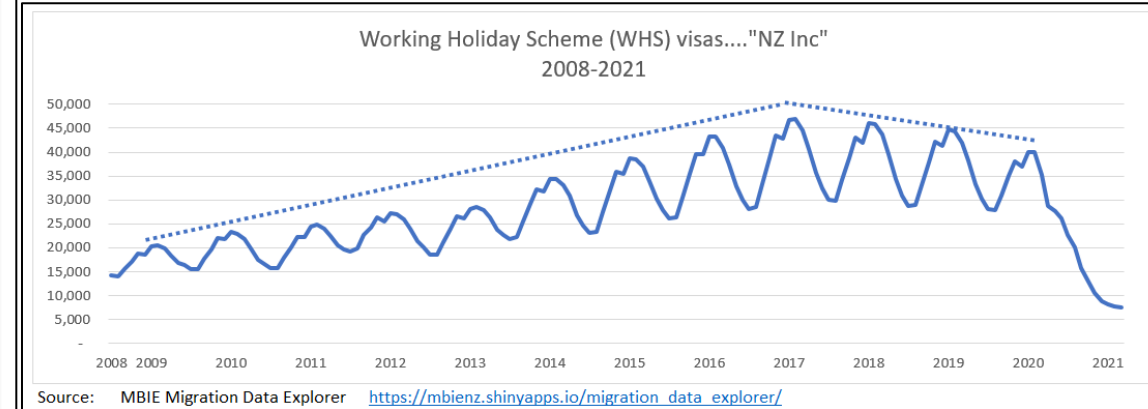
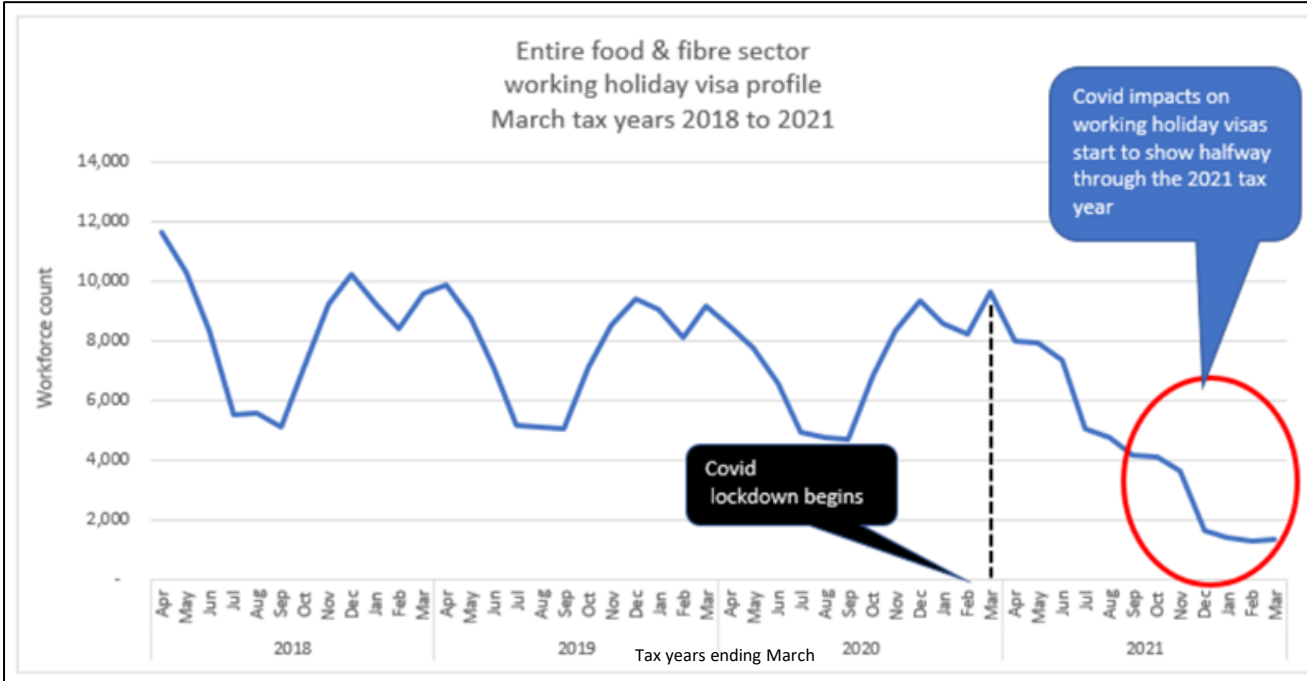
\*PPBO = Pork, poultry, bees & other

Cross sector includes activities/services that are not attributable to a single sector, rather they span multiple sectors and include veterinarian services, fertiliser & pesticide manufacturing, aerial topdressing, road transport, agritech and contracting firms (especially horticulture)

**Note:** These workforce counts exclude the relevant & other designation categories, so will not sum to the 360,000 food and fibre workforce totals.

# Working holiday visa analysis nationally and Food and Fibre sector

## Significant change in Working Holiday Scheme (WHS) visa holders



- One impact of the border closures was the inability of people on WHS visas to come to New Zealand. This likely impacted on all sectors usually employing WHS visa holders.
- The first half of the 2021 tax year mirrors that of previous years albeit at a slightly lower level. Over the past few years, the number of WHS visa holders coming to New Zealand had been on a slightly downward trajectory, i.e. the declining trend over the last few years of people on WHS visas was not isolated specifically to the food & fibre sector.
- The second half of the 2021 tax year shows that as people left, due to the border closure, overall numbers declined. In addition, there was a small offsetting rise in people in the “Other visas” visa category, some people on WHS visas transferred to other visa types such as the Supplementary Seasonal Employment visa (SSE) in order to get expiry date extensions.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Arable

## Key characteristics of the arable sector

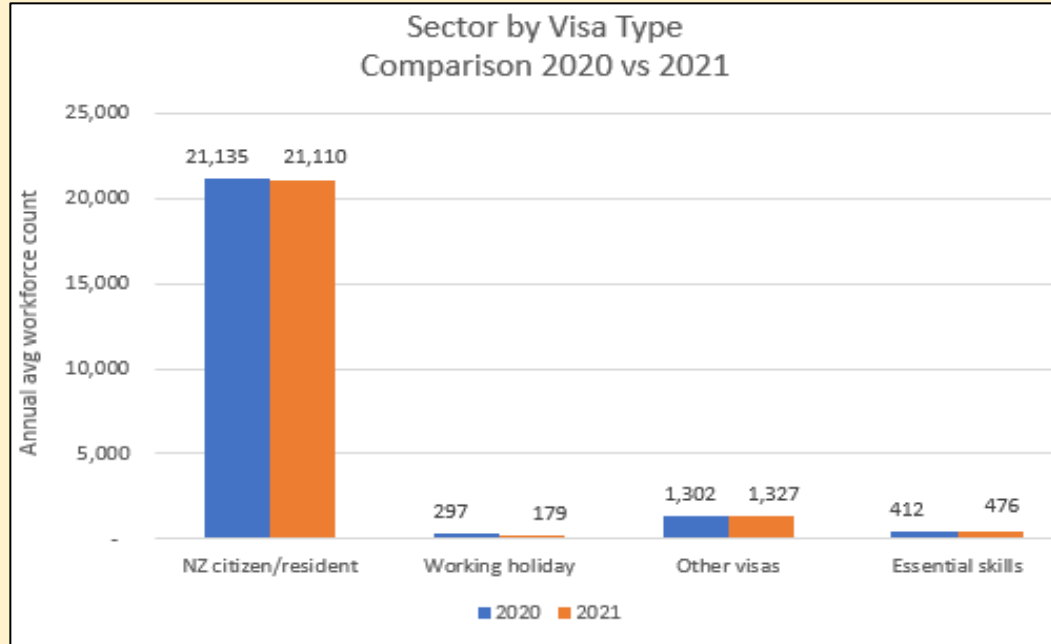
- The arable sector includes grain and seed production along with a diverse range of downstream industries such as flour milling, bread, bakery, cake, beer and spirit manufacturing
- Most of the arable seed production is from the Canterbury region (around 75%)
- The Foundation for Arable Research (FAR) advises that approximately 800 of their levy payers are dairy farmers growing 30/40 hectares of maize

## Changes in arable employment counts

- Overall annual average counts in 2021 were similar to 2020 levels
- By visa type, the main driver of the decrease was due to a decrease in annual average count of working holiday visa holders (by 119)
- For analysis purposes in the arable sector, first and second stage processing industries have been combined as the designation settings of “Core processing/manufacturing” and “Strongly connected”.

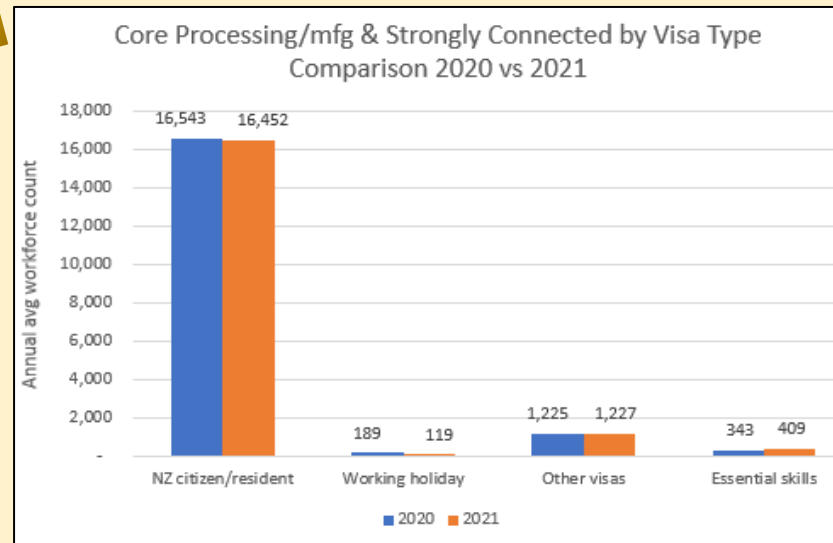
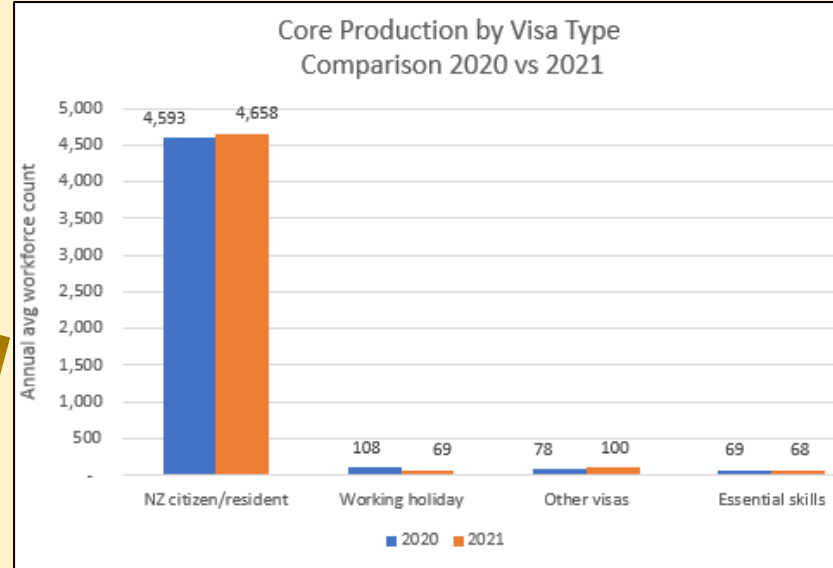
## Annual average employment

The Arable sector had an overall annual average reduction of 94 people (0.4%)



- The sector level change was primarily due to a decrease in the annual average working holiday visa holders by around 120.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.



- Working holiday visa holders decreased across both the core production and the core processing and strongly connected designations.

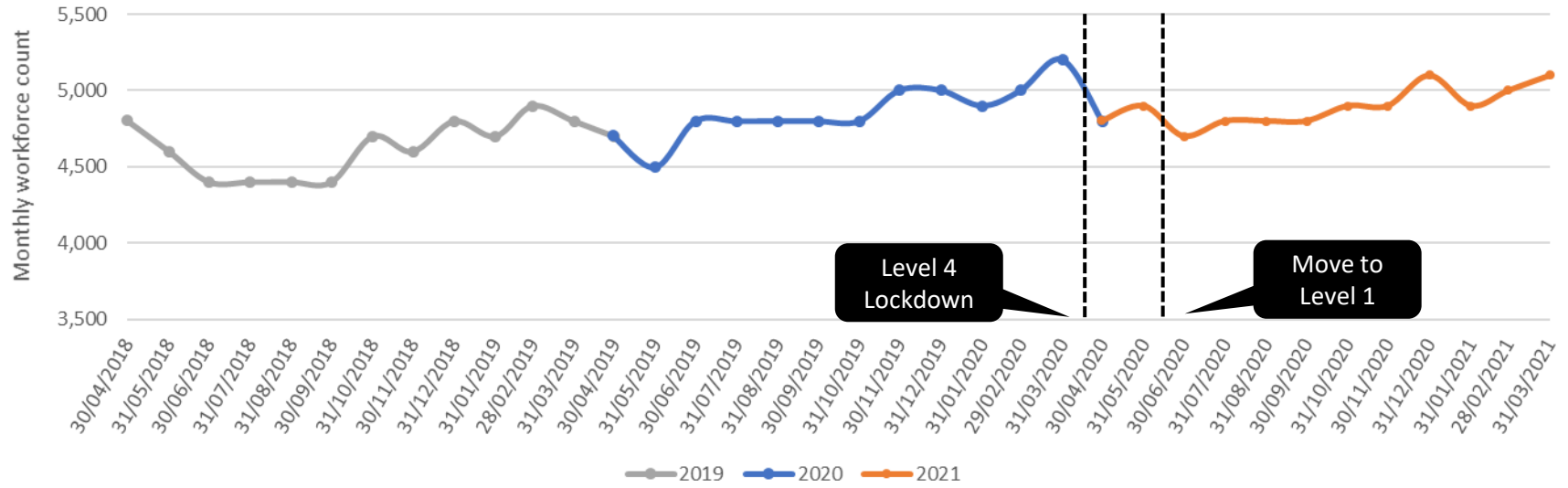
- There was an offsetting increase in essential skills visa holders within core processing and strongly connected designations.

# Arable

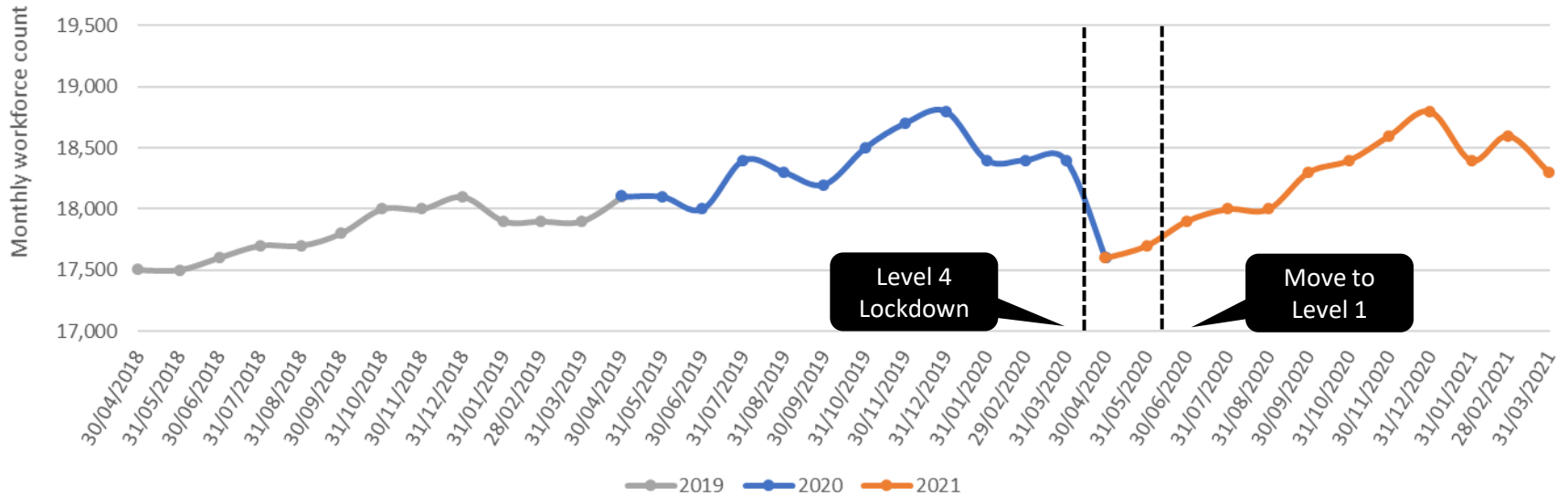
The arable sector workforce depicts similar workforce levels across the 2021 and 2020 years.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

Arable core production  
tax years ending March 2019, 2020 & 2021



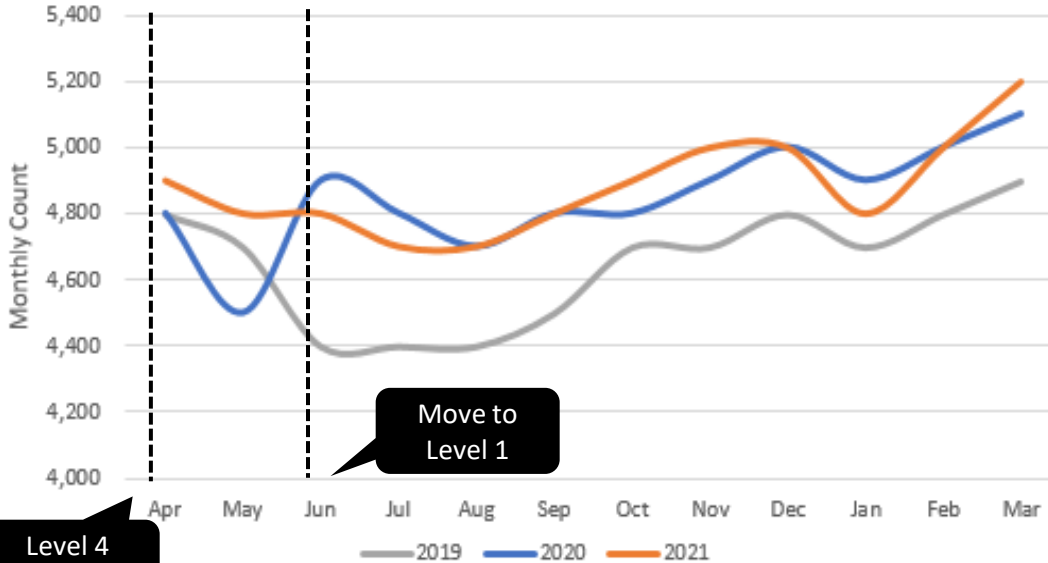
Arable core processing/mfg & strongly connected  
tax years ending March 2019, 2020 & 2021





# Arable

Arable - Core production  
Tax Year ending March



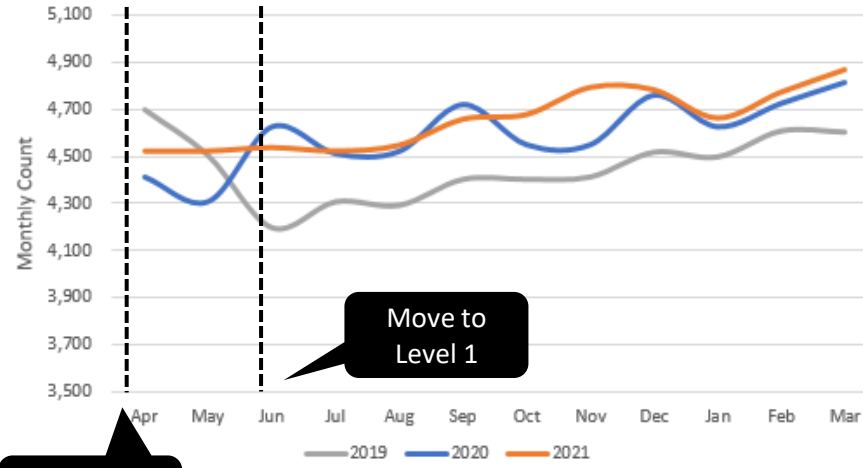
Level 4  
Lockdown

Move to  
Level 1

Overall, the arable core production workforce was relatively stable between the 2020 and 2021 tax years.

The seasonal pattern in the 2021 tax year was similar to that of the 2020 tax year.

Arable - Core production  
NZ citizen/resident  
Tax Year ending March

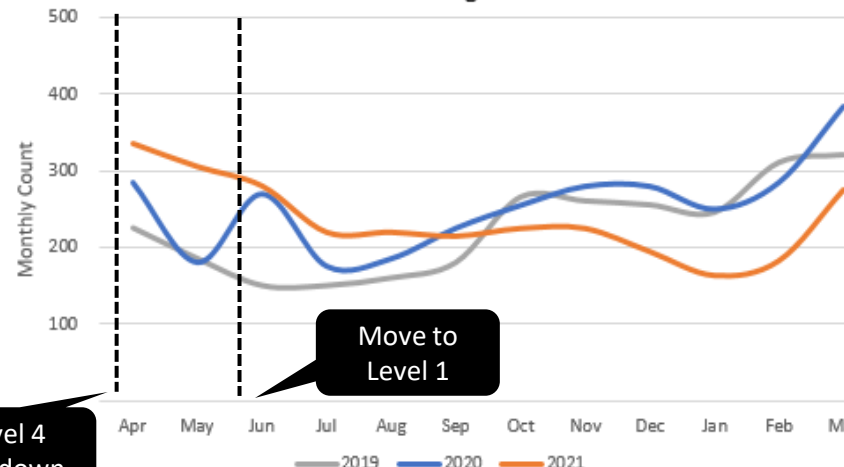


Level 4  
Lockdown

Move to  
Level 1

- In the 2021 tax year, the core production numbers of New Zealanders aligned with the 2020 tax year levels.

Arable - Core production  
Migrant population  
Tax Year ending March



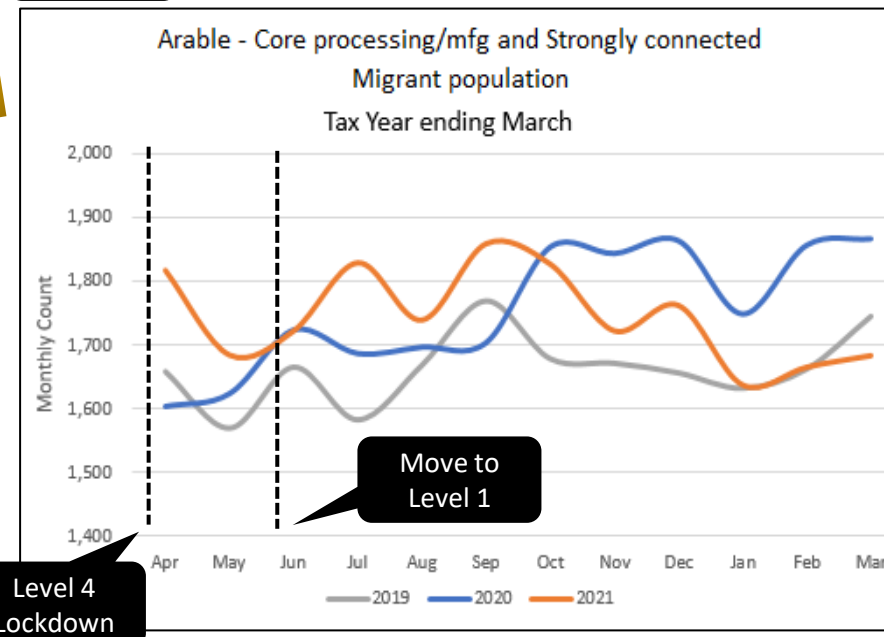
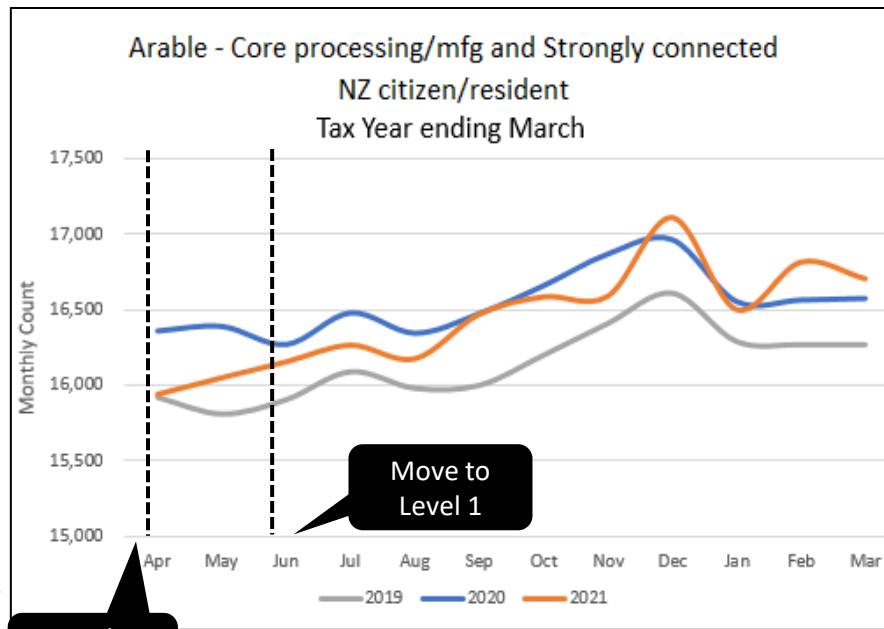
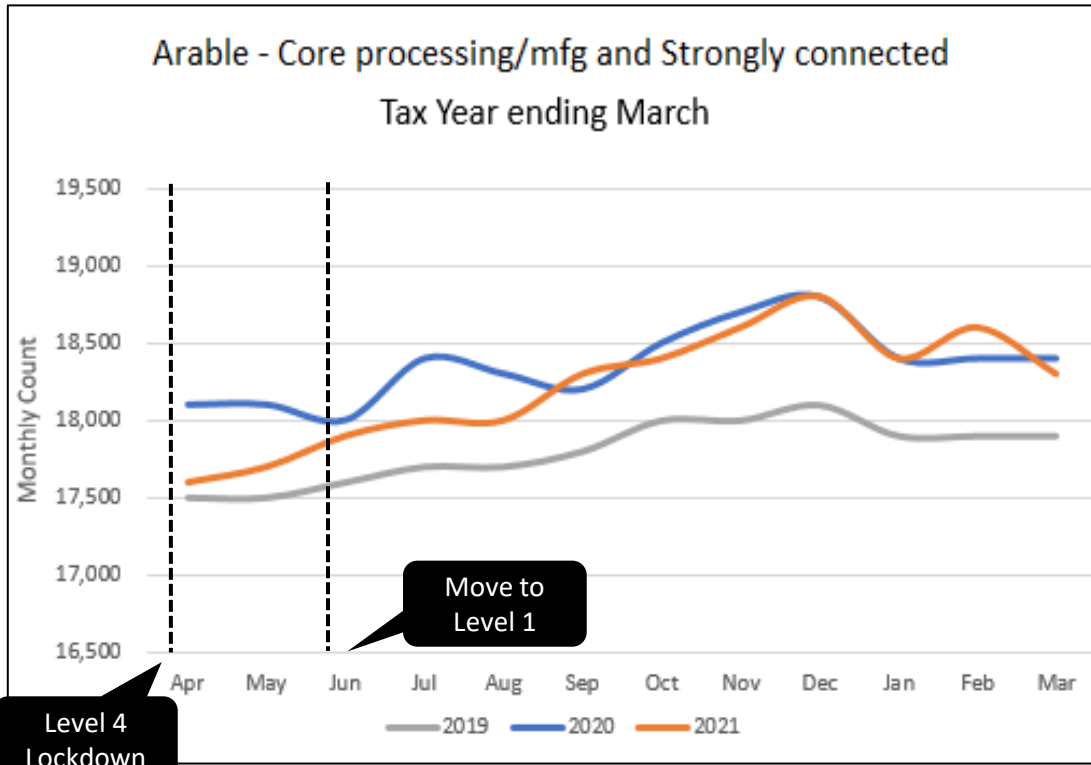
Level 4  
Lockdown

Move to  
Level 1

- In core production, migrant numbers were slightly higher in the first half of the 2021 tax year and then dipped to be slightly lower during the second half of the 2021 tax year mostly due to lower levels of working holiday visa holders.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Arable



- Apart from the slight reduction during lockdown months in the core processing and strongly connected designations the New Zealander's figures in the 2021 tax year aligned with the previous years' seasonal patterns.

- Migrant numbers were slightly higher in the first half of the 2021 tax year and then dipped during the second half of the 2021 tax year mostly due to lower levels of working holiday visa holders.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

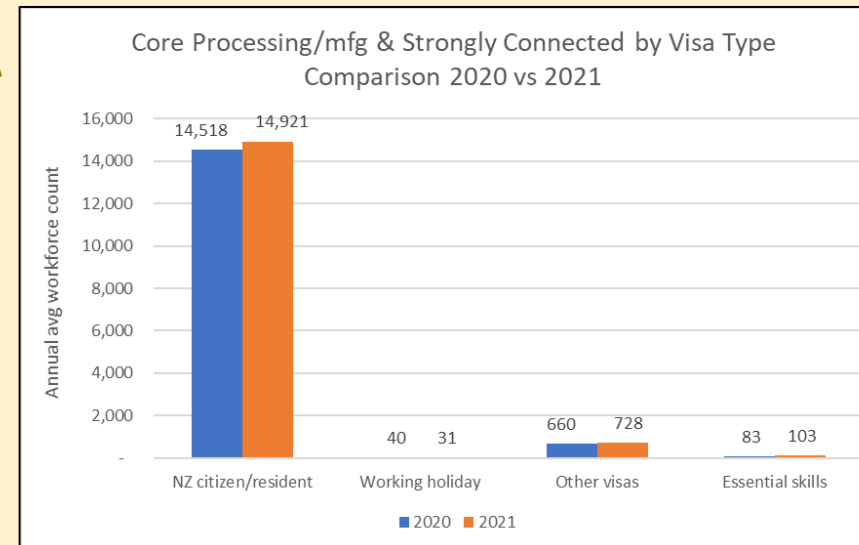
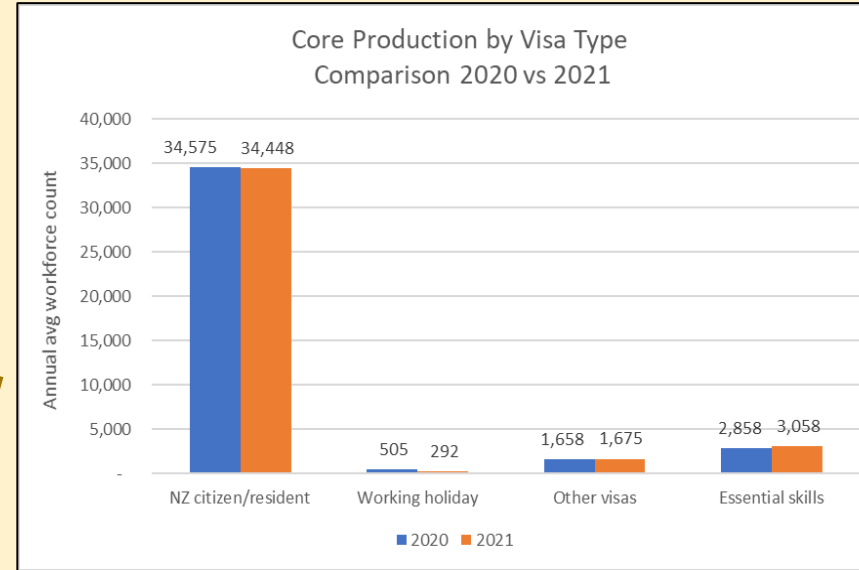
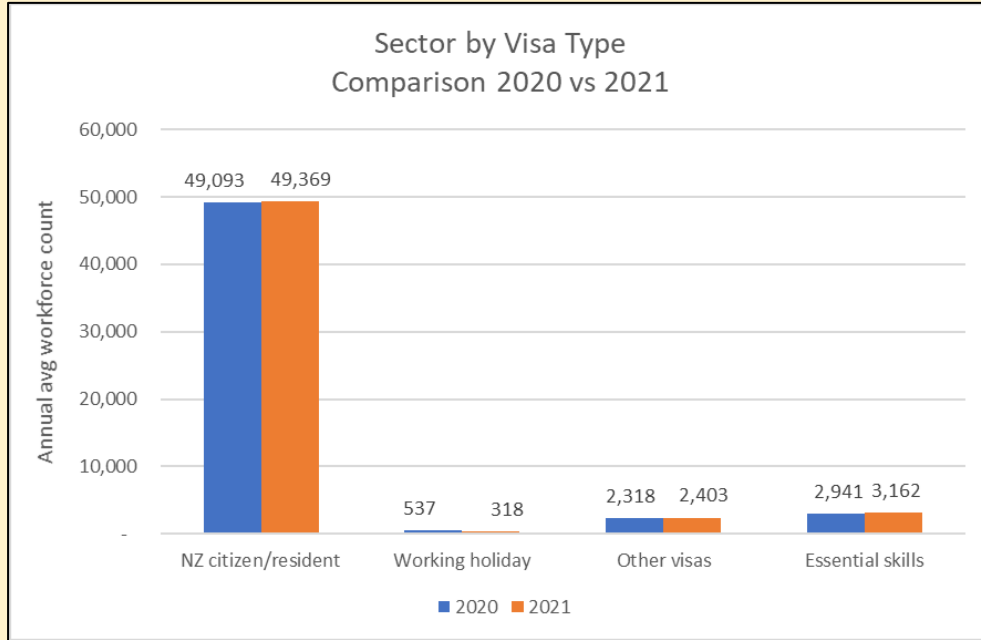
# Dairy

## Key characteristics of dairy sector

- Large workforce (annual average 54,000)
- 72% of workforce is in core production
- Between the 2020 and 2021 dairy core processing annual average employment grew by 3.7%, whereas annual average employment in dairy farming was static
- The migrant workforce varies throughout a year, essential skill visa holders is around 8% of the production workforce at an annual average of 3,150 people
- People on working holiday visas are a small but important part of the calving workforce, which generally runs from July through to October

## Annual average employment

The Dairy sector had an increase of 400 people (0.7%)



- The overall annual average sector level change was due to:
  - An increase in New Zealanders by 276
  - An increase in essential skill visa holders by 221
  - A decrease of 220 in working holiday visa holders.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

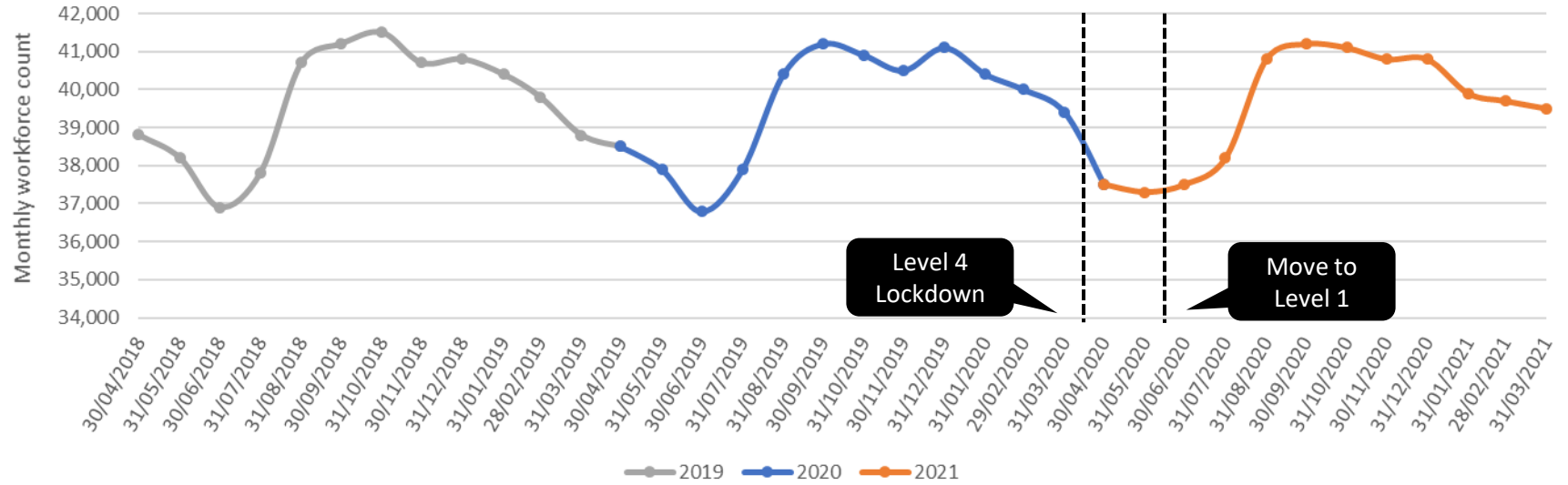
# Dairy

The dairy farming workforce is normally smallest in June. However, in 2021 this decline in workforce numbers began earlier.

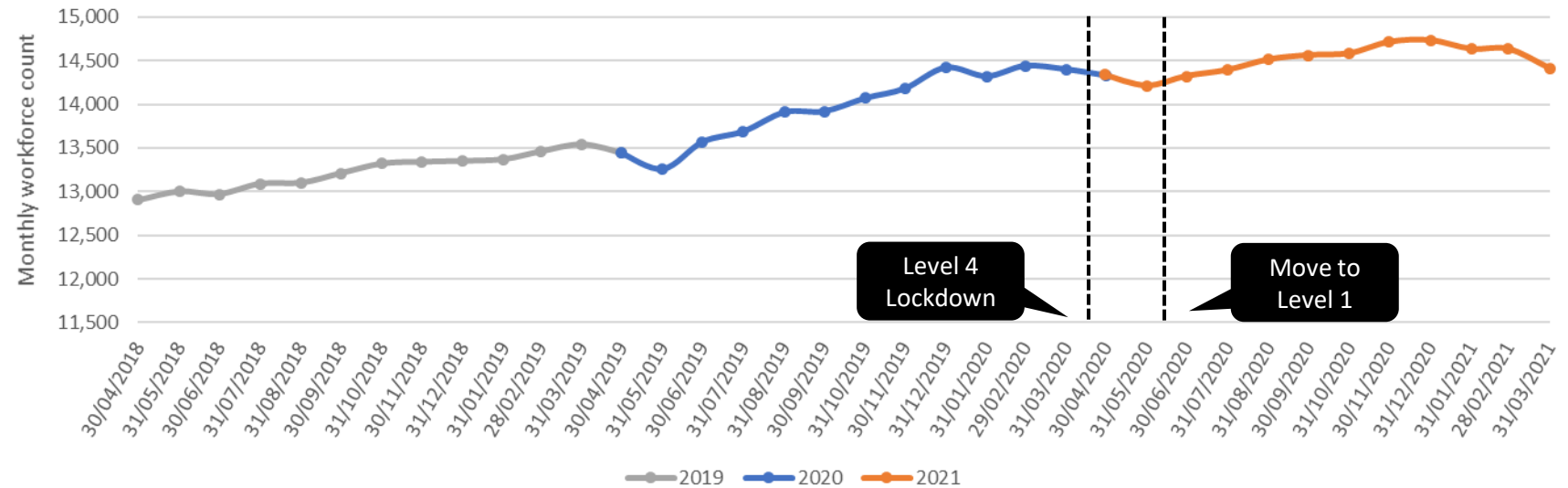
The processing workforce has continued its growth trend.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

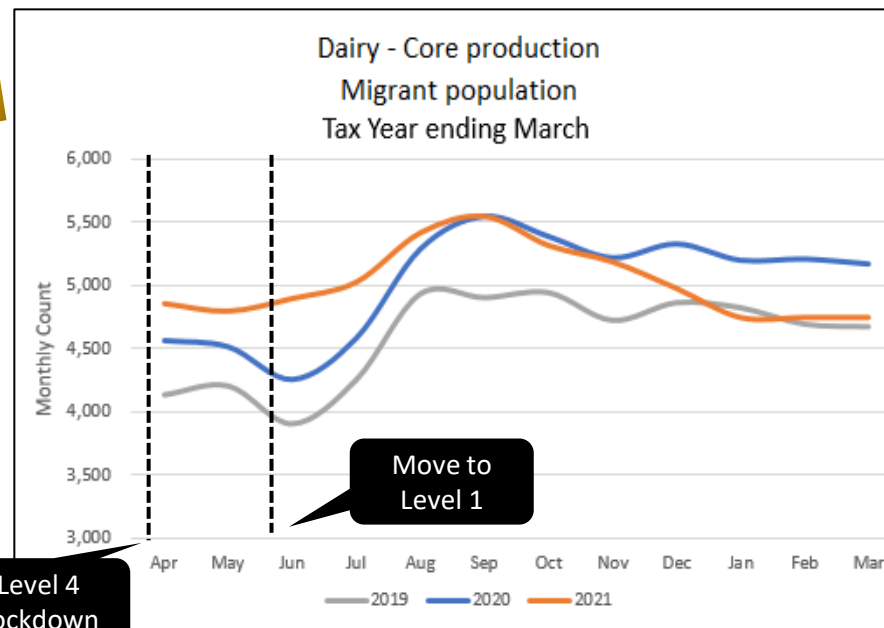
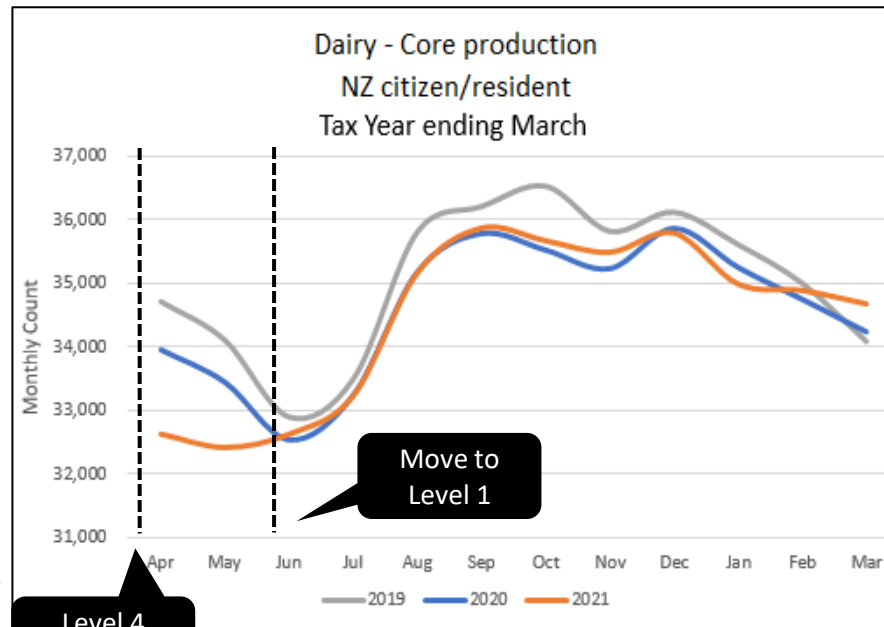
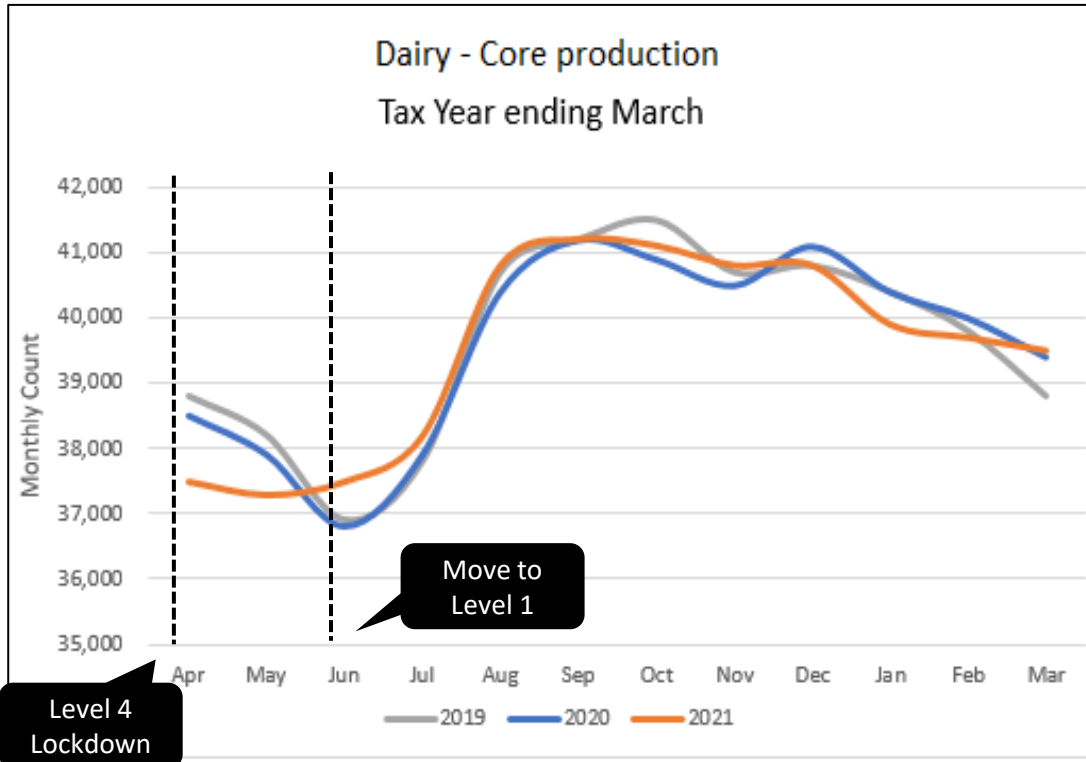
Dairy core production  
tax years ending March 2019,2020 & 2021



Dairy core processing/manufacturing  
tax years ending March 2019,2020 & 2021



# Dairy

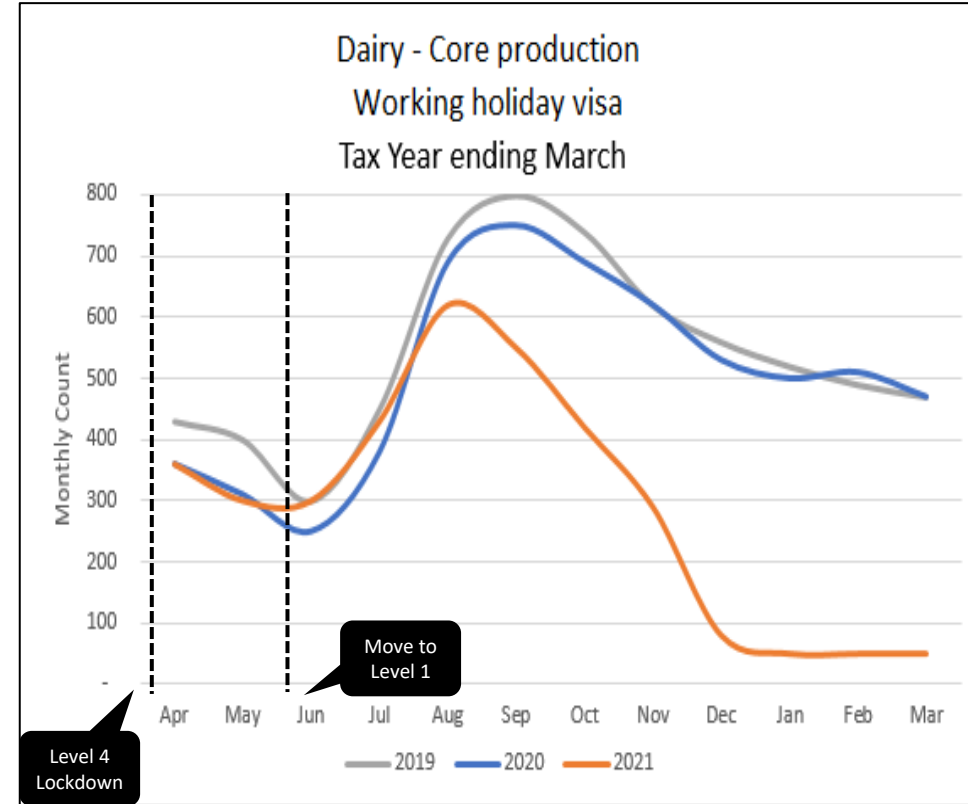
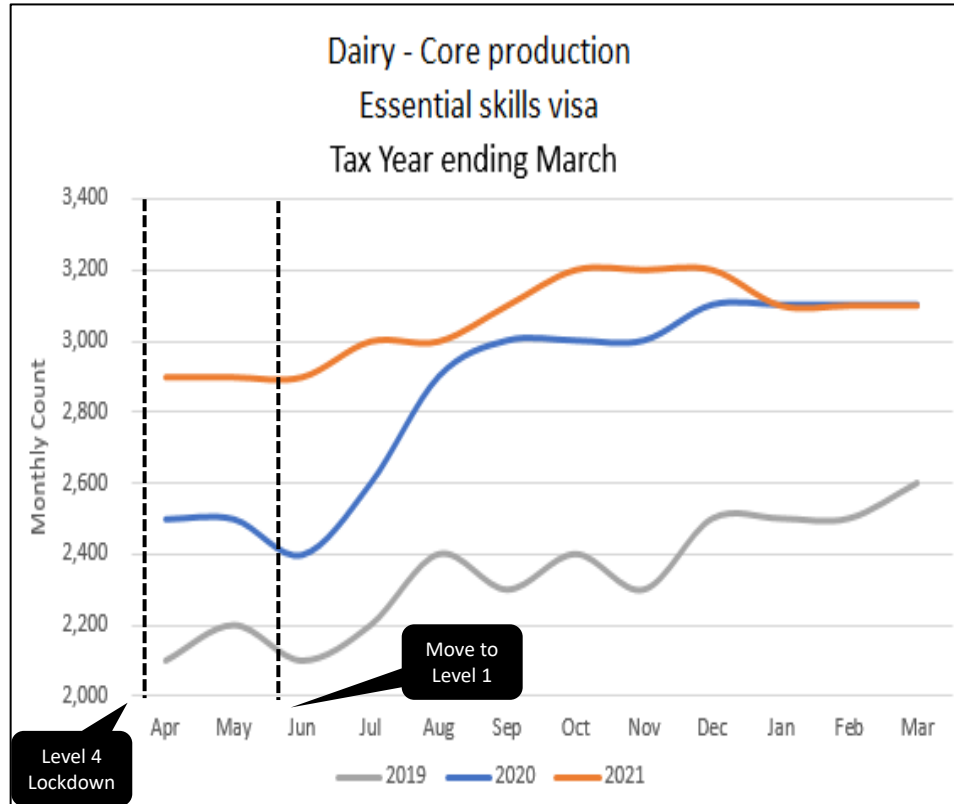


Overall, the dairy core production workforce remained relatively stable during the 2021 tax year. The dip in numbers that normally occurs in June started earlier, which may have been bought on by the onset of COVID-19.

Migrant numbers (mostly essential skills visa holders) were higher in the earlier part of the year compared to previous years but declined in the later part of the year compared to 2020, mostly due to fewer working holiday visa holders (see next slide).

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

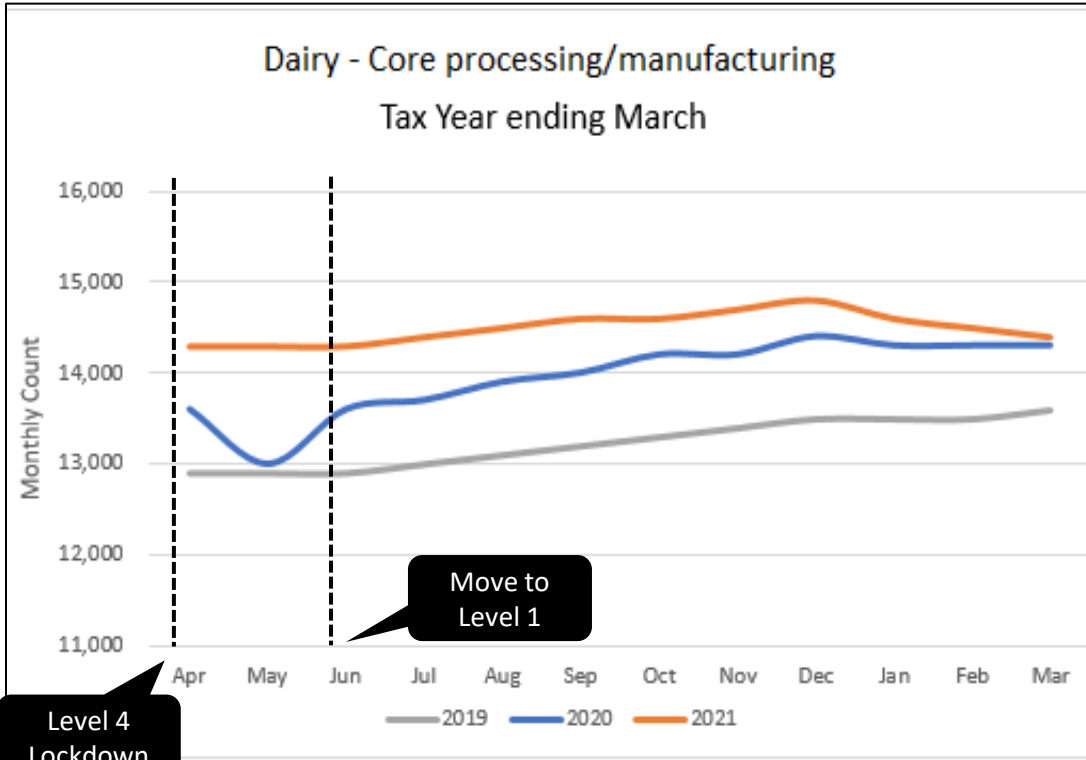
The Dairy sector had a minor increase of 400 people (0.7%)



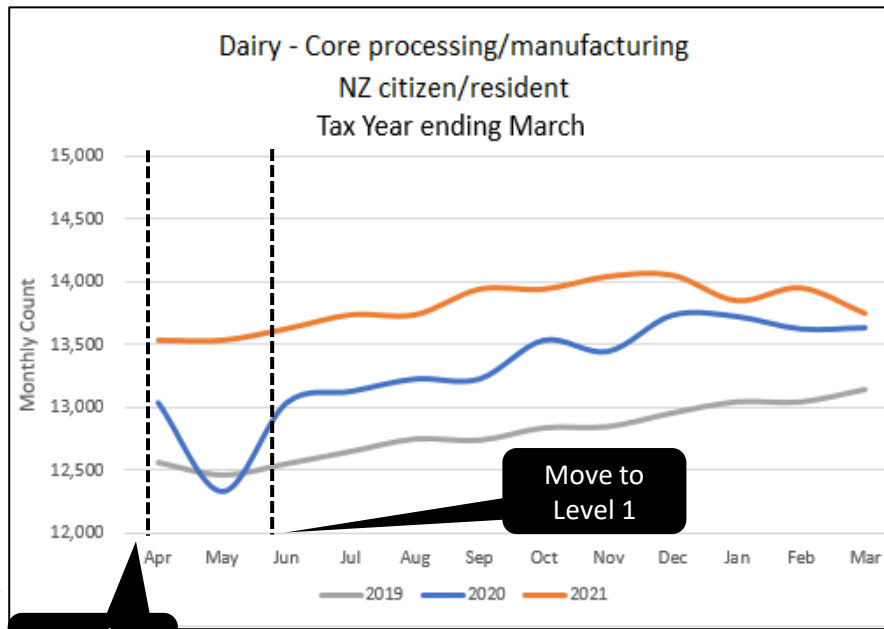
- Whilst dairy core production appeared to be fairly stable during the 2021 tax year there were offsetting changes within the migrant categories of essential skills visas and working holiday visas.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Dairy

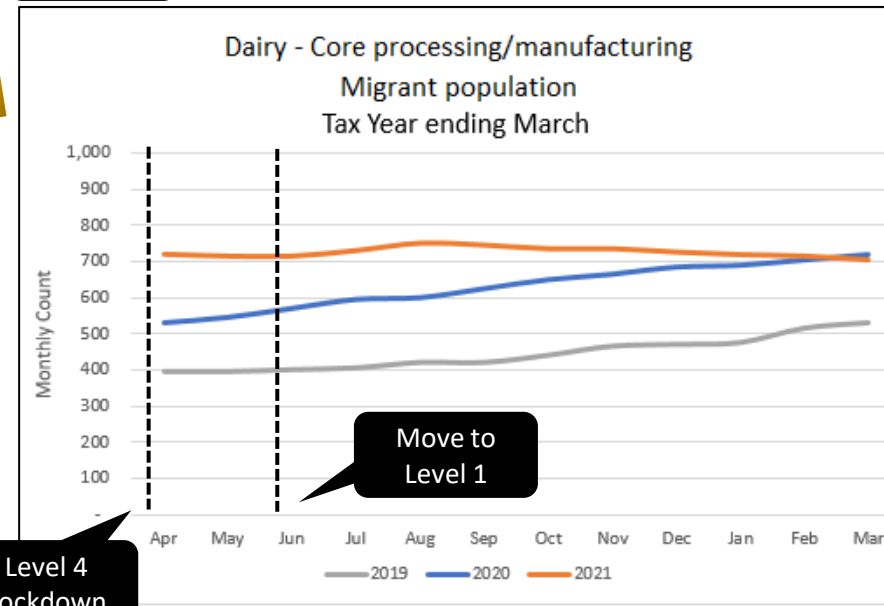


The dairy processing workforce was reasonably stable over the 2021 tax year.



Level 4  
Lockdown

Move to  
Level 1



Level 4  
Lockdown

Move to  
Level 1

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.



# Forestry and Wood Processing

## Key characteristics of the Forestry and Wood Processing sector

- Over 70% of the workforce is in core processing/manufacturing and strongly connected
- More than 50% of forestry exports go to China. *In late 2019, China temporarily stopped accepting imported logs, exports resumed in Feb 2020. This does not appear to have impacted materially on forestry workforce numbers during the period.*
- Only some parts of the Forestry and wood processing sector were considered as an **essential service** during the level 4 lockdown:
  - \* *Some pulp and paper mills operated;*
  - \* *Secondary wood processors who produced shipping pallets, packing cases and other packaging requirements for supporting food, beverage and pharmaceutical supplies;*
  - \* *Chip and pellet production for supply of essential domestic and industrial heating (such as for hospitals and food processors);*
  - \* *Dispatch operators involved in moving sawmill stocks;*
  - \* *Nurseries were able to carry out maintenance on capital stock and plants to keep them alive.*

### **Non-essential services included:**

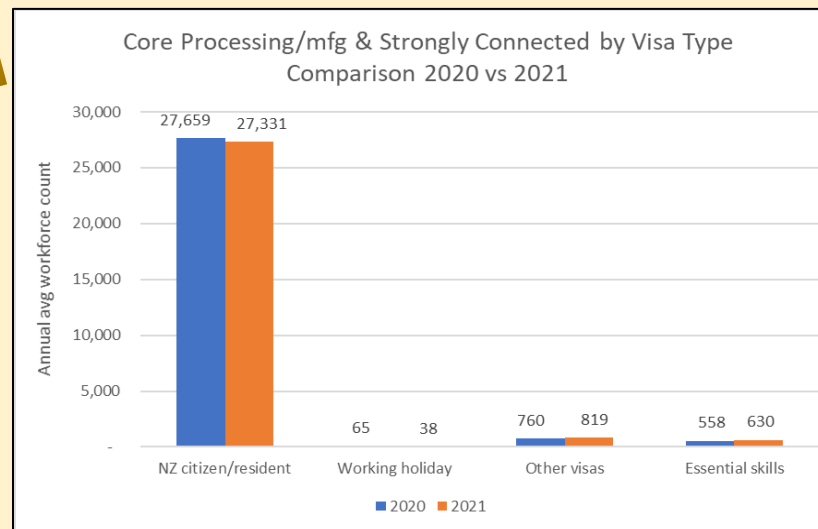
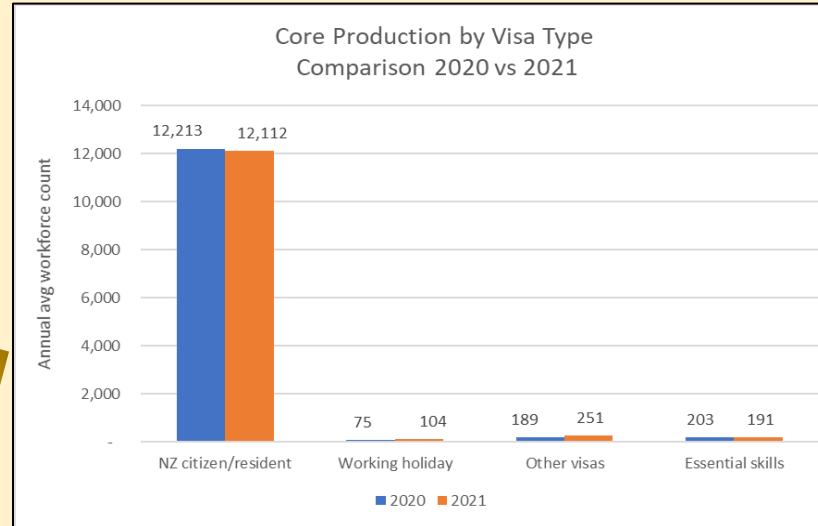
- \* *Logging harvesters;*
- \* *Sawmills and all other producers of wood products including but not limited to Particleboard, plywood, MDF & LVL; and*
- \* *All secondary processors of wood products except those explicitly listed above.*

# Forestry and Wood Processing

## Changes in forestry and wood processing employment counts

- Overall annual average count went down by 212 (0.5%), self-employed workers down by 410 people
- The decrease happened in core processing and strongly connected
- The main driver of the decrease was due to a decrease in New Zealanders of 430 people
- For analysis purposes in the forestry and wood processing sector, first and second stage processing industries have been combined as the designation settings of “Core processing/manufacturing” and “Strongly connected”.

The Forestry & wood processing sector had a decrease of 212 people (0.5%)



- The annual average employment changes were due to:
  - A decrease in New Zealanders by 430
  - An increase in Other visas by 120
  - An increase in Essential skills visas by 60

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

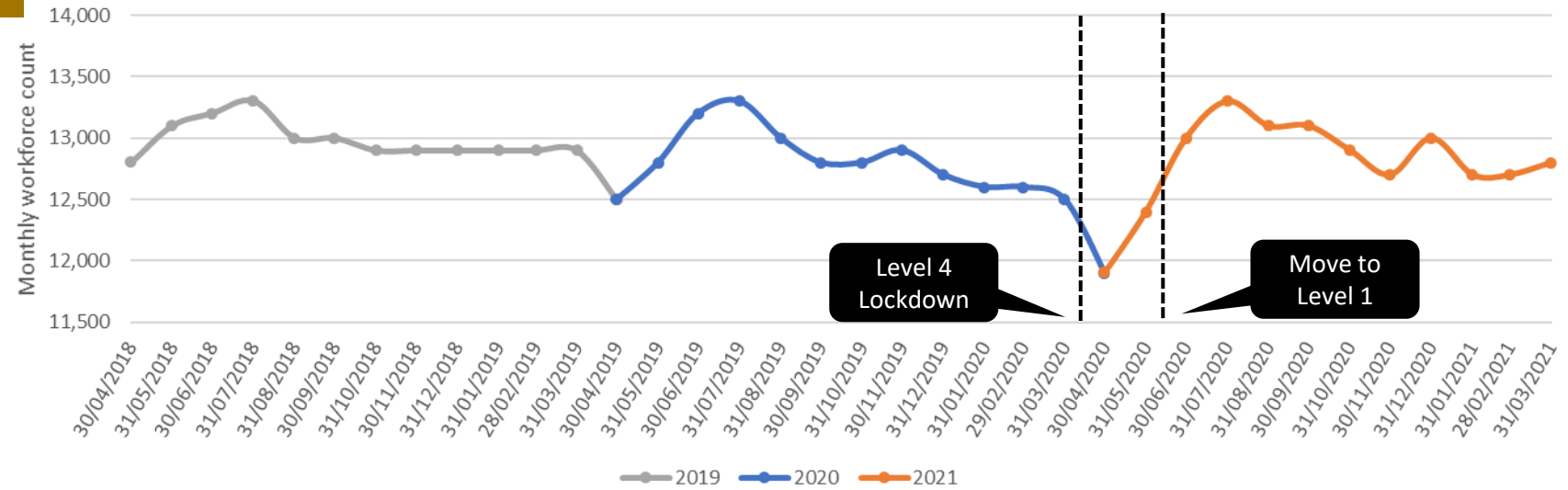
# Forestry & Wood Processing

The Forestry core production workforce fell from December 2019 and became more pronounced around April and May 2020. This period of April/May is when COVID-19 lockdowns occurred, some contractors had no work due to the decrease in exports to China.

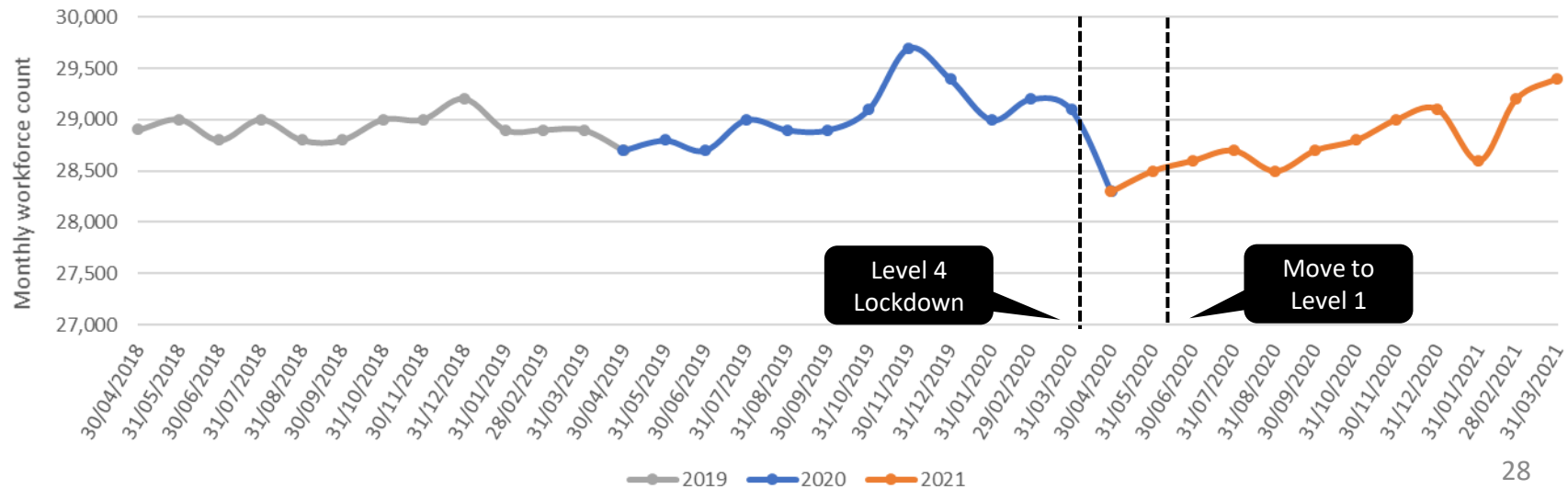
In March 2020, the government announced a \$100m redeployment relief package, part of which was for temporarily placing forestry workers elsewhere in local roading work, hazardous tree removal, training, conservation, and the Government's One Billion Trees programme.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

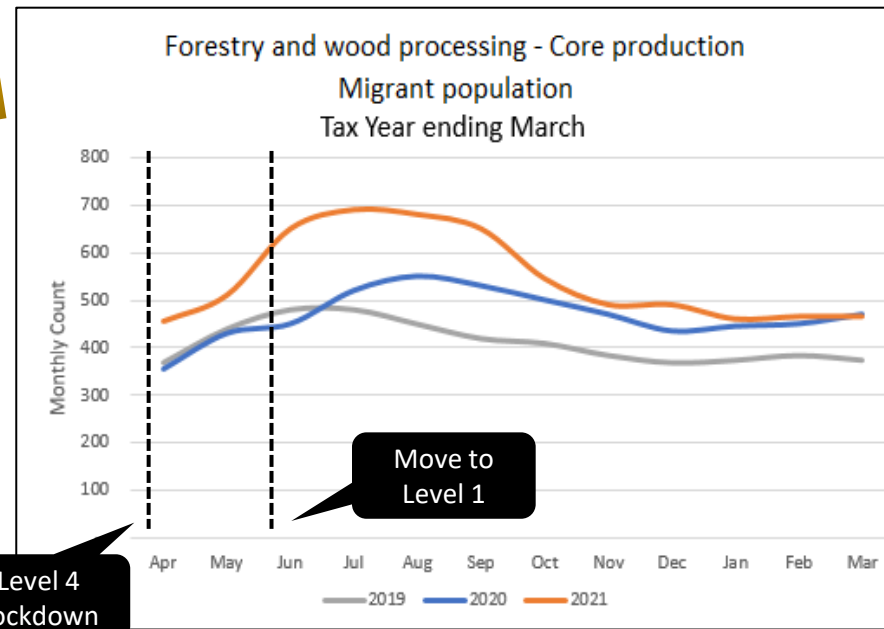
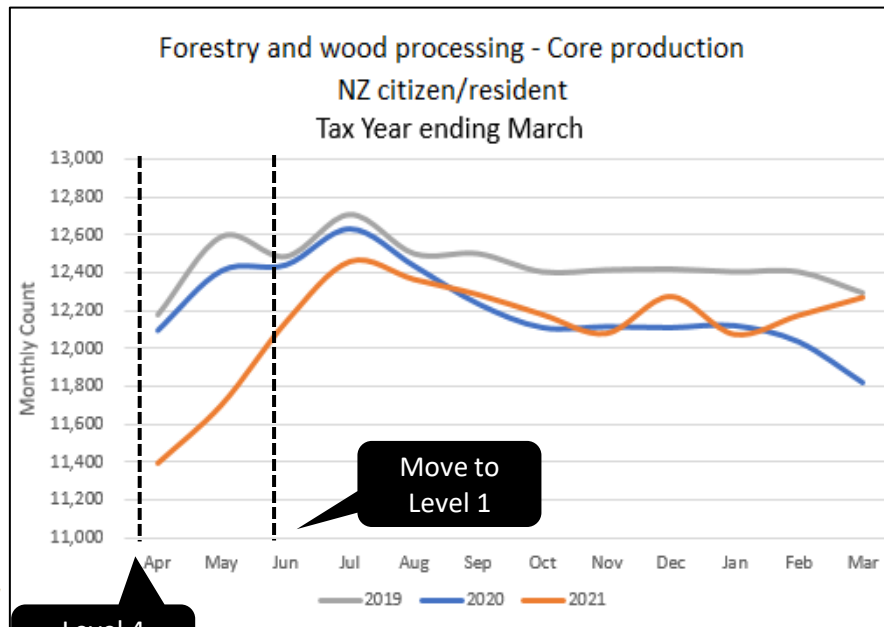
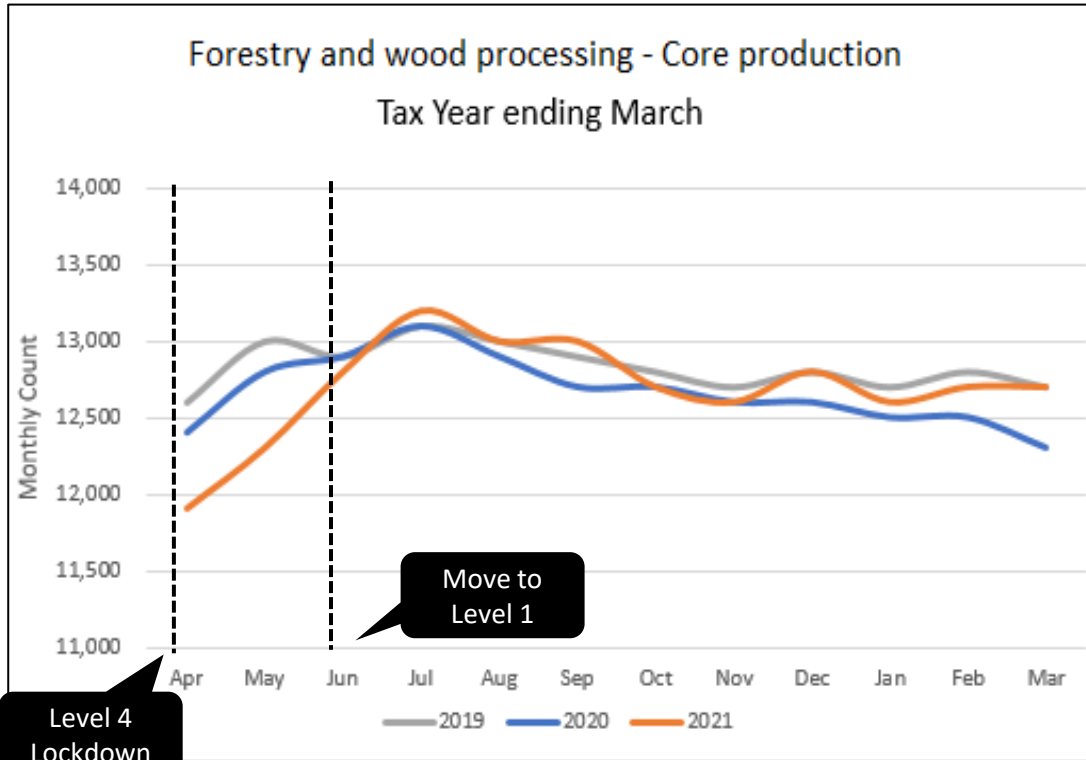
Forestry core production  
tax years ending March 2019,2020 & 2021



Forestry core processing/manufacturing & strongly connected  
tax years ending March 2019,2020 & 2021



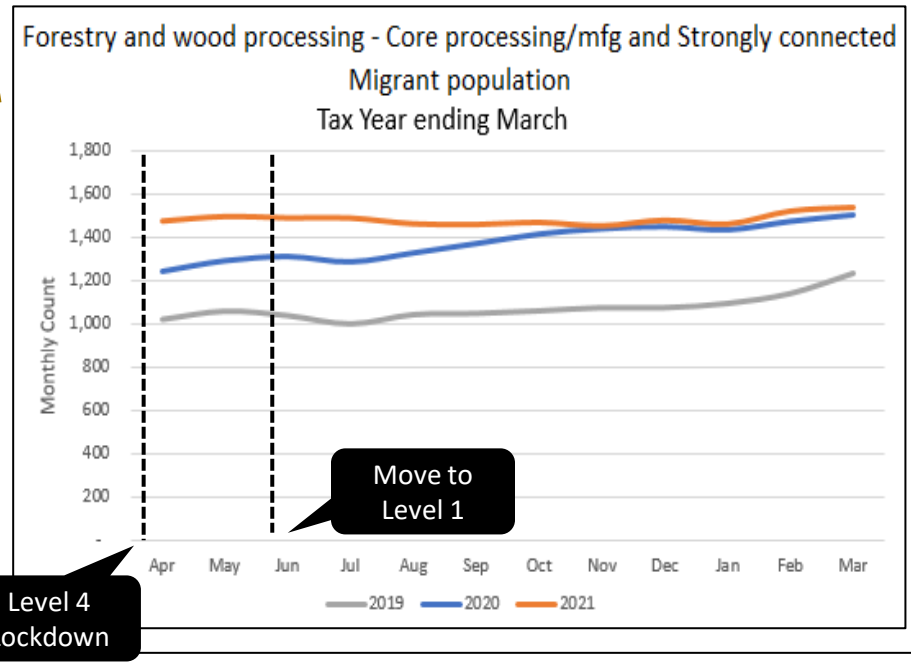
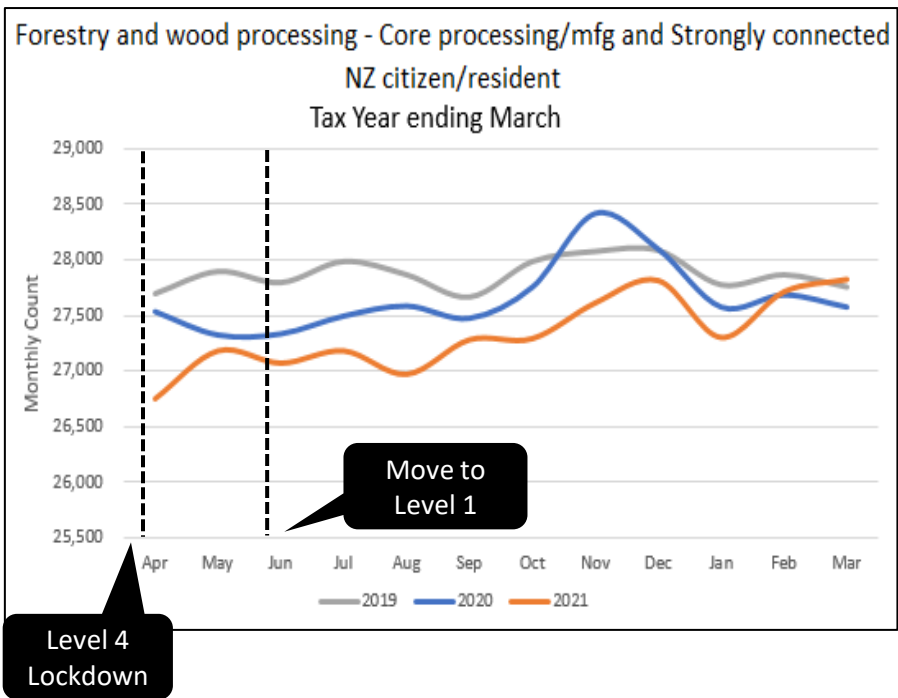
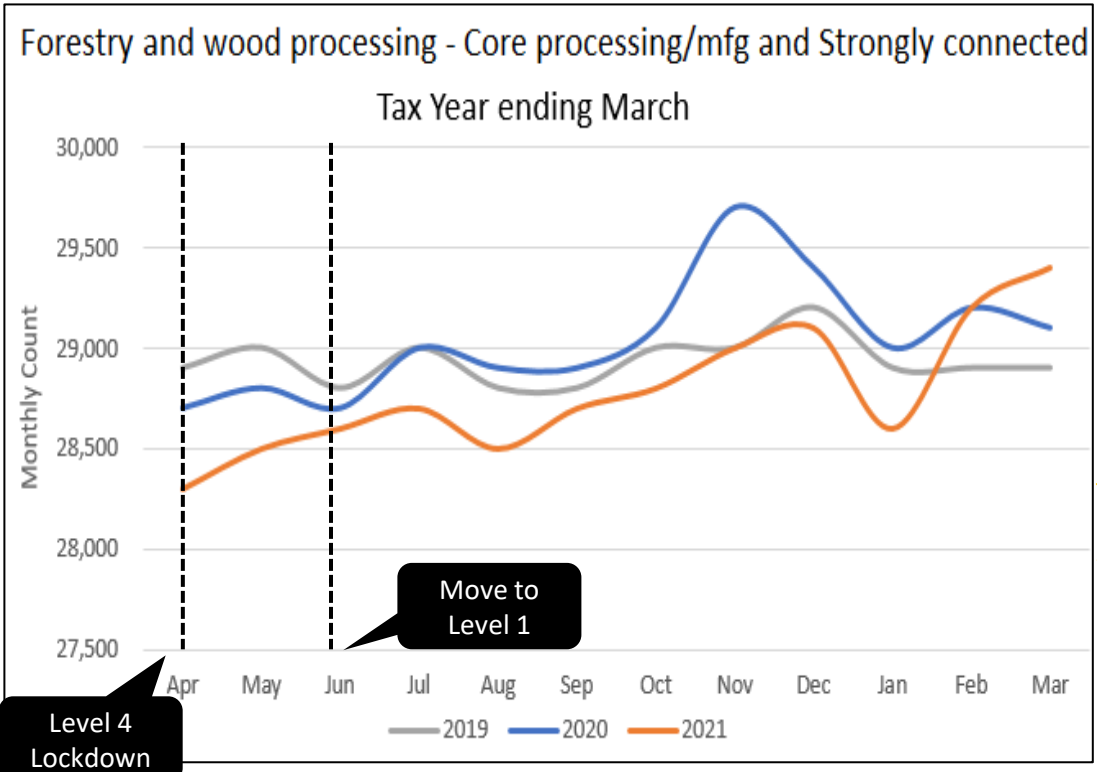
# Forestry & Wood Processing



Overall, in the forestry core production workforce there was a reduction (mainly New Zealanders) during the COVID-19 lockdown months of April/May 2020.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Forestry & Wood Processing



Overall, the forestry core processing and strongly connected workforce was relatively stable over the 2021 tax year, notwithstanding some fluctuating compositional changes of New Zealanders within the COVID-19 lockdown months.

- Within core processing/manufacturing and strongly connected the number of New Zealanders started to fall during the latter part of the 2020 tax year as China cancelled export orders.
- By April 2020 the number had fallen by 1,670 people from November 2019 to around 26,750 during the lockdown month of April 2020 (first month of 2021 tax year), before returning to similar levels around June 2020.
- In core processing/manufacturing and strongly connected, migrants in the 2021 tax year were stable. It is worth noting that rises in the number of migrants in the previous year were driven mostly by increases in essential skill visa holders.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Horticulture

## Key characteristics of the horticulture sector

- Horticulture covers a diverse range of subsectors (including vegetable growing, kiwifruit, viticulture), with large variations in demand for labour. Migrants (especially RSE and WHS) are an important source of labour at critical times
- Many RSE workers had their visas extended during Covid
- Horticulture can be more difficult to analyse than other food and fibre sectors, because of the wide usage of contractors across the sector (see Horticulture spotlight)
- The main additional ANZSIC06 classes identified are Other Agriculture and Fishing Support Services (seasonal contractors) and Labour Supply Services, which are located in Cross Sector

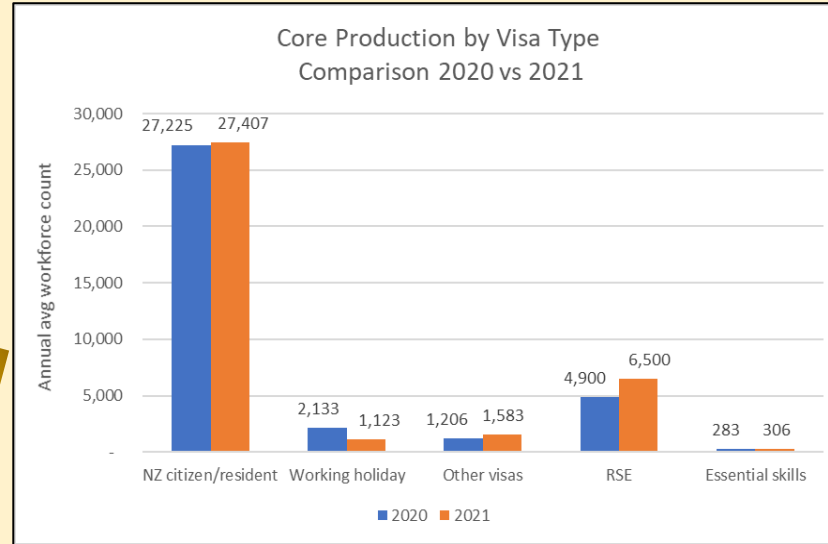
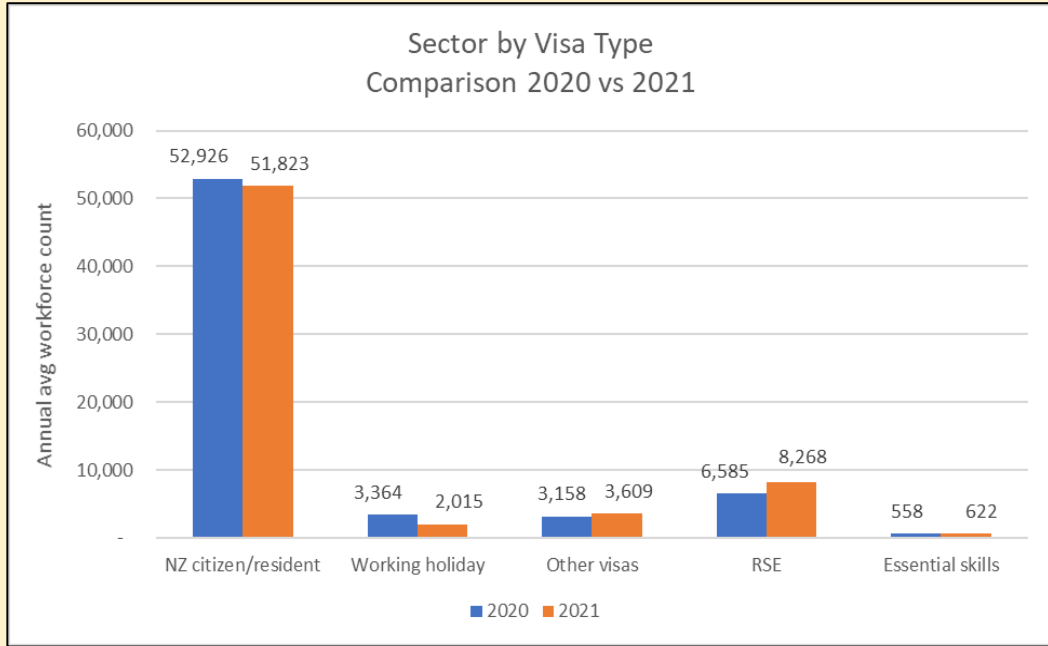
# Horticulture

## Changes in horticulture employment counts

- Overall average annual numbers down by 300 (0.5%), with self-employed workers down by 410 people
- The number of people involved in Core production activities increased, with the number of people involved in Core processing activities decreasing by a similar amount
- RSE numbers were higher than normal during the winter months, but the average annual Working holiday visa (WHS) numbers were down by 1,350 people
- Average annual numbers of people involved in Other agriculture and fishing support services (A052900), which includes fruit and vegetable picking activities were stable
- Labour Supply Service (N721200) was down by 610, possibly due to factors outside horticulture. People in this ANZSIC class work across the economy and we only include 15% in our relevant designation
- Annual averages don't tell the full story. Note the drop in numbers in April and May compared to the year before



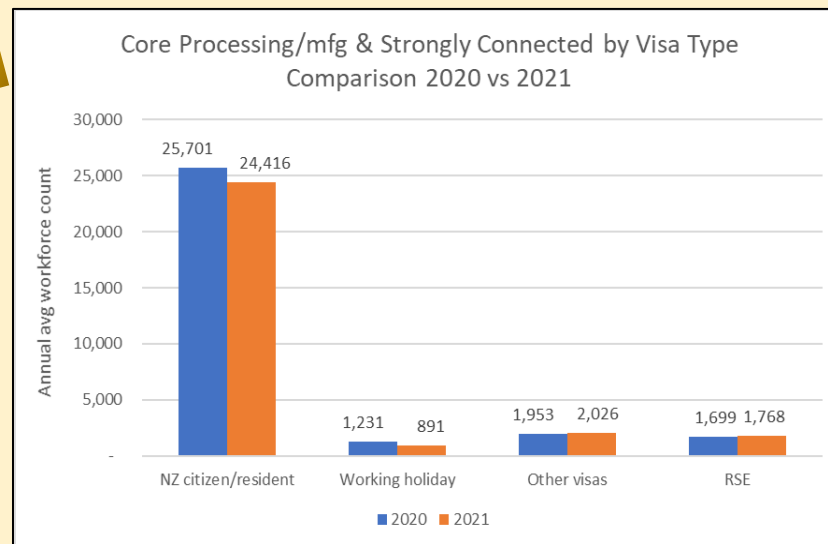
The Horticulture sector had an overall annual average reduction of 500 people (0.5%)



Changes included:

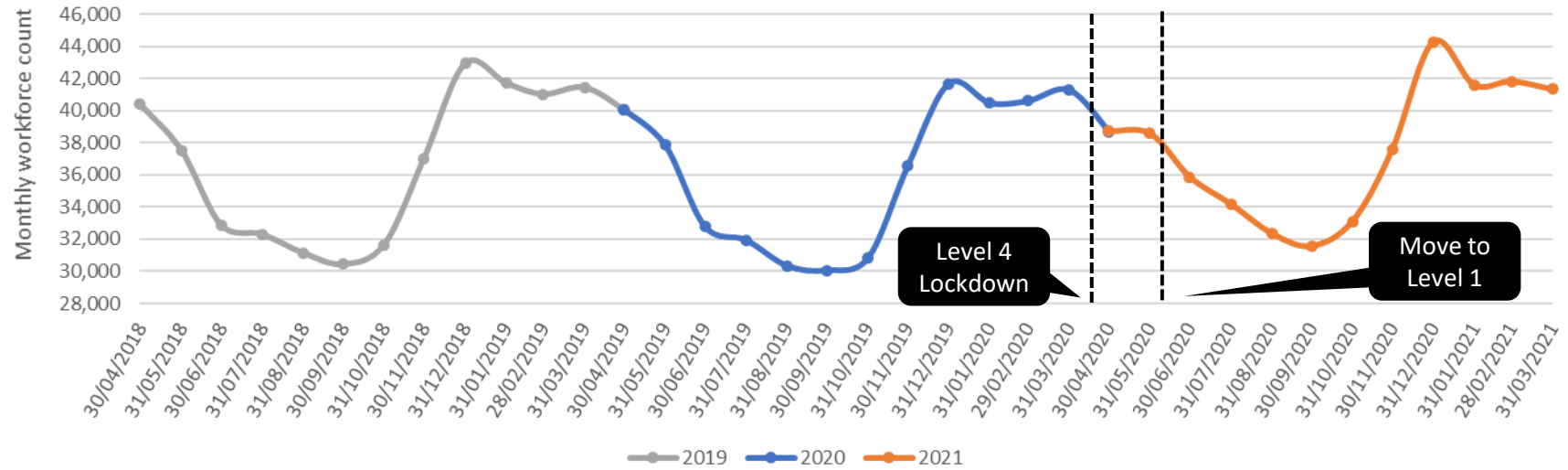
- i. A decrease in New Zealanders by 1,100
- ii. A decrease in working holiday visa holder by 1,350
- iii. An increase of RSE visa holders by 1,700
- iv. An increase of Other visas by 450

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

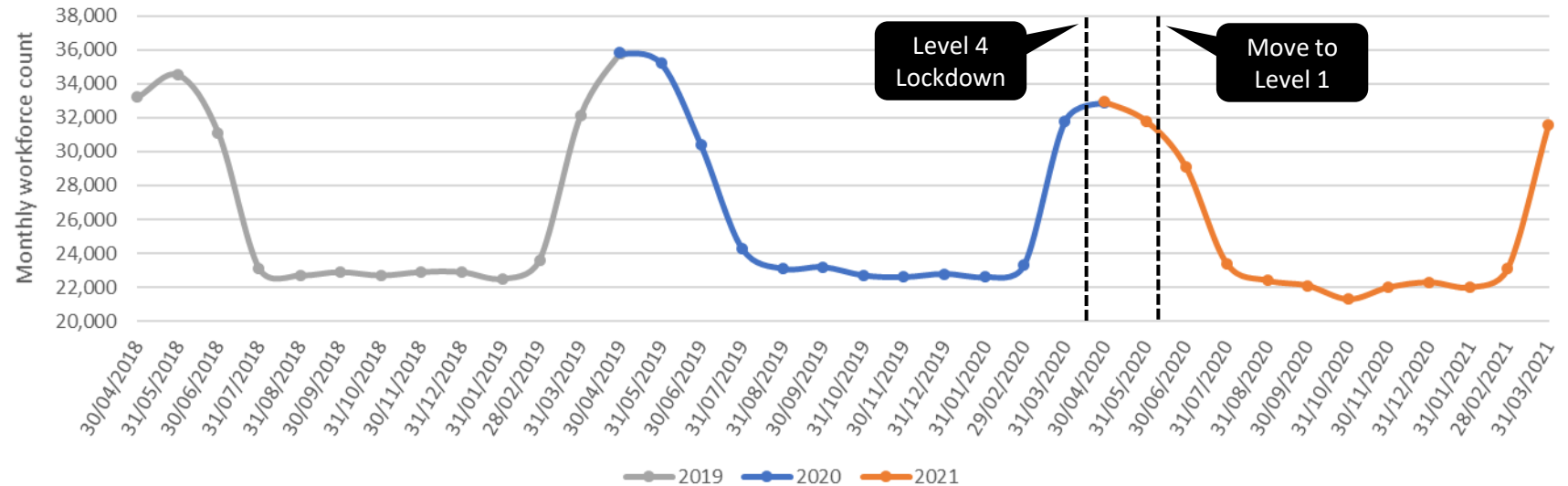


# Horticulture

Horticulture core production  
tax years ending March 2019, 2020 & 2021

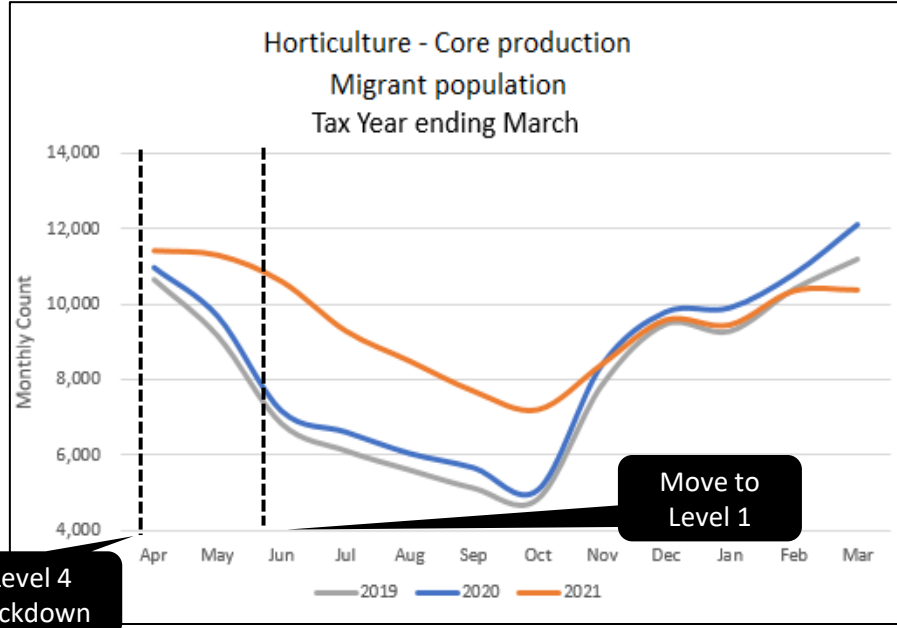
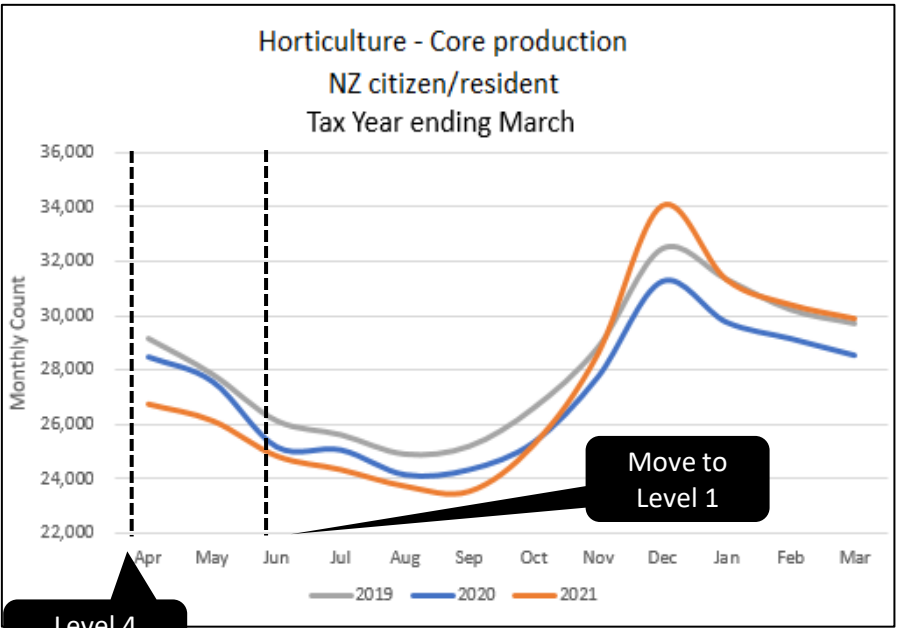
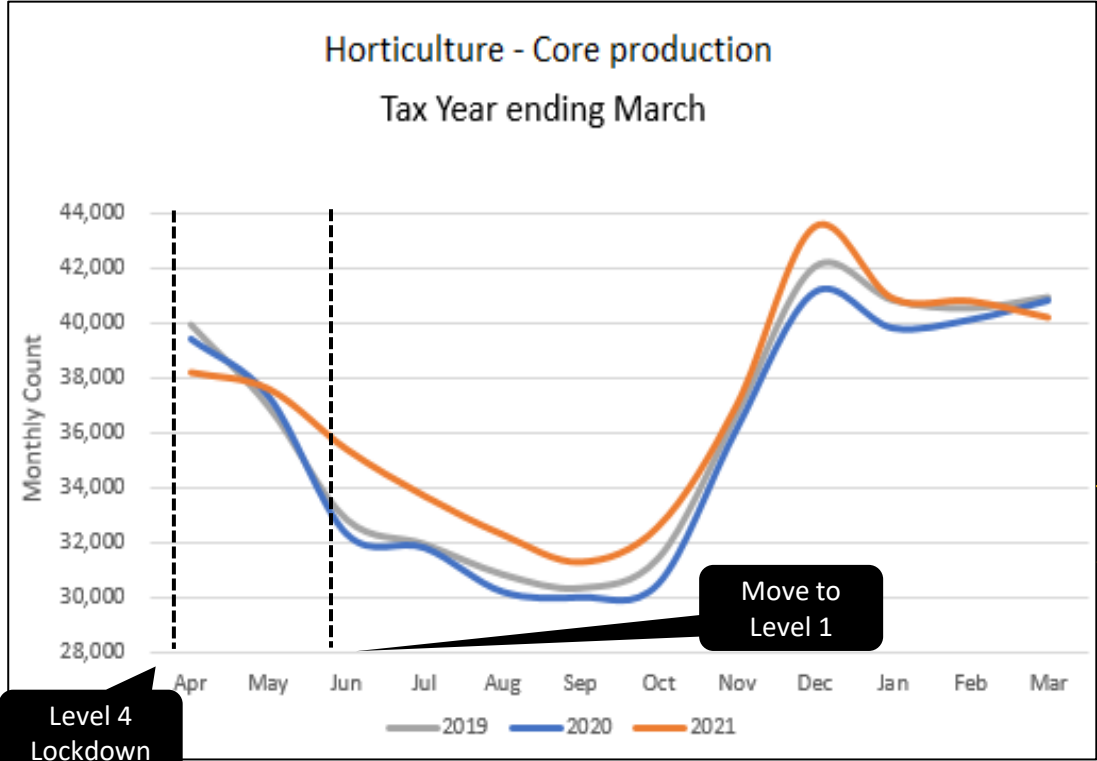


Horticulture core processing/mfg  
tax years ending March 2019, 2020 & 2021



**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Horticulture



Overall, the horticulture core production workforce increased by an annual average of 1,200 people between the 2020 and 2021 tax years.

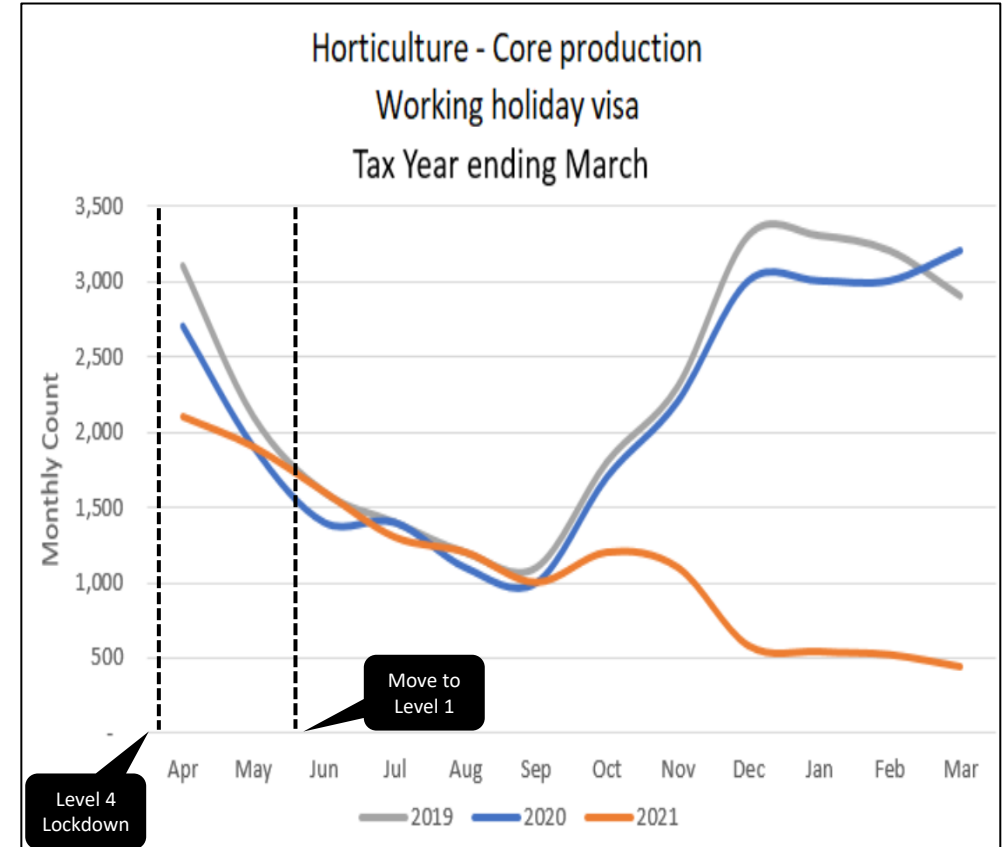
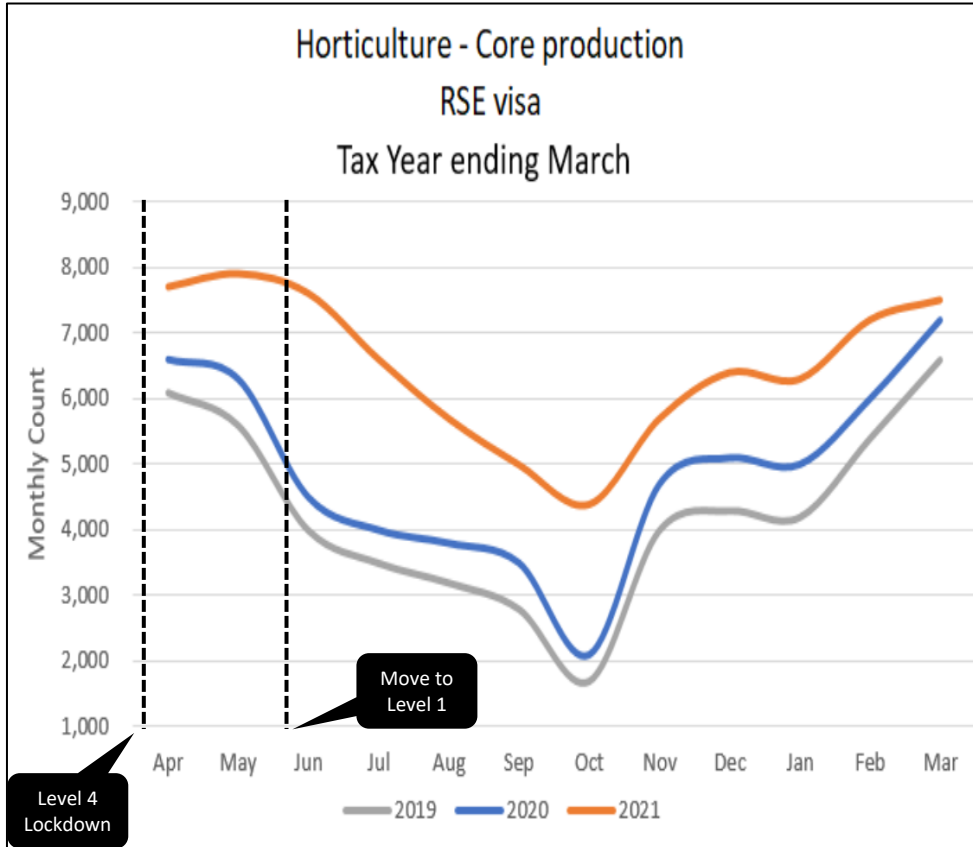
There was a similar seasonal pattern when comparing the 2021 tax year against the past two years, however, numbers were lower in April 2020.

- In the 2021 tax year, for Core production the number of New Zealanders was slightly lower in the first half of the year and slightly higher in the second half of the year compared to previous years.
- In core production, migrant numbers were higher than previous years particularly with regards to RSE workers who had visa expiry dates extended. However, working holiday visa holder numbers were lower in the second half of the year due to the border closure (see next graphs)

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Horticulture

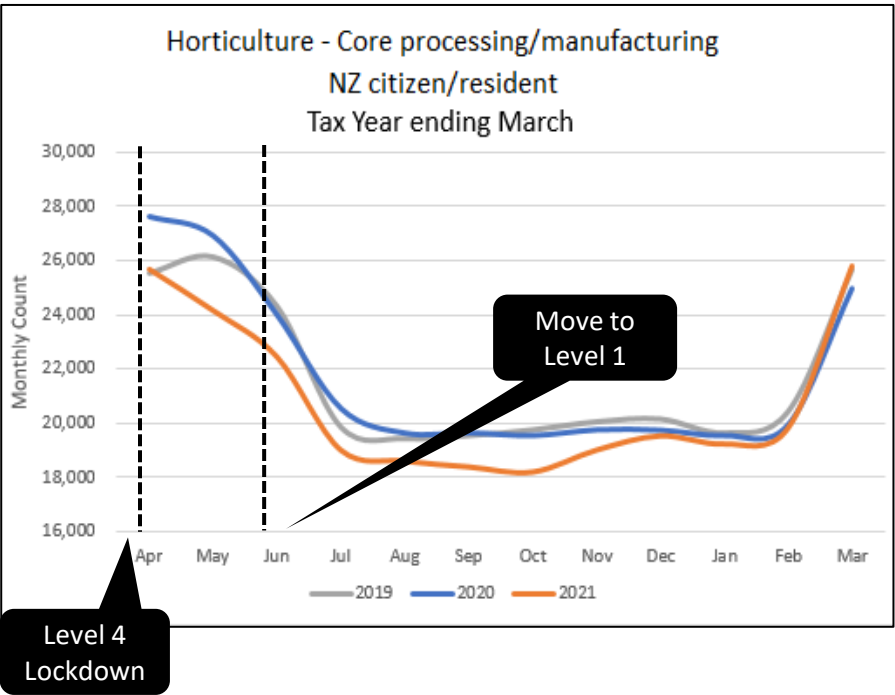
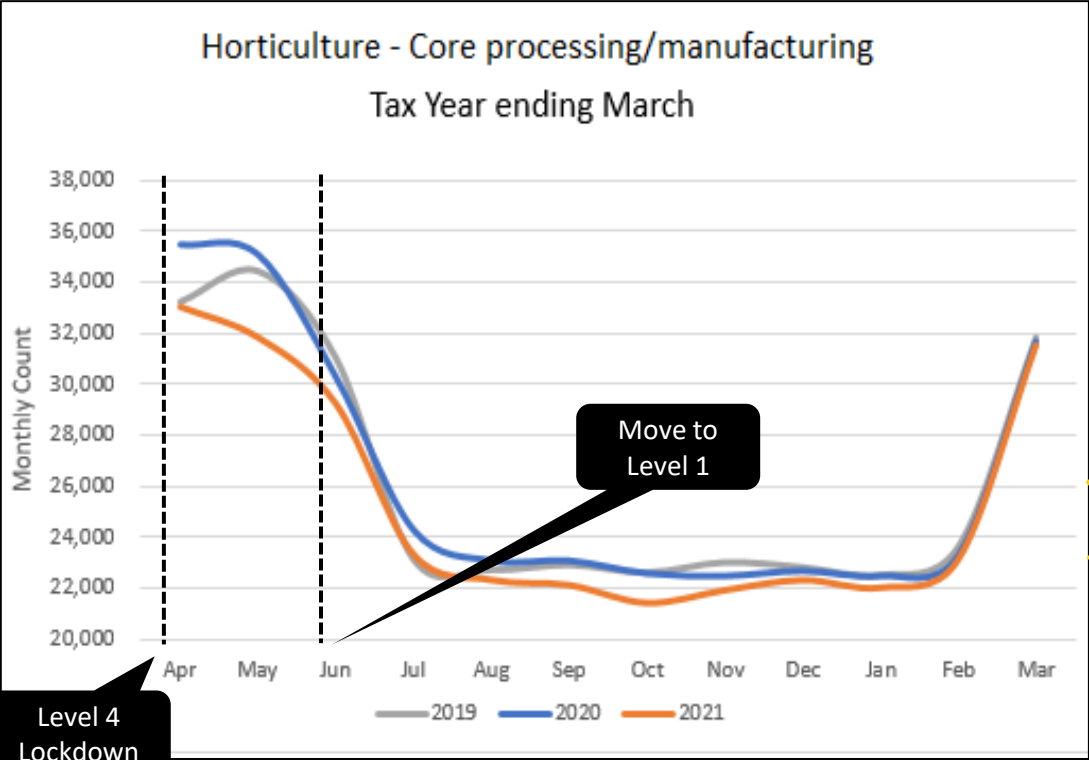
The Horticulture core production sector had an overall annual average increase of 1,200 people



- There was an increase in the number of RSE workers across all months as visa expiry dates were extended
- Working holiday visa holders lowered (in latter half of year).

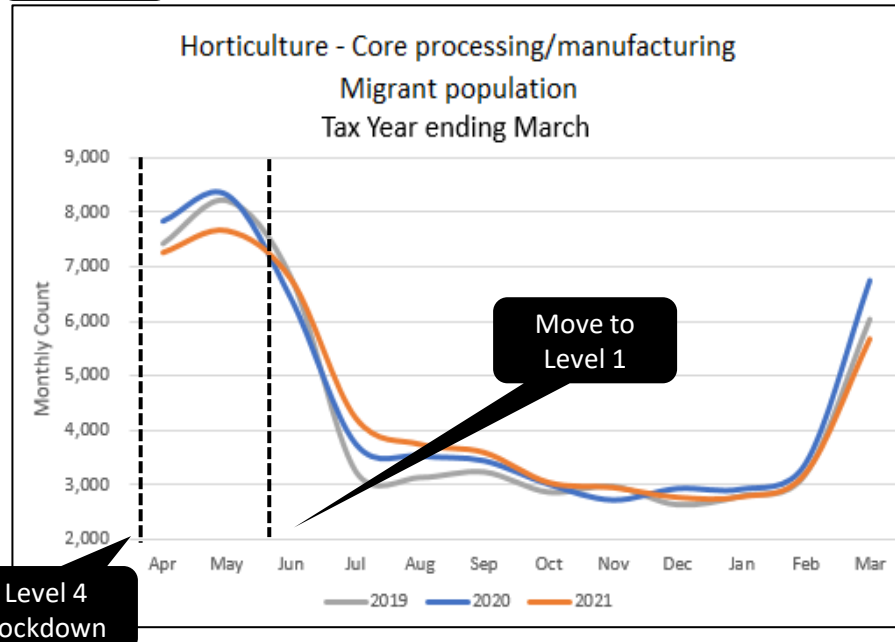
**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Horticulture



- In the 2021 tax year, the number of New Zealanders in core processing/manufacturing fell during the lockdown months of April/May 2020. This reduction continued to a lesser extent until December when numbers matched up with the two previous years seasonal patterns.

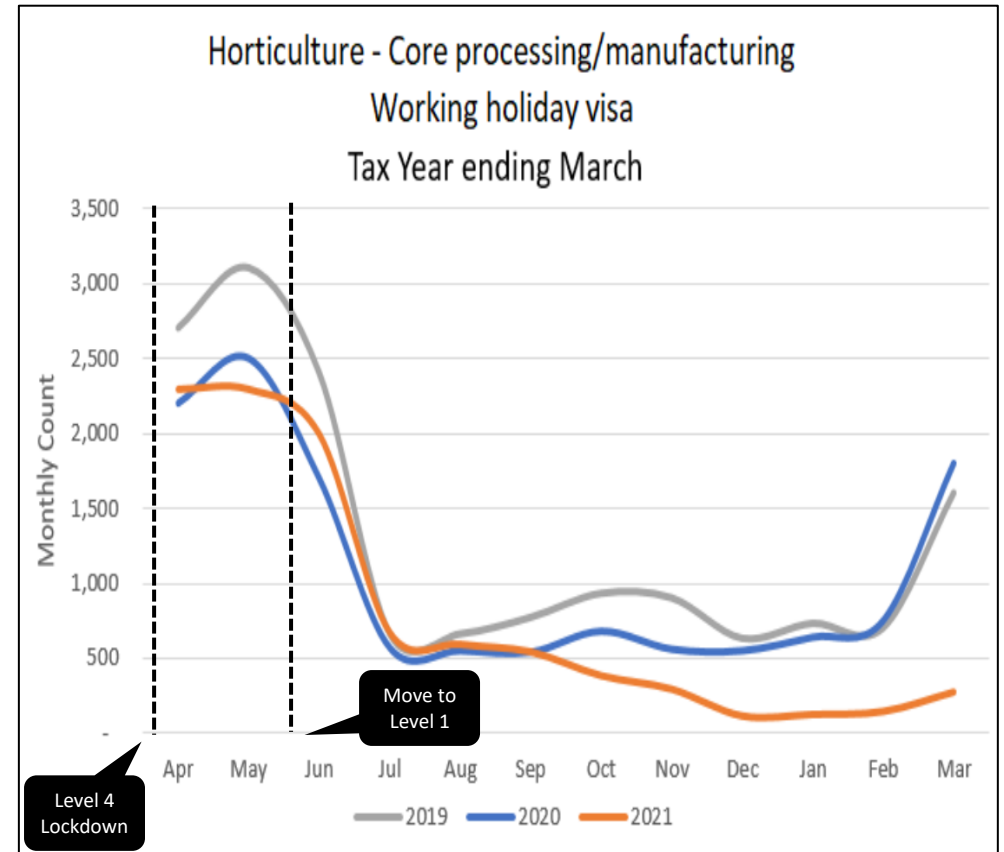
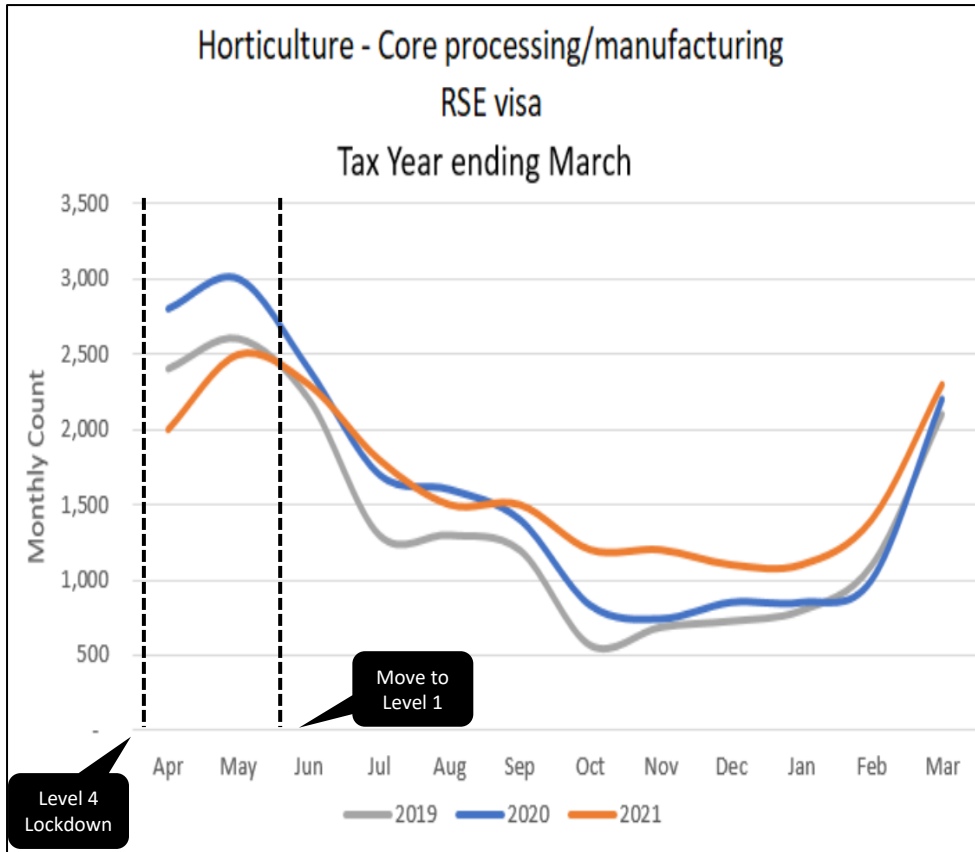
There was a similar seasonal pattern when comparing the 2021 tax year against the past two years, however, numbers were lower in April and May 2020.



- In the 2021 tax year, the number of migrant workers in core processing/manufacturing fell during the lockdown months of April/May 2020. Then mirrored the 2019/2020 tax year levels in the subsequent months.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

The Horticulture core processing/manufacturing sector had an annual average reduction of 1,100 people



- There was an increase in the number of RSE workers across the latter months as visa expiry dates were extended
- In the latter half of the year working holiday visa holder numbers decreased as people returned home and borders remained closed

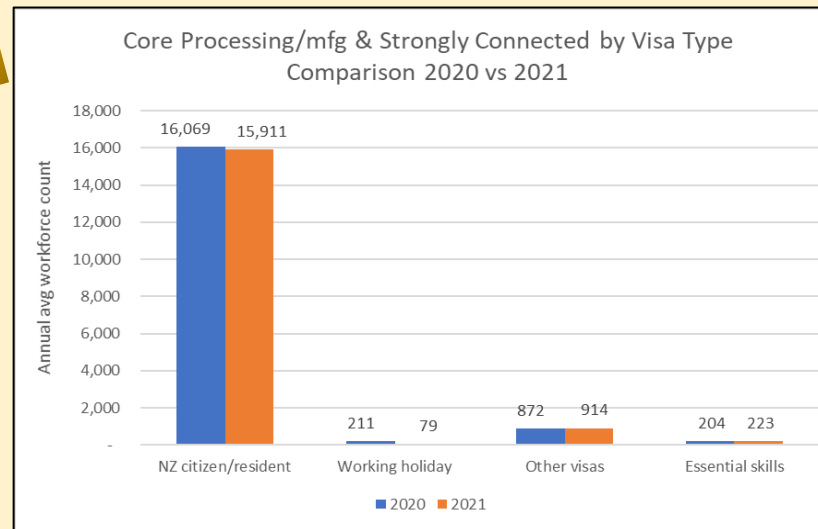
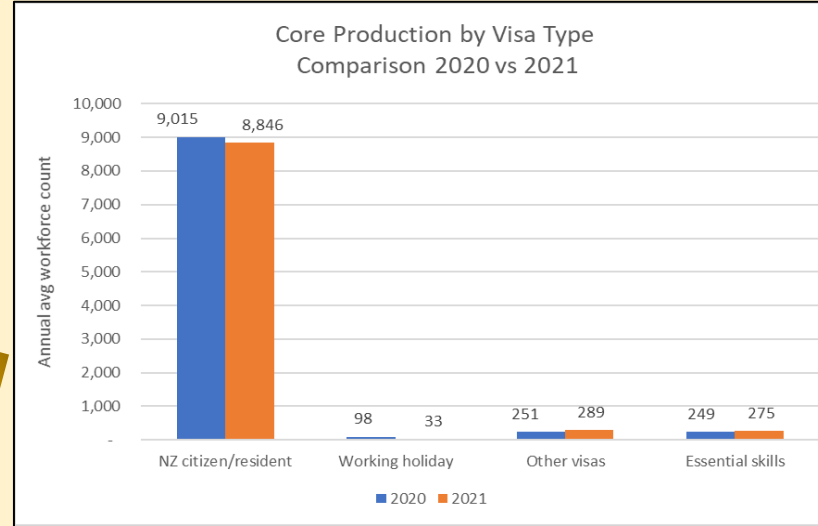
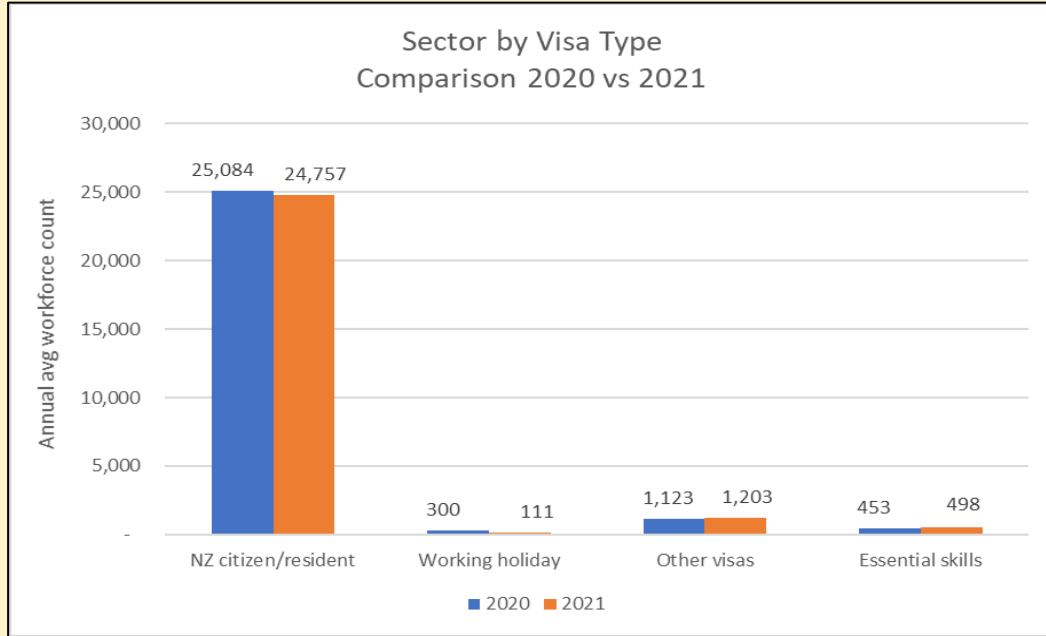
**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Pork, Poultry, Bees and Other

## **Key characteristics of the pork, poultry, bees and other sector**

- The sector is made up of a diverse range of activities including pig farming; poultry farming and processing; beekeeping; horse farming; hunting and trapping; and other livestock farming such as goats and alpacas
- Over 65% of the workforce is outside of core production
- Overall annual average count went down by 392 (1.5%), self-employed numbers went down by 200 people
- For analysis purposes in the pork, poultry, bees and other sector, first and second stage processing industries have been combined as the designation settings of “Core processing/manufacturing” and “Strongly connected”.

The Pork, poultry, bees and other sector had a decrease of 392 people (1.5%)



- The overall annual average change in employment was due to:
  - i. A decrease in New Zealanders by 330;
  - ii. A decrease in working holiday visa holders by 190
  - iii. An increase in Other visas by 80 and Essential Skills visas by 45

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.



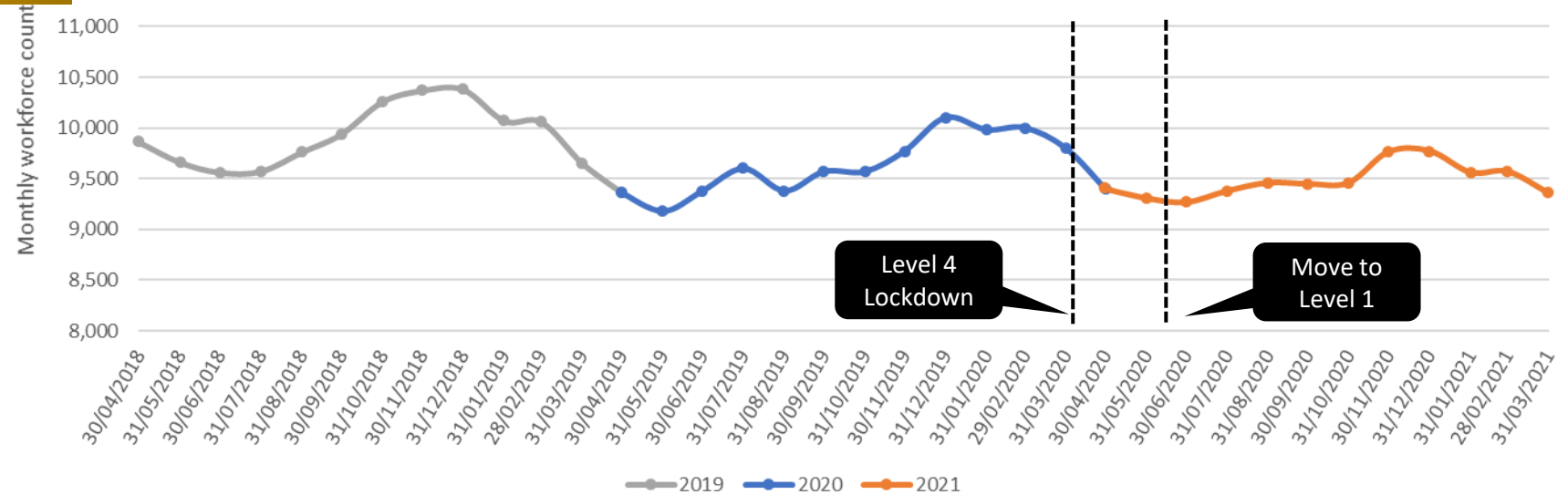
# Pork, Poultry, Bees and Other

This view of the Pork, poultry, bees & other production sector workforce depicts a slight reduction in the months of April and May 2020. This period of April/May is when COVID-19 lockdowns occurred.

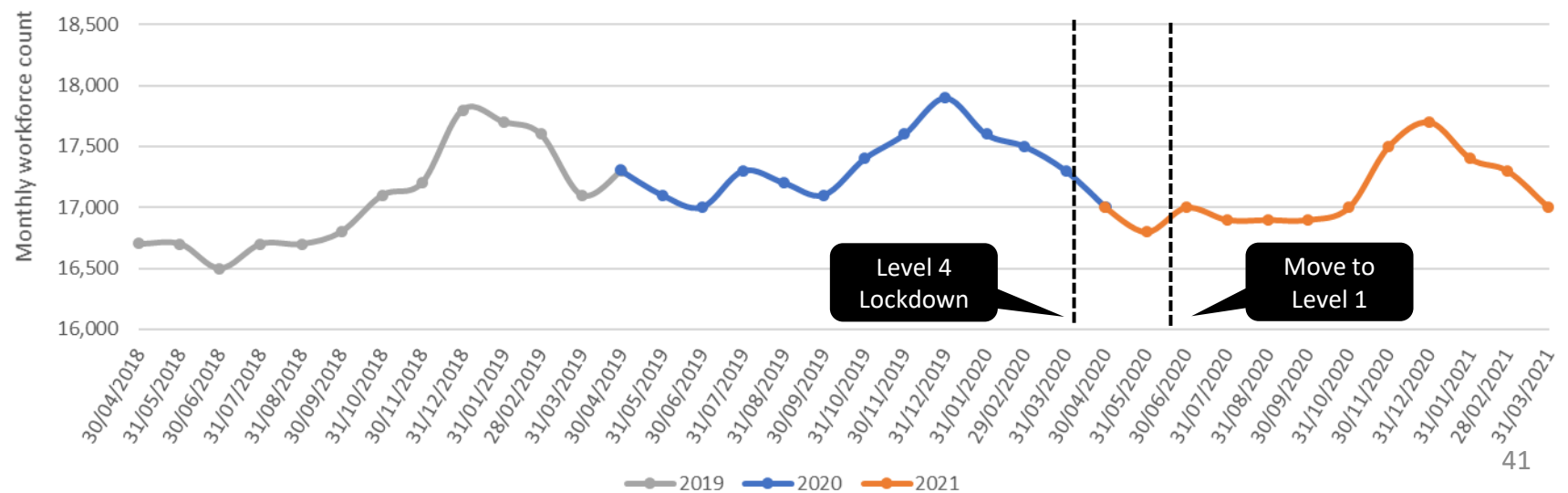
The processing and strongly connected workforce reduced by around 200 during the 1<sup>st</sup> half of the 2021 tax year and then came back to almost similar levels to previous years.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

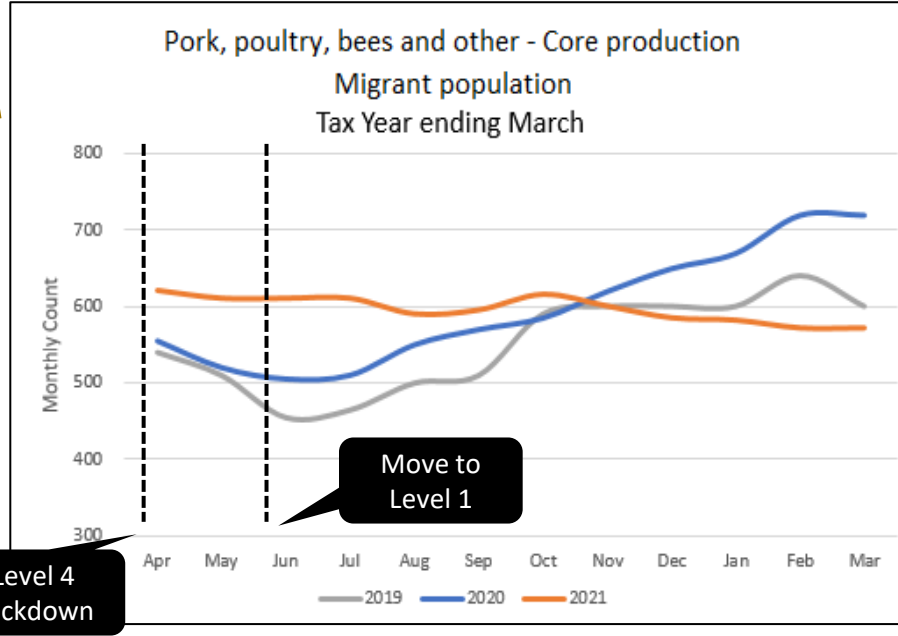
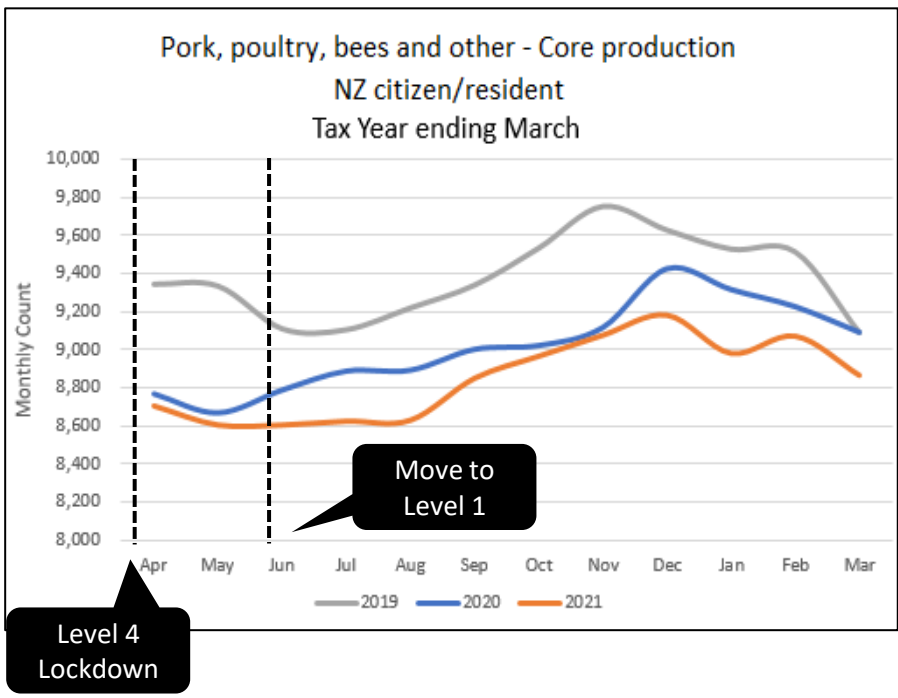
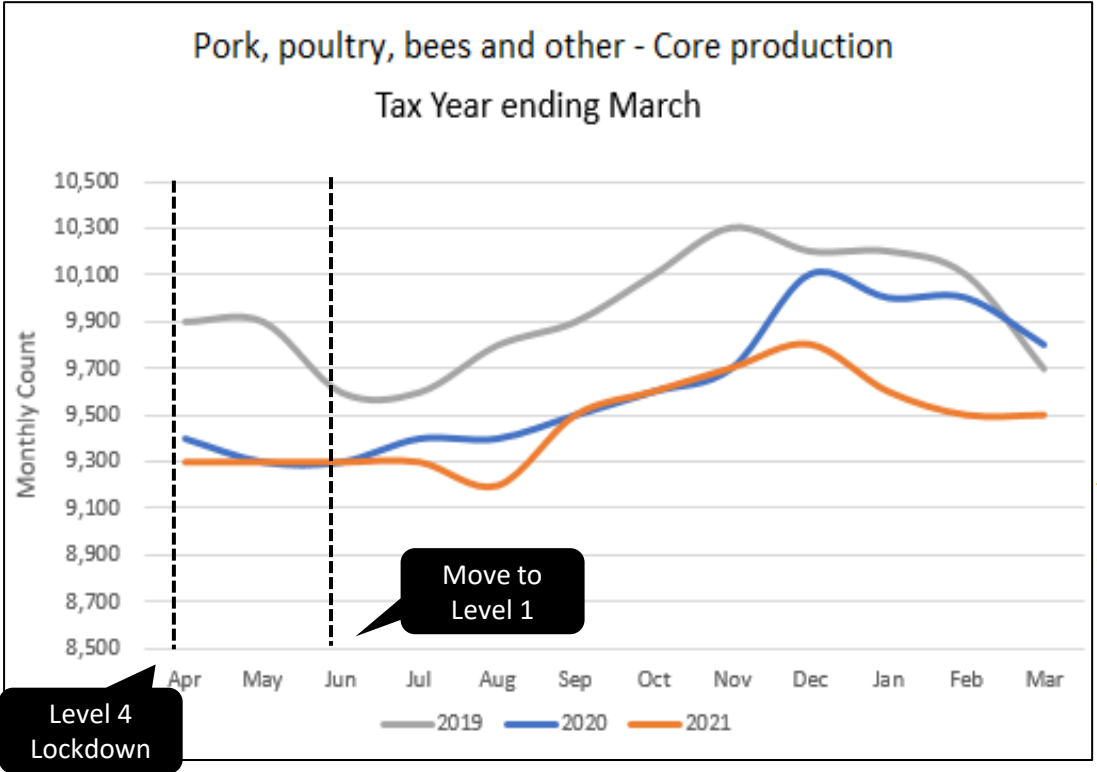
Pork, poultry, bees & other core production tax years ending March 2019, 2020 & 2021



Pork, poultry, bees & other - core processing/mfg and strongly connected tax years ending March 2019, 2020 & 2021



# Pork, Poultry, Bees and Other



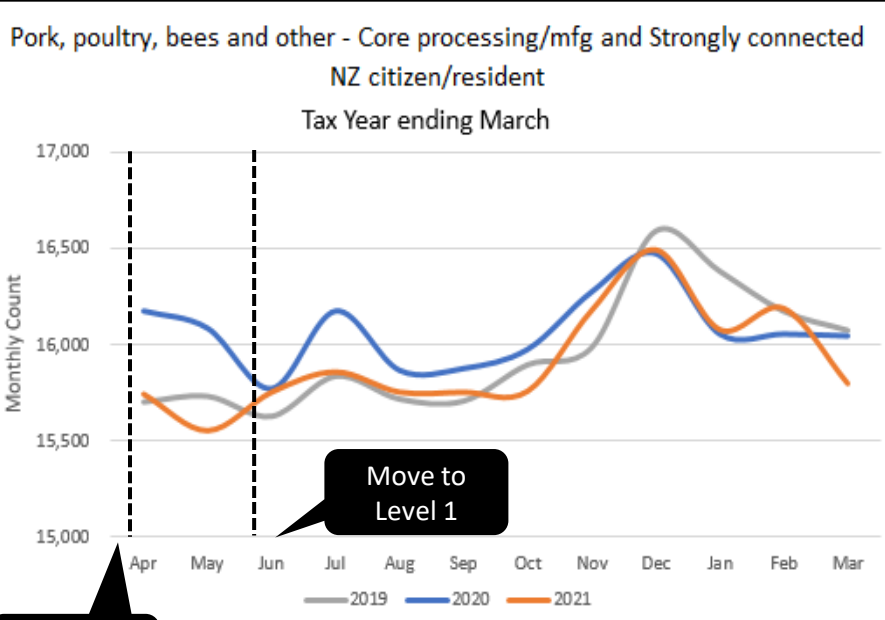
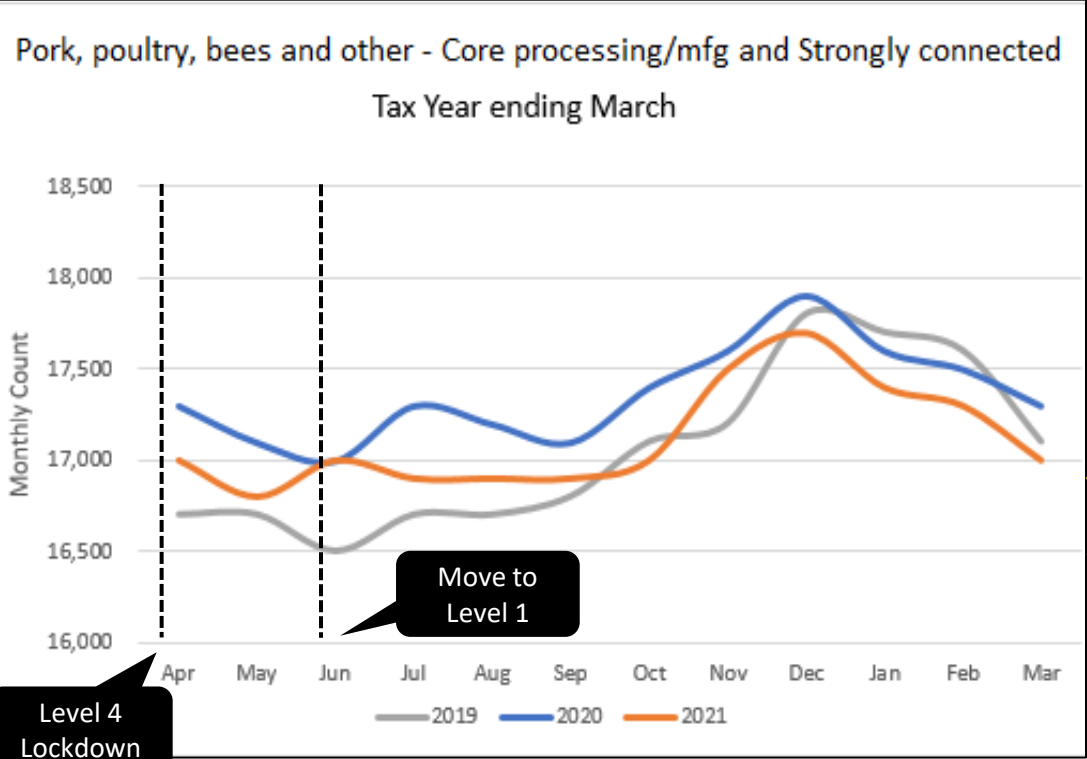
Overall, the pork, poultry, bees and other core production workforce reduced by 200 people between the 2020 and 2021 tax years.

There has been a slight reduction across the last 4 months of circa 300/400 people across the 2021 tax year.

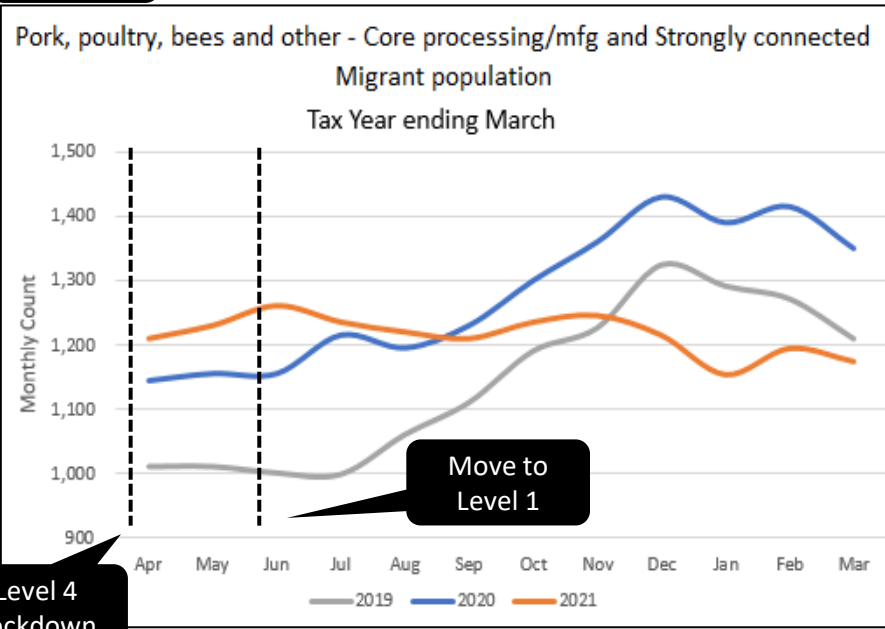
- In core production, self employment is the main driver impacting the reduction in the New Zealander's figures of circa 200 across all months.
- In core production, migrant numbers were static across the year. The essential skills and other visa categories were slightly higher than the previous two years and working holiday visas declined in the latter half of the year.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Pork, Poultry, Bees and Other



Level 4  
Lockdown



Level 4  
Lockdown

Overall, the pork, poultry, bees and other core processing workforce numbers were similar to previous years, however migrant numbers declined in the latter part of the year due to fewer people on working holiday visas.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Red Meat and Wool

## **Key characteristics of Red meat & wool sector**

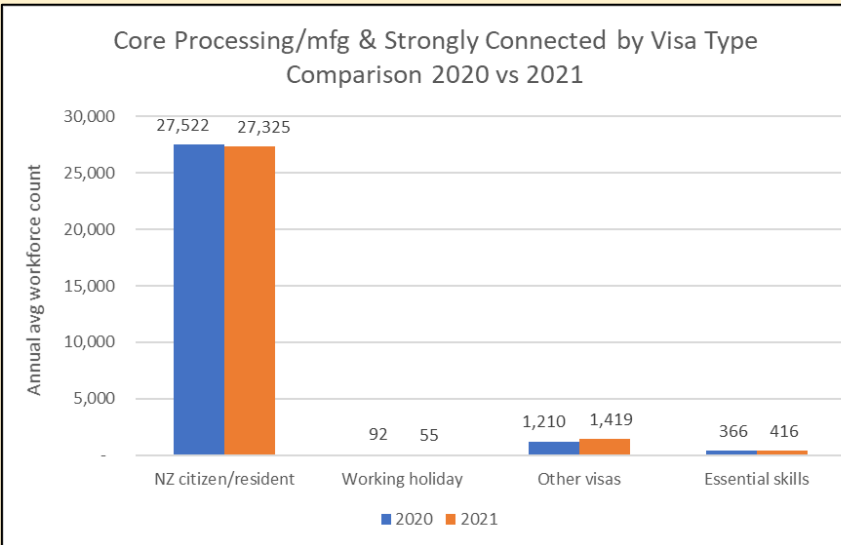
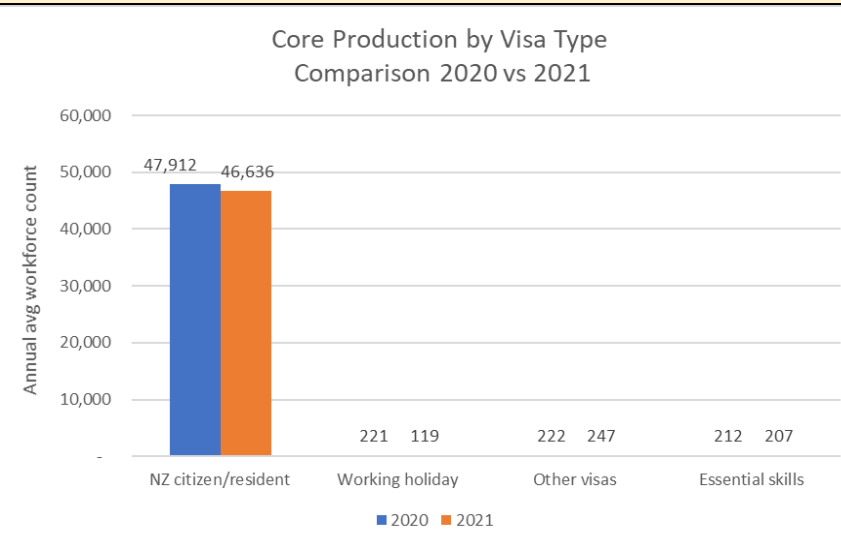
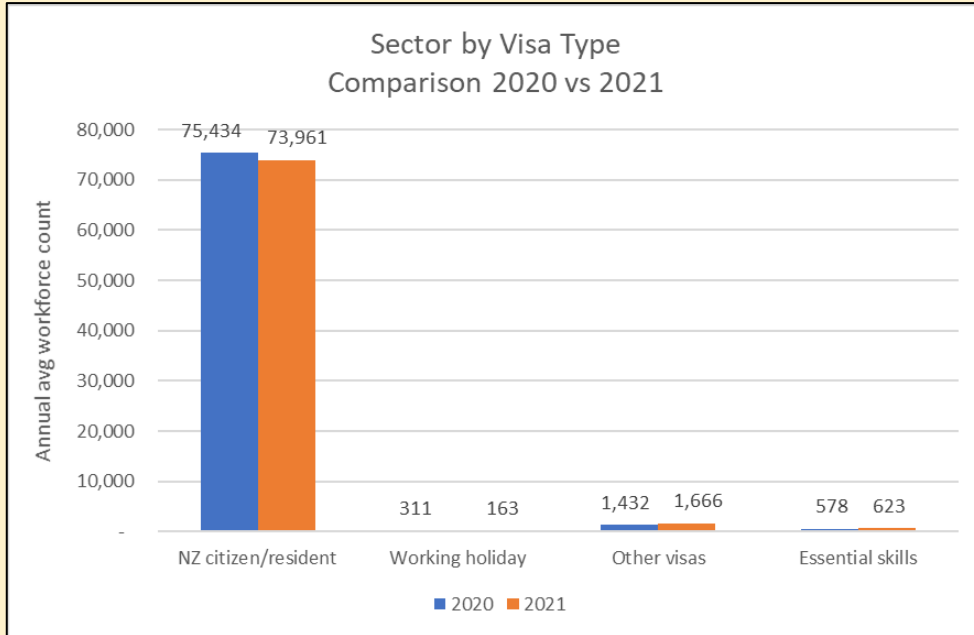
- Over 60% of workforce in core production (i.e. Sheep and beef farming)
- High level of self employment in sheep and beef farming (1.8:1 self-employed:employee, compared to 0.7:1 self-employed:employee for dairy farming)
- 97% of workers in this sector are New Zealanders
- Reasonably stable workforce throughout the year

# Red Meat and Wool

## Changes in employment count

- Most of the change shown in the data was in core production
- Core processing was stable
- Most of the reduction in the numbers is in self-employed workers
- The reduction in self-employed numbers are seen across all sectors (see slide 11), but is most pronounced in sheep and beef farming because of the high numbers of self-employed relative to total employment in sheep and beef farming
- It is unclear why self-employed numbers are down. This may, in part, be due to a delay in filing tax returns for the self employed

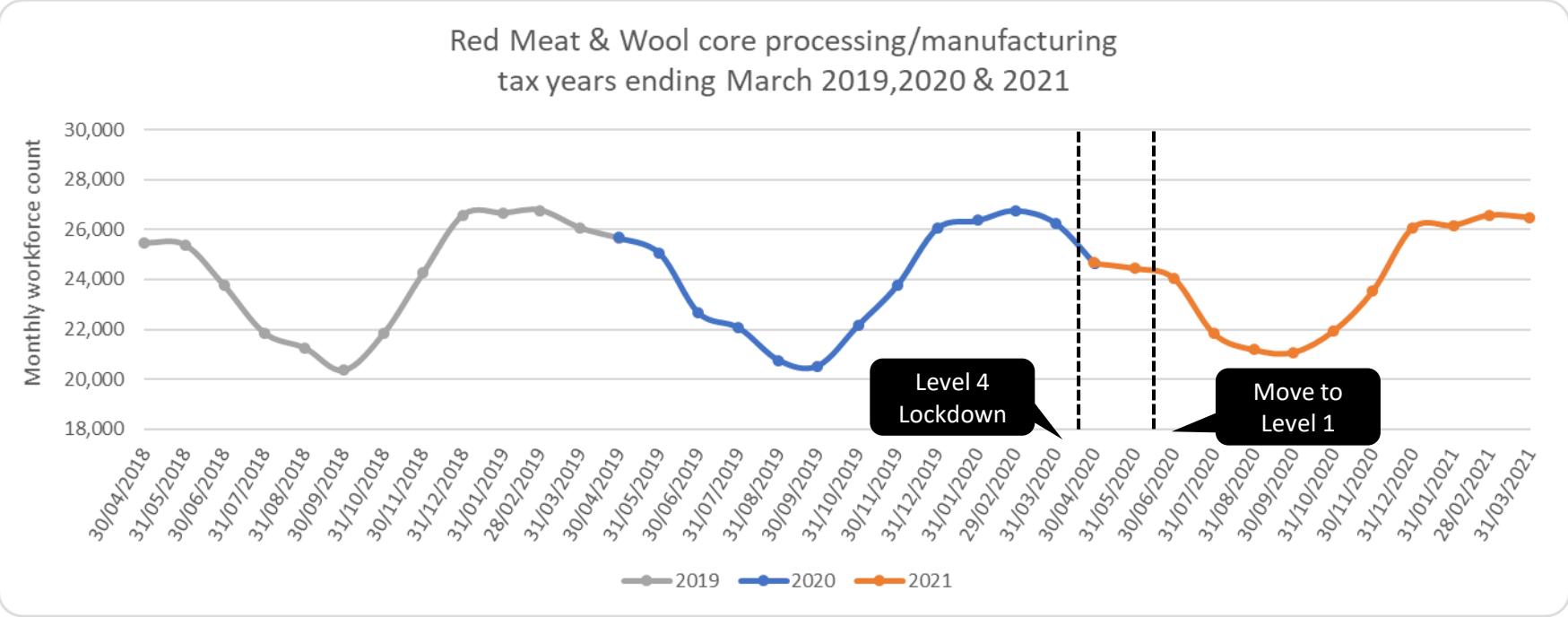
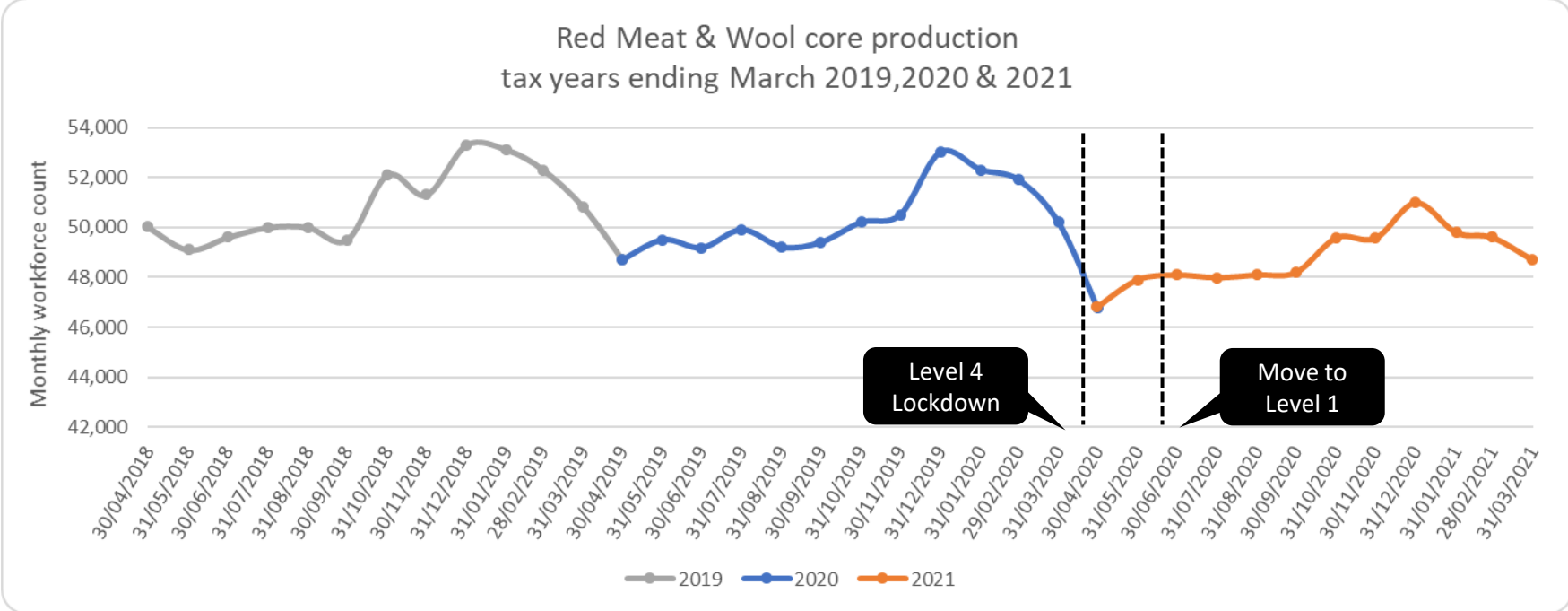
The Red meat and wool sector had a decrease of 1,249 people (1.6%)



- The changes in annual average employment was mainly due to:
  - A decrease in New Zealanders by 1,500 (2%)
  - A decrease in working holiday visa holders by 150 (48%)
  - An increase in other visas by 200 (16%)
- The reduction in the number of people on Working Holiday Scheme (WHS) visas in the 2021 tax year may in part be offset by the rise in “other visas”. Some people on WHS visas transferred to the “other visa” type under the Supplementary Seasonal Employment visa (SSE) to get visa date extensions.

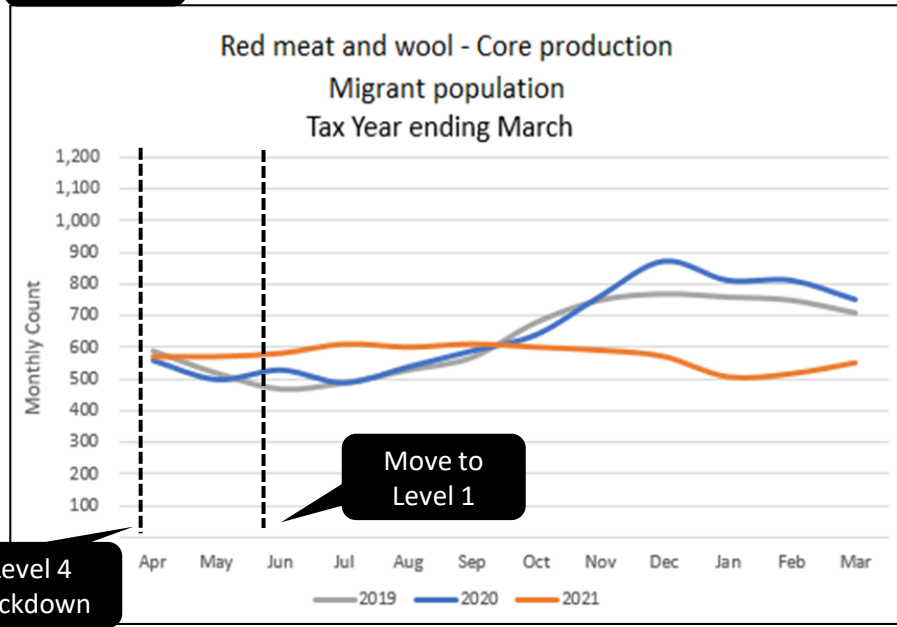
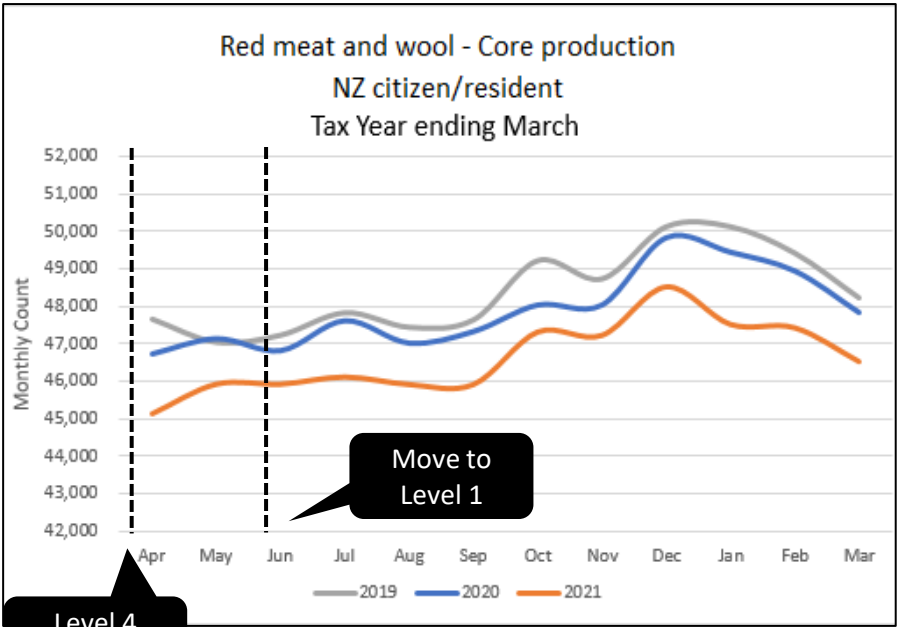
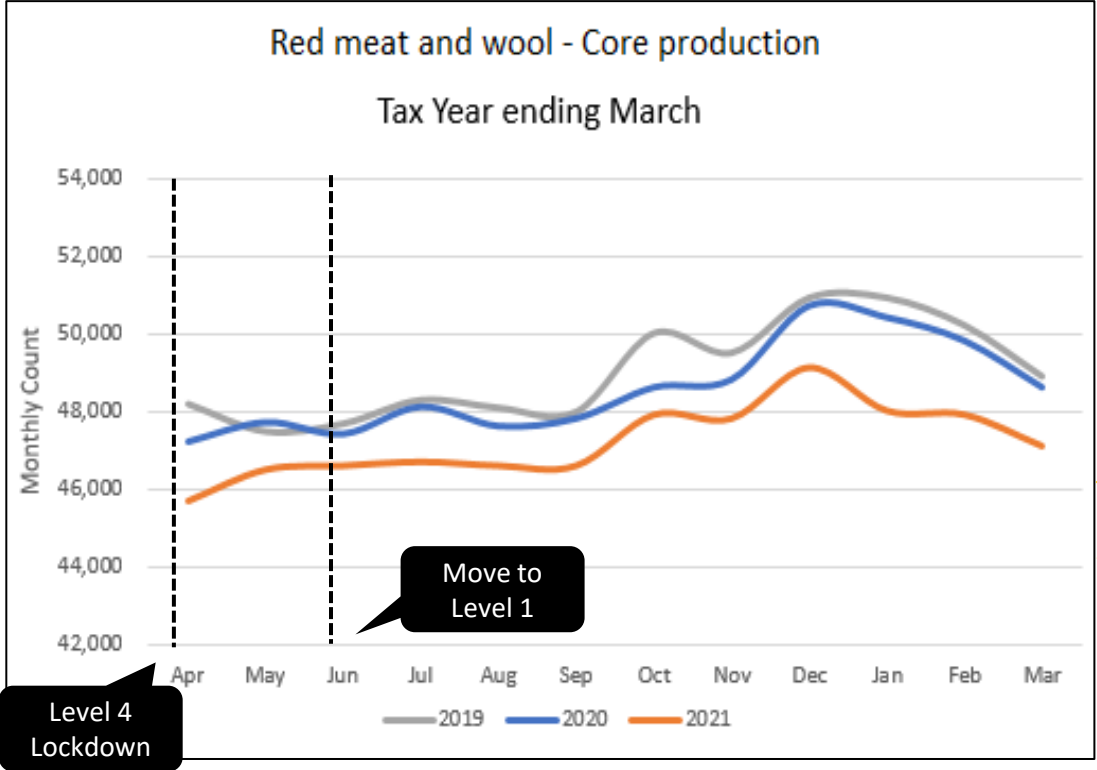
**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Red Meat and Wool



**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Red Meat and Wool

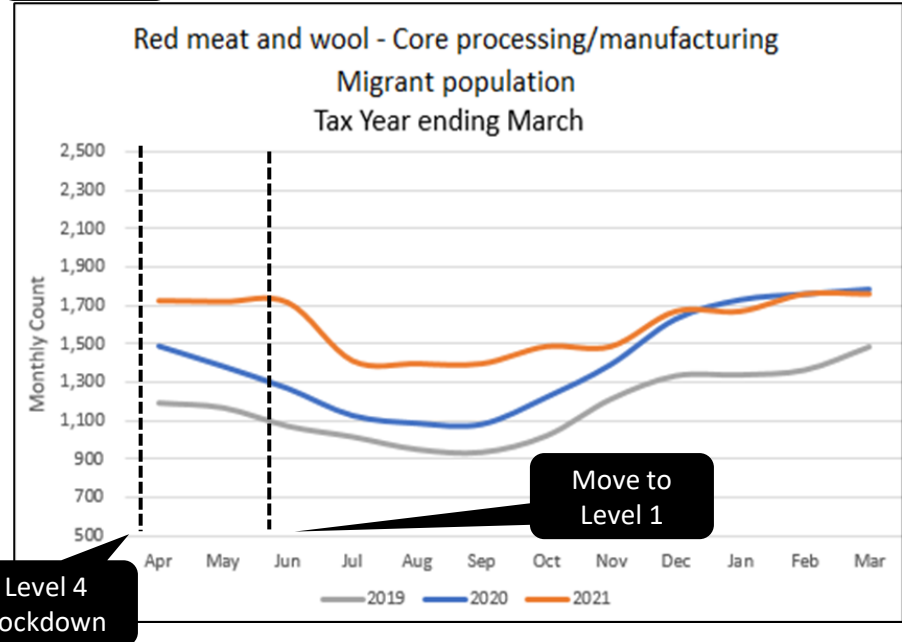
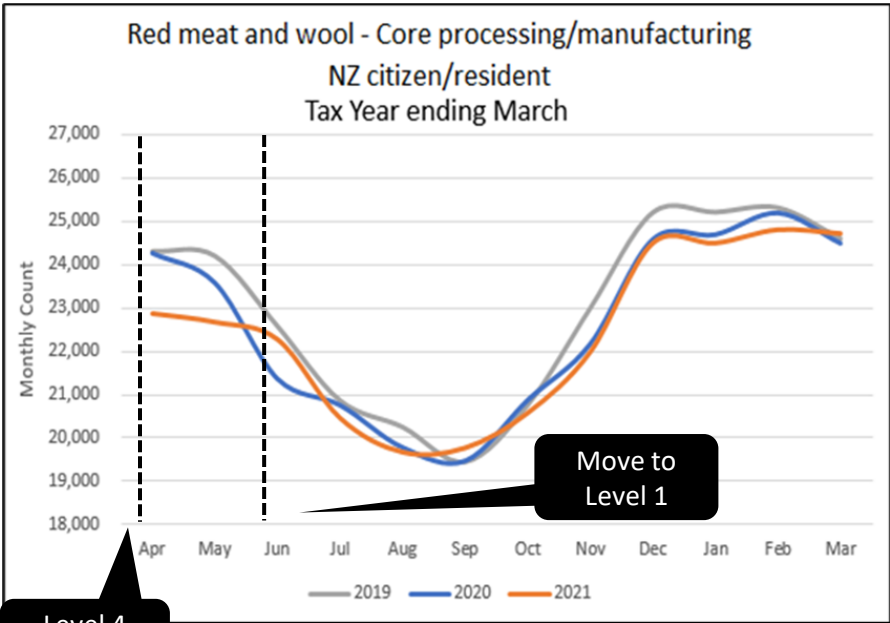
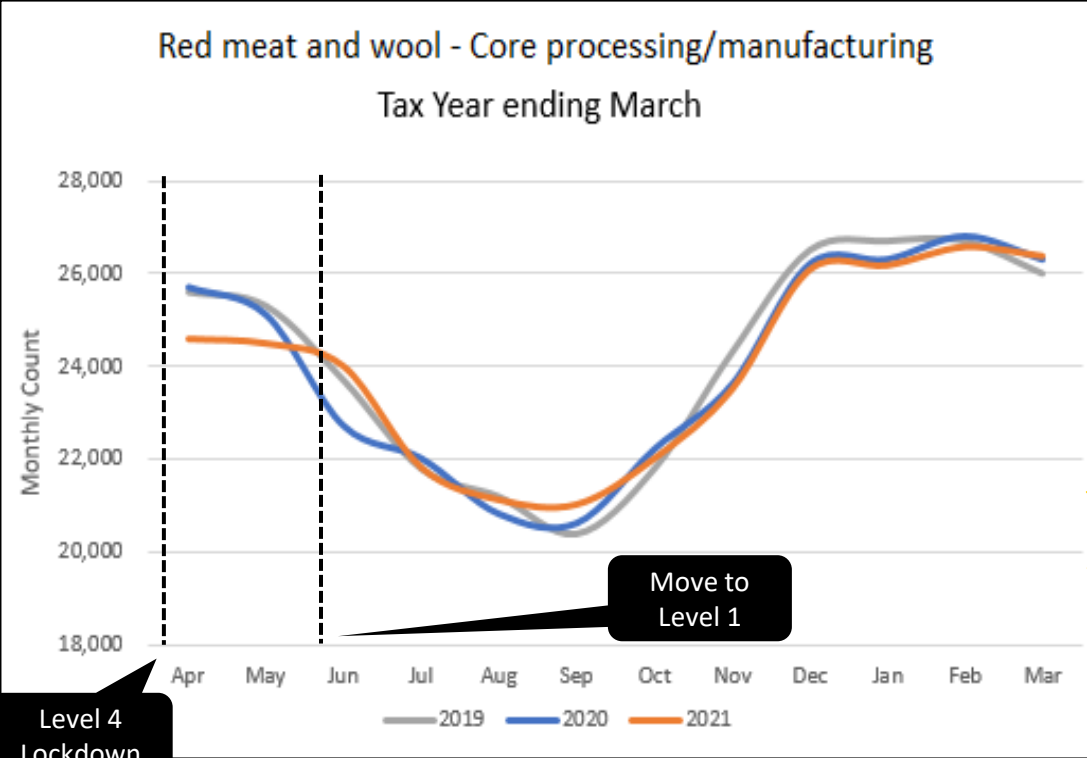


The reduction in employment was mainly due to a reduction in self employment. There was, however, compared to previous years, a reduction in migrant numbers in the later half of the year

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.



# Red Meat and Wool



With the exception of April, the red meat & wool core processing workforce was similar to previous years.

Migrant numbers were, however, higher in the first of the year.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Seafood

## Key characteristics of seafood sector

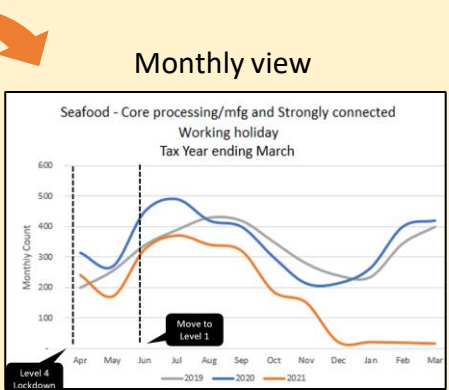
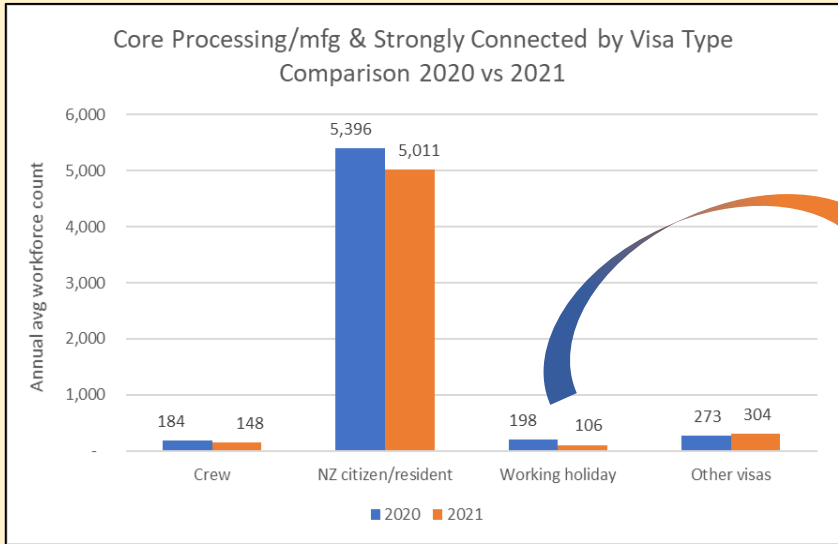
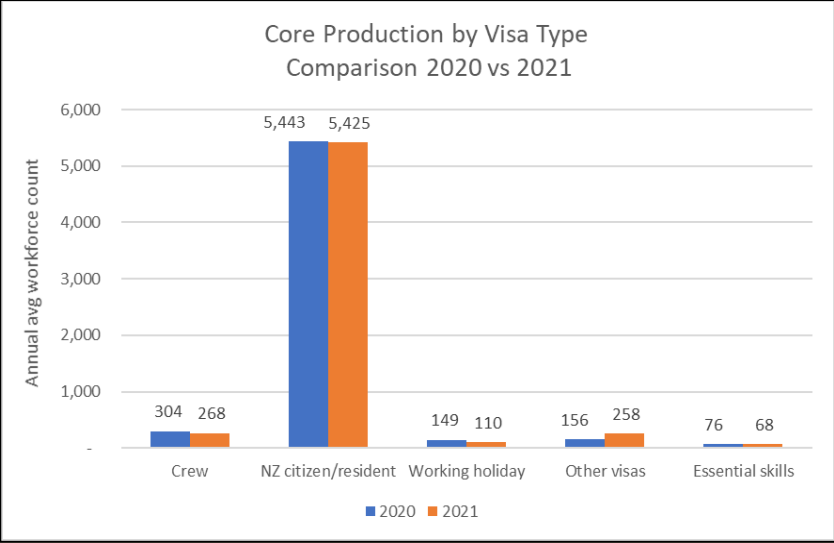
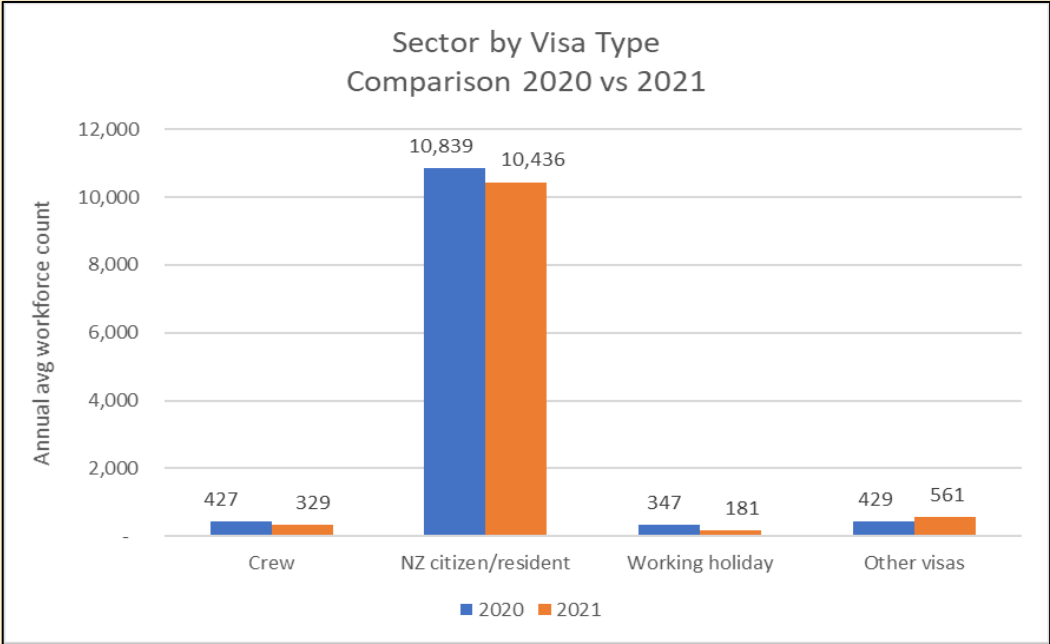
- Smaller workforce (annual average 12,000) than other sectors (small changes in numbers can be significant in terms of percentages)
- 50% of workforce is in core production
- Many firms are involved in both seafood processing and wholesaling, and thus we often consider these workforces together
- The migrant workforce varies throughout a year
- People on working holiday visas are a small but important part of the processing workforce

## Changes in employment count

- Most of the changes were in core processing/strongly connected workforce numbers
- This change was primarily due to a drop in New Zealanders (400 of which 260 were self-employed) and Working holiday visa holders (160)
- The number of working holiday visa holders decreased as the year progressed. The reduction in numbers from the closed borders increased as the year progressed and people returned to their home countries. This can be seen both in the seafood figures and WHS figures more generally
- Annual averages don't tell the whole story, see monthly analysis

## Annual average employment

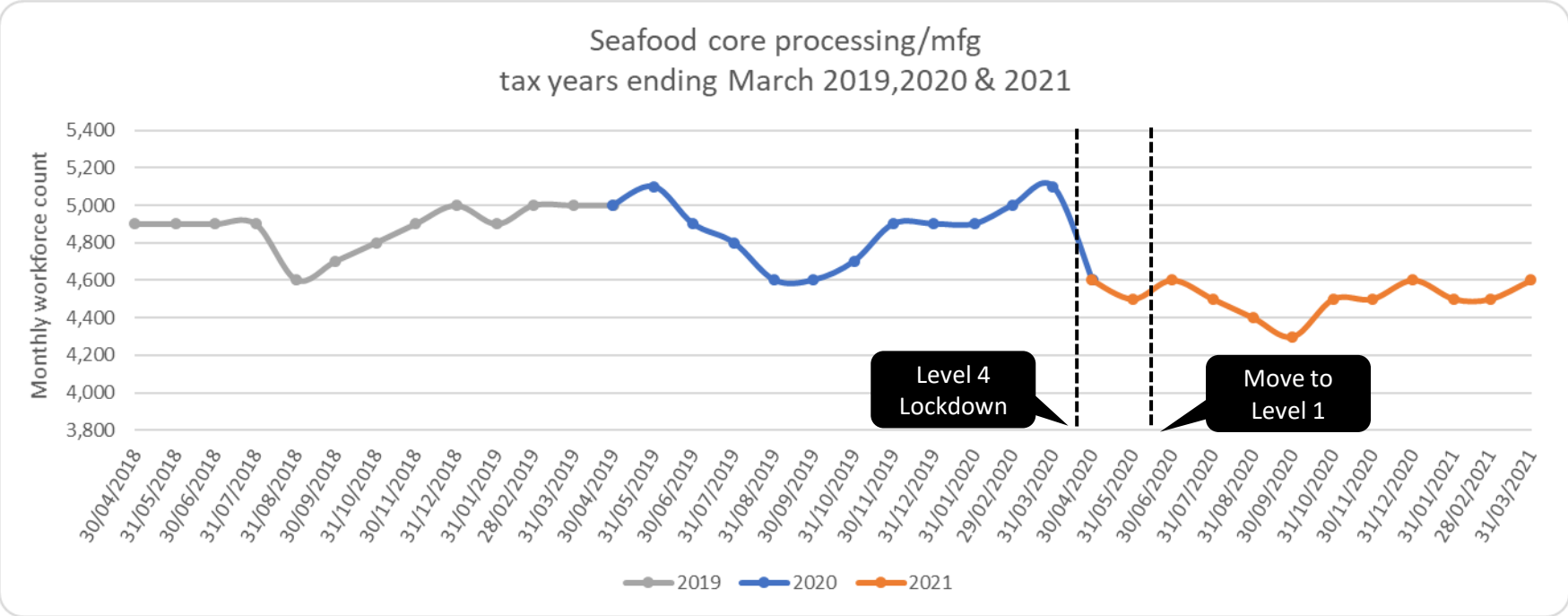
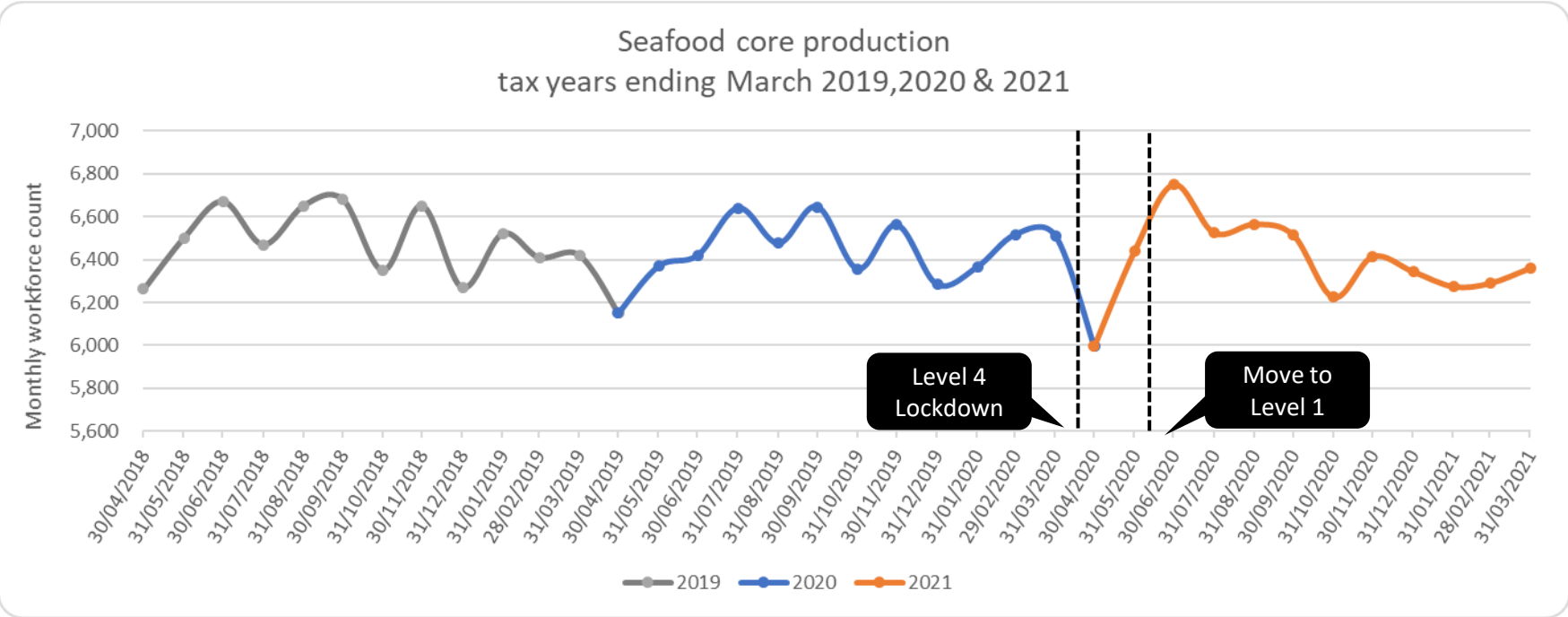
The Seafood sector had a reduction in annual average employment of 4% (530 people)



- The reduction in annual average employment was mainly due to:
  - A decrease in New Zealanders by 400
  - A decrease in working holiday visa holders by 170
- In 2021, some crew visa holders appear in “other visas” as they came entered New Zealand in via the “critical purpose” visa type. So, whilst crew visas appear to have dropped 100 there was an offsetting rise in “other visas” by 130.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

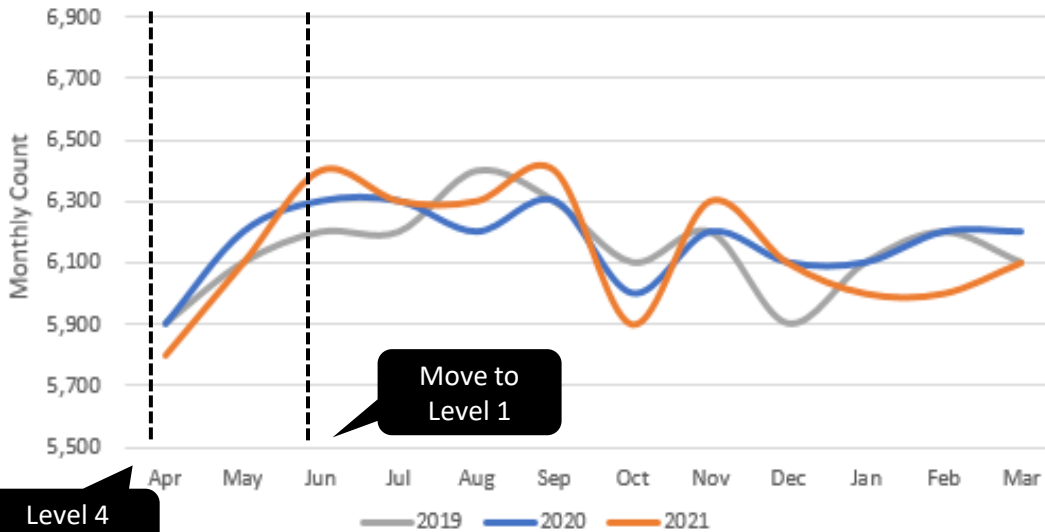
# Seafood



**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Seafood

Seafood - Core production  
Tax Year ending March

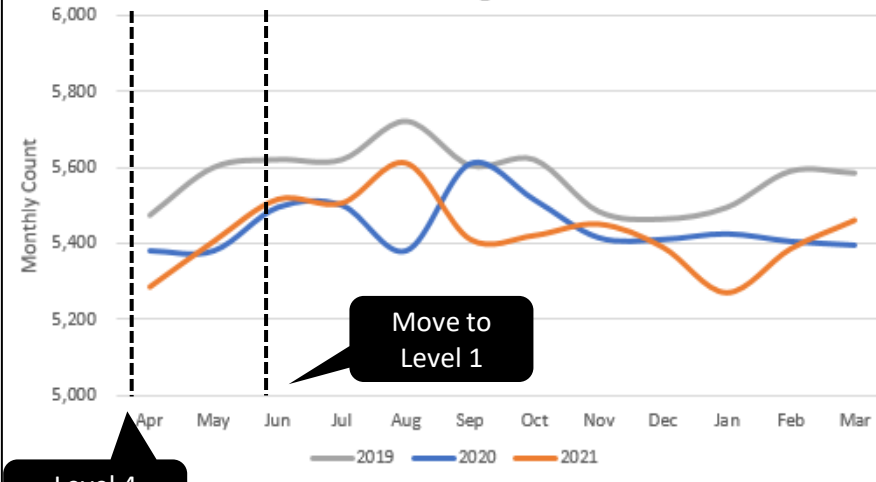


Level 4  
Lockdown

Move to  
Level 1

In the 2021 tax year, the overall seafood core production workforce mirrored the prior 2019 and 2020 tax years, although there was a larger drop in employment in April compared to earlier years.

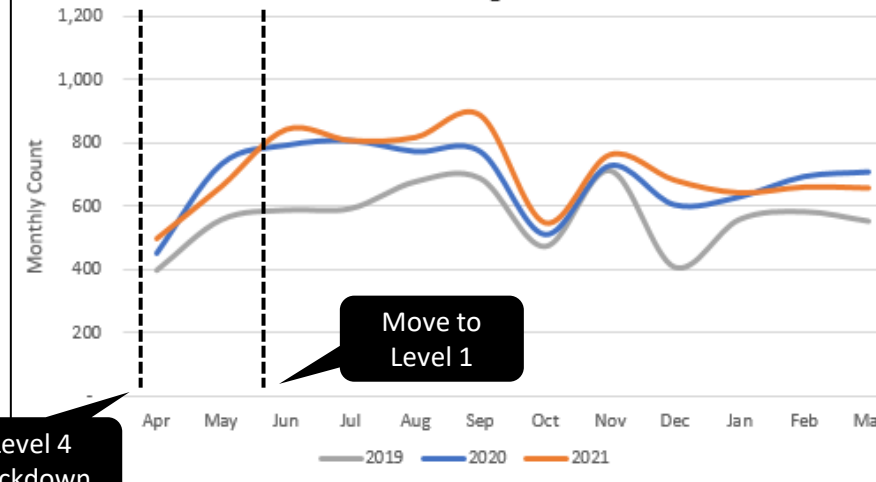
Seafood - Core production  
NZ citizen/resident  
Tax Year ending March



Level 4  
Lockdown

Move to  
Level 1

Seafood - Core production  
Migrant population  
Tax Year ending March

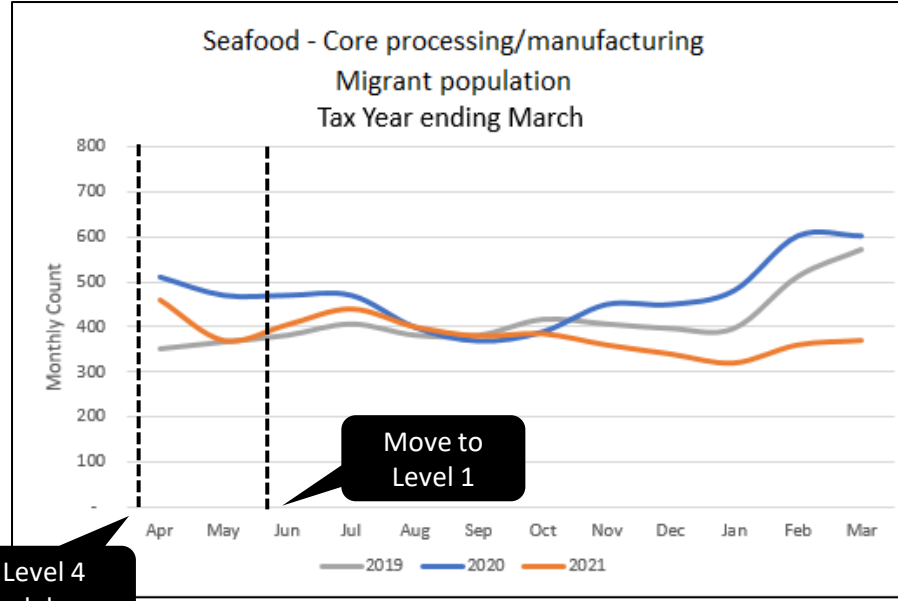
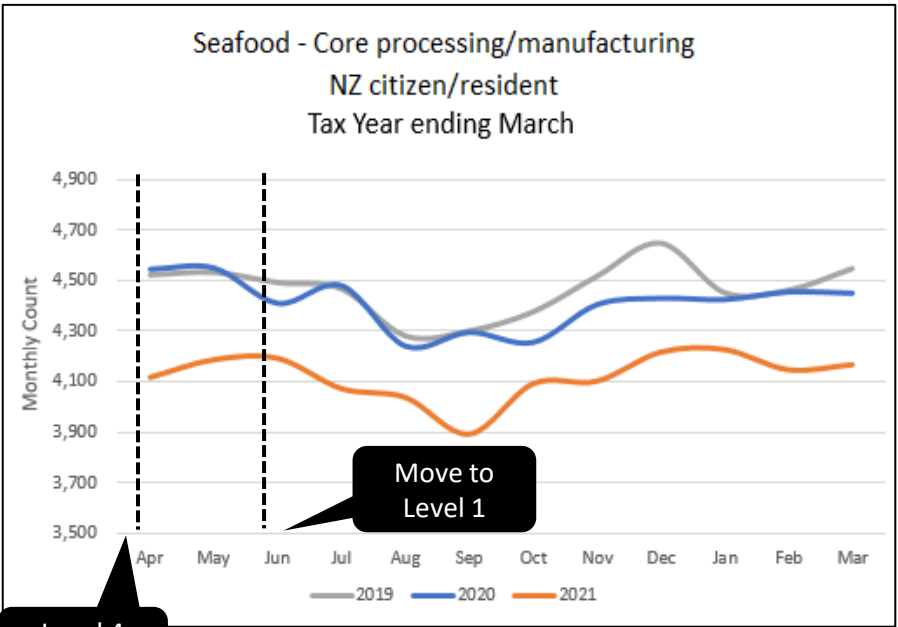
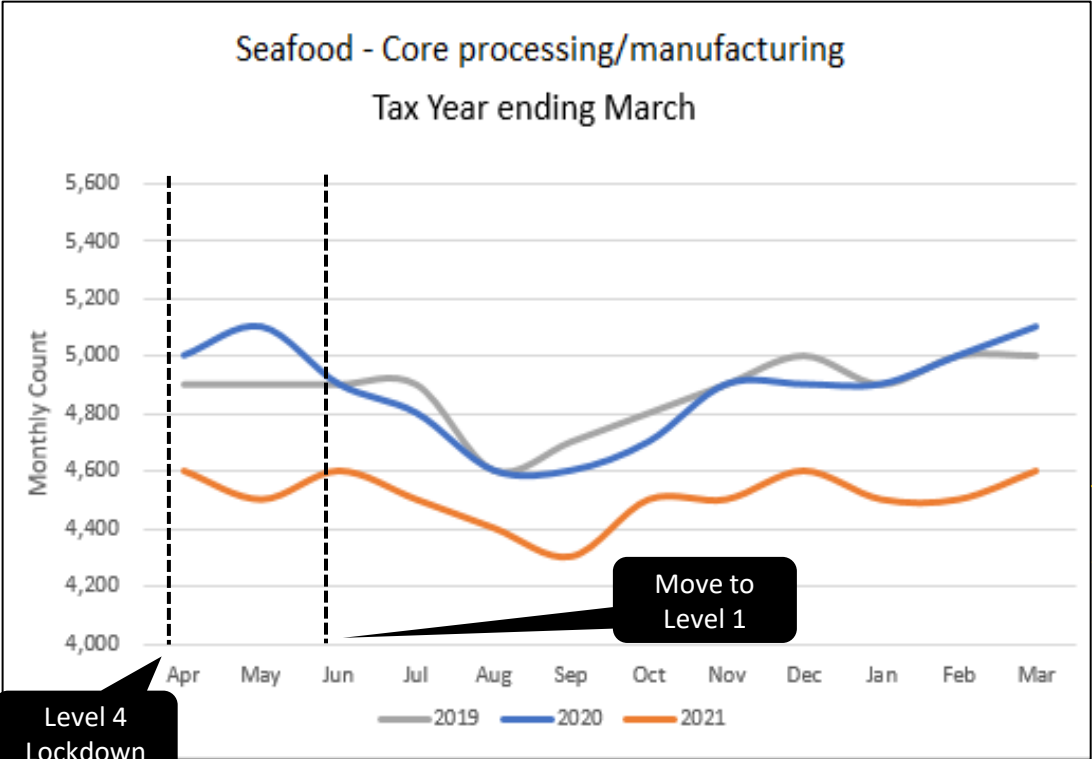


Level 4  
Lockdown

Move to  
Level 1

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Seafood



The seafood core processing workforce was smaller throughout 2021 compared to previous years, being slightly more pronounced in April/ May when lockdown was first implemented. The reduction in numbers was predominately due to fewer New Zealanders, although the smaller number of working holiday visa holders in the later part of year also had an impact.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Cross Sector

## Key characteristics of the Cross sector

- Cross sector includes activities/services that are not attributable to a single sector, rather they span multiple sectors/industries and include “other agriculture and fishing support services (including fruit picking), veterinarian services, fertiliser and pesticide manufacturing, aerial topdressing, road transport and some agritech and contracting firms (especially in horticulture)
- Over 40% of the cross sector workforce are in core production
- Over 40% of the cross sector workforce are in the relevant and/or other designation
- The majority of people (75%) in this sector are employees.

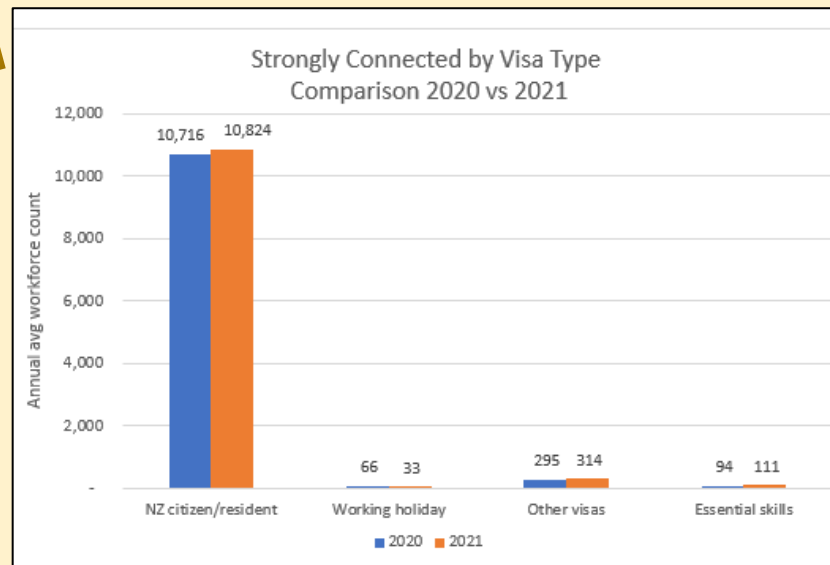
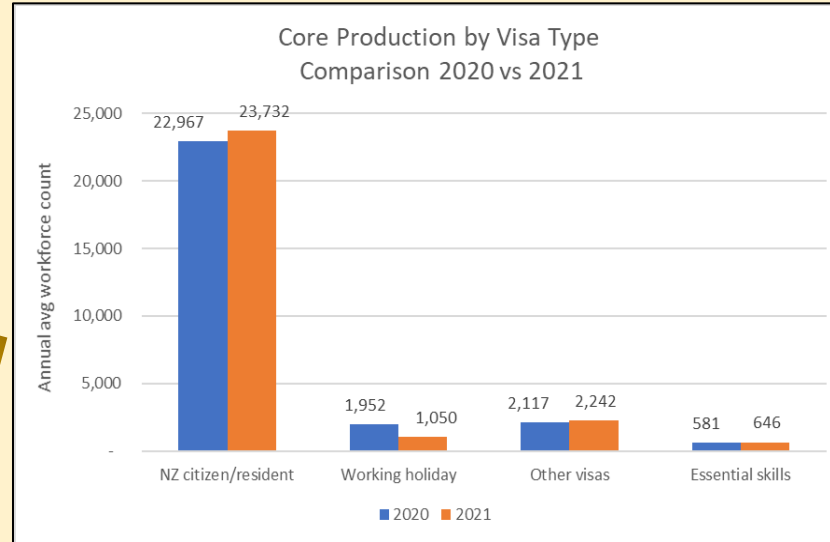
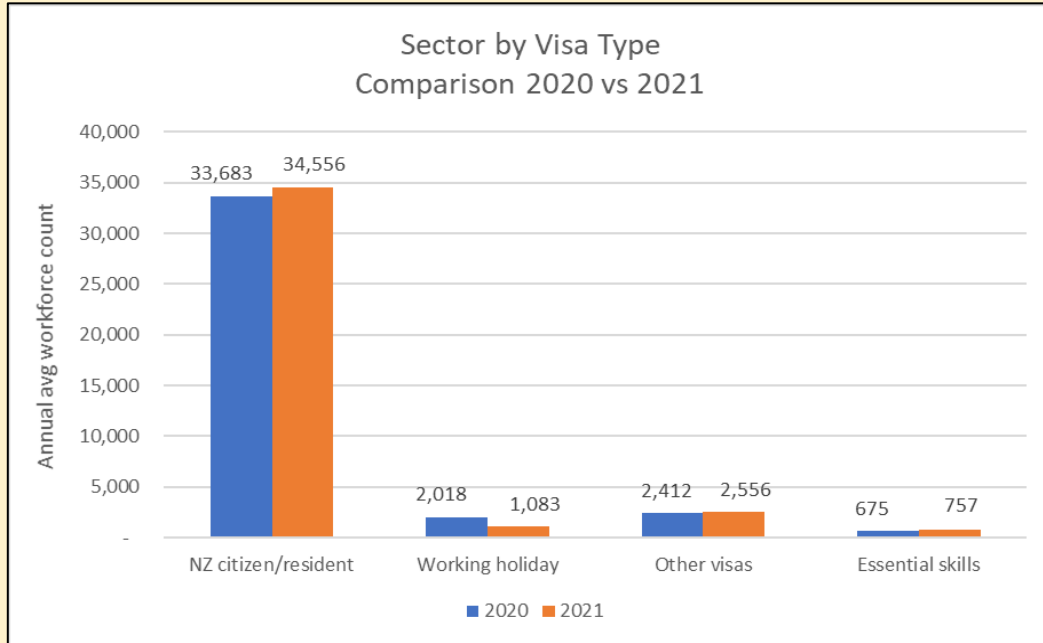


# Cross Sector

## Changes in Cross sector employment counts

- Overall the annual average count went down by 377 (0.6%)
- By visa type, the main driver was due to a decrease in the annual average count of working holiday visa holders (935)
- There was an offsetting increase in the number of New Zealanders (800) in this sector
- For this sector, the graphs contain the core production and strongly connected designations
- In addition to those designations the “Other” designation had a decrease within the labour supply services industry of 600 people
- Potentially this labour supply figure change may reflect economic factors relating to the wider economy, as it was determined using a subset (15%) of a larger cohort

The Cross sector classification had an overall reduction of 377 people (0.6%)



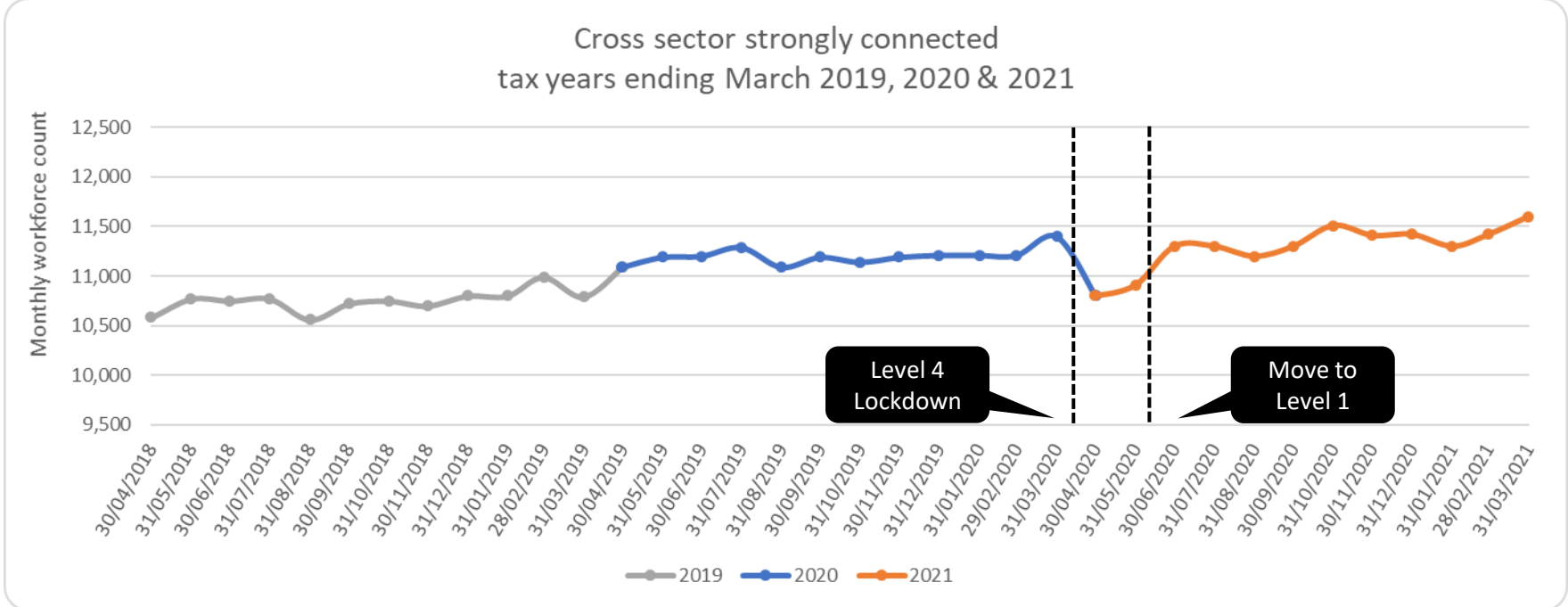
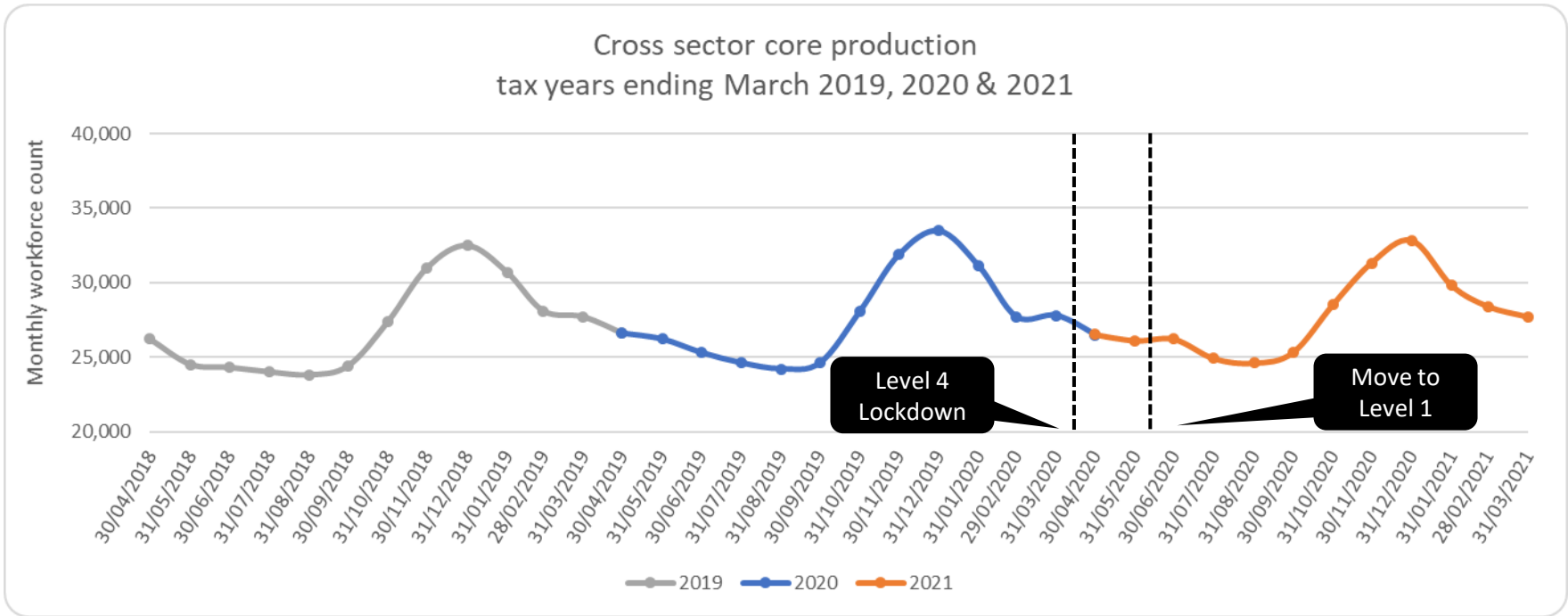
- The annual average change in employment was primarily due to:
  - A decrease in working holiday visa holder by 935;
  - An increase in New Zealanders by 874; and

Note 1: These workforce counts exclude the relevant & other designation categories

Note 2: Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

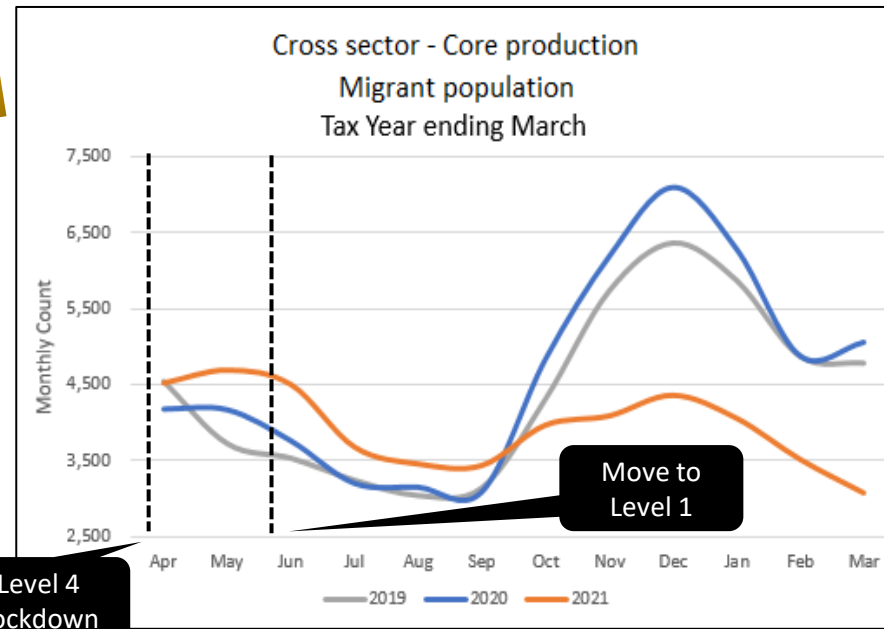
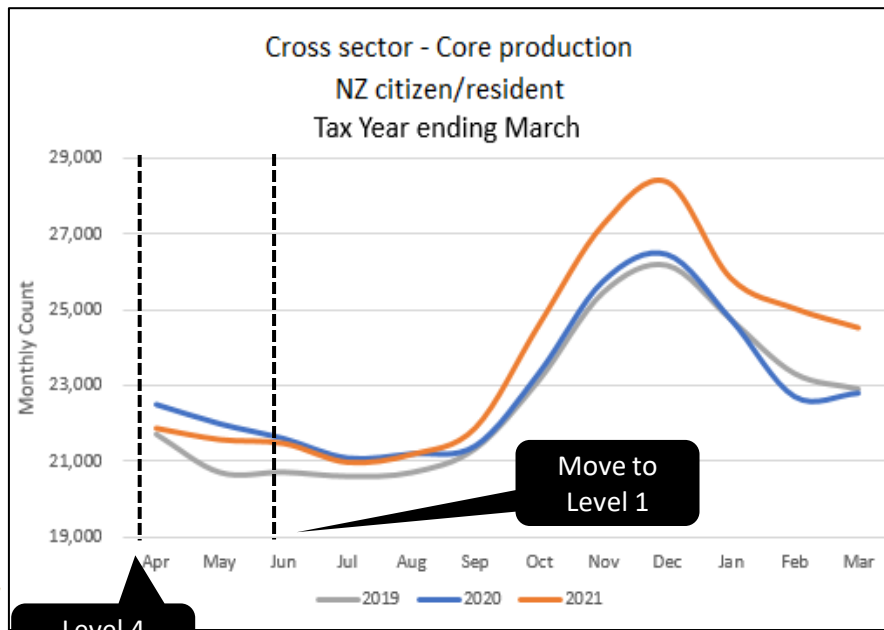
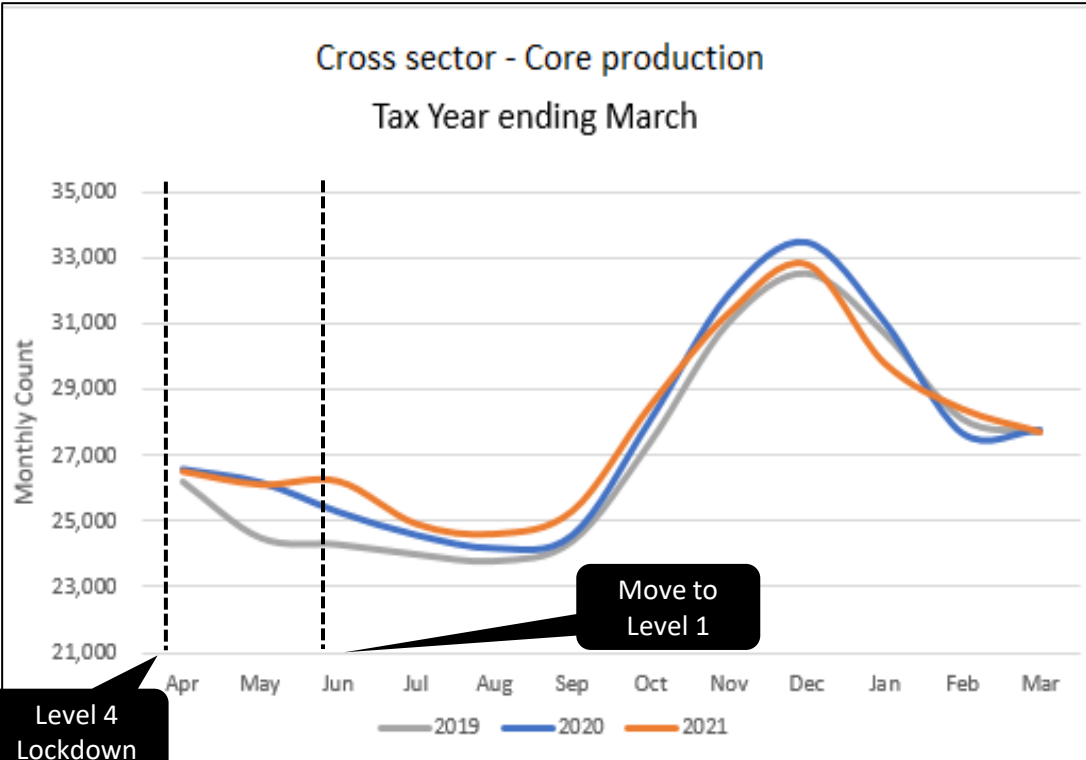
# Cross Sector

Core Production consists solely of the ANZSIC class Other agriculture and fishing support services



**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.

# Cross Sector



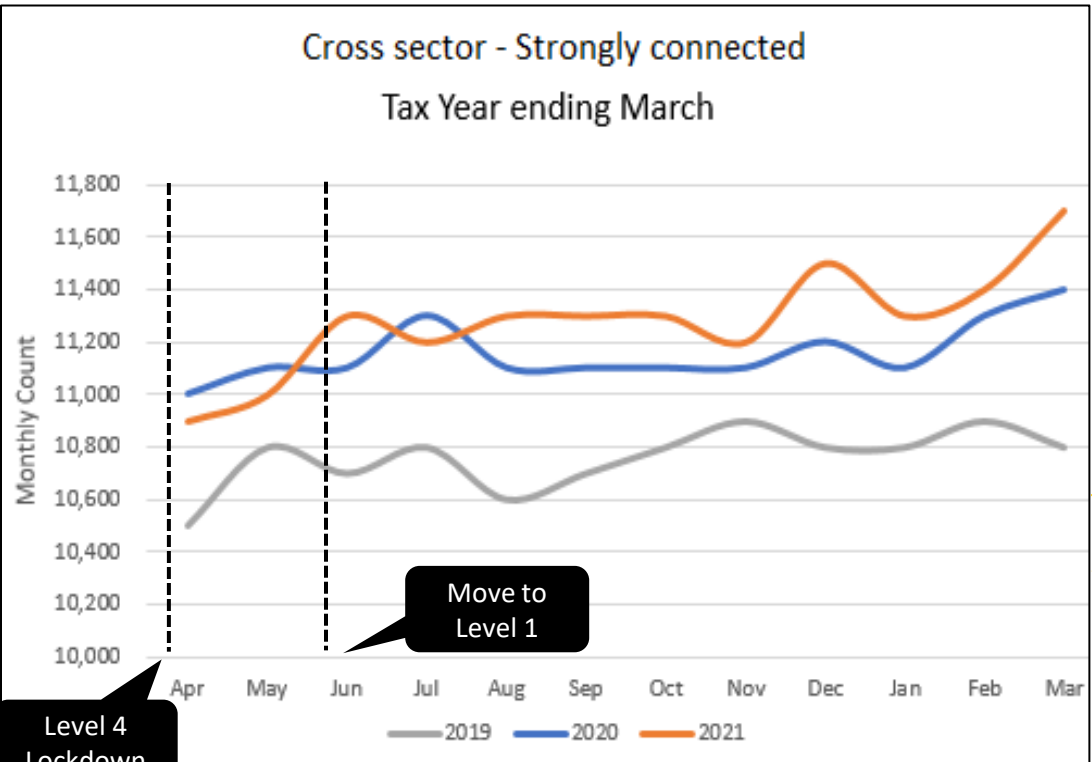
The seasonal pattern in the 2021 tax year was similar to that of the 2020 tax year.

The number of New Zealanders was higher in second half of the year.

The number of migrants (predominately people on working holiday visas) was lower in the second half of the year.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

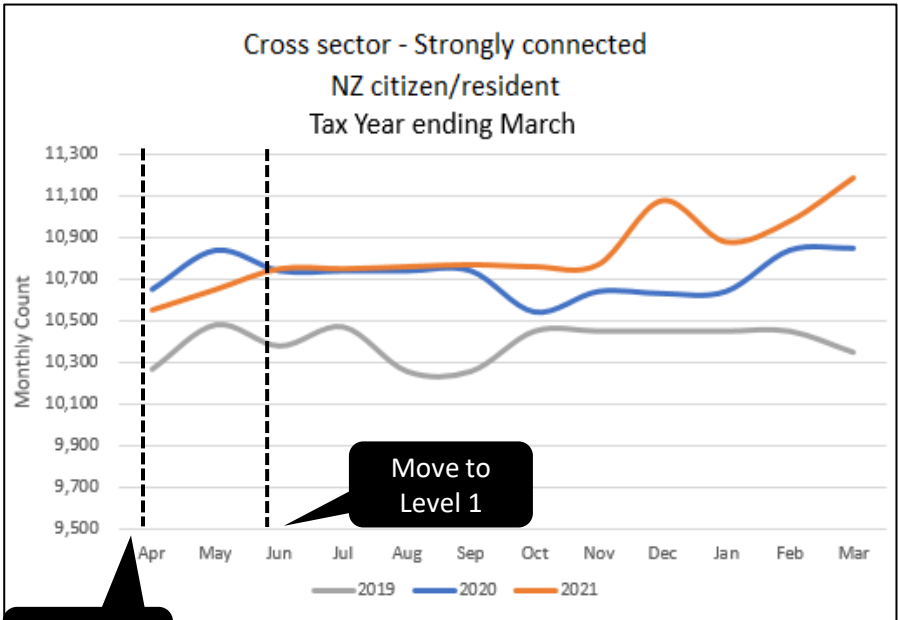
# Cross Sector



Level 4 Lockdown

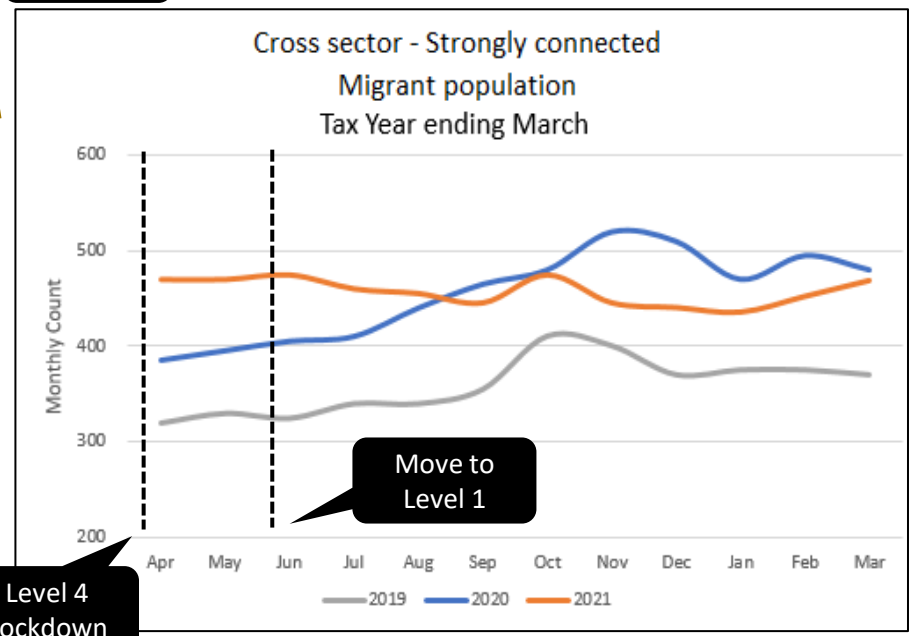
Move to Level 1

Overall, the cross sector strongly connected workforce was relatively similar to the 2020 and 2021 tax years



Level 4 Lockdown

Move to Level 1



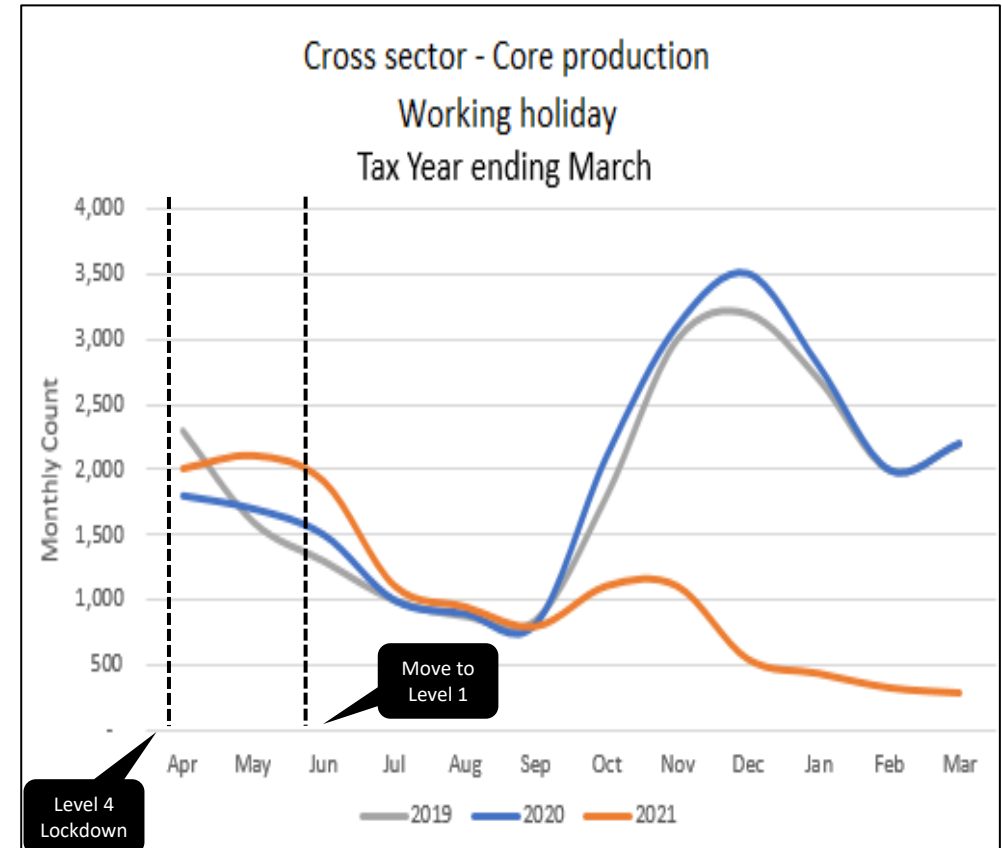
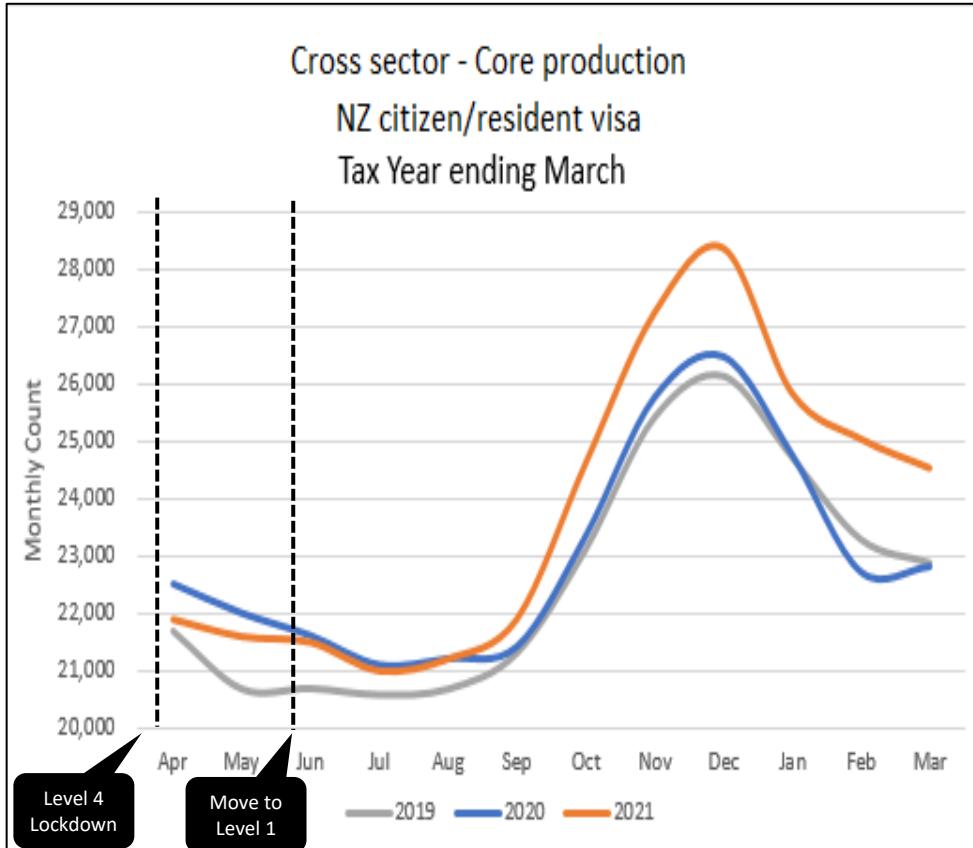
Level 4 Lockdown

Move to Level 1

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the "y axis", therefore a measure of caution should be exercised when interpreting this information.

# Cross Sector

The Cross sector classification had an overall reduction of 377 people (0.6%)



- In core production there was an increase in New Zealanders in the latter half of the 2021 year, which appears to reflect a substitution effect replacing the reduced working holiday visa holder numbers.
- In core production working holiday visa holders reduced significantly during the 2<sup>nd</sup> half of the year.
- Outside the visa type data above, the labour supply services industry contributed a further drop of 600 people via the “Other” designation.

**Note:** Workforce counts in each graph above are depicted using various numerical scales via the “y axis”, therefore a measure of caution should be exercised when interpreting this information.