2019 Forestry Labour Requirements Survey

Te Uru Rākau — Forestry New Zealand

FOREST OWNERS ASSOCIATION

FICA — FOREST INDUSTRY CONTRACTORS ASSOCIATION

Competenz

Forestry Labour Requirements Survey

In December 2018, Te Uru Rākau, the Forest Owners Association and the Forest Industry Contractors Association, with support from Competenz, surveyed the silviculture and harvesting sectors' labour requirements for 2019.

The survey was designed to better understand:

- expected labour requirements, both seasonal and permanent roles, for the 2019 calendar year;

- for which roles, and in which regions, silviculture contractors and harvesting contractors are experiencing challenges;

- the recruitment strategies people intend to use in 2019; and

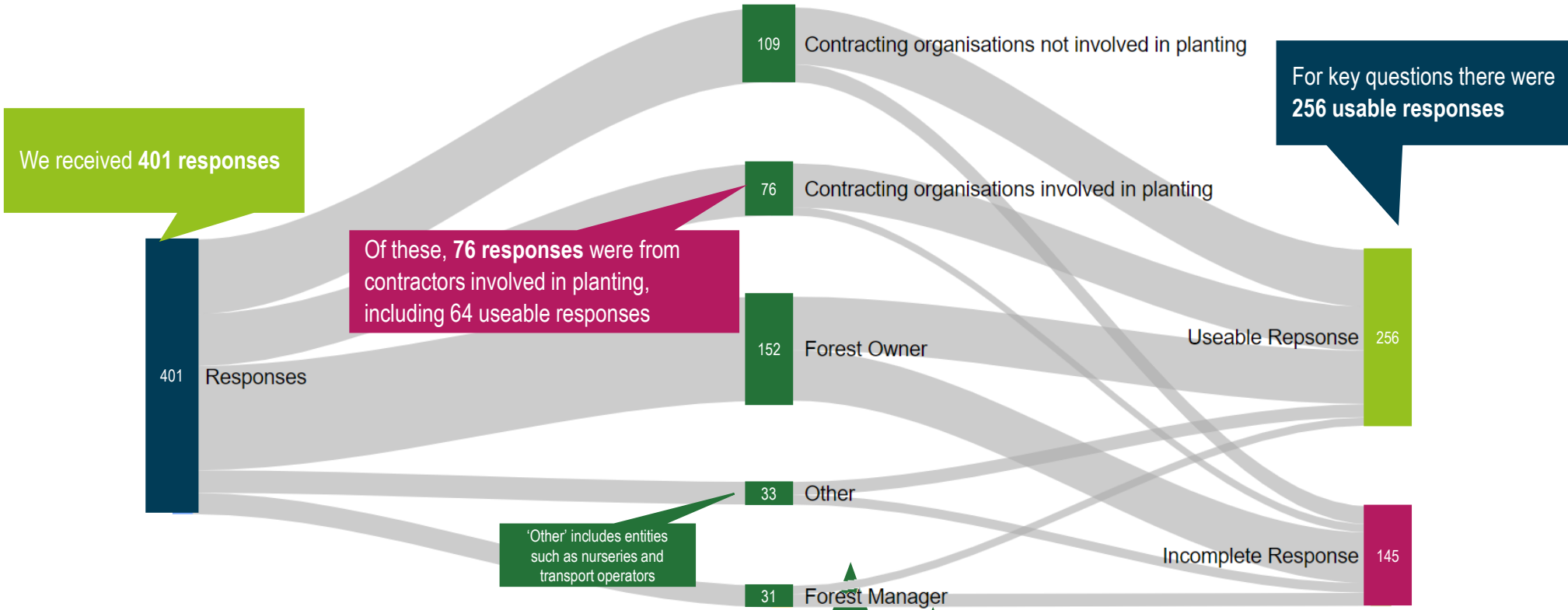- the industry's views of the key reasons for the labour shortages.

Key messages

- **Silviculture contractors involved in planting estimate that they will need approximately 1,780 workers for 2019, an increase of 750 workers or around 73 percent on 2018.**

  - We received 401 responses, and while not all respondents answered all questions, this was a good response rate. For key questions, such as the number of workers employed in 2018 and expected number of workers in 2019 there were 256 usable responses, of which 64 were silviculture contractors. This is a very good response rate from silviculture contractors; the response rate is not as good for other entities.

  - The main regions for forestry employment are Waikato, Gisborne, Bay of Plenty and Northland.

  - In 2018, 83 percent of the silviculture and harvesting sectors' workforce was permanently employed. While the majority of seasonal workers are employed by silviculture contractors, the majority of planting workforce (71 percent) was also permanently employed.

  - While overall the forestry sector permanent workforce increased in 2018, 25 percent of permanent workers left the firms they were working for during the year. Contracting organisations (silviculture and harvesting contractors) had a much higher percentage of their permanent staff leaving during the year than other entities like forest owners and managers. With high turnover rates, training and upskilling staff will continue to be challenging. High turnover may be dis-incentivising employers investing in their staff and may encourage shorter task-based training. Equally, a lack of training may be contributing to poor retention.

  - Over half the new silviculture jobs are expected to be permanent roles. The expected greatest demand in 2019 for both seasonal and permanent workers will be for planting crew members. Around half the expected permanent vacancies for contractors involved in harvesting in 2019 are expected to be for machine operating roles.

  - Word of mouth or general social media is seen as the most important recruitment approach, demonstrating the importance of local networks.

  - The respondents considered that the main reasons for labour shortages are due to employment conditions (pay rates, hours worked, and the location and physical nature of the work) and the inability to attract and retain new entrants. Experienced staff leaving the industry was also seen as a major concern.

Response Rate

We received **401 responses**

Of these, **76 responses** were from contractors involved in planting, including 64 useable responses

'Other' includes entities such as nurseries and transport operators

For key questions there were **256 usable responses**

401 Responses	
109	Contracting organisations not involved in planting
76	Contracting organisations involved in planting
152	Forest Owner
33	Other
31	Forest Manager
256	Useable Repsonse
145	Incomplete Response

Response Rate

Question response rate

Entire 2018 Surveyed Workforce – Seasonal and Regional Breakdown

Entire 2018 surveyed workforce proportion of seasonal roles

2,652 workers

- Permanent
- Seasonal

In 2018, 83 percent of the surveyed workforce were permanently employed. The majority of seasonal workers (69% of all seasonal workers) were employed by contracting organisations involved in planting.

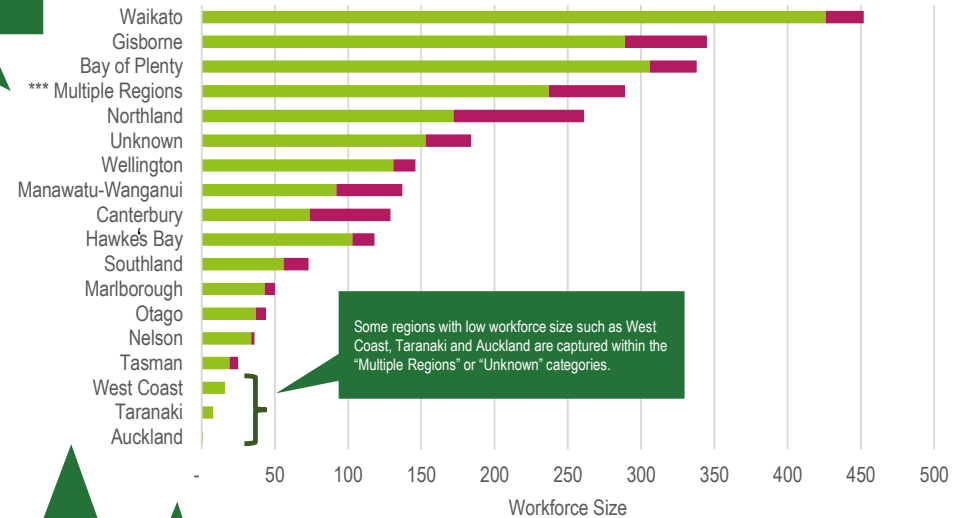The main regions for forestry employment were Waikato, Gisborne and Bay of Plenty. Northland came in 4th and had the highest proportion of seasonal workers (41%).

This includes the employment count from firms that operate in multiple regions as these firms predominately operate in the Central North Island, which encompasses parts of the Waikato, Gisborne and Hawke's Bay Regions.

Entire 2018 surveyed workforce size by region (Permanent and Seasonal)

Waikato
Gisborne
Bay of Plenty
*** Multiple Regions
Northland
Unknown
Wellington
Manawatu-Wanganui
Canterbury
Hawke's Bay
Southland
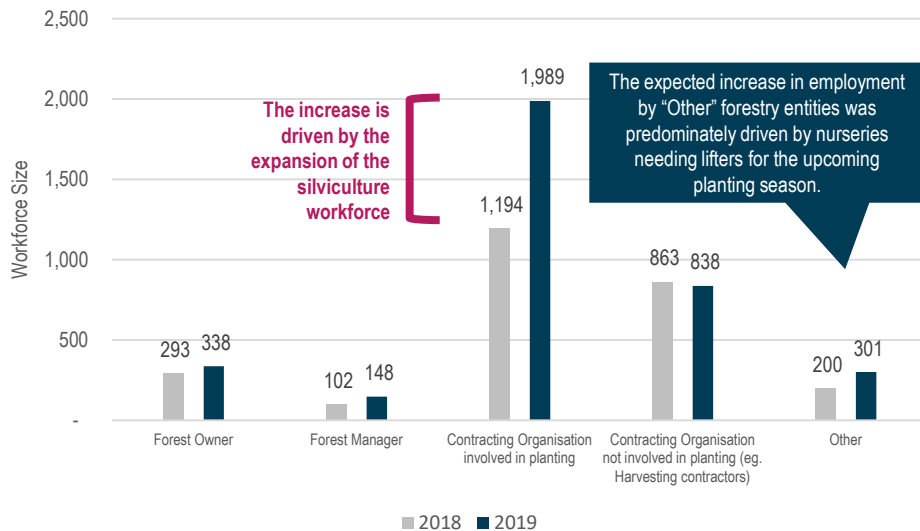Marlborough
Otago
Nelson
Tasman
West Coast
Taranaki
Auckland

Some regions with low workforce size such as West Coast, Taranaki and Auckland are captured within the "Multiple Regions" or "Unknown" categories.

- 50 100 150 200 250 300 350 400 450 500

Workforce Size

- Permanent
- Seasonal

Entire surveyed workforce - 2018 vs 2019

Entire surveyed workforce size 2018 vs 2019
(permanent and seasonal)

The increase is driven by the expansion of the silviculture workforce

The expected increase in employment by "Other" forestry entities was predominately driven by nurseries needing lifters for the upcoming planting season.

Workforce Size

Category	2018	2019
Forest Owner	293	338
Forest Manager	102	148
Contracting Organisation involved in planting	1,194	1,989
Contracting Organisation not involved in planting (eg. Harvesting contractors)	863	838
Other	200	301

■ 2018 ■ 2019

The survey respondents estimate that the forestry workforce for silviculture and harvesting will increase by 36 percent in 2019.

Note: The gap between the 2018 and 2019 contracting organisations involved in planting of 795 differs from the 750 figure used for the planting workforce (in slide 9). This is because the 795 figure includes the entire workforce, including workers not directly involved in planting such as admin staff…etc

Workforce size for silviculture contractors – seasonal and regional breakdown for 2018
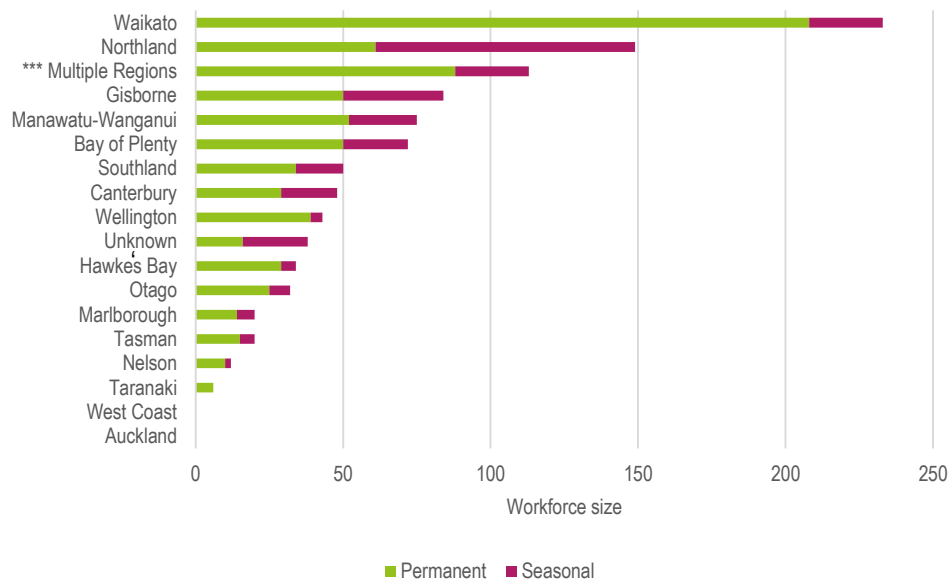
2018 surveyed workforce for silviculture contractors proportion of seasonal roles

1,029 workers

- Permanent
- Seasonal

Discussion with a few survey respondents indicated that often seasonal workers are retained into the permanent workforce if they "pass muster"

The majority of the silviculture workforce (71%) was employed on a permanent basis.

2018 Silviculture workforce by region (Permanent & seasonal)

Waikato
Northland
*** Multiple Regions
Gisborne
Manawatu-Wanganui
Bay of Plenty
Southland
Canterbury
Wellington
Unknown
Hawke's Bay
Otago
Marlborough
Tasman
Nelson
Taranaki
West Coast
Auckland

0   50   100   150   200   250
Workforce size

- Permanent
- Seasonal

The main regions for silviculture employment in 2018 were Waikato, Northland and Gisborne, accounting for almost 60 percent of the national silviculture workforce.

Planting workforce size – Estimates for 2019 silviculture workforce

2019 surveyed silviculture workforce estimate proportion of seasonal roles

1,777 workers

■ Permanent ■ Seasonal

The proportion of seasonal workers is expected to increase to 36% from 29% in 2018.
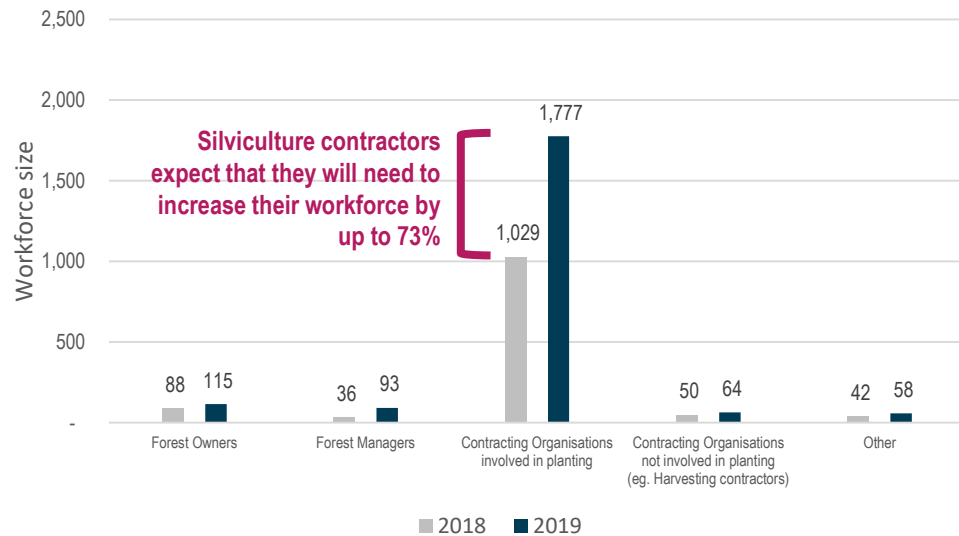
Waikato, Gisborne, and Northland are expected to continue to be the main regions for silviculture employment in 2019.

2019 surveyed silviculture workforce estimates by region (permanent & seasonal)

Waikato
*** Multiple Regions
Gisborne
Northland
Manawatu-Wanganui
Wellington
Bay of Plenty
Southland
Unknown
Canterbury
Hawke's Bay
Otago
Tasman
Taranaki
Nelson
Marlborough
West Coast
Auckland

0   50   100   150   200   250   300   350   400
Workforce size

■ Permanent ■ Seasonal

Silviculture Workforce Size 2018 vs 2019

Silviculture workforce size 2018 vs 2019 (permanent and seasonal)

Silviculture contractors expect that they will need to increase their workforce by up to 73%

Chart data:

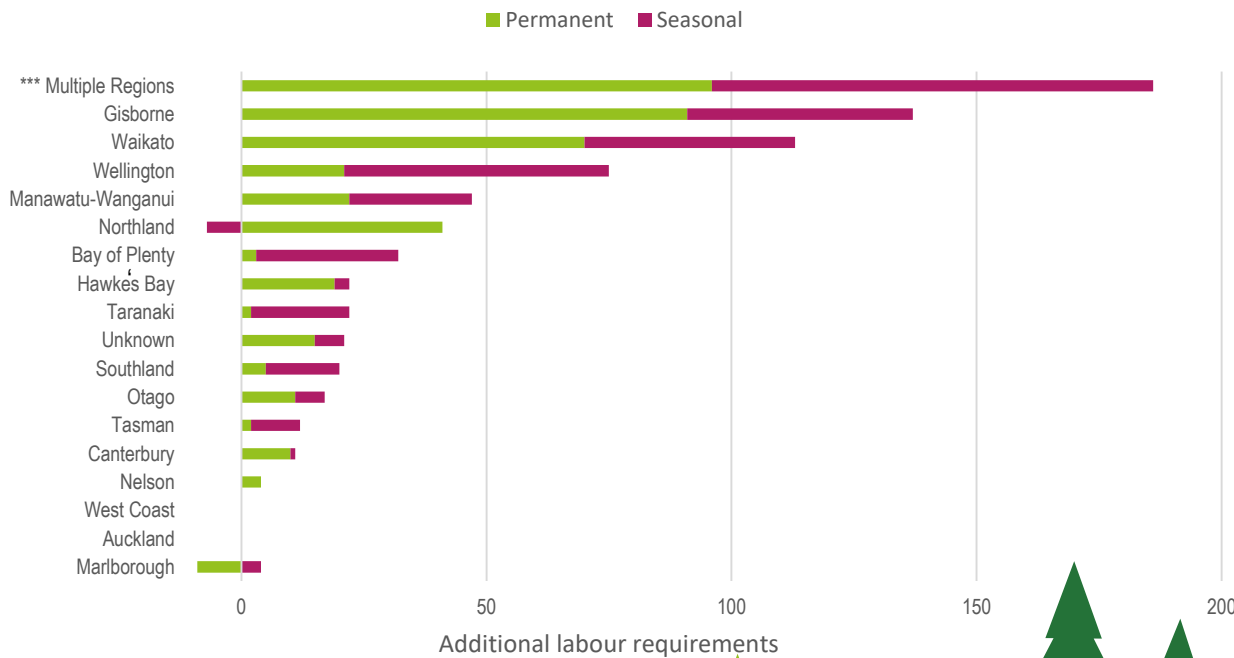| Category	2018	2019
Forest Owners	88	115
Forest Managers	36	93
Contracting Organisations involved in planting	1,029	1,777
Contracting Organisations not involved in planting (eg. Harvesting contractors)	50	64
Other	42	58

The projected increase probably reflects respondents' upper estimate of the labour they may need. This is reinforced by the fact that one-third (21) of the silviculture contractors are expecting to increase their workforce by over 100 percent, and these respondents account for two-thirds (500 workers) of the expected additional 750 workers needed for 2019.

It is possible that the increase in the silviculture workforce by entities other than contractor organisations involved in planting reflects a "double counting" of the silviculture workforce. This may be because forest owners and managers have responded on behalf of their silviculture contractors.

Silviculture Workforce Size 2018 vs 2019

Additional silviculture labour requirements for 2019 by region

Permanent ■ Seasonal ■

*** Multiple Regions
Gisborne
Waikato
Wellington
Manawatu-Wanganui
Northland
Bay of Plenty
Hawkes Bay
Taranaki
Unknown
Southland
Otago
Tasman
Canterbury
Nelson
West Coast
Auckland
Marlborough

0   50   100   150   200

Additional labour requirements

Silviculture contractors are looking to increase their number of seasonal workers in 2019. However, 54 percent of the new planting jobs (approximately 400 of the 750 new jobs) are still expected to be permanent roles. As a result, the silviculture workforce in 2019 is expected to be 64 percent permanent and 36 percent seasonal. If these permanent staff are retained, silviculture contractors will be better placed for the 2020 planting season.

There are regional differences – In Northland all new jobs are expected to be permanent where as in Southland and Bay of Plenty most new jobs are expected to be seasonal.

Turnover of permanent staff

While overall the forestry sector permanent workforce increased in 2018 (that is, more people were hired in 2018 than left), 25% of permanent workers left the firms they were working for during the year.

Contracting organisations (silviculture and harvesting contractors) had a much higher percentage of their permanent staff leaving during the year than other forestry entities.

This suggests that even though silviculture and harvest contractors offer permanent employment, they face difficulties retaining staff.

Turnover rate for permanent staff by organization type

With high turnover rates, training and upskilling staff will continue to be challenging.

NB: Given the difficulties in defining turnover for seasonal roles, questions of turnover were not asked about seasonal employees. However, it is possible when turnover rates for seasonal workers are taken into account, some entities may be experiencing turnover rates significantly higher than reported here. Care is also needed in interpreting these figures are firm turnover is different than industry turnover. As people may leave one firm to join another firm in the same industry, firm turnover can be higher than industry turnover.

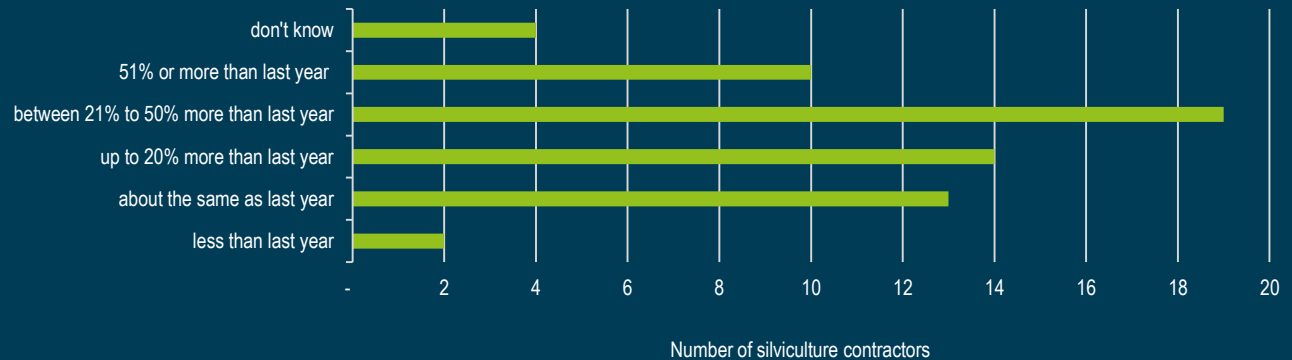# Planting Areas reported by silviculture contractors

Planting in 2018

Silviculture contractors reported planting 44,800 ha of exotics, 8,300 ha of natives (excl. Manuka) and 1,700 ha of Manuka in 2018.

Legend:
- Exotics
- Native (excl. Mānuka)
- Mānuka

X-axis: 0, 10,000, 20,000, 30,000, 40,000, 50,000, 60,000
Hectares

Planting in 2019

Almost 70% of silviculture contractors expect to plant more than last year, with nearly half of respondents expecting to plant more than 20% more, and around 15% of respondents expecting to 50% or more than they did last year.

Chart categories (bottom to top):
- less than last year
- about the same as last year
- up to 20% more than last year
- between 21% to 50% more than last year
- 51% or more than last year
- don't know

X-axis: -, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
Number of silviculture contractors

NB: Other organisations such as forest owners and managers also reported their planting area for 2018, however because multiple types of organisations could all be involved in planting the same area, we have chosen to focus on area reported by silviculture contractors to avoid "double counting" of the planting area.

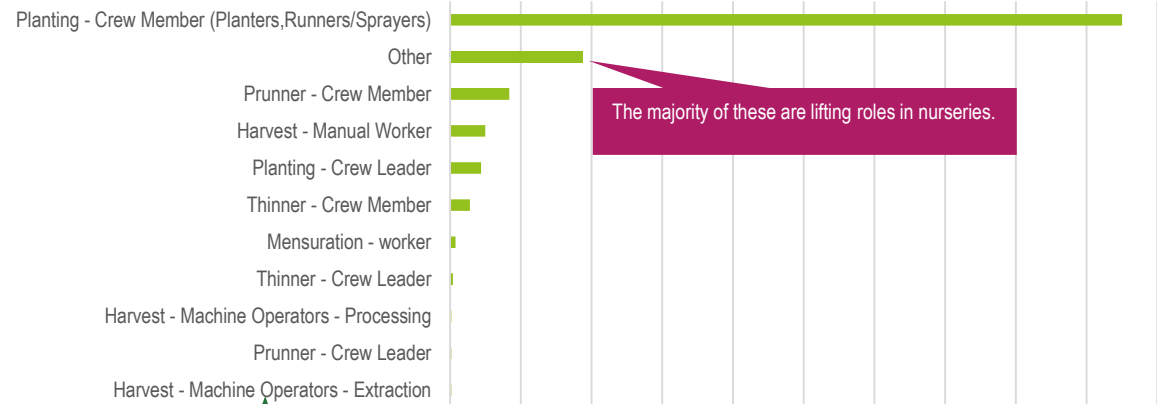# Seasonal vacancies in 2019 for the entire surveyed workforce

24% of all respondents reported that they hired seasonal workers. Two-thirds of respondents that hired seasonal workers were silviculture contractors.

Seasonal workers are mostly employed as planting crew members.

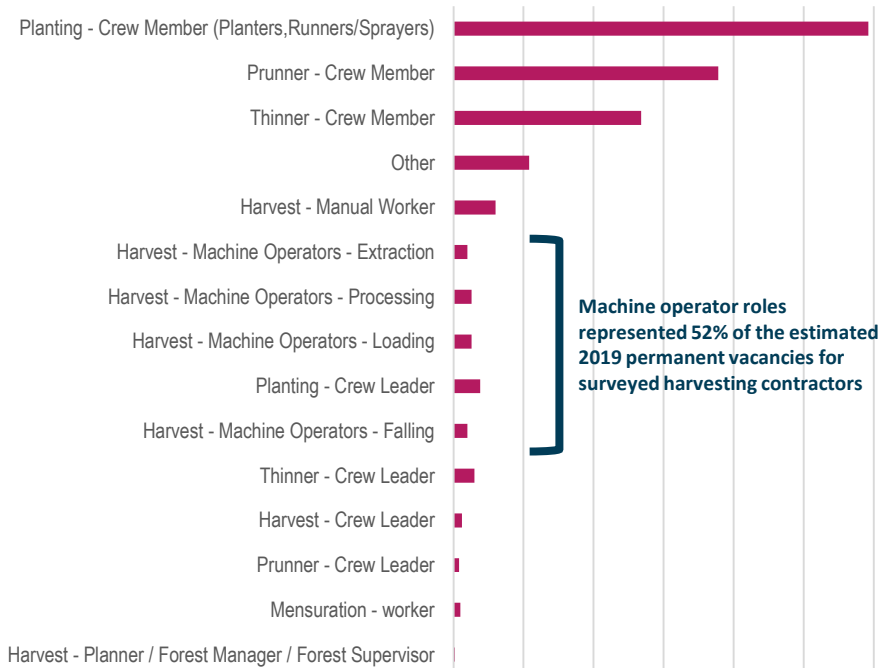**Proportions of seasonal vacancies 2019 by role for entire surveyed workforce**

Planting - Crew Member (Planters,Runners/Sprayers)
Other
Prunner - Crew Member
Harvest - Manual Worker
Planting - Crew Leader
Thinner - Crew Member
Mensuration - worker
Thinner - Crew Leader
Harvest - Machine Operators - Processing
Prunner - Crew Leader
Harvest - Machine Operators - Extraction

The majority of these are lifting roles in nurseries.

■ No ■ Yes

NB: The response rate for questions related to vacancies was lower than for other questions therefore we recommend focussing on relative weightings on different roles rather than absolute numbers.

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Permanent vacancies in 2019 for the entire surveyed workforce

Proportions of permanent vacancies in 2019 by role for entire surveyed workforce

Role
Planting - Crew Member (Planters,Runners/Sprayers)
Prunner - Crew Member
Thinner - Crew Member
Other
Harvest - Manual Worker
Harvest - Machine Operators - Extraction
Harvest - Machine Operators - Processing
Harvest - Machine Operators - Loading
Planting - Crew Leader
Harvest - Machine Operators - Falling
Thinner - Crew Leader
Harvest - Crew Leader
Prunner - Crew Leader
Mensuration - worker
Harvest - Planner / Forest Manager / Forest Supervisor

Machine operator roles represented 52% of the estimated 2019 permanent vacancies for surveyed harvesting contractors

While planter was the permanent role in greatest demand, pruners and thinners are also being sought for 2019. It is likely that some double counting may have occurred as silviculture contractors undertake all three operations (planting, pruning and thinning), and planting crew members that are taken on permanently will move to pruning and thinning after the planting season.

Recruitment Strategies

All respondents

Word of mouth or general social was seen as the most important approach, demonstrating the importance of local networks.

Word of mouth or general social media
3.0

Advertising – national/local media or websites
2.6

Upskilling existing staff or taking on seasonal workers full-time
2.2

Industry advertising – websites, news letters
1.8

Migrant labour
1.7

Government assisted employment programmes
1.7

Respondents were asked to what extent they would use the following recruitment strategies from 1 (Not at all) to 5 (To a very large extent). The circles to the left are the weighted average of responses by organisation type. The graphic below illustrates the preferred recruitment strategy by organisation type from most likely to use to least likely to use.

Silviculture contractors | Non-planting contractors e.g. harvesting | Forest Owners | Forest Managers | Other

Most likely to use

Least likely to use

● Government assisted employment programmes ● Migrant Labour ● Industry Advertising ● Upskilling ● National Advertising ● Word of Mouth
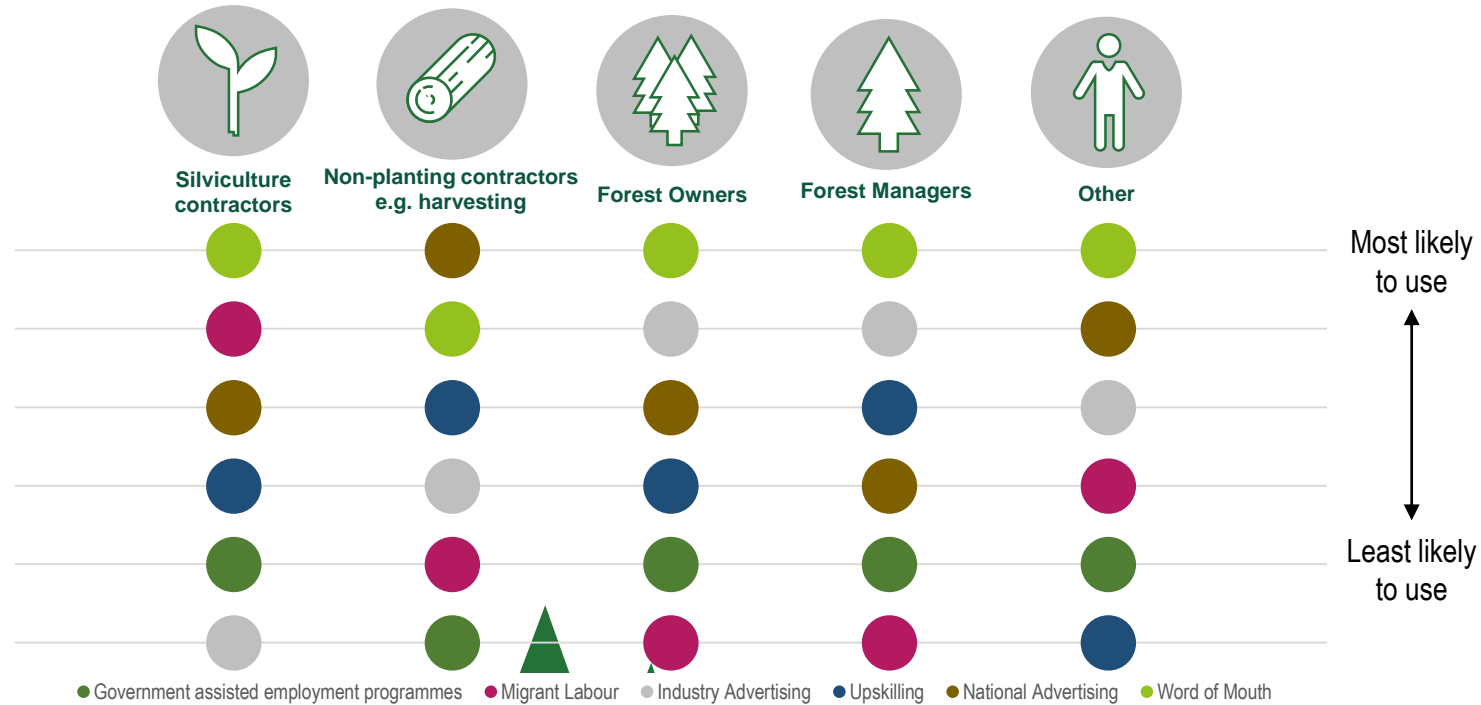
Reasons for labour shortages

All respondents

All organisations see that the three main reasons for labour shortages are due to employment conditions, the inability to attract and retain new entrants, and experienced staff leaving the industry.

Unable to attract/retain new entrants
4.0

Employment Conditions, e.g. pay rates, hours, location, physical nature
3.8

Experienced staff leaving the industry, e.g. retirement
3.5

Competition with other industries e.g. farming, construction
3.1

Staff moving to other forestry organisations
2.8

Increased tree planting demand, e.g. One Billion Trees
2.8

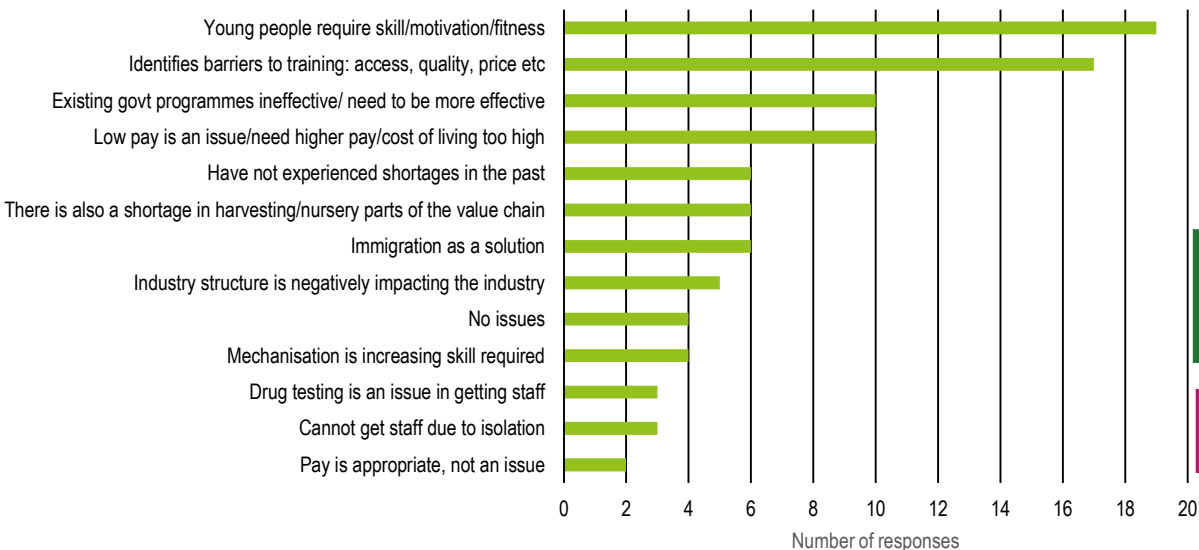Impacts of 1990's forestry planting ready for harvesting and processing
2.7

Respondents were asked to what extent the labour shortages are due to the following reasons from 1 (Not at all) to 5 (To a very large extent). The circles to the left are the weighted average of responses by organisation type. The graphic below illustrates the reported reasons for labour shortages from most significant to least significant.

Silviculture contractors

Non-planting contractors e.g. harvesting

Forest Owners

Forest Managers

Other

Most significant

Least significant

Impacts of 1990's forestry planting
Increased tree planting demand
Staff moving to other forestry organisations
Competition with other industries
Experienced staff leaving the industry
Employment Conditions
Unable to attract\retain new entrants
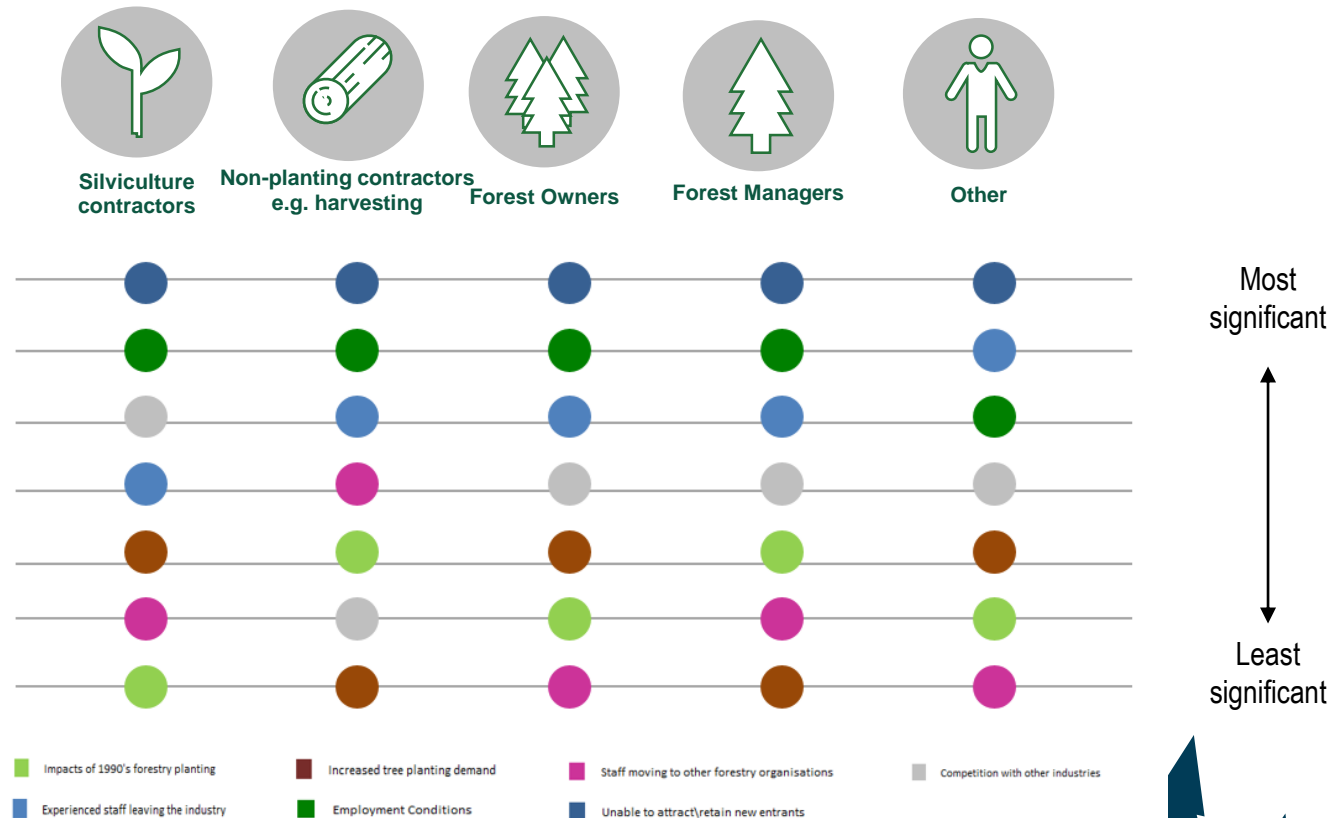
Additional comments on labour and skills shortages

Respondents were invited to provide additional comments on labour and skills shortages. They have been grouped by theme below.

Bar chart — Number of responses:
- Young people require skill/motivation/fitness
- Identifies barriers to training: access, quality, price etc
- Existing govt programmes ineffective/ need to be more effective
- Low pay is an issue/need higher pay/cost of living too high
- Have not experienced shortages in the past
- There is also a shortage in harvesting/nursery parts of the value chain
- Immigration as a solution
- Industry structure is negatively impacting the industry
- No issues
- Mechanisation is increasing skill required
- Drug testing is an issue in getting staff
- Cannot get staff due to isolation
- Pay is appropriate, not an issue

x-axis: 0 2 4 6 8 10 12 14 16 18 20 — Number of responses

"We have people but they don't want to work."

I think there is a major shortage of log truck drivers.

The model needs to change, get rid of corporate forest managers and let the money get to the workers so that we can have a proud working industry!

"People want a good dependable income with good working conditions."

"Thinking about advertising in Canada for seasonal workers."

"The living wage should be paid as a minimum to all forestry workers."

"Train young folk and provide a worthwhile reward structure for them."

"This problem is even more critical in the nursery industry."

A lot of the locations where the work is are remote and the local workforce is not skilled for the jobs

"It is extremely difficult to find permanent long term employees who can be reliable, pass a drug test and be willing to work for their money."

"Not enough young people wanting to train in the harvesting side of forestry."

"There is a lot of new crews these days with not much new workers. "

"Has not been a labour shortage in parts of Otago the last year "

"Forestry harvesting, traditionally been seen as lower skill so now with increased use of highly computerised machines there is not the skilled pool of potential workers."

There is good money to be made with basically no starting qualifications.

Silviculture work is an excellent opportunity for people to make good money. Getting rid of contractors who have been ripping off their workers would help. There has been too much of that. The money is there, it is a case of how much is taken by the business owner before paying their workers.

"No single body with $$ and mandate to fix the problem. Forestry has been divided since 1984."

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Appendix 1: List of Questions

Q1	What is the name of your organisation? This will help us to avoid duplication of survey data.
Q2	What type of organisation are you? (Please select one that best applies)
Q3	Of your 2018 workforce, how many were seasonal workers (i.e. not employed year round)? (Enter zero if none).
Q4	Of those 2018 seasonal workers, how many were directly involved in planting (i.e. Planting - Crew Leader or Planting - Crew Member)? (Enter zero if none).
Q5	Of your 2018 workforce, how many were permanent workers? (Please include yourself as well).
Q6	Of those 2018 permanent workers, how many were directly involved in planting (i.e. Planting - Crew Leader or Planting - Crew Member)? (Enter zero if none).
Q7	Of your 2018 permanent workers, how many new permanent workers did you employ in the last 12 months?
Q8	Of your 2018 permanent workers, how many permanent workers left in the last 12 months?
Q9	Is your organisation involved in forestry planting?
Q10	If your organisation is involved in planting, how many hectares did you plant in the 2018 season?
Q11	If your organisation is involved in planting, how many hectares do you estimate you will plant in the 2019 season compared to last year?
Q12	How many seasonal workers in total do you estimate you will need in the 2019 calendar year? (Enter zero if none).
Q13	Of those estimated 2019 seasonal workers, how many will be directly involved in planting (i.e. Planting - Crew Leader or Planting - Crew Member)? (Enter zero if none).
Q14	How many permanent workers in total do you estimate you will need in the 2019 calendar year? (Please include yourself as well).
Q15	Of those estimated 2019 permanent workers, how many were directly involved in planting (i.e. Planting - Crew Leader or Planting - Crew Member)? (Enter zero if none).
Q16	Do you hire seasonal workers?
Q17	For all seasonal positions that you expect to have in the 2019 calendar year, please provide your best estimate of the number of available positions, by role, start and end months, for each region. (Please use the other comments box if necessary to cover other roles and their regions not listed).
Q18	Please provide your best estimate for each permanent position in the 2019 calendar year that you expect to have a vacancy for (new roles and replacing others). (Please use the other comments box if necessary to cover other occupational roles not listed).
Q19	Which of the following recruitment strategies do you intend to use in 2019? (Please select all that apply)
Q20	Do you think there is a labour shortage?
Q21	To what extent do you think the labour shortages are due to the following reasons? (Select the most appropriate response for each reason below).
Q22	Any final comments you would like to share about labour or skill requirements in the forestry industry?
Q23	If you are willing to be contacted by Te Uru Rakau about your answers, please enter your email address below.(Please note, this is an optional question).