

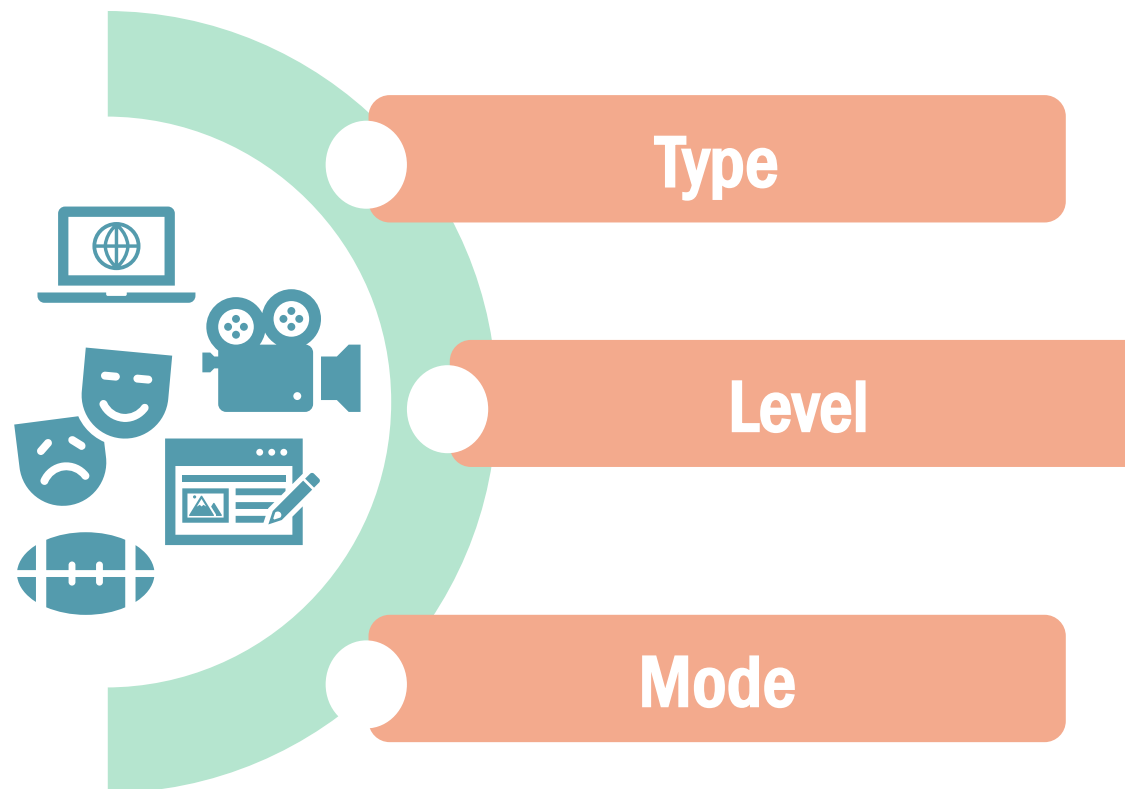
# Advice to TEC

## Data insights

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## Advice to TEC

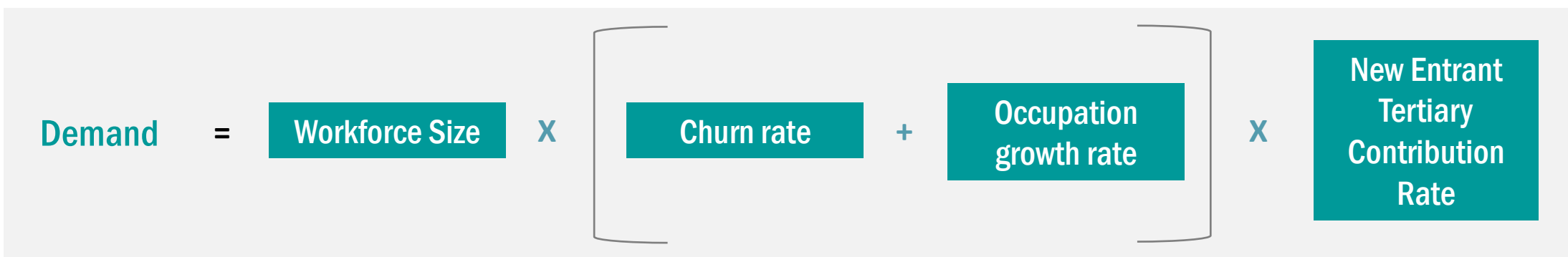
# Sector-specific advice



## Advice to TEC

The demand for each role included in this advice was derived by determining the product of the following:

- 2021 data (or latest data) on workforce size
- Sum of the churn rate and occupation growth rate
- New entrant tertiary contribution rate



Demand – Estimated number of people needed by industry for a certain role or occupation

Workforce size – Number of employees / Employment size (based on Infometrics data)

Churn rate / Attrition rate – Percentage of people who move out of the industry at a particular period (with the BED project report as data source)

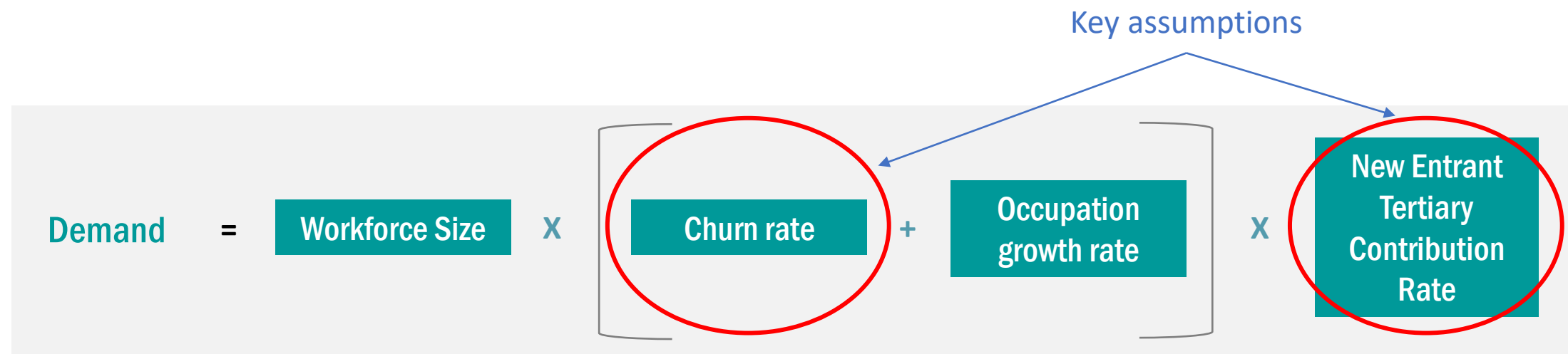
Occupation growth rate – Growth in employment size / how much employment is growing or shrinking across a certain period (based on Infometrics data)

New Entrant Tertiary Contribution Rate – Percentage of people entering the industry who come from tertiary (based on Scarlatti data)

## Advice to TEC

The churn rate is the industry average and may not be relevant for all roles

Using the new entrant tertiary contribution rate implicitly assumes all grads of these quals can and want to go into the respective roles



## Toi Mai subsectors

The industries of Toi Mai are categorised into the following subsectors:

- Toi Pāho – Broadcast and Screen
- Toi Whānui – Enabling Technologies
- Toi ā-Ringa – Art and Design
- Toi Ora – Sport and Recreation
- Toi Puaki – Expressive and Performance Arts
- Toi Māori – the creation of tāonga

The arts, culture, sport and recreation industries are integral to the national identity of Aotearoa, and are valuable contributors to people’s physical, mental and social wellbeing. The technology sector is impacting most sectors across the economy and transforming industries such as manufacturing.

Workers in the creative, cultural and technology sectors are, on average, more highly skilled than the rest of the economy. Lesser skilled jobs are more prevalent in the recreation sector.

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## Snapshot of the Toi Mai sectors

(Source: 2022 Infometrics data)

### GDP contribution

In 2022, Toi Mai sectors contributed \$19,225m million to GDP in New Zealand or 5.4% of total GDP. The GDP contribution from Toi Mai sectors edged up by 8.2% from its contribution in 2021.

### Employment

Toi Mai sectors are employing around 147,000 people in 2022 (representing a growth rate of 3.8%). Employment has been growing at an average rate of 2.3%pa over the past decade. About two thirds of workers in these sectors are employed in the Toi Whānui and Toi Ora sectors combined. More than a quarter of workers are self-employed. In terms of regional employment, around 42% of workers in Toi Mai sectors are in Auckland, 18% in Wellington and 11% in Canterbury.

### Number of business units

There are around 40,300 Toi Mai sector business units in New Zealand or 6.42% of the total number of business units in the economy; 41.5% of these businesses are in Auckland, 20% in the Wellington region and 9.8% in the Canterbury region. Businesses in Toi Mai sectors employ around 3.7 people on average.

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# Snapshot of the Toi Mai sectors

(Source: Infometrics data)

## Demographics

### *Age*

Toi Mai sectors have a younger age profile where over half (53%) of the workers are under 40 years old. 39% of Toi Ora workers are younger than 30 years old.

### *Gender*

Overall three in ten people in the Toi Mai workforce are women. However different sectors of the workforce report different gender splits. In Toi ā-Ringa for example there are higher number of women.

### *Ethnicity*

Only 10% of workers in Toi Mai sectors identify themselves as Māori and 4% as Pacific peoples. Toi Whānui has the smallest representation of Māori (5%).

### *Highest qualification*

39% of workers have completed a bachelor's degree or higher. However by sector this differs. The proportion of degree holders in Toi Whānui is twice as much as that in Toi Ora and three times as much as that in Toi ā-Ringa.

## Industry Insights and Trends

### Overall

- NZ's population growth slowed, migrant arrivals have fallen considerably – driven by younger age groups.
- NZ's population demographic is changing
  - **Ageing population:** median age increased from 25.6 years in 1970 to 37.6 years in 2013. This is projected to reach 40 years by the early 2030's.
  - **Ethnicity:** Projection indicate that by 2033, Māori, Pacific Peoples, and Asian population share is expected to grow significantly compared against 2018 (41% vs 51%). This is largely driven by those between 0-39 years old.
- Large cities and tourism hotspots, which are most reliant on young workers will be most impacted by the brain drain.
- A relatively tight labour market is expected to persist over the medium to long term.
- Measures are being undertaken to help relieve workforce shortages – one of the sectors to benefit from these measures is the snow and adventure tourism industry.

Source: Infometrics



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## Industry Insights and Trends

### Creative and cultural sector

- The Profile of Creative Professionals (2019) revealed creative thinking and talent as the top two important skills for a career.
- Creative professionals would like to have more access to business skills training opportunities. Business management is the main area in which creative professionals would like more support. Younger creative professionals are more likely to want support in the areas of business management, networking, contractual issues, and accountancy and numeracy. On the other hand, older workers would like to see more training on digital media.

### Expressive and performance arts

- In performing arts, technician roles were among the most difficult for employers to source (Skills Active, 2020).
- Severe lack of staff is affecting all areas of gig production, from stage set up and loading crew to guitar technicians and stage managers.
- Due to Covid, many workers in the music industry left the trade to look for more secure careers (Stuff, 2022).

## Industry Insights and Trends

### Broadcast and screen

The following insights were drawn from the Toi Pāho Workforce Development Plan:

- Work within the industry is typically project-based, with the number of firms making productions increasing at a rate of 8.3% between 2015 and 2020, the majority of these new firms being owner-operated.
- For the production of Avatar (2022), over 98% of roles or 3,800 roles were below-the-line positions (excluding extras, interns and apprentices).
- Fifty per cent of individual screen workers (60% of women) believe unpaid work is very important or essential to career progression in the industry, with many believing it to be a way to break into the industry, gain experience and build relationships.

## Industry Insights and Trends

### Technology sector

- The technology sector is growing at a faster rate than the whole New Zealand economy. The sector is highly export-oriented, and its forecast growth will be primarily driven by the Software as a Service (SaaS) industry.
- New Zealand tech firms are adopting a cautious approach in hiring amidst the mass tech layoffs overseas over the past year. Almost 160,000 tech workers faced job cuts in 2022 and around 76,000 layoffs were recorded within the first month of this year. New Zealand tech companies, which are much leaner, are more equipped to survive a recession (RNZ, News, 2023).
- The Government introduced the Accredited Employer Work Visa, which allows accredited employers to hire migrant workers in areas where skill or labour shortages exist. Roles including chief information officer, ICT project manager, software engineer, and ICT security specialist are covered in this programme (ITP Techblog, 2022).
- The tech sector is a viable option for career changers ([Scarlatti](#)).
- Skills shortages point to cybersecurity workers, business analysts, software developers, and cloud specialists, among others.

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## Industry Insights and Trends

### Fitness

- The industry is booming – driven by people opting to work from home due to COVID-19 (online client numbers increased). Gym memberships returned to pre-pandemic levels. Digital and virtual fitness services are gaining popularity (Stuff, 2022).
- Demand for premium services such as yoga and functional training is projected to grow (IbisWorld).

### Hairdressing

- Capstone assessments are a barrier to completion.
- In-class providers dominate the sector and students emerge with debt and not enough skills to be work-ready.
- Work-based apprenticeship training creates a more work-ready graduate.
- There is a shortage of senior stylists.

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## Industry Insights and Trends

### Screen

- Industry growth coupled with shortages in skilled production/technical crew has highlighted the need for more short, work-based training courses that are targeted to meet production needs.

### Broadcasting

- A desire for 'cadetship' type opportunities in broadcasting and screen.
- Training that blends 'on the job' with mentorship and skill development as a craft.

### Make-up artistry

- Graduates exiting with qualifications who are not 'work ready' and are especially unprepared for the Screen sector where they have no experience of working on sets.
- Shortage of make-up artists in the Screen sector.

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## Largest Occupations and Qualifications

### Toi Pāho – Broadcasting and Screen

In terms of employment, the occupations **Media Producer (excluding video)** and **Ticket Collector or Usher** have the largest numbers (percentage). In contrast, the qualifications with the highest number of graduates in the sector are **Diploma in Screen Production (Level 5)**, **Diploma in Screen Production (Level 6)**, and **Certificate in Communications Media (Level 4)**.

### Toi ā-Ringa – Art and Design

In terms of employment, the occupations **Painter (Visual Arts)**, **Hairdresser**, **Beauty Therapist** and **Florist** have the largest numbers. But art and design qualifications with the highest number of graduates are **Certificate in Hairdressing (Level 3)**, **Diploma in Digital Media and Design (Level 5)**, **Certificate in Makeup and Skin Care (Introduction) (Level 3)**, and **Certificate in Digital Media and Design (Level 4)**.

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## Largest Occupations and Qualifications

### Toi Ora – Sport and Recreation, and Cultural Organisations

In terms of employment, the occupations **Fitness Instructor, Lifeguard, and Other Sports Coach or Instructor** have the largest numbers, which relate to the most well used qualifications. These qualifications are **Certificate in Alpine Resort Operations (Level 3), Certificate in Aquatics (Level 3) with strands in Pool Lifeguard, Swim and Water Safety Teacher, Aquafitness Instructor, Certificate in Sport, Exercise, and Leisure Operations (Level 3), and Certificate in Exercise (Level 4).**

### Toi Puaki – Expressive and Performance Arts

In terms of employment, the occupations are **Musician (Instrumental), and Author** have the largest numbers, while the most well used qualifications are **Certificate in Entertainment and Event Operations (Level 3), Certificate in Music (Level 4), Diploma in Music (Level 5), and Certificate in DJ and Electronic Music Production (Level 4).**

## Largest Occupations and Qualifications

### Toi Whānui – Enabling Technologies

For the technology sector in terms of employment, **Systems Analyst, Software Engineer, and Developer Programmer** have the largest numbers. With information from ITPNZ's career website, the qualifications that could lead to these occupations are **Diploma in Systems Administration (Level 6)** and **Diploma in Software Development (Level 6)**. **Certificate in Computing (Intermediate User) (Level 3)** and **Diploma in Information Technology Technical Support (Level 5)** are the two most well used qualifications under Toi Whānui in terms of learner numbers from 2011 to 2022.

### Toi Māori

In terms of employment statistics, **Ngā Mahi a Rehia (Māori Performing Arts), Mana Whakairo (Māori Carving), Ngā Mahi a Te Whare Pora (Māori Weaving)** have the highest numbers in the sector. The most well-used qualifications are the **New Zealand Certificate in Ngā Toi (Level 3), New Zealand Certificate in Ngā Toi (Level 4), New Zealand Certificate in Ngā Toi (Level 5)**.



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## Key questions

### **Labour supply:**

Which qualifications, if any, are the prerequisite for the largest occupations in each of the five sectors?

When is a candidate work-ready for these occupations?

At what stage of vocational training are people considered to be work-ready?

### **Labour demand:**

What is the employment size of the largest occupations?

What percentage of entrants/new employees in these occupations come from training/vocational education?

How many leave the workforce from these industries (attrition)?

What is the employment growth rate in each of these occupations?

### **Other:**

Is there a regional lens? – The advice should be supported or led by RSLGs

Do TEOs have the capacity to deliver?

If a course is unable to provide candidates who are work-ready, what are they getting from the course (transferable skills, leading to further study, other public benefits)?

# *Toi Ora*



## TOI ORA

### RECREATION AND CULTURAL ORGANISATIONS

Activities, places and technologies that foster the wellbeing of Aotearoa New Zealand — social, physical and mental. This includes sport and recreation organisations, as well as cultural organisations that welcome visitors and share, or conserve, our natural environment and culture (parks, zoos, galleries, libraries, archives and museums). Toi Ora is the sector that provides places and facilities for New Zealanders and visitors to engage with activities for relaxation, education, research, conservation, wellbeing and human connection. Of all Toi Mai's sectors this has the greatest regional presence.

## Toi Ora – Sport, Recreation and Cultural Organisations



*Toi Ora is the sector that provides places and facilities for New Zealanders and visitors to engage with activities for relaxation, education, research, conservation, wellbeing and human connection.*

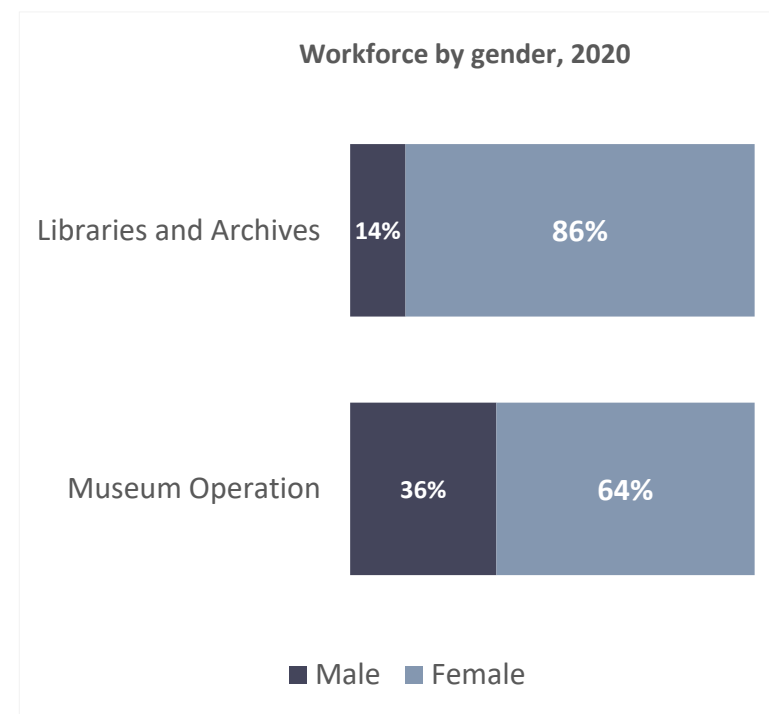
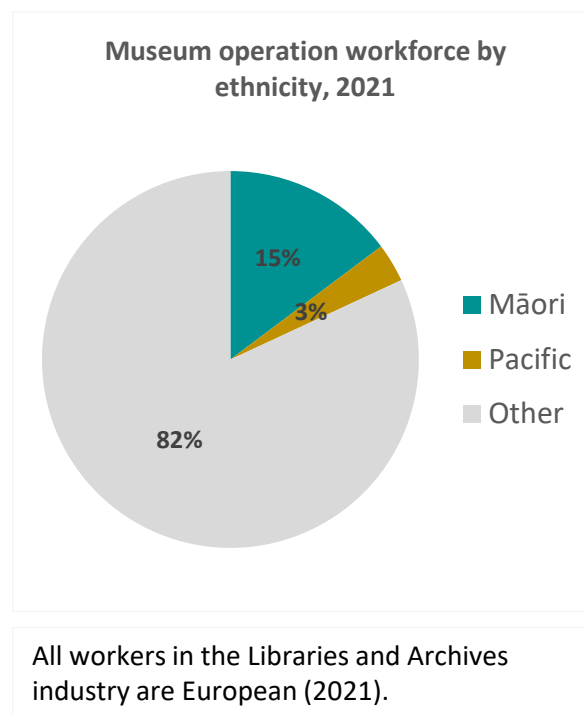
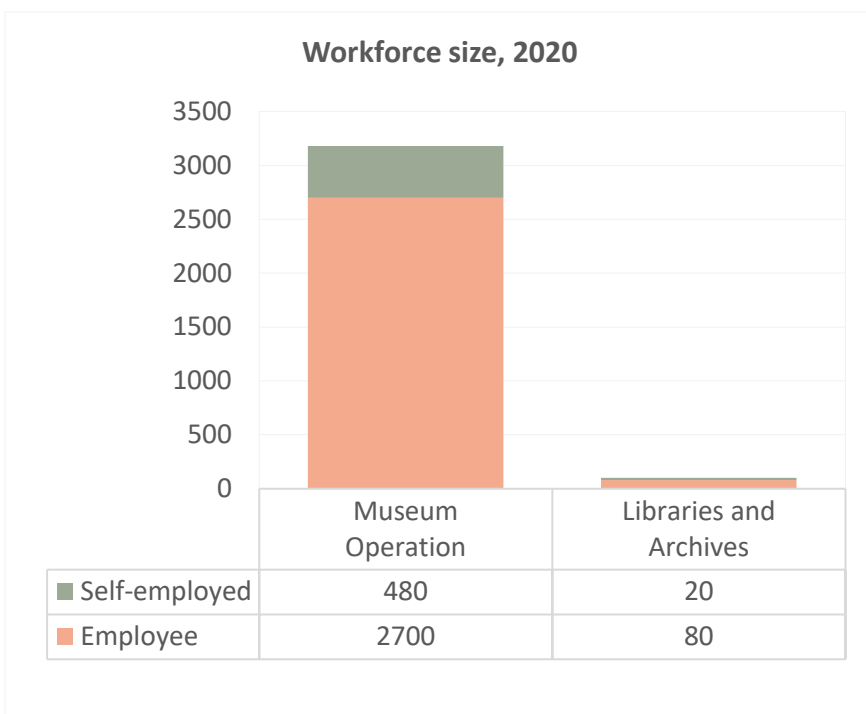
### Snapshot of the sector

- In 2022, Toi Ora contributed \$5,015m million to GDP in New Zealand (or 1.4% of total GDP).
- There were over 52,000 people employed in the sector last year. Employment grew 3.3% from its level in 2021. About 30% of workers in the sector are in Auckland. The sector's self-employment rate dropped 0.5 percentage points to 11.7% in 2022. On average, workers in the sector earn \$51,300pa.
- Toi Ora has a relatively younger age profile where almost half of the workforce are below 35 years old.
- Māori and Pacific peoples have sector employment shares of 14.4% and 5.3%, respectively.
- There were more than 10,500 business units (up 6.7% from 2021).

*Source: Infometrics sector profile*

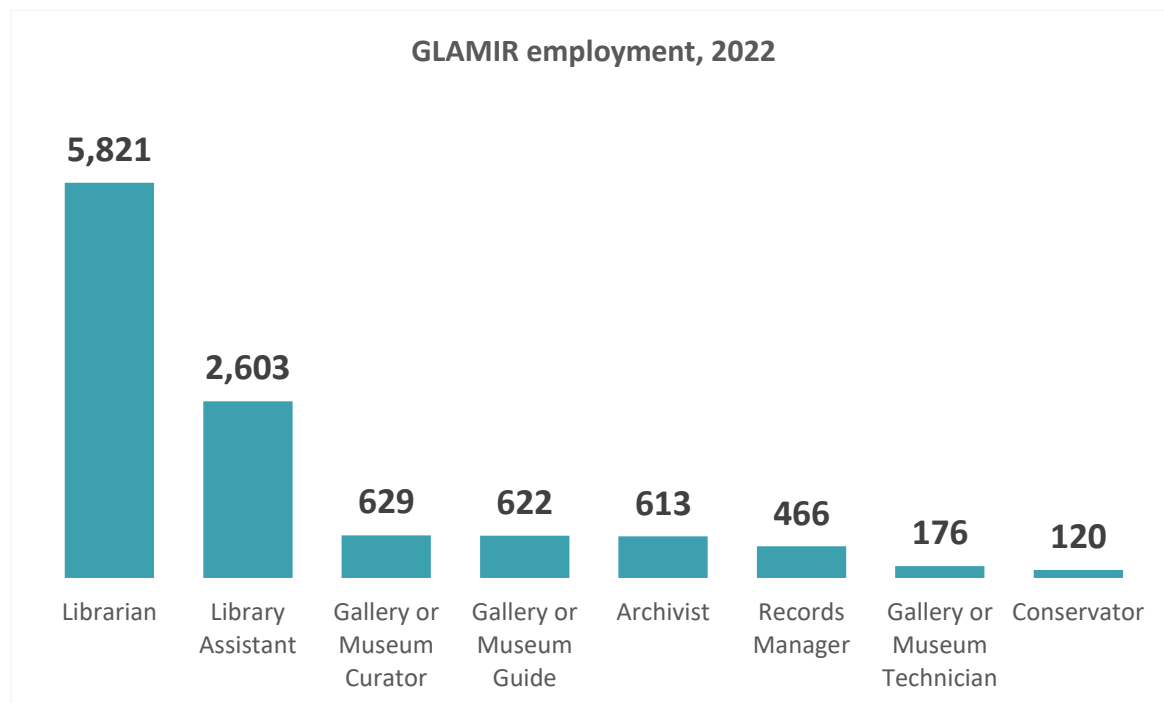
# Toi Ora – Sport, Recreation and Cultural Organisations

## Snapshot of the Galleries, Libraries, Archives, Museums, Iwi and Records (GLAMIR) sector



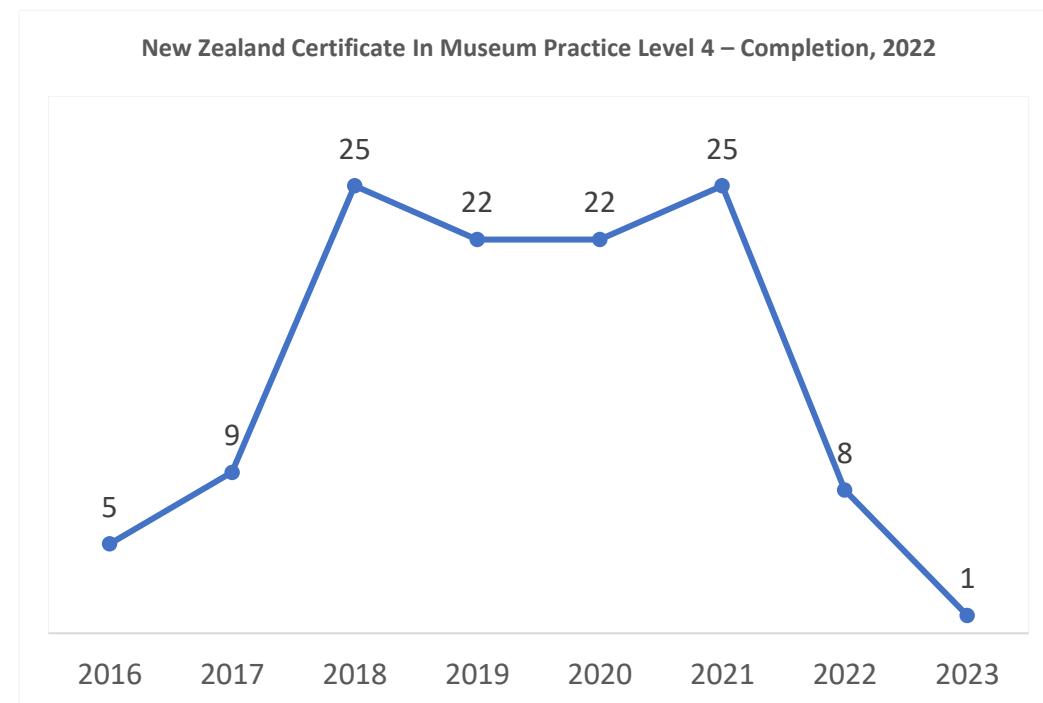
Source: Scarlatti

## GLAMIR Sector - Employment and Completion



Source: Infometrics sector profile

Infometrics estimates that there were over 5,800 librarians and 2,600 library assistants working across the economy in 2022. There were also around 1,400 gallery or museum guides, curators and technicians and about 600 archivists.



Source: NZQA; Note: This qualification is the only GLAMIR-related qualification that Toi Mai currently owns.

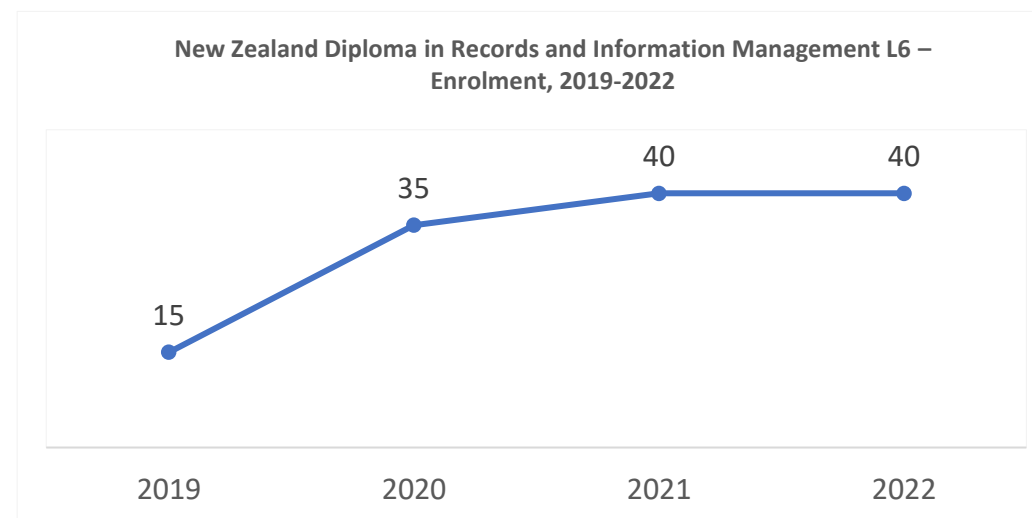
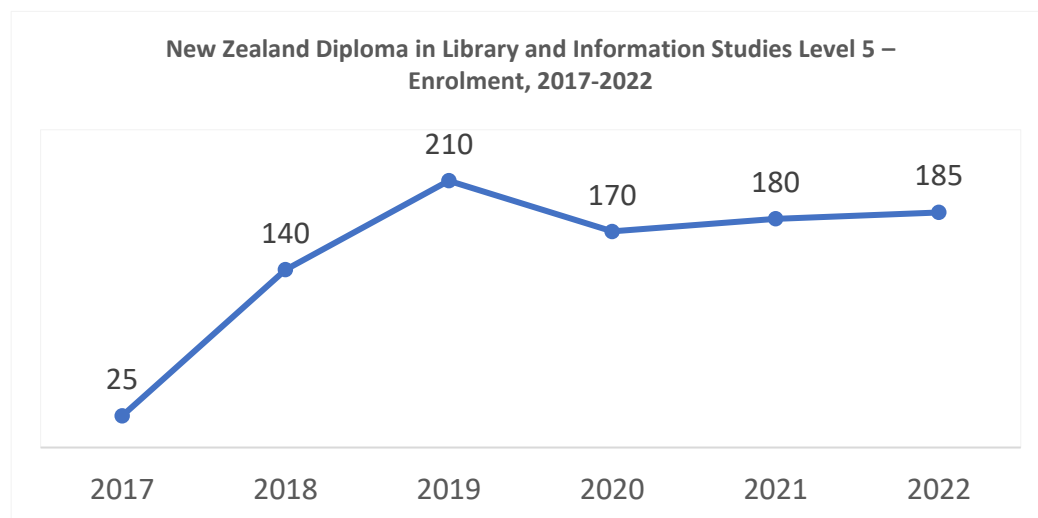
## GLAMIR Sector – Other qualifications

Toi Mai will soon receive the following qualifications from the Open Polytechnic (Te Pūkenga).

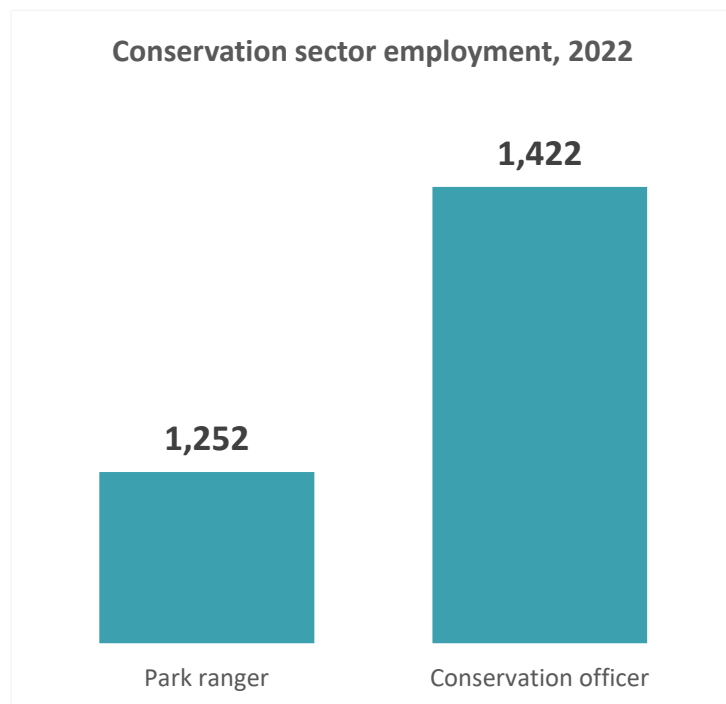
- New Zealand Certificate in Library Practice (Level 3)
- New Zealand Certificate in Heritage Information (Level 4)
- New Zealand Diploma in Library and Information Studies (Level 5)
- New Zealand Diploma in Records and Information Management (Level 6)
- New Zealand Certificate in Library and Information Services for Children and Teens (Level 6)

Currently, Toi Mai does not have access to NZQA data for these qualifications.

Enrolment data from TEC for the New Zealand Diploma in Library and Information Studies (Level 5) and New Zealand Diploma in Records and Information Management (Level 6) are shown below. No enrolment data is available for the other qualifications.



# Conservation sector – Employment, Completion and Enrolment



Source: Infometrics sector profile



Source: NZQA

TEC data shows that from 2020 to 2022, an average of 118 learners were enrolled in the NZ Certificate in Conservation (Operations) – Level 4 programme. During the same period, The NZ Diploma in Environmental Management – Level 5 attracted an average of 112 learners per year. The Level 6 programme recorded an average of 77 learners over the past three years.



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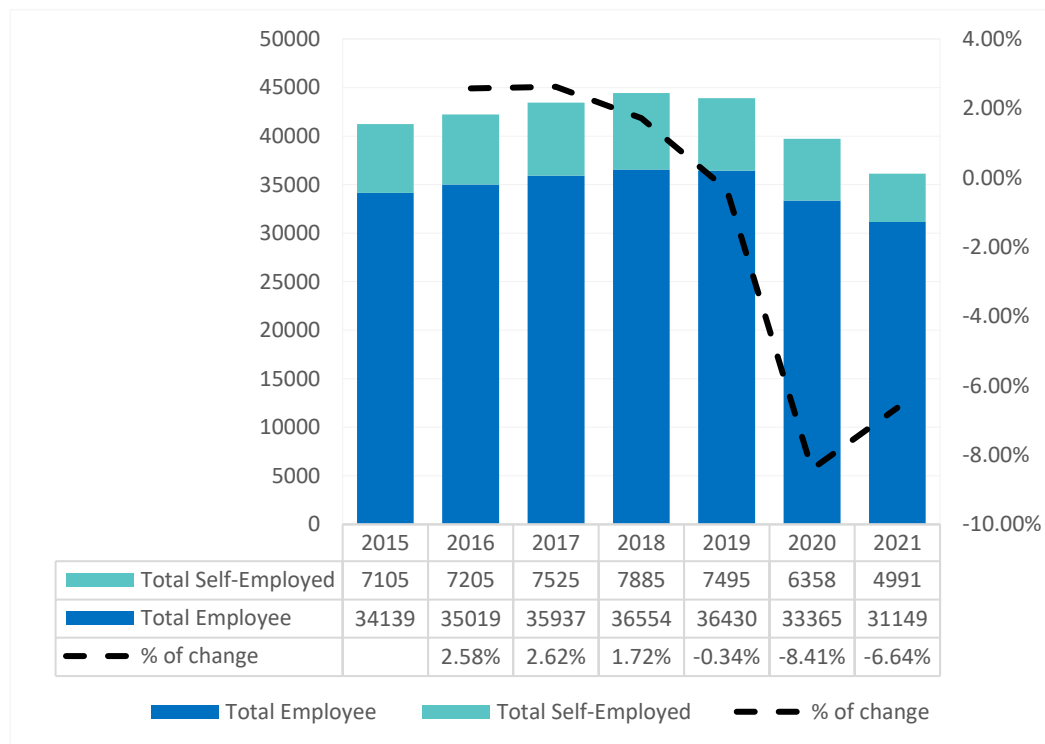
## Toi Ora – Sport, Recreation and Cultural Organisations

This sector includes the following occupations:

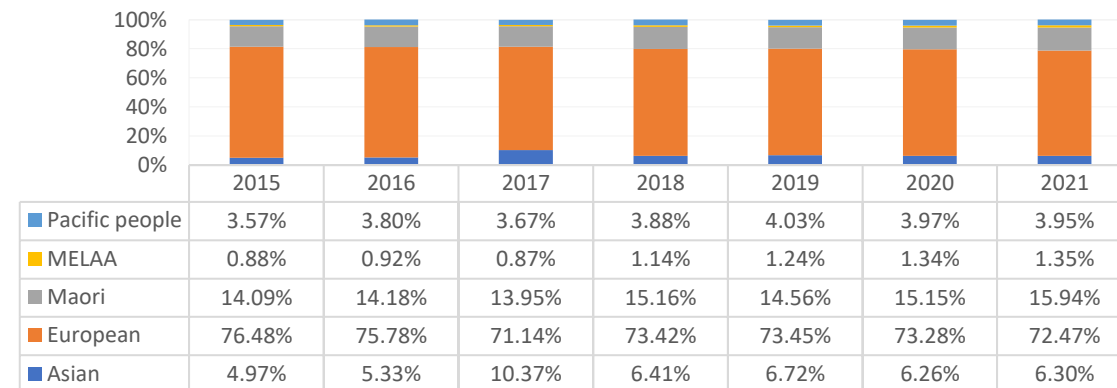
- Fitness instructors
- Lifeguards
- Sports coaches and/or instructors
- Conservators, Archivist, Records Manager, Librarian, Museum Educator or Curator (GLAMIR)
- Conservation Officer, Park Ranger

# Toi Ora Sector Overview

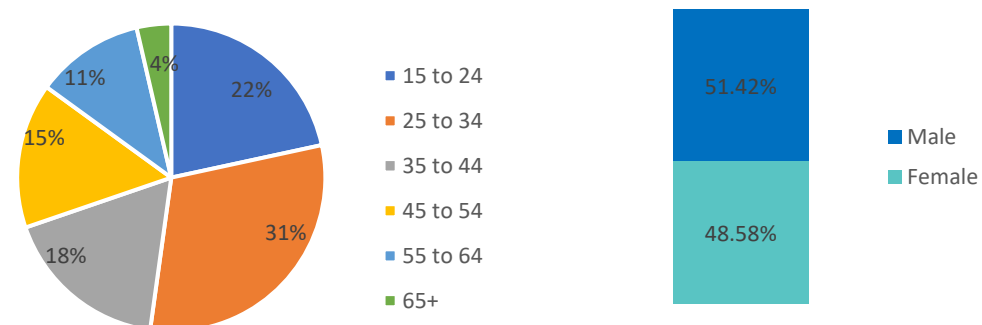
## Workforce Size and Percentage Change in Total Employee Number



## Workforce Ethnicity Breakdown By Reporting Year

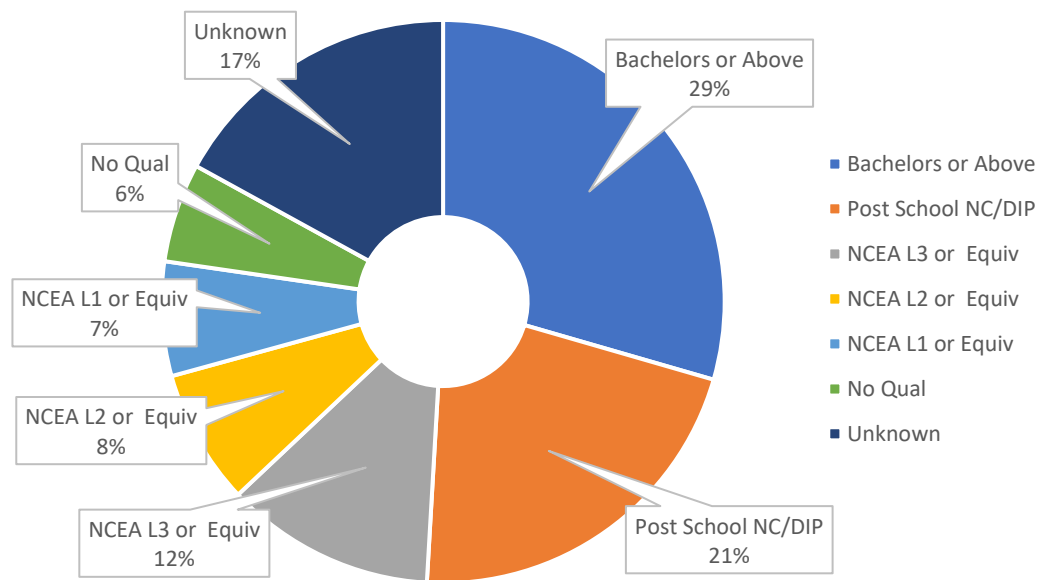


## Workforce Age and Gender Breakdown

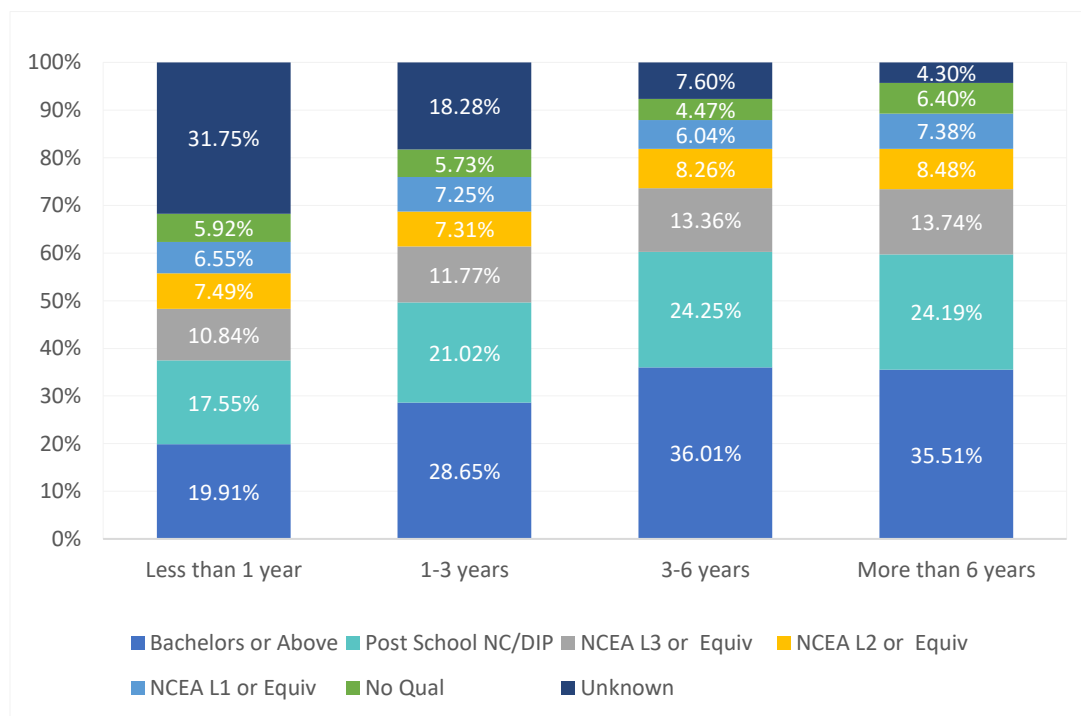


# Toi Ora Sector Overview

*Workforce Size By Highest Qualification as at 2018 Census*

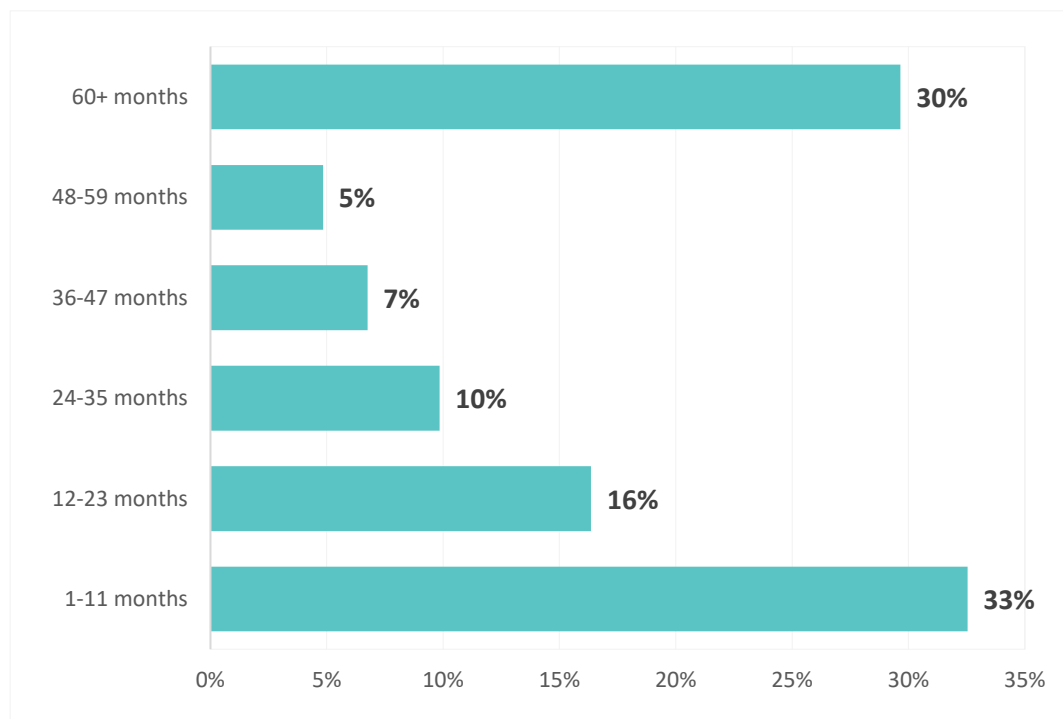


*Length of Industry Tenure by Highest Qualification*

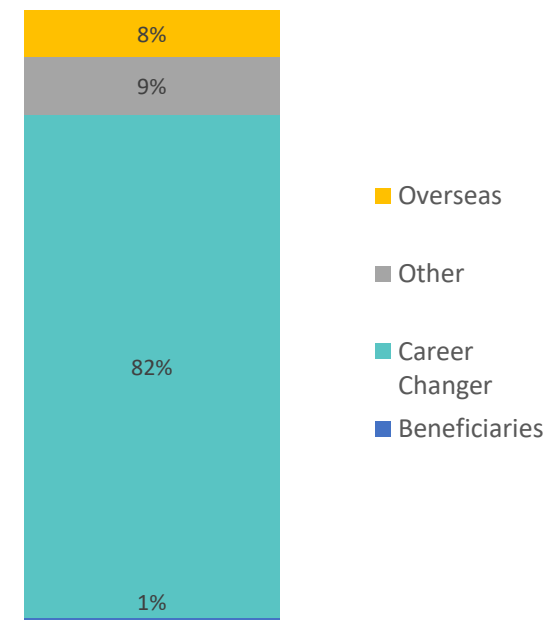


# Toi Ora Sector Overview

*Average Industry Tenure*

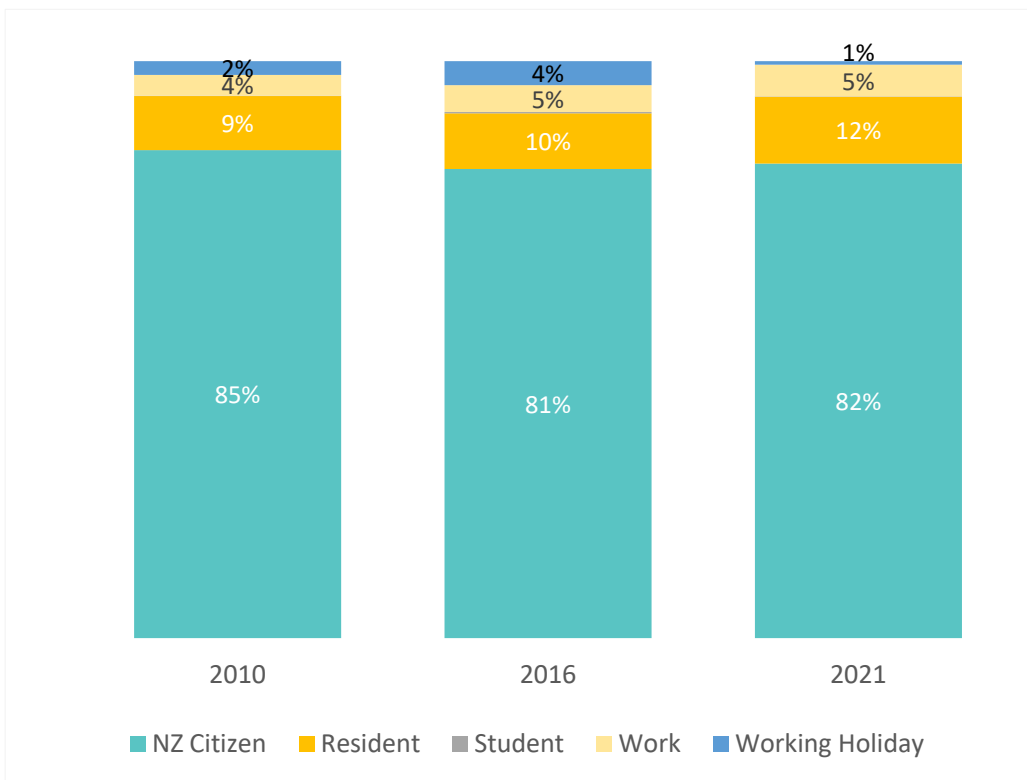


*Destination of Workforce Leaver in 2020*

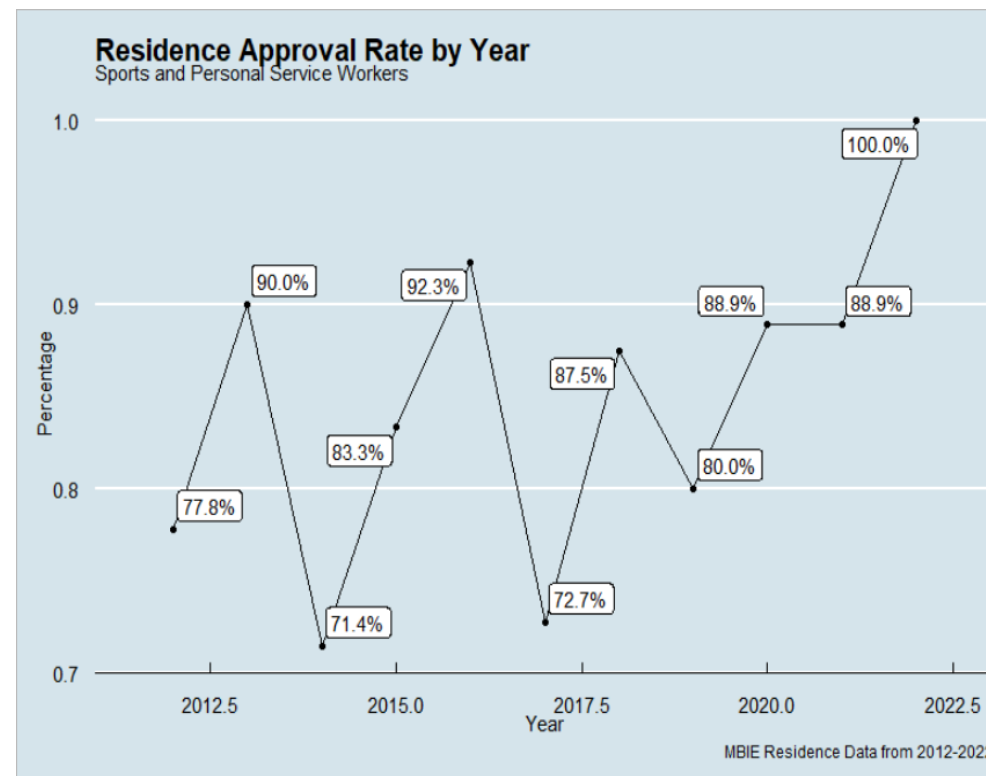


# Toi Ora Sector Overview

*Workforce by Visa Status*

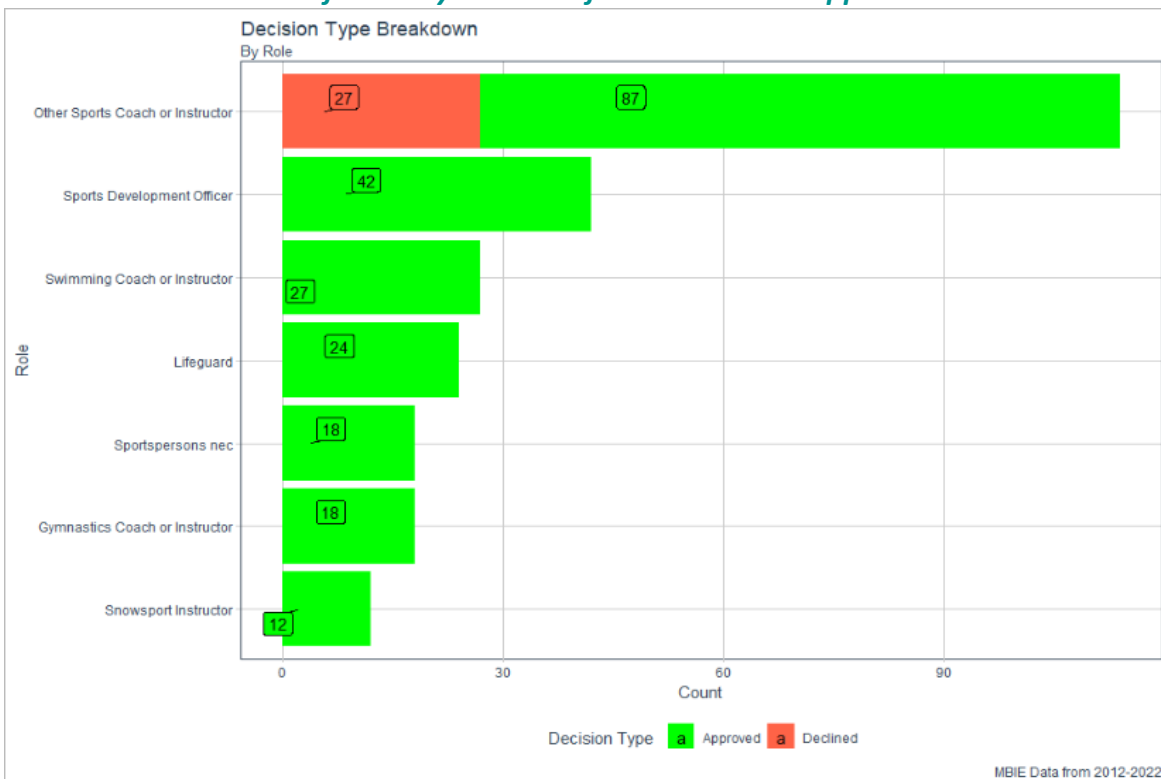


*INZ Residence Approval Rate by Year*

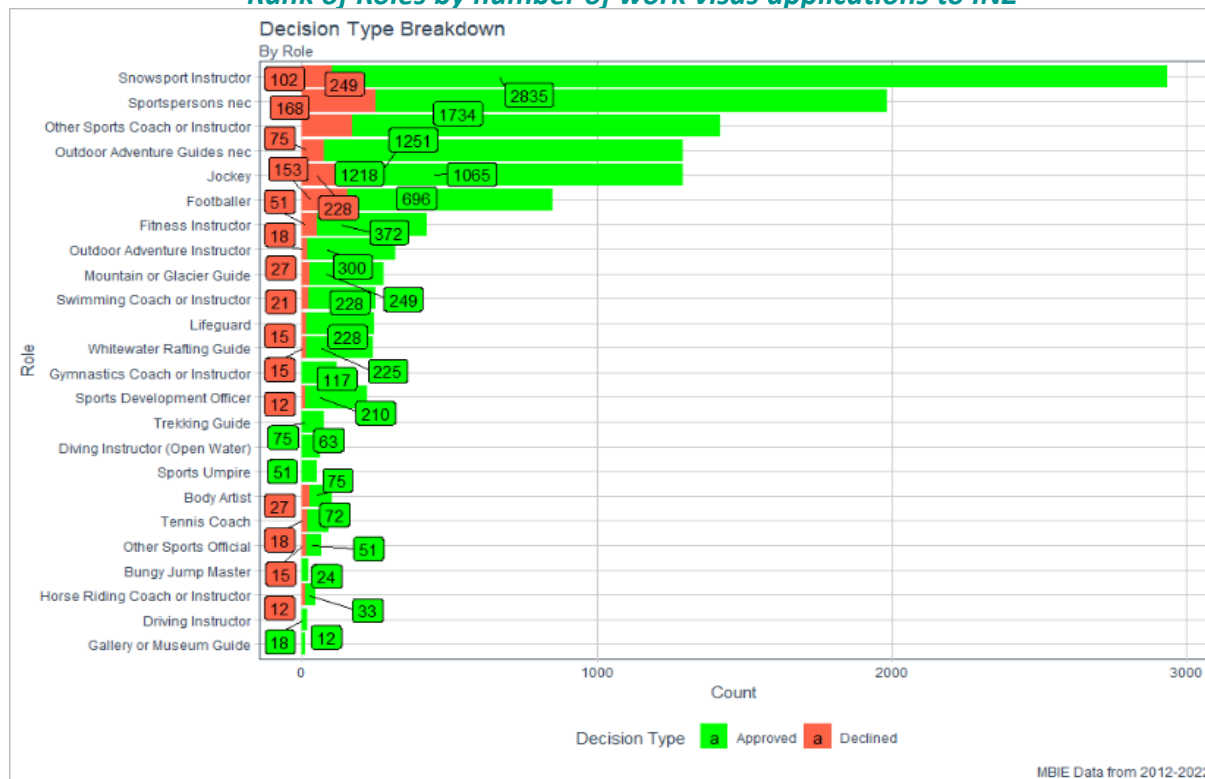


# Toi Ora Sector Overview

Rank of Roles by number of residence visas applications to INZ



Rank of Roles by number of work visas applications to INZ

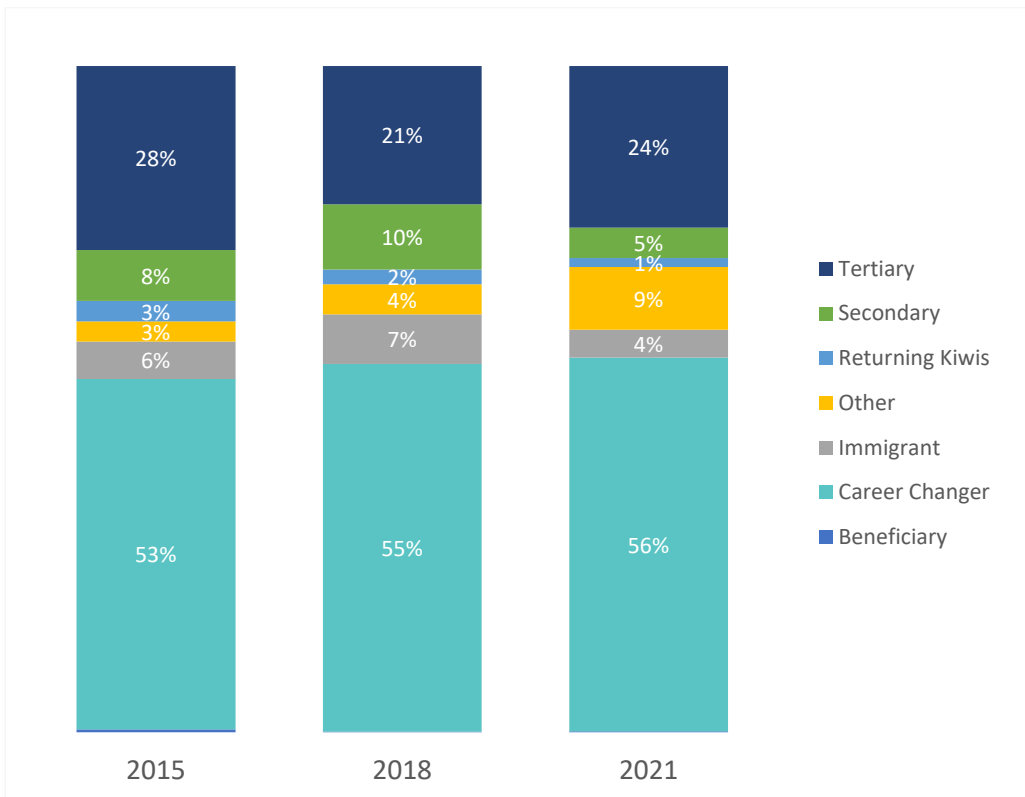


The charts above indicate residence visa (left), and work visa (right) applications for specific roles working within ANZSIC (industry) codes assigned to each pou. These indicate possible shortages given that these visas are granted based on employment. **(Please note that roles with applications less than 10 have been filtered out from both charts)**

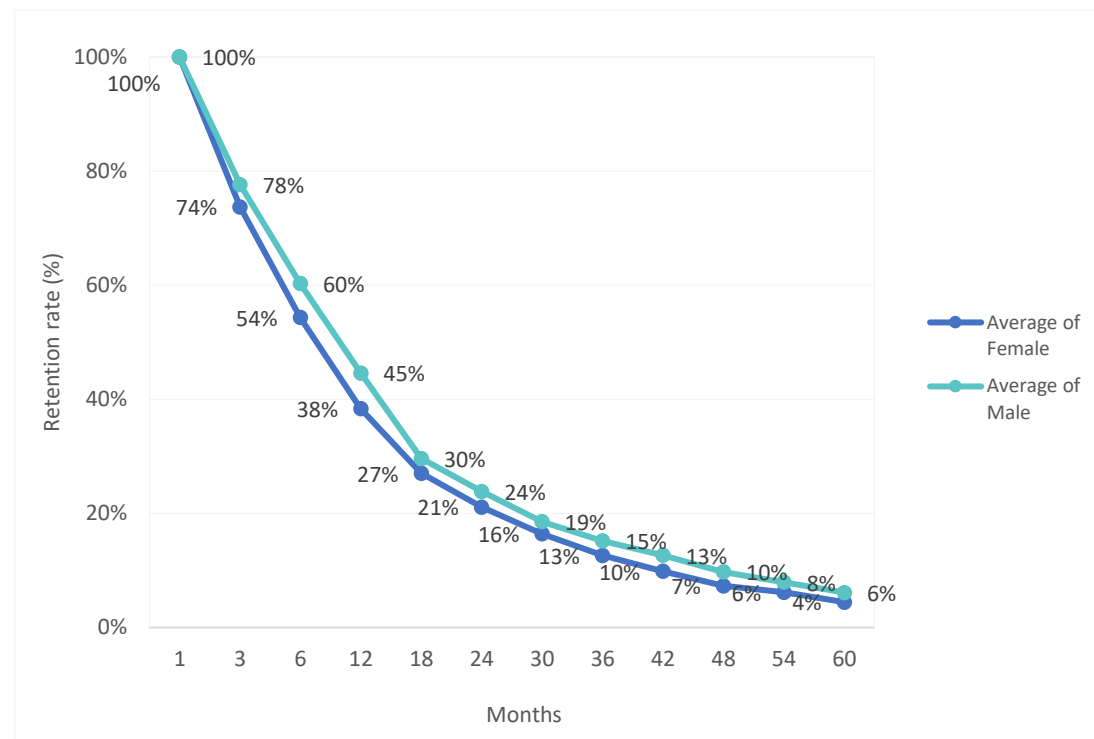
Source: MBIE (2022)

# Toi Ora Sector Overview

*New Entrants by Source*



*Average Retention Rate of New Entrant By Gender and Number of Months in Industry*



# Toi Ora Sector Overview

## Level 7+ Qual Graduate Contributions to Toi Ora by year

2017	2018	2019	2020	2021
610	655	529	591	470

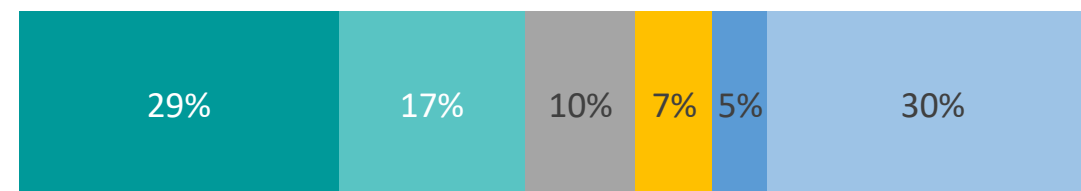
*\*\*Relevant graduates can turn up anywhere as junior sport and recreation professionals*

## Level 4-6 NC/DIP Graduate Contributions to Toi Ora by year

2017	2018	2019	2020	2021
2042	3475	4744	3130	4211

## Attrition Rate

### Toi Ora Industry Tenure

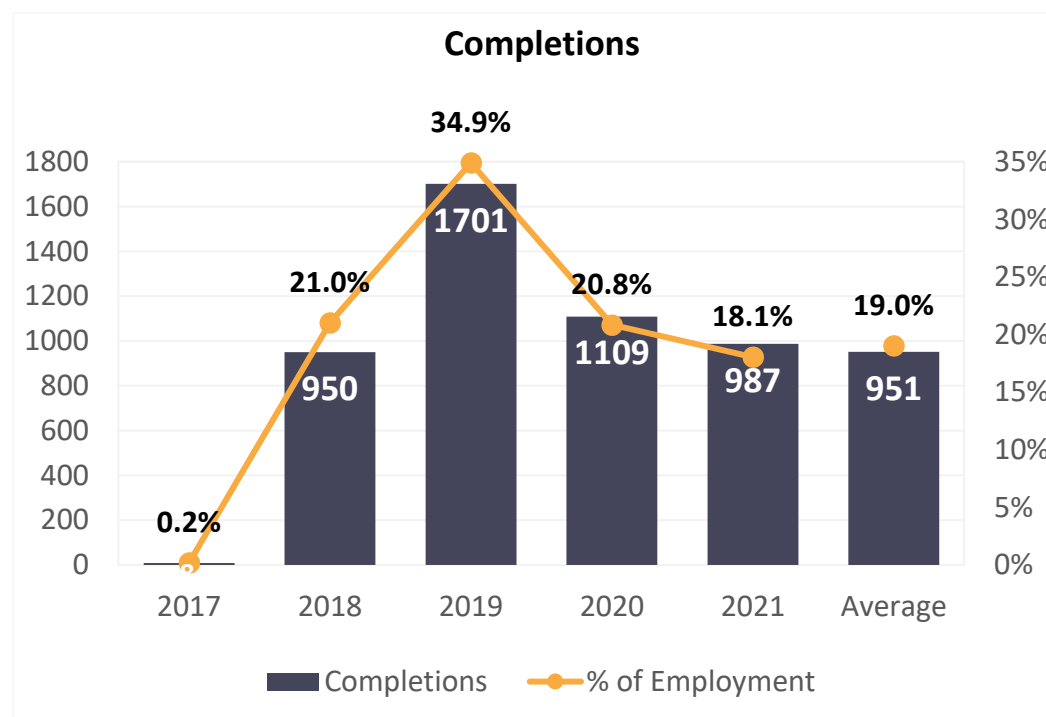


- Less than 12 months
- 12 to 23 months
- 24 to 35 months
- 36 to 47 months
- 48 to 59 months
- 60+ months



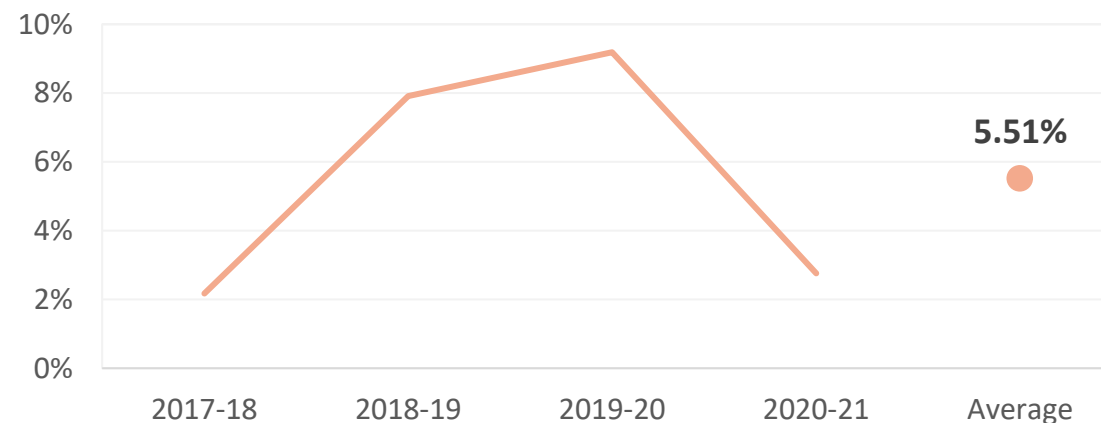
# Fitness Instructor

Completions as a percentage of employment



**Interim assessment:**  
 Increase funding for training – get providers to ensure students are a better fit for the industry prior to study

Employment growth rate



Completions by ethnicity

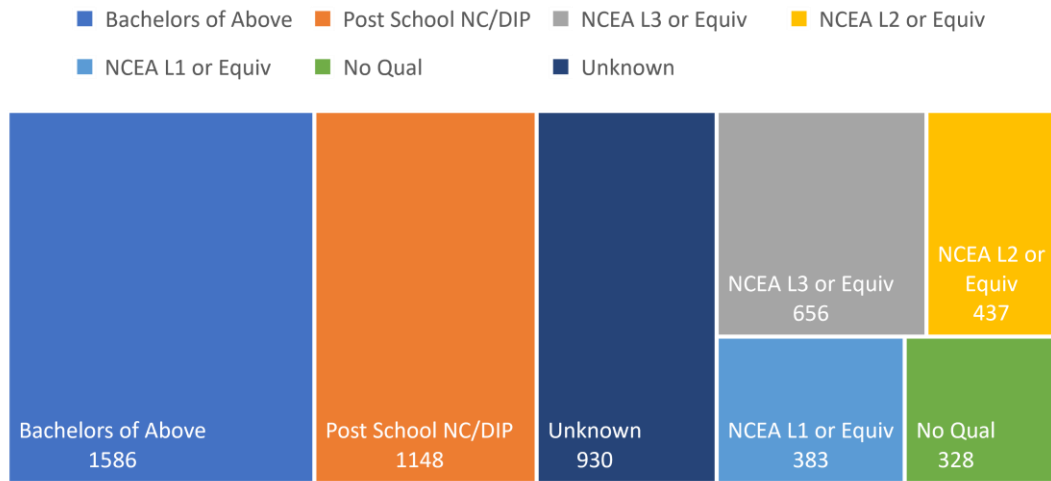


Qualifications included:  
 NZ Certificate in Exercise (Level 4) (3563), NZ Certificate in Exercise (Level 5) (3564)

# Fitness Instructor

To apply Scarlatti’s information on workforce composition by highest qualification to Infometrics’ continuous measurement on the role in 2021. We can assume:

Fitness Instructor Workforce Composition by Highest Qualification



The workforce increase percentage is at 5.51% on average, and the tertiary education system contributes an average of 22.78% of new entrants to the industry. The average post-school NC/Dip percentage is 85.04%, while Level 7+ Bachelor or above is 14.96%.

Qualifications included:  
 NZ Certificate in Exercise (Level 4) (3563), NZ Certificate in Exercise (Level 5) (3564)

NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2017	2018	2019	2020	2021	2022	Total
<b>3563 - New Zealand Certificate in Exercise (Level 4)</b>	<b>8</b>	<b>670</b>	<b>1217</b>	<b>978</b>	<b>875</b>	<b>52</b>	<b>3800</b>
Netfit		339	562	416	3	1	1321
Skills Active Aotearoa Limited		54	208	142	188	17	609
New Zealand Management Academies Limited				100	280		380
New Zealand Institute of Sport Limited		115	146				261
Te Pūkenga Trading As Toi Ohomai Institute of Technology		68	48	51	53		220
Universal College of Learning (UCOL) Limited	8	54	27	21	35		145
Otago Polytechnic Ltd			38	42	50		130
Ara Institute of Canterbury Ltd			38	41	48		127
Western Institute of Technology at Taranaki Ltd			30	38	38		106
The Open Polytechnic of New Zealand Ltd				14	56	33	103
Eastern Institute of Technology Ltd		27	20	15	26		88
Te Pūkenga Trading As Waikato Institute of Technology		13	17	16	10		56
Skills Update Limited			9	32	13		54
Exercise Academy			37	12	3	1	53
Southern Institute of Technology Ltd			12	21	16		49
Te Wananga o Aotearoa					41		41
Wellington Institute of Technology Limited			25				25
Manukau Institute of Technology Ltd				12	9		21
Northland Polytechnic Ltd				5	6		11
<b>3564 - New Zealand Certificate in Exercise (Level 5)</b>		<b>280</b>	<b>484</b>	<b>131</b>	<b>112</b>		<b>1007</b>
Netfit		277	442	65	1		785
New Zealand Management Academies Limited				14	62		76
Otago Polytechnic Ltd			21	21	20		62
Eastern Institute of Technology Ltd			8	8	9		25
Te Pūkenga Trading As Waikato Institute of Technology		3	5	14	2		24
Southern Institute of Technology Ltd			8	7	5		20
Unitec New Zealand Limited				2	3		5
Western Institute of Technology at Taranaki Ltd					5		5
Skills Active Aotearoa Limited					5		5
<b>Grand Total</b>	<b>8</b>	<b>950</b>	<b>1701</b>	<b>1109</b>	<b>987</b>	<b>52</b>	<b>4807</b>

# Fitness Instructor

Based on all given information, the tertiary education system needs to provide roughly **480** Fitness instructors to the industry to meet the need.

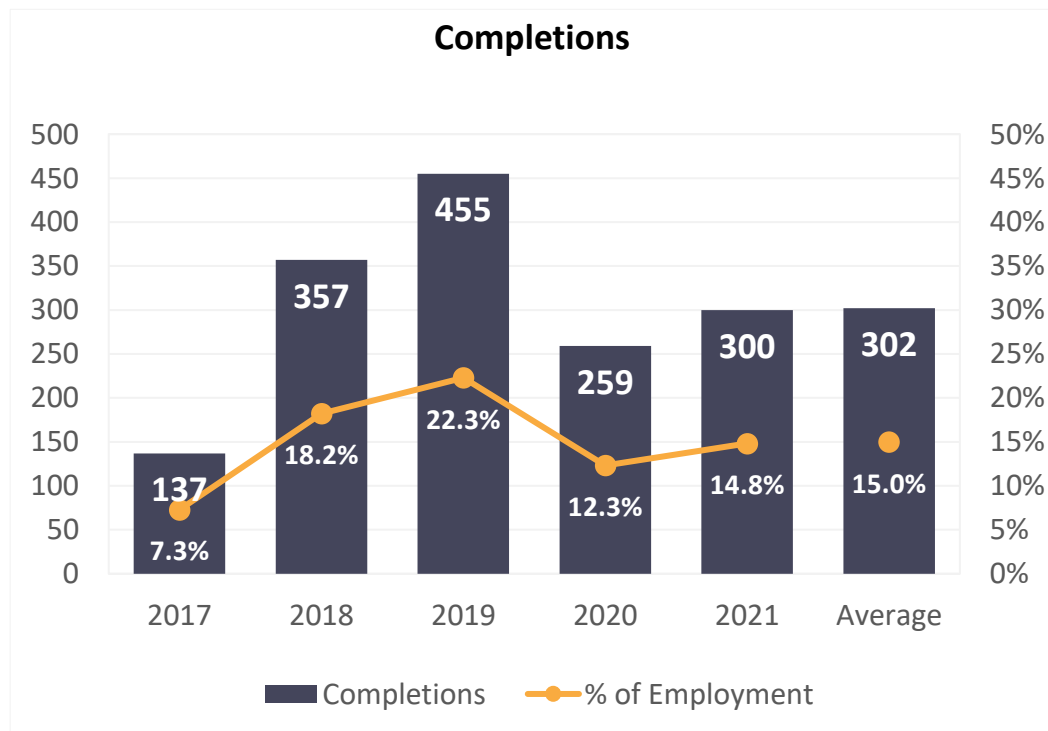
**\*\* Calculation: 5468 \* ( 33% + 5.51% ) \* 22.78%**



*Note: Churn rate for the Fitness Instructor role is based on industry data.*

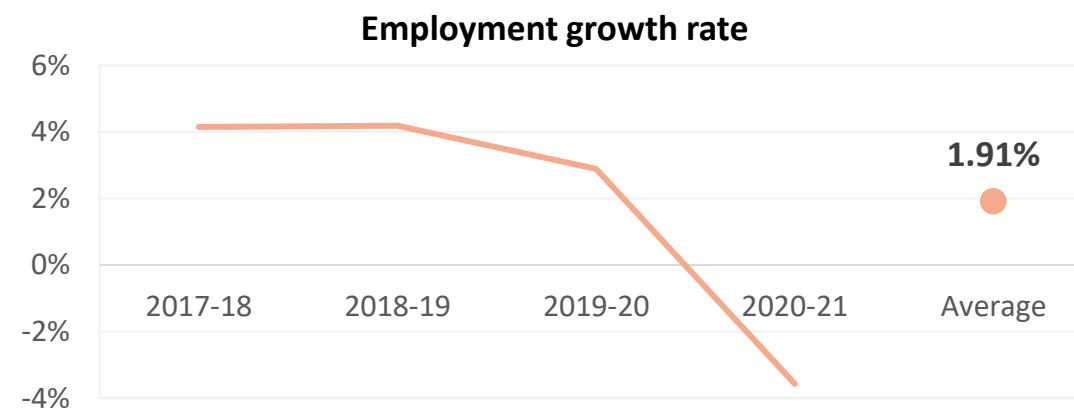
# Lifeguard

Completions as a percentage of employment

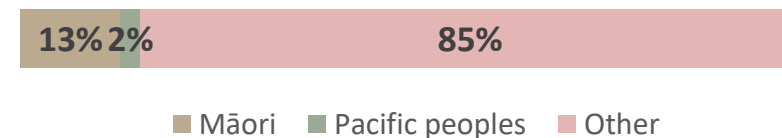


Qualifications included:  
NZ Certificate in Aquatics (Level 3) (3503), NZ Certificate in Aquatics (Senior Pool Lifeguard) (Level 4) (3506)

**Interim assessment:**  
There is an undersupply of full-time lifeguards



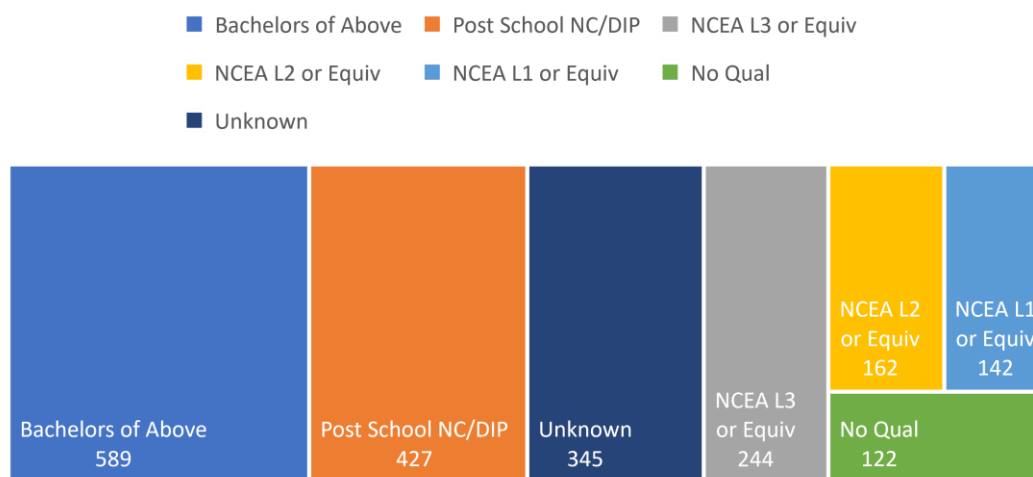
**Completions by ethnicity**



# Lifeguard

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Lifeguard Workforce Composition by Highest Qualification



The workforce increase percentage is at 1.91% on average, and the tertiary education system contributes an average of 22.78% of new entrants to the industry. The average post-school NC/Dip percentage is 85.04%, while Level 7+ Bachelor or above is 14.96%.

Qualifications included:  
 NZ Certificate in Aquatics (Level 3) (3503), NZ Certificate in Aquatics (Senior Pool Lifeguard) (Level 4) (3506)

NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2017	2018	2019	2020	2021	2022	Grand Total
3503 - New Zealand Certificate in Aquatics	137	357	455	259	292	146	1646
Skills Active Aotearoa Limited	137	357	455	259	292	146	1646
3506 - New Zealand Certificate in Aquatics (Senior Pool Lifeguard)					8	9	17
Skills Active Aotearoa Limited					8	9	17
Grand Total	137	357	455	259	300	155	1663

Based on all given information, the tertiary education system needs to provide roughly **73** Lifeguards to the industry to meet the need.

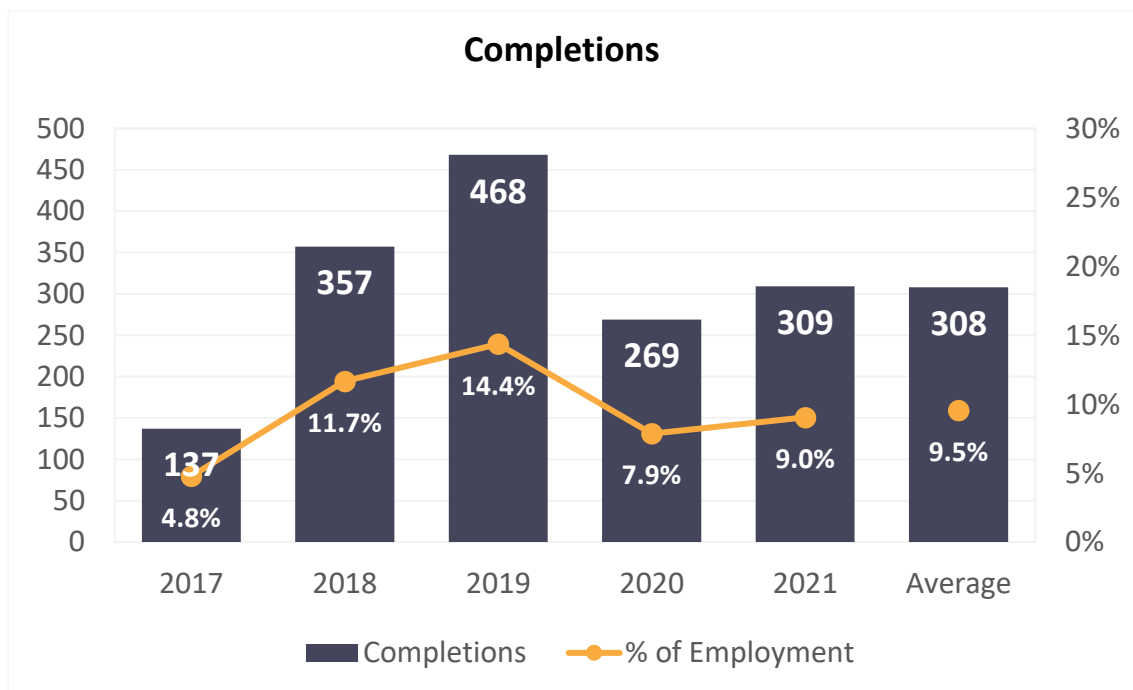
**\*\* Calculation: 2025 \* ( 14% + 1.91% ) \* 22.78%**



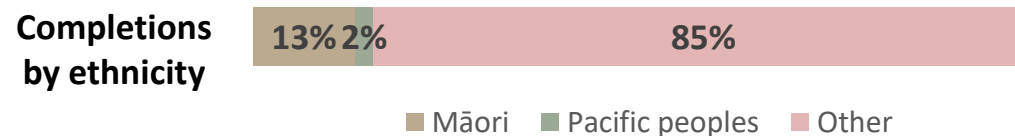
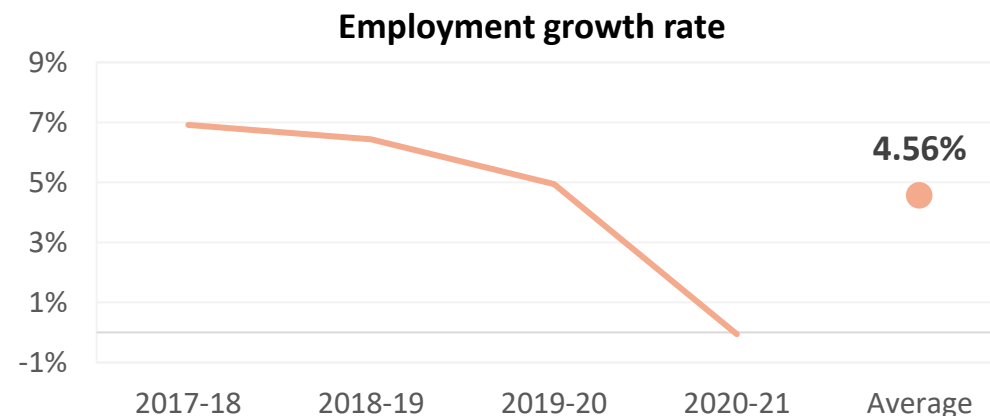
# Swimming Coach or Instructor

**Interim assessment:**  
There is an undersupply of Swimming coaches or instructors.

Completion as a percentage of employment



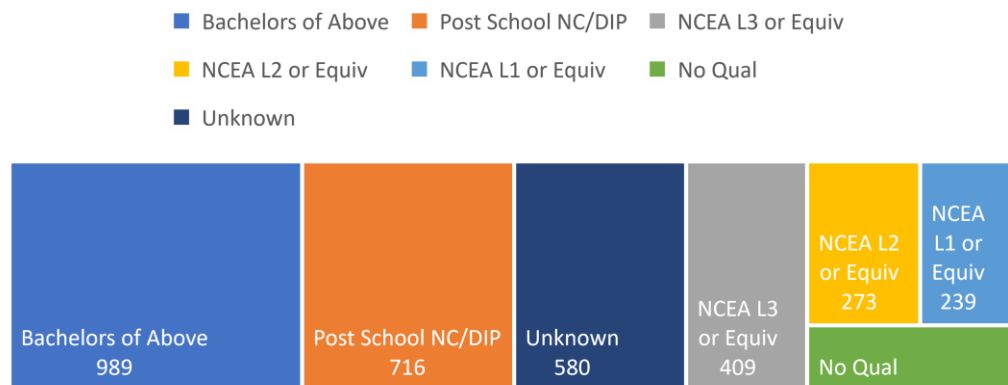
Qualifications included:  
NZ Certificate in Aquatics (Level 3) (3503), NZ Certificate in Aquatics (Level 4) (3507)



# Swimming Coach or Instructor

To apply Scarlatti’s information on workforce composition by highest qualification to Infometrics’ continuous measurement on the role in 2021. We can assume:

Swimming Coach or Instructor Workforce Composition by Highest Qualification



The workforce increase percentage is at 4.56% on average, and the tertiary education system contributes an average of 22.78% of new entrants to the industry. The average post-school NC/Dip percentage is 85.04%, while Level 7+ Bachelor or above is 14.96%.

Qualifications included:  
 NZ Certificate in Aquatics (Level 3) (3503), NZ Certificate in Aquatics (Level 4) (3507)

NZQA Achievement Data by Qualification and Provider between 17-22

Qualification	2017	2018	2019	2020	2021	2022	Grand Total
New Zealand Certificate in Aquatics	137	357	455	259	292	146	1646
Skills Active Aotearoa Limited	137	357	455	259	292	146	1646
New Zealand Certificate in Aquatics (Specialised Swim and Water Safety Teacher)			13	10	17	4	44
Skills Active Aotearoa Limited			13	10	17	4	44
Grand Total	137	357	468	269	309	150	1690

Based on all given information, the tertiary education system needs to provide roughly **144** swimming coach or instructor to the industry to meet the need.

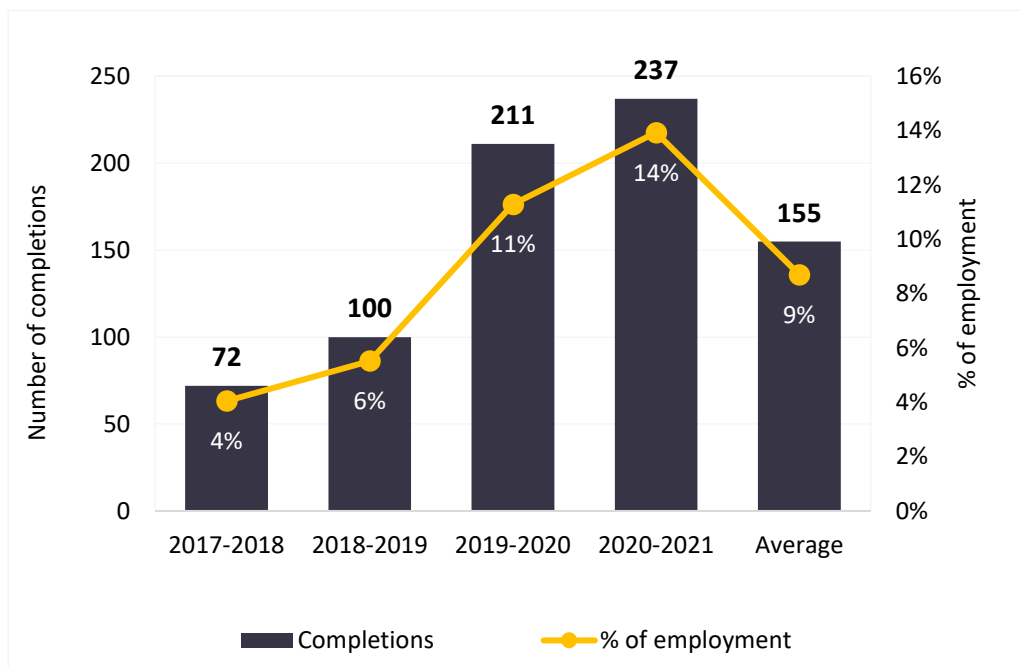
**\*\* Calculation: 3418 \* ( 14% + 4.56% ) \* 22.78%**



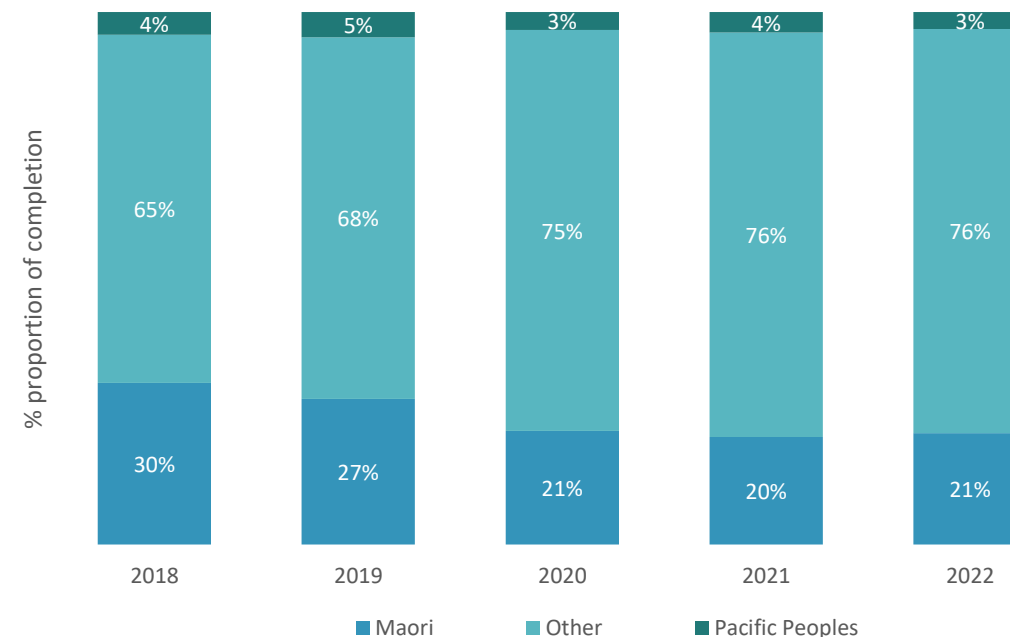
# Outdoor Recreation

**Interim assessment:**  
**There is an undersupply of Outdoor Recreation Instructors, but industry do not feel these qualifications are adequate in a practical sense**

Completion as a percentage of employment



Completion by ethnicity



Qualifications included:

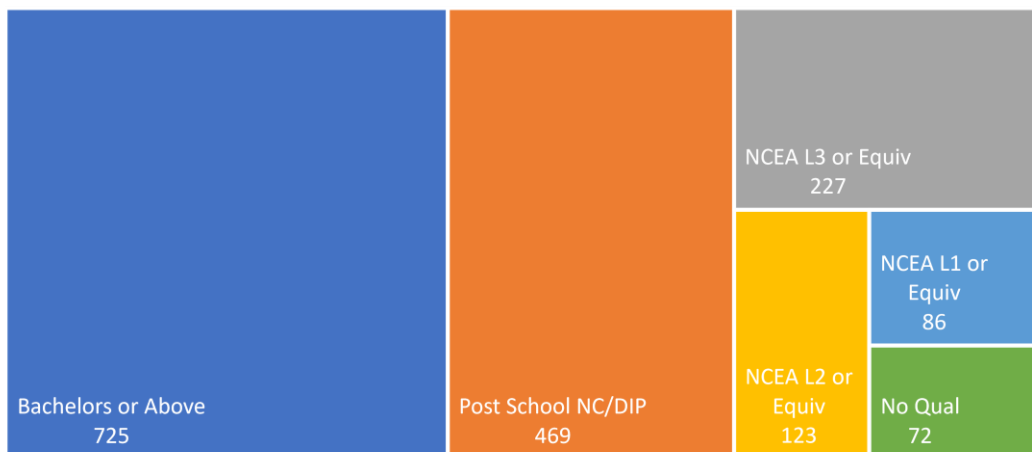
New Zealand Certificate in Outdoor and Adventure Education (Multi-skilled) (Level 4), New Zealand Certificate in Outdoor Leadership (Level 4) New Zealand Certificate in Outdoor Leadership (Guiding) (Level 5), New Zealand Certificate in Outdoor Leadership (Instruction) (Level 5), New Zealand Diploma in Outdoor and Adventure Education (Multi-skilled) (Level 5), New Zealand Certificate in Outdoor Senior Leadership (Level 6), New Zealand Certificate in Recreation Safety Auditing (Level 6), New Zealand Certificate in Introductory Snowschool Instruction (Applied) (Level 5), New Zealand Certificate in Advanced Snowschool Instruction (Applied) (Level 6)



# Outdoor Recreation

To apply Scarlatti’s information on workforce composition by highest qualification to Infometrics’ continuous measurement on the role in 2021. We can assume:

Outdoor Recreation Workforce Composition by Highest Qualification



The workforce grew on average 1.38% between 2017-2021, but **declined circa 10%** between 2020 and 2021.

The tertiary education system contributes an average of 22.78% of new entrants to the industry. The average post-school NC/Dip percentage is 85.04%, while Level 7+ Bachelor or above is 14.96%.

**Interim assessment:**

**There is an undersupply of Outdoor Recreation Instructors, but industry do not feel these qualifications are adequate in a practical sense**

The occupations included within Outdoor Recreation are:

- **Outdoor Adventure Guides nec**
- **Outdoor Adventure Instructor**
- **Snowsport Instructor**

Based on all given information, the tertiary education system needs to provide roughly **60** Outdoor Recreation Instructors to the industry to meet the need.

**\*\* Calculation: 1702 \* ( 14% + 1.38% ) \* 22.78%**

↑

2021 Workforce Size

↑

Churn Rate

↑

Occupation growth rate

↑

New Entrant Tertiary Contribution Rate

> TEC should look at increasing funding by changing the level at which they have funded per student

## Outdoor Recreation - NZQA Achievement Data by Qualification and Provider, 15-22

Qualification & Provider Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2302 - New Zealand Certificate in Recreation Safety Auditing</b>	5	3	1							9
Skills Active Aotearoa Limited	5	3	1							9
<b>2571 - New Zealand Certificate in Outdoor Experiences</b>				66	28	135	113	163	4	509
Skills Active Aotearoa Limited				66	28	135	113	163	4	509
<b>3658 - New Zealand Certificate in Assistant Outdoor Leadership</b>							1	16	3	20
Skills Active Aotearoa Limited							1	16	3	20
<b>3660 - New Zealand Certificate in Outdoor Leadership (Guiding)</b>					9	6	12	7	5	39
Skills Active Aotearoa Limited					9	6	12	7	5	39
<b>3661 - New Zealand Certificate in Outdoor Leadership (Instruction)</b>					9	5	15	23	9	61
Adventure Works Limited								2	3	5
Skills Active Aotearoa Limited					9	5	15	21	6	56
<b>3662 - New Zealand Certificate in Outdoor Leadership</b>					9	14	28	55	20	126
Skills Active Aotearoa Limited					9	14	24	44	20	111
Taranaki Outdoor Pursuits and Educational Centre Trust							4	11		15
<b>3675 - New Zealand Certificate in Outdoor and Adventure Education (Multi-skilled)</b>						48	95	77		220
Adventure Works Limited							13	11		24
Ara Institute of Canterbury Ltd						11	10	16		37
Hillary Outdoors Education Centres							7	4		11
Nelson Marlborough Institute of Technology Limited						20	27	3		50
Otago Polytechnic Ltd						6	4	7		17
Tai Poutini Polytechnic Ltd							28	28		56
Te Pūkenga Trading As Waikato Institute of Technology						11	6	8		25
<b>3766 - New Zealand Diploma in Outdoor and Adventure Education (Multi-skilled)</b>							46	56	5	107
Adventure Works Limited									5	5
Ara Institute of Canterbury Ltd							8			8
Hillary Outdoors Education Centres							5	12		17
Nelson Marlborough Institute of Technology Limited							9	11		20
Tai Poutini Polytechnic Ltd							17	25		42
Te Pūkenga Trading As Waikato Institute of Technology							7	8		15
<b>Grand Total</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>66</b>	<b>55</b>	<b>208</b>	<b>310</b>	<b>397</b>	<b>46</b>	<b>1091</b>

## Outdoor Recreation - NZQA Achievement Data by Qualification and Provider, 15-22 (cont.)

Qualification & Provider Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>3492 - New Zealand Certificate in Introductory Snowschool Instruction (Applied)</b>					18	18	13	19		69
Otago Polytechnic Ltd					11	10	11	13		46
Skills Active Aotearoa Limited					7	8	2	6		23
<b>3496 - New Zealand Certificate in Advanced Snowschool Instruction (Applied)</b>					21	27	9	2		59
Skills Active Aotearoa Limited					21	27	9	2		59
<b>Grand Total</b>					<b>39</b>	<b>45</b>	<b>22</b>	<b>21</b>		<b>128</b>

---

## Outdoor Recreation

The Outdoor sector was hit hard during the COVID-19 lockdowns and subsequent alert level period, and it has yet to fully recover. Many operators are having challenges recruiting suitably qualified and experienced workers as many of them left the industry to find more 'consistent' work. Travel restrictions also impacted the regular seasonal flow of overseas outdoor workers and anecdotally that has not yet returned to pre-covid levels.

Providers have significant concerns about the funding category that they are likely to be placed in as part of the UFS roll-out. Outdoor education is a very expensive vocational pathway to deliver for various reasons. Firstly, for safety purposes, the tutor to learner ratios of many field activities are very costly. 1:4, 1:6 and 1:8 tutor to learner ratios are common for many outdoor / adventure activities. There is also significant travel and equipment costs associated with taking learners into the field.

Industry and some providers have indicated that a 'work ready' graduate needs to have experienced significant repetition and a variety of situations in outdoor settings as part of their education. This is not part of their training that can be successfully replicated in the classroom. This has cost implications that need to be considered when funding outdoor programmes. Concerns have been raised that changing their funding ratio from predominantly science based to predominantly humanities based will have significant ramifications for the ability to deliver on the practical requirements of outdoor qualifications.

# Toi Ora Qualifications - 1

Qualification Title	Qualification_Num	Total Completion (2011-2022)
▣ New Zealand Certificate in Exercise	3563	3800
	3564	1007
▣ New Zealand Certificate in Alpine Resort Operations	3224	4459
▣ New Zealand Certificate in Outdoor Experiences	2570	3298
	2571	509
▣ New Zealand Certificate in Aquatics	3503	1646
▣ New Zealand Certificate in Sport, Exercise, and Leisure Operations	3225	828
▣ New Zealand Diploma in Sport, Recreation and Exercise (Multi-sector)	3627	454
	3628	203
▣ New Zealand Certificate in Pre-choreographed Group Exercise	3582	570
▣ New Zealand Diploma in Environmental Management	2964	284
	2966	156
▣ New Zealand Certificate in Sport, Recreation and Exercise (Multi-sector)	3625	384
	3626	23
▣ New Zealand Certificate in Mountain Facility Operations	3493	377
▣ New Zealand Certificate in Freestyle Group Exercise	3565	308
▣ New Zealand Certificate in Avalanche Risk Management	3490	253
	3491	17
▣ New Zealand Certificate in Outdoor and Adventure Education (Multi-skilled)	3765	220
▣ New Zealand Certificate in Sport Coaching	3228	168
	3230	26
▣ New Zealand Certificate in Conservation (Operations)	2963	154
▣ New Zealand Certificate in Snowsport Equipment	3499	103
	3500	40
▣ New Zealand Certificate in Outdoor Leadership	3662	126
▣ New Zealand Certificate in Museum Practice	2419	115
▣ New Zealand Diploma in Outdoor and Adventure Education (Multi-skilled)	3766	107
▣ New Zealand Certificate in Surface Supplied Breathing Apparatus (SSBA) Construction Divir	3619	94
▣ New Zealand Certificate in Introductory Snowschool Instruction (Applied)	3492	69
▣ New Zealand Certificate in Cycle Skills Instruction	4092	66

Cover in This Run of Advice

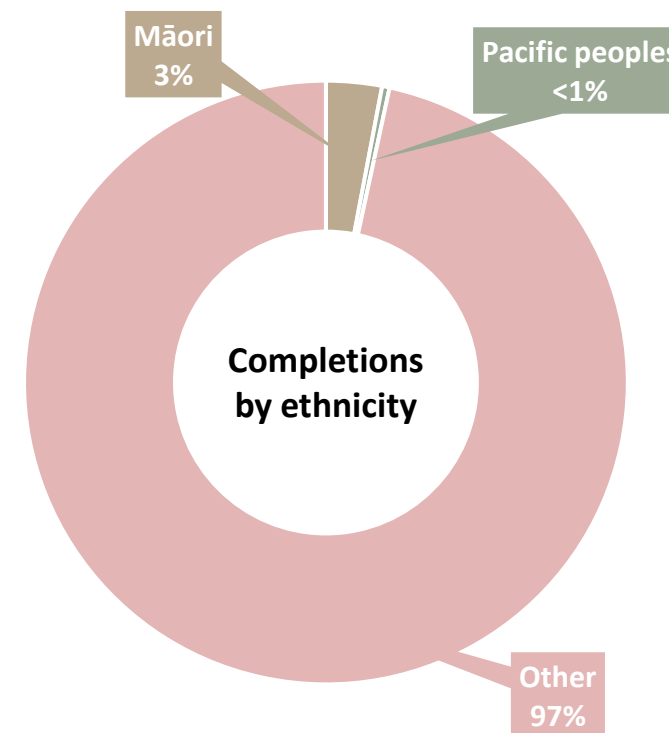
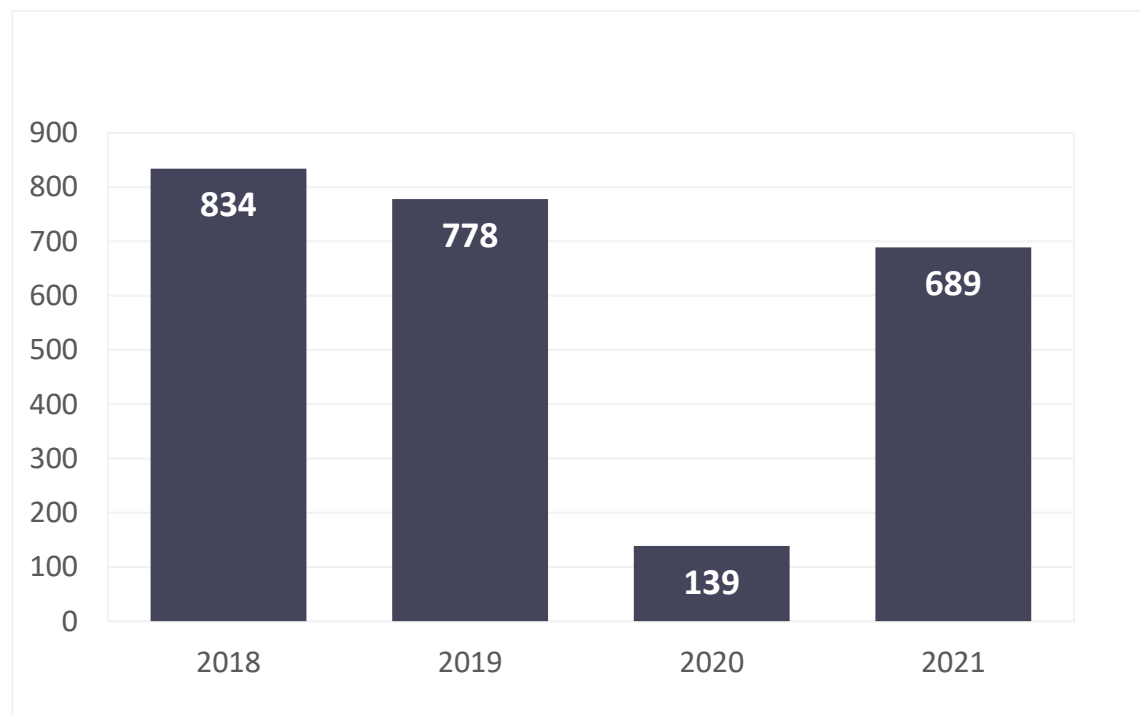
## Toi Ora Qualifications - 2

☐ New Zealand Certificate in Snowsport Equipment	3499	103
	3500	40
☐ New Zealand Certificate in Outdoor Leadership	3662	126
☐ New Zealand Certificate in Museum Practice	2419	115
☐ New Zealand Diploma in Outdoor and Adventure Education (Multi-skilled)	3766	107
☐ New Zealand Certificate in Surface Supplied Breathing Apparatus (SSBA) Construction Divir	3619	94
☐ New Zealand Certificate in Introductory Snowschool Instruction (Applied)	3492	69
☐ New Zealand Certificate in Cycle Skills Instruction	4092	66
☐ New Zealand Certificate in Snowsport Patrol	3498	63
☐ New Zealand Certificate in Outdoor Leadership (Instruction)	3661	61
☐ New Zealand Certificate in Advanced Snowschool Instruction (Applied)	3496	59
☐ New Zealand Certificate in Surface Supplied Breathing Apparatus (SSBA) Construction Divir	3620	58
☐ New Zealand Diploma in Diving	3888	53
☐ New Zealand Certificate in Sport and Recreation (Programme Delivery)	3573	52
☐ New Zealand Certificate in Aquatics (Specialised Swim and Water Safety Teacher)	3507	44
☐ New Zealand Certificate in Sport Officiating	3227	44
☐ New Zealand Certificate in Bicycle Servicing	2896	43
☐ New Zealand Certificate in Outdoor Leadership (Guiding)	3660	39
☐ New Zealand Certificate in Diving (Supervision)	3887	31
☐ New Zealand Certificate in Snowmaking	3495	27
☐ New Zealand Certificate in Diving	3886	23
☐ New Zealand Certificate in Assistant Outdoor Leadership	3658	20
☐ New Zealand Diploma in Scenic Construction and Properties	3437	19
☐ New Zealand Certificate in Equine (Therapeutic Riding - Assistant Coach)	2378	19
☐ New Zealand Certificate in Aquatics (Senior Pool Lifeguard)	3506	17
☐ New Zealand Certificate in Sport and Recreation (Community Development)	3572	14
☐ New Zealand Certificate in Equine Coaching	2372	13
☐ New Zealand Certificate in Bicycle Mechanics	2897	10
☐ New Zealand Certificate in Pre-designed Exercise Instruction	3566	10
☐ New Zealand Certificate in Recreation Safety Auditing	2302	9
☐ New Zealand Certificate in Snowsport Patrol Leader	3497	6
☐ New Zealand Certificate in Snowgrooming	3494	6
☐ New Zealand Certificate in Facility Operations	3647	6
☐ New Zealand Certificate in Nga Taonga Takaro	3864	1

Cover in This Run of Advice

## NZ Certificate in Alpine Resort Operations (Level 3)

### Completions



## Funding for non-domestic learners in work-based learning for 2023

The Tertiary Education Commission has released a list of vocational qualifications, programmes and micro-credentials that will receive domestic tuition subsidies in 2023 for non-domestic learners.

[Funding for non-domestic learners in work-based learning for 2023 | Tertiary Education Commission \(tec.govt.nz\)](https://tec.govt.nz)



Microsoft Excel  
Worksheet



Double Click the file to check Toi Mai Programmes  
included



# *Toi Pāho*



## TOI PĀHO

### BROADCAST AND SCREEN

Content delivered through broadcast and screen media: film, radio, television and online interactive media, which includes advertising and the Game Development industry. Toi Pāho is the sector that creates engaging screen-based moving image and audio content for wide distribution. Of Toi Mai's sectors this is the largest employer of Māori and coped best throughout the pandemic.

## Toi Pāho – Broadcasting and Screen

This sector includes:

- Journalists, reporters and content producers for radio and TV
- Screen sector production kaimahi including production assistant, camera, photography, lighting, sound, grip, gaffer, unit, editing, data wrangling, costume, set, props and construction, art dept (including prosthetics and paint), make-up and hair, music
- Animation and VFX
- In Game Development – kaimahi including game and character artists, games and systems designers, AI and game programmers
- Audio engineering

## Toi Pāho Qualifications Covered in TEC Advice

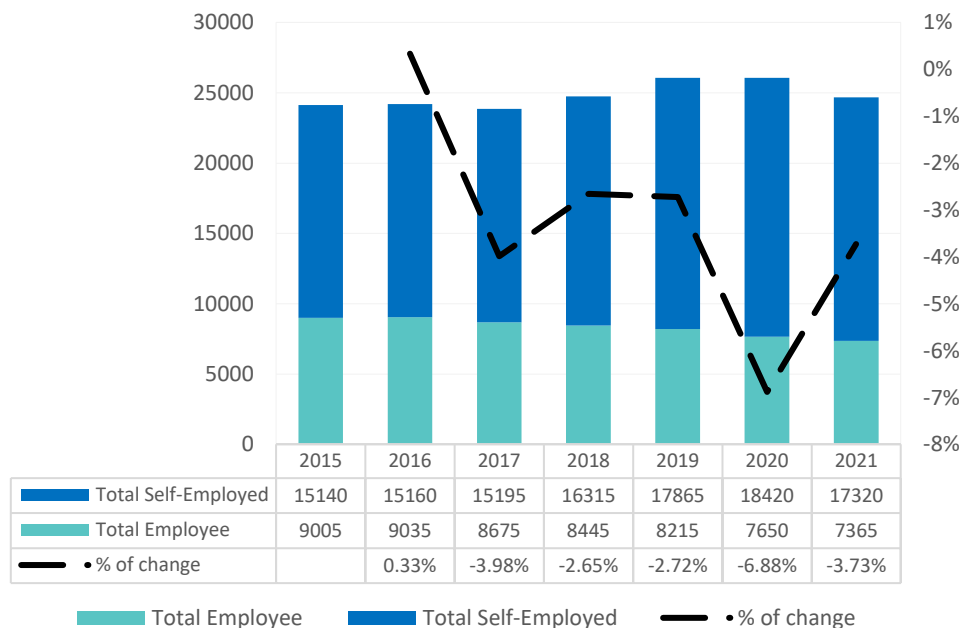
Total Completions (2017-2021)	Column Labels					
Row Labels	2017	2018	2019	2020	2021	Grand Total
<b>3206</b>						
<b>New Zealand Certificate in Communications Media</b>	<b>36</b>	<b>73</b>	<b>71</b>	<b>42</b>	<b>28</b>	<b>250</b>
Ara Institute of Canterbury Ltd		22	14			36
Eastern Institute of Technology Ltd	4	8	9	7	3	31
New Zealand School of Radio Limited			22	16	13	51
Te Pūkenga Trading As Toi Ohomai Institute of Technology	32	43	26	19	12	132
<b>3208</b>						
<b>New Zealand Diploma in Journalism</b>		<b>6</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>17</b>
Te Pūkenga Trading As Waikato Institute of Technology			2	6	3	11
Whitireia Community Polytechnic Limited		6				6
<b>3210</b>						
<b>New Zealand Diploma in Radio Broadcasting</b>		<b>31</b>	<b>34</b>	<b>53</b>		<b>118</b>
Whitireia Community Polytechnic Limited		14	34	53		101
Whitireia New Zealand Ltd		17				17
<b>3212</b>						
<b>New Zealand Diploma in Screen Production</b>		<b>136</b>	<b>163</b>	<b>147</b>	<b>149</b>	<b>595</b>
Eastern Institute of Technology Ltd		11	11	7	14	43
SAE Institute			10	4	4	18
Southern Institute of Technology Ltd			7	4	9	20
Whitireia Community Polytechnic Limited			33	28	42	103
Yoobee Colleges Limited		125	102	104	80	411
<b>3213</b>						
<b>New Zealand Diploma in Screen Production</b>		<b>49</b>	<b>32</b>	<b>46</b>	<b>35</b>	<b>162</b>
New Zealand Management Academies Limited		37				37
Southern Institute of Technology Ltd				1		1
Yoobee Colleges Limited		12	32	45	35	124
<b>Grand Total</b>	<b>36</b>	<b>295</b>	<b>302</b>	<b>294</b>	<b>215</b>	<b>1142</b>

## Toi Pāho Qualifications does **NOT** include

Total Completions (2017-2021)	Column Labels					
Row Labels	2017	2018	2019	2020	2021	Grand Total
<b>2634</b>						
<b>New Zealand Diploma in Animation</b>	<b>10</b>	<b>56</b>	<b>81</b>	<b>65</b>	<b>127</b>	<b>339</b>
Nelson Marlborough Institute of Technology Limited			8	8	6	22
South Seas Film and Television School Limited	9					9
Southern Institute of Technology Ltd	1	13	15	1	2	32
Yoobee Colleges Limited		43	58	56	119	276
<b>2635</b>						
<b>New Zealand Diploma in Animation</b>	<b>9</b>	<b>61</b>	<b>88</b>	<b>73</b>	<b>82</b>	<b>313</b>
Nelson Marlborough Institute of Technology Limited					6	6
South Seas Film and Television School Limited	6					6
Southern Institute of Technology Ltd	3	9	1		2	15
Yoobee Colleges Limited		52	87	73	74	286

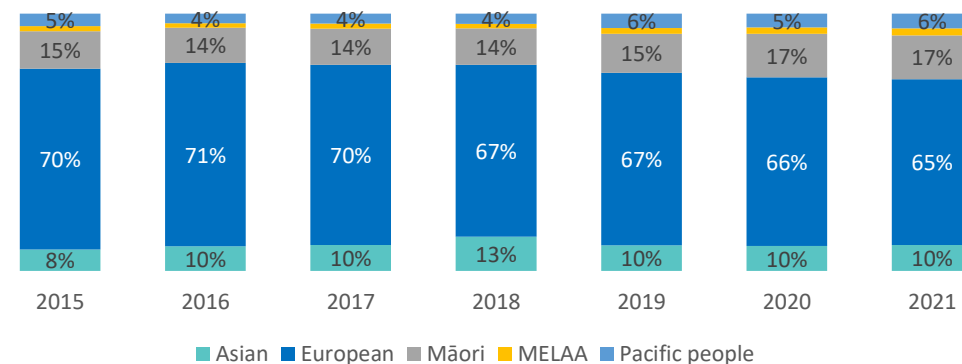
# Toi Pāho Sector Overview

## Workforce Size and Percentage Change in Total Employee Number

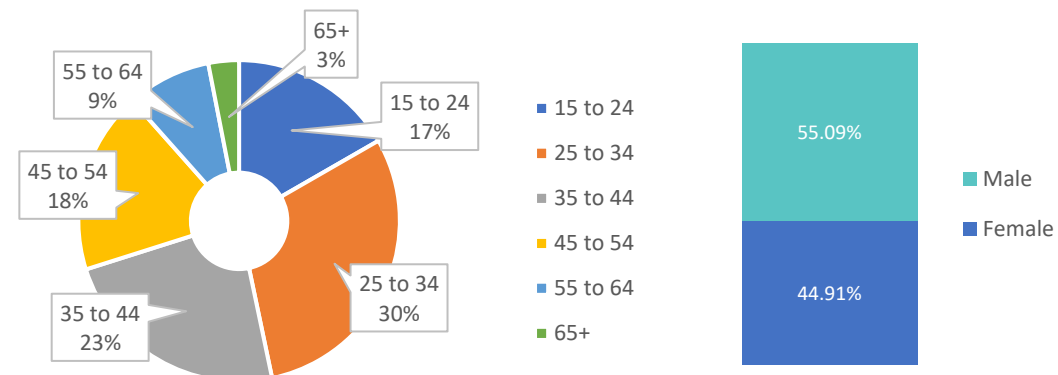


Workforce has only experienced a small dip in size despite Covid setbacks. A large proportion of the workforce is self-employed is a continuing trend, highlighting the gig-based nature of most of the Toi Pāho sector.

## Workforce Ethnicity Breakdown By Reporting Year

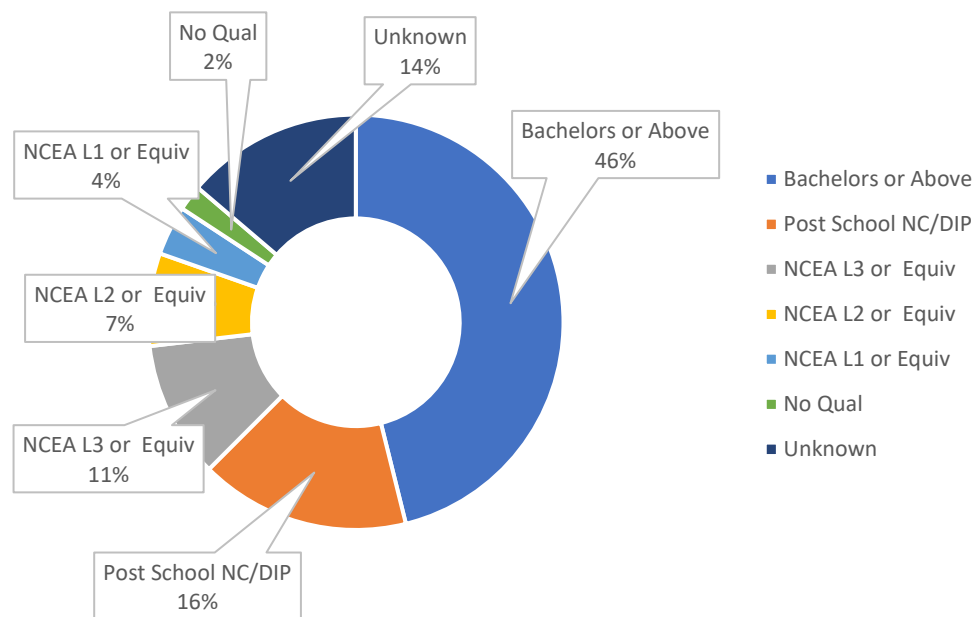


## Workforce Age Group and Gender Breakdown

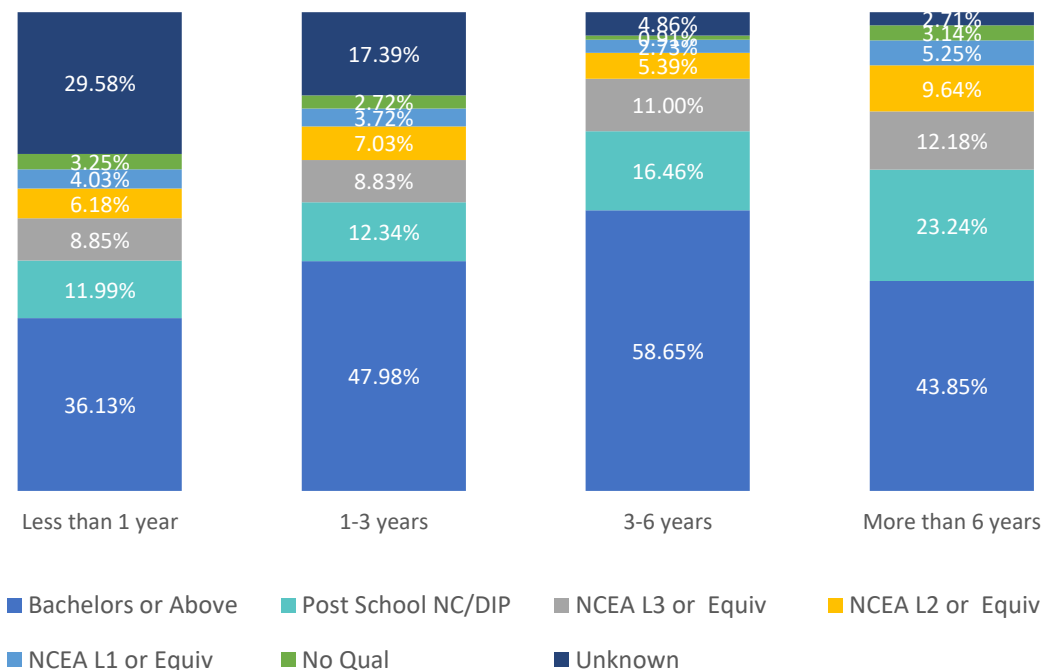


# Toi Pāho Sector Overview

## Workforce Size By Highest Qualification as at 2018 Census



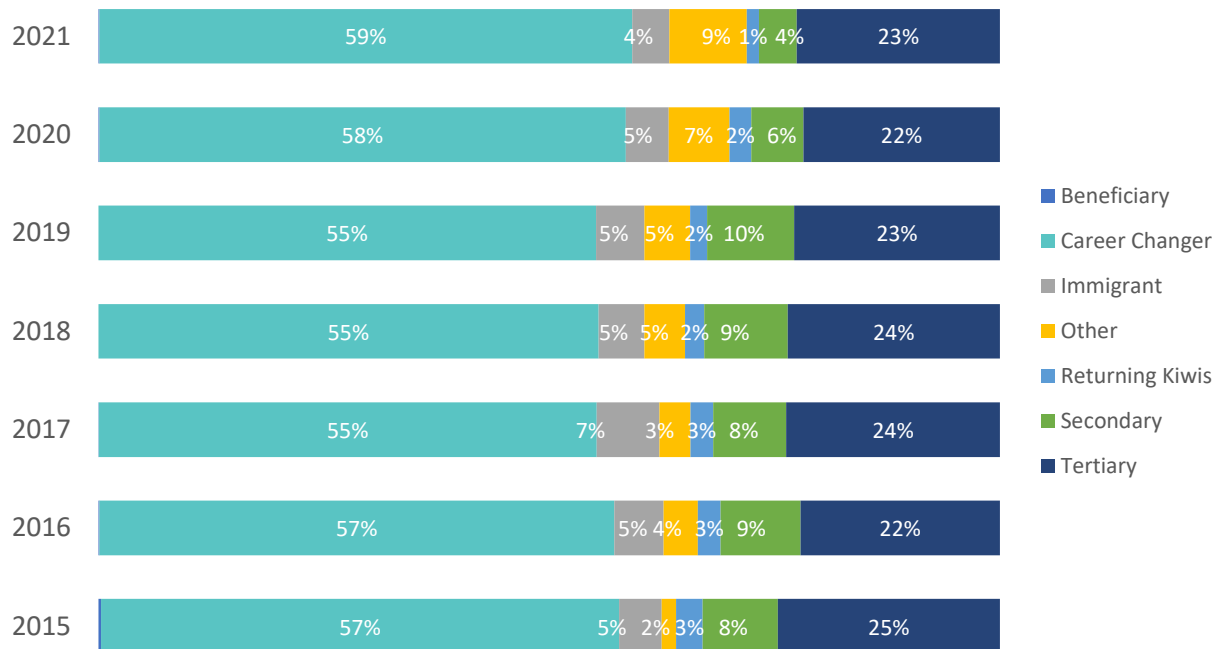
## Length of Industry Tenure by Highest Qualification



There has been a steady decline in those who join the industry having a bachelors or above. These might not necessarily be qualifications related to the sector.

# Toi Pāho Sector Overview

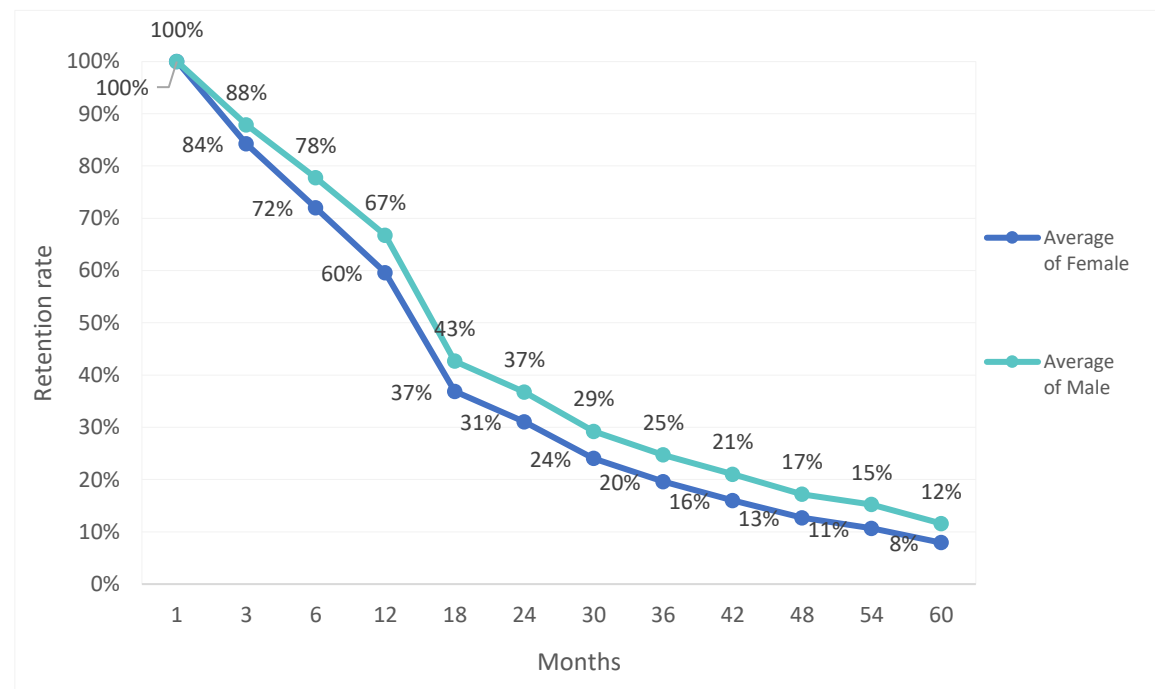
## New Entrants by Source



A significant proportion of the sector are career changers. This has continued to grow between the period of 2015-2021.

**Career changers:** New entrants who previously worked in a different industry prior to joining workforce (i.e. would be considered a workforce member in a different industry).

## Average Retention Rate of New Entrant By Gender and Number of Months in Industry

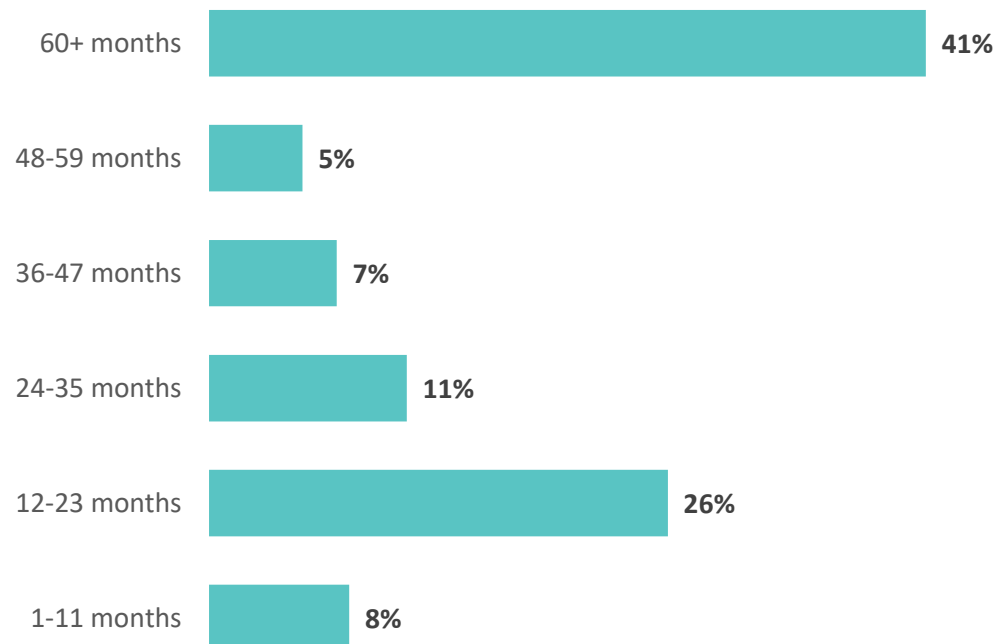


Retention for the industry is low. On average, by 18 months, around 60% who entered the sector have subsequently left, with the workforce being largely gig-based.

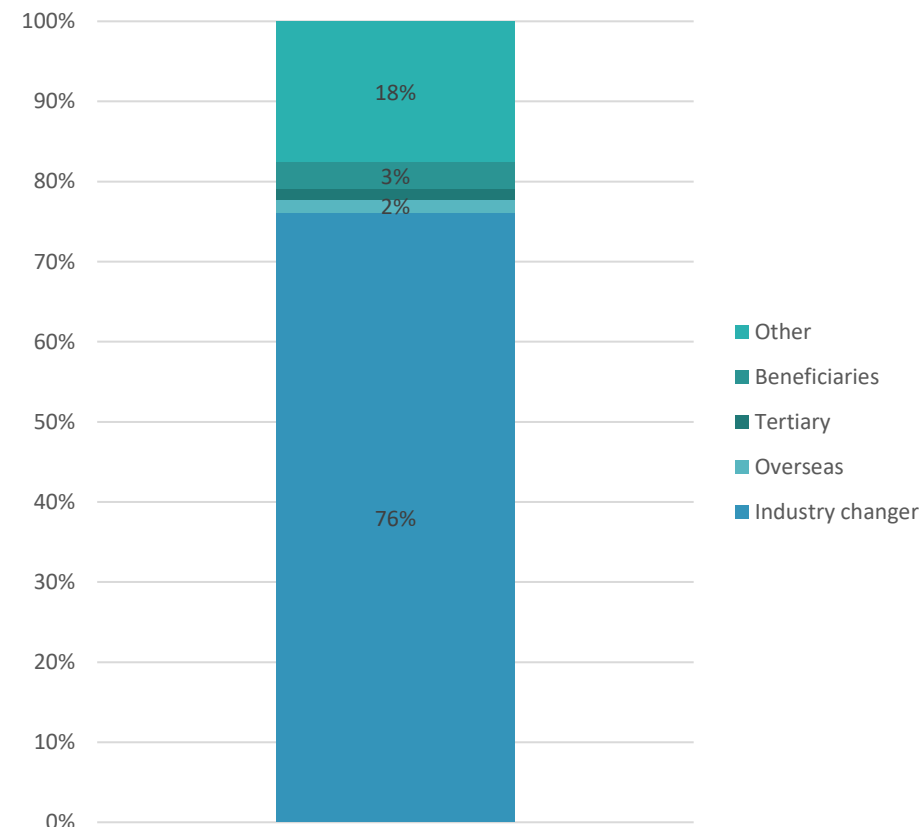


# Toi Pāho Sector Overview

## Average Industry Tenure



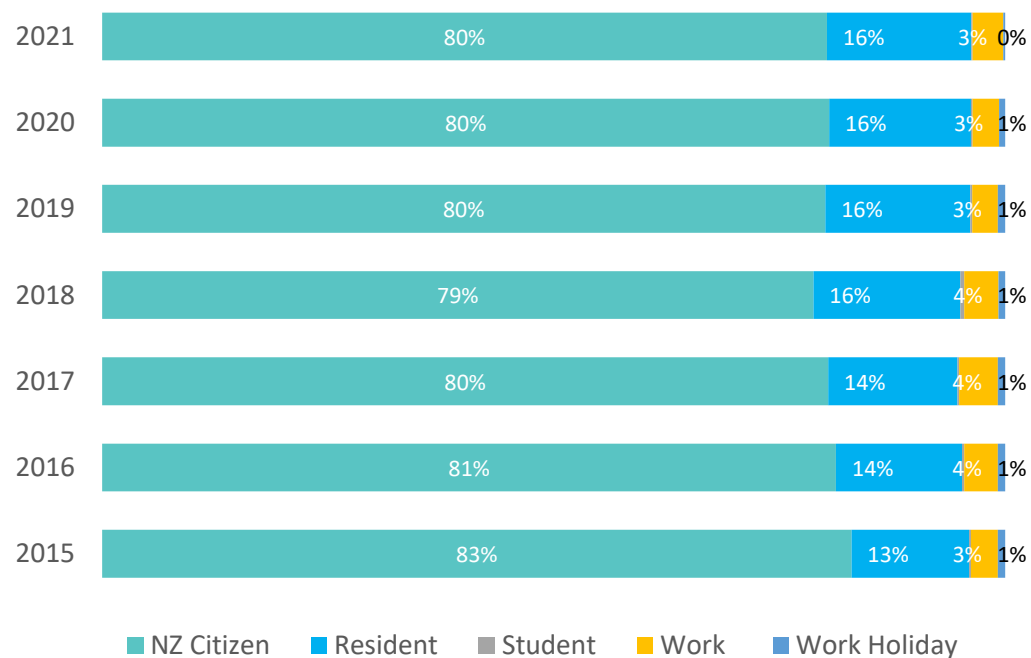
## Destination of Workforce Leavers in 2020



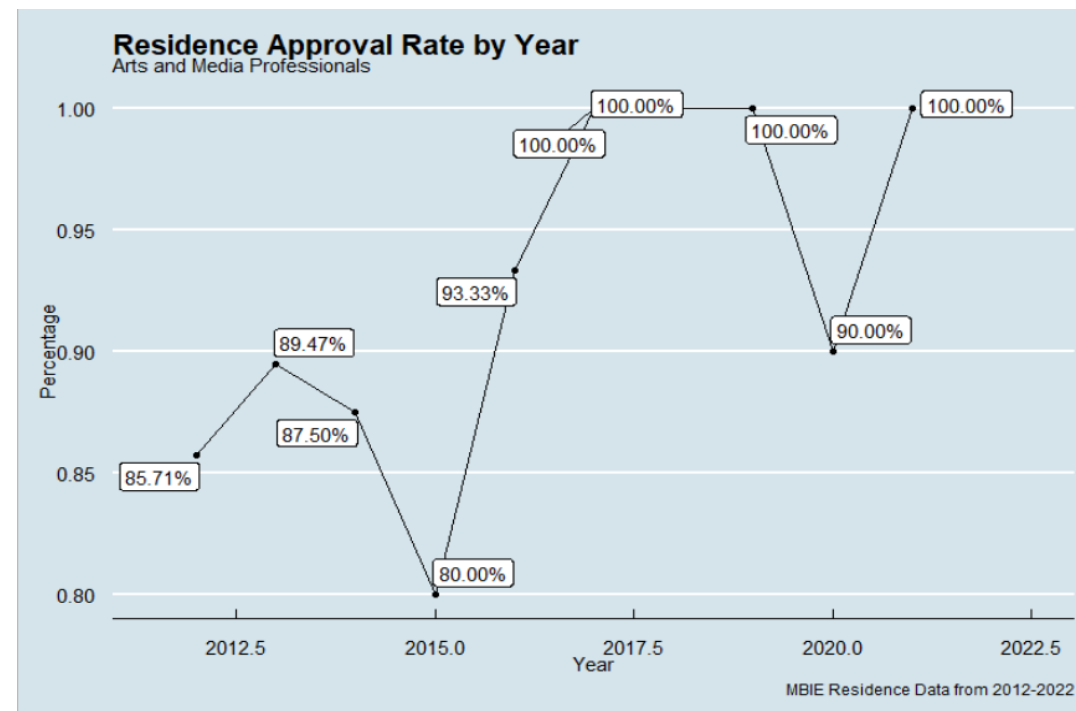
*Career changers:* New entrants who previously worked in a different industry prior to joining workforce (i.e. would be considered a workforce member in a different industry).

# Toi Pāho Sector Overview

## Workforce by Visa Status

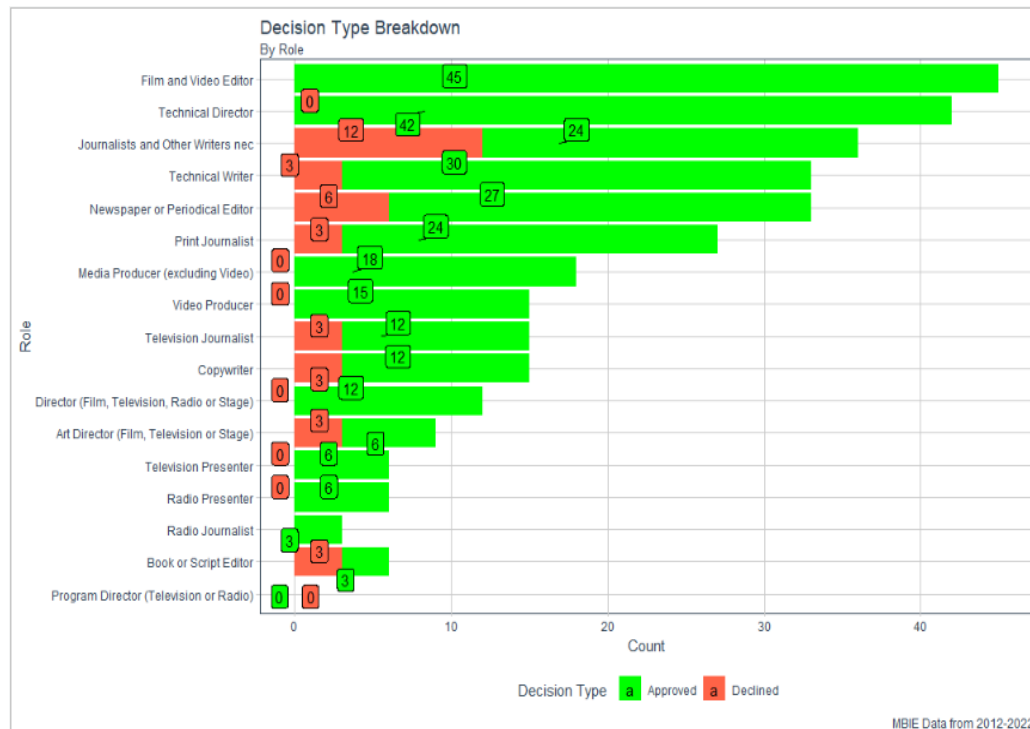


## INZ Residence Approval Rate by Year

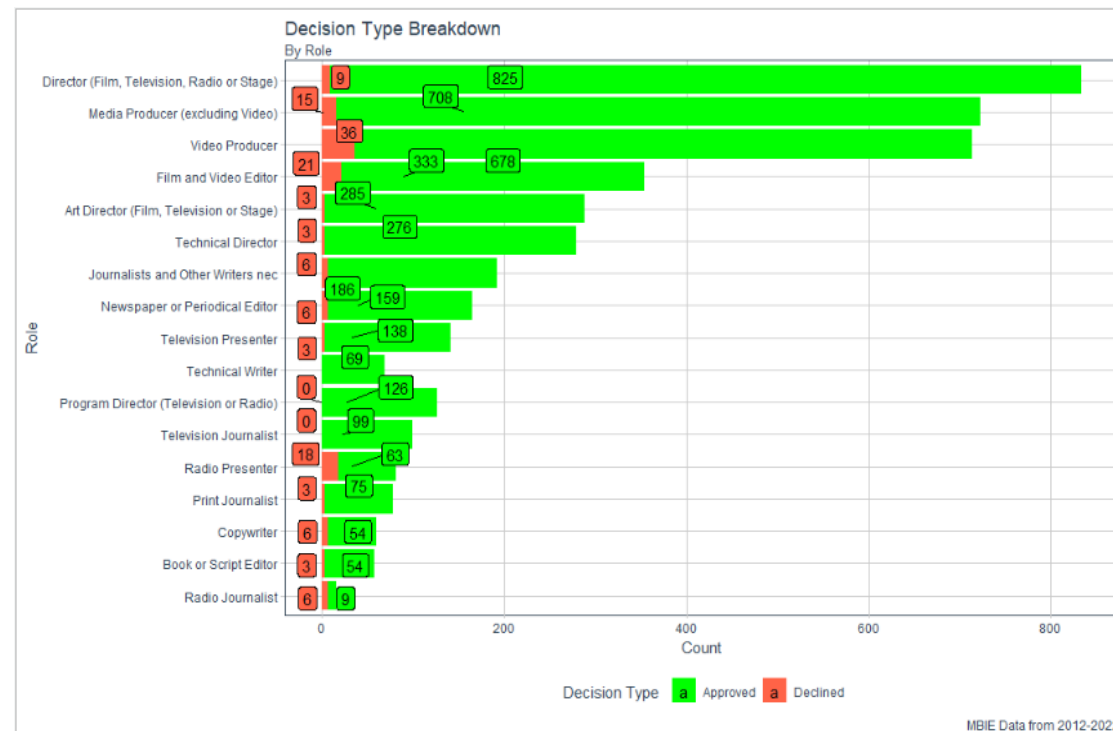


# Toi Pāho Sector Overview

Rank of Broadcast and Screen Roles by number of residence visas applications to INZ



Rank of Broadcast and Screen Roles by number of work visas applications to INZ



The charts above indicate residence visa (left), and work visa (right) applications for specific roles working within ANZSIC (industry) codes assigned to each pou. These indicate possible shortages given that these visas are granted based on employment.

# Toi Pāho Sector Overview

## Level 7+ Qual Graduate Contributions to Toi Pāho by year

2017	2018	2019	2020	2021
1115	1223	1112	1398	1210

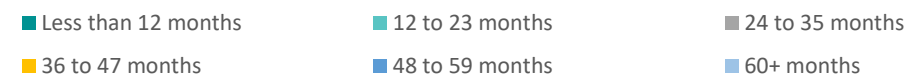
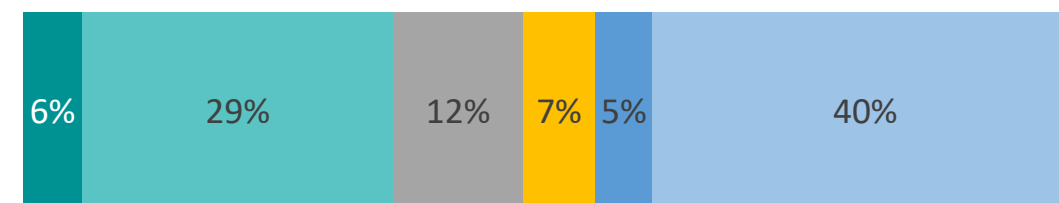
*\*\*Relevant graduates can turn up anywhere as junior Broadcast and Screen professionals*

## Level 4-6 NC/DIP Graduate Contributions to Toi Pāho by year

2017	2018	2019	2020	2021
124	718	870	784	817

## Attrition Rate

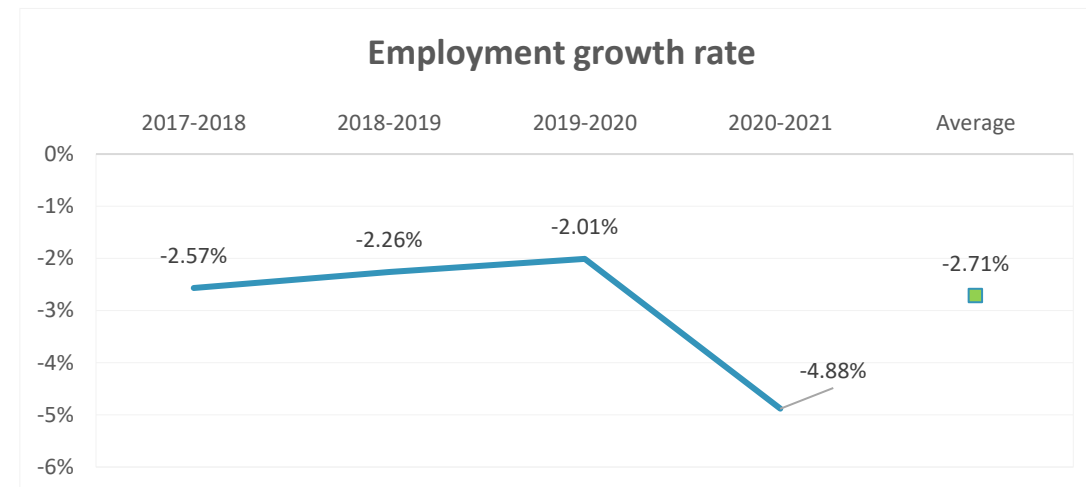
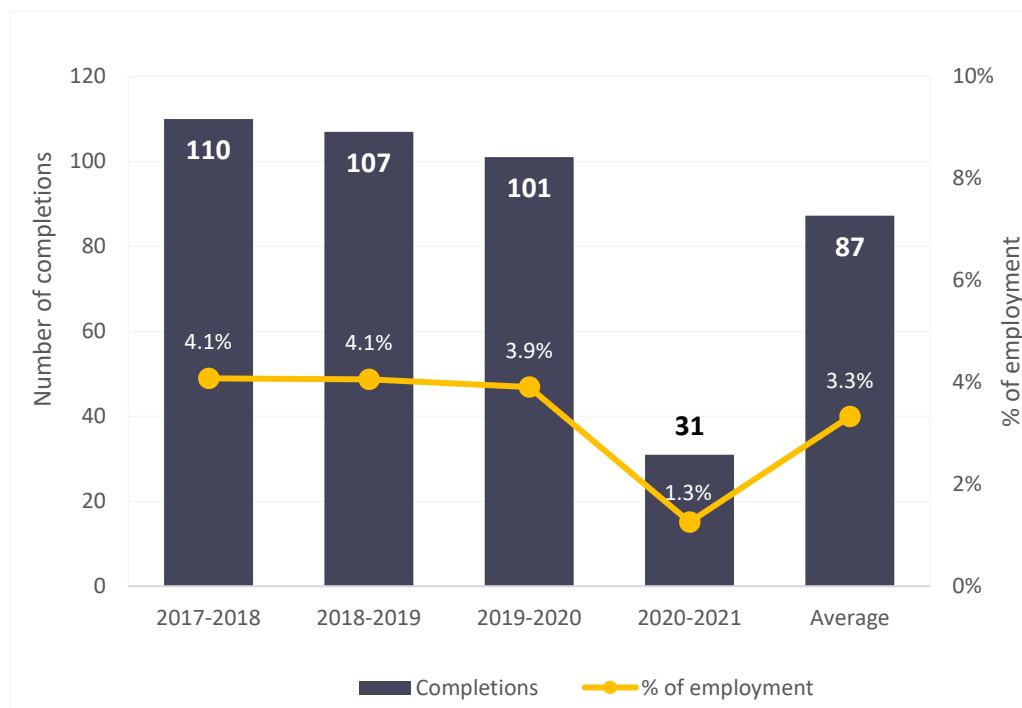
### Toi Pāho Industry Tenure



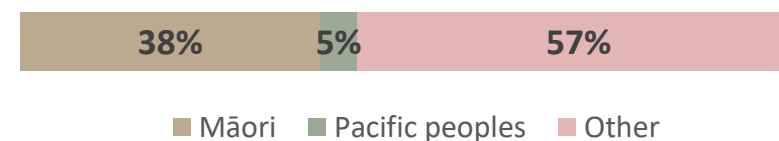
# Journalist

**Interim assessment:**  
 - There is an under supply of journalists  
 - Increase in work based training

Completions as a percentage of employment



Completions by ethnicity

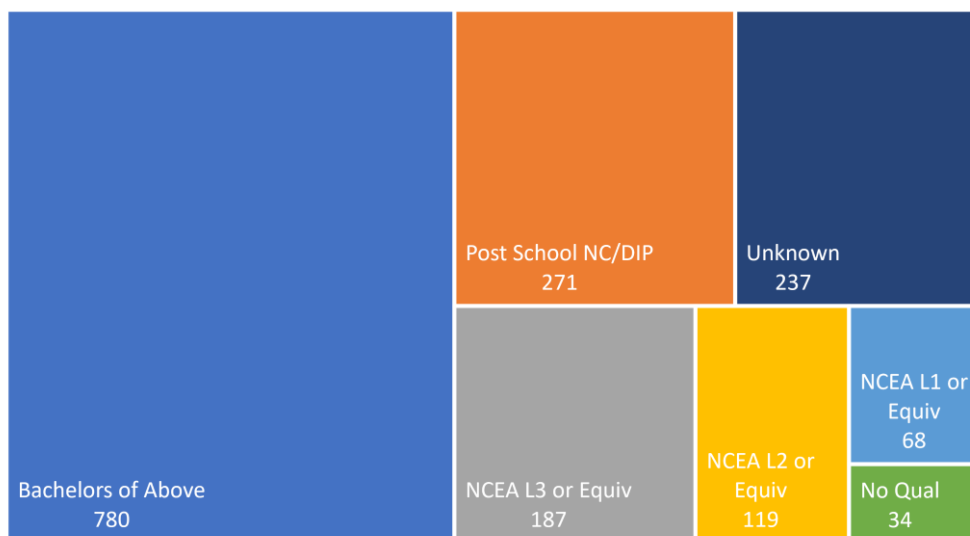


Qualifications included:  
 NZ Certificate in Communications Media (Level 4) (3206), NZ Diploma in Radio Broadcasting (Level 5) (3210), NZ Diploma in Journalism (Level 5) (3208)

# Journalist

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Journalist Workforce Composition by Highest Qualification



The workforce decreased at -2.71% on average between 2017 and 2021, and the tertiary education system contributes an average of 23.03% of new entrants to the industry. The average post-school NC/Dip percentage is 33.43%, while Level 7+ Bachelor or above is 66.57%.

Qualifications included:  
 NZ Diploma in Radio Broadcasting (Level 5) (3210), NZ Diploma in Journalism (Level 5) (3208)

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2018	2019	2020	2021	Grand Total
3210 - New Zealand Diploma in Radio Broadcasting	31	34	53		118
Whitireia Community Polytechnic Limited	14	34	53		101
Whitireia New Zealand Ltd	17				17
3208 - New Zealand Diploma in Journalism	6	2	6	3	17
Te Pūkenga Trading As Waikato Institute of Technology		2	6	3	11
Whitireia Community Polytechnic Limited	6				6
Grand Total	37	36	59	3	37

Based on all given information, the tertiary education system needs to provide roughly **53 Journalists** to the industry to meet the need.

$$** \text{ Calculation: } 2271 * ( 12\% + -2.71\% ) * 23.03\%$$



Compared with 2020, the workforce shrunk by 4.88%, the highest in recent five years.

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## Summary for Journalism

This industry would like a **work based learning model** and are running their own cadetship programme to meet need. They would like people to do the Level 5 Diploma with less people doing degree programmes.

Toi Mai have expired Level 4 and 6 qualifications due to their being no demand, and industry endorsing the Level 5 diploma. Regional newspapers access to staff is a significant need as is the need for ethnic and socio-economic representation. Māori and Pacific representation has been the focus of recent cadetship programmes but we have a growing need for Asian representation, specifically Indian and Chinese. Low wages and high attrition with people moving in to communications roles is a significant issue for this industry.

While many in sector don't necessarily see the value of a formal qualification (i.e., listed on the NZQF) attached to any training programme (i.e., the priority is for more practice-based training), it would at the least contribute to the sustainability of any such programme via appropriate funding channels. The reviewed qualification tries to accommodate/prioritise this type of learning.

Radio: Now only being delivered by the New Zealand Radio School at Te Whare Wānanga o Awanuiārangi. Significant support needed to enable programme materials modification to **enable more work based training** specifically for iwi radio and regional radio stations which struggle the most with attraction and retention.

Qualifications included:

NZ Diploma in Radio Broadcasting (Level 5) (3210), NZ Diploma in Journalism (Level 5) (3208)

# Below the Line Occupations

**Occupations included:**

Camera Operator (Film, Television or Video)	Film and Video Editor
Light Technician	Sound Technician
Television Equipment Operator	

*Below the Line: Level 3-6 Qualifications & Level 7+ Related Quals*



**Level 7+ Quals**

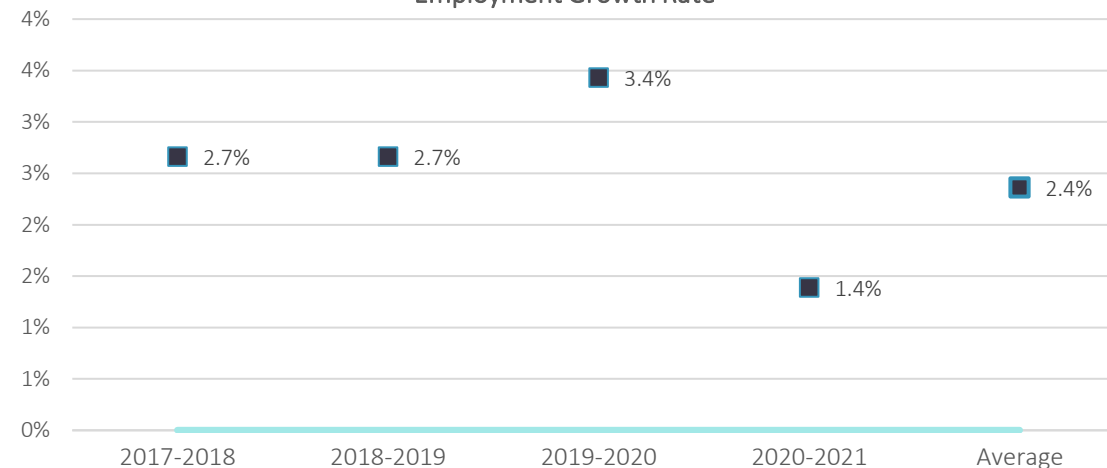
- |  |  |
|--|--|
| Bachelor of Arts and Media                               | Bachelor of Screen Production  |
| Bachelor of Creative Media                               | Graduate Diploma in Screen Arts (3D Animation)                       |
| Bachelor of Creative Media Production (Honours)          | Graduate Diploma in Screen Arts (Filmmaking)                         |
| Bachelor of Media and Creative Technologies              | Graduate Diploma Visual Media  |
| Bachelor of Media and Creative Technologies with Honours | Master of Media and Creative Technologies                            |
| Bachelor of Performing and Screen Arts                   | Master of Performance and Media Arts                                 |
| Bachelor of Screen Arts                                  | Postgraduate Diploma in Natural History Filmmaking and Communication |
|  | Postgraduate Diploma in Performance and Media Arts                   |

**Qualifications included:**

**NZ Diploma in Screen Production (Level 5) (3212), NZ Diploma in Screen Production (Level 6) (3213)**

**Interim assessment:**  
 - Training for school leavers is adequate  
 - There is an urgent need to increase training for career changers  
 - Level 7+ graduate outcomes do not meet industry needs

Employment Growth Rate



**Completions by ethnicity**

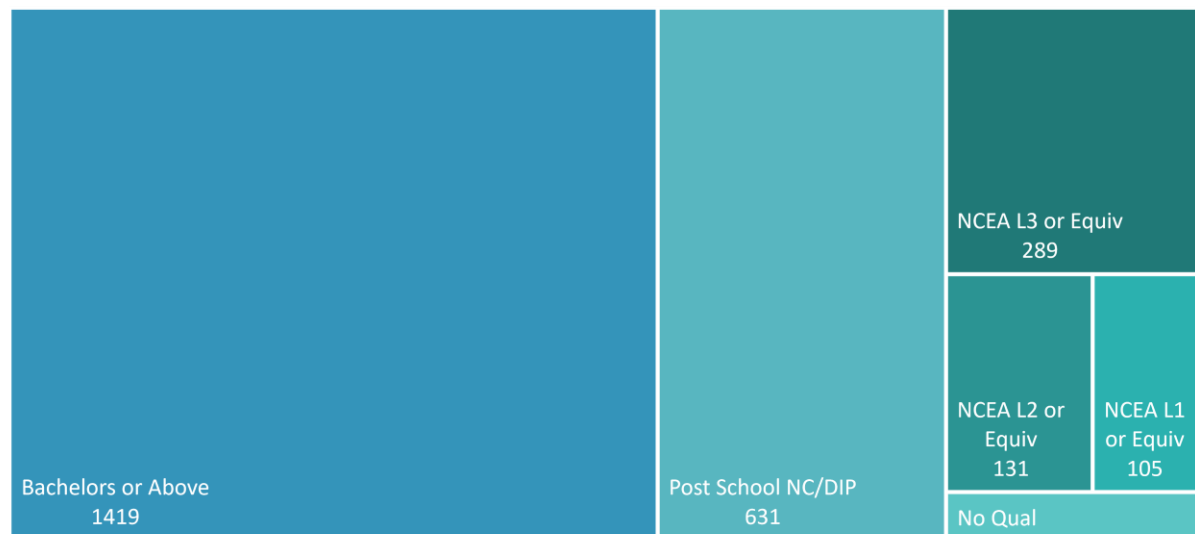




# Below the line Occupations

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Below the line Occupations  
 Workforce Composition by Highest Qualification



The workforce grew on average 2.4% between 2017 and 2021. The tertiary education system contributes an average of 23.03% of new entrants to the industry. The average post-school NC/Dip percentage is 24%, while Level 7+ Bachelor or above is 54%.

Qualifications included:  
 NZ Diploma in Screen Production (Level 5) (3212), NZ Diploma in Screen Production (Level 6) (3213)

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2018	2019	2020	2021	Grand Total
<b>3212 - New Zealand Diploma in Screen Production</b>	<b>136</b>	<b>163</b>	<b>147</b>	<b>149</b>	<b>595</b>
Yoobee Colleges Limited	125	102	104	80	411
Whitireia Community Polytechnic Limited		33	28	42	103
Eastern Institute of Technology Ltd	11	11	7	14	43
Southern Institute of Technology Ltd		7	4	9	20
SAE Institute		10	4	4	18
<b>3213 - New Zealand Diploma in Screen Production</b>	<b>49</b>	<b>32</b>	<b>46</b>	<b>35</b>	<b>162</b>
Yoobee Colleges Limited	12	32	45	35	124
New Zealand Management Academies Limited	37				37
Southern Institute of Technology Ltd			1		1
<b>Grand Total</b>	<b>185</b>	<b>195</b>	<b>193</b>	<b>184</b>	<b>757</b>

Based on all given information, the tertiary education system needs to provide roughly **75** below the line workers to the industry to meet the need.

**\*\* Calculation: 2628 \* ( 10% + 2.4% ) \* 23.03%**



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## Summary for Below the Line Roles

From wide ranging consultation with this industry, there is a significant interest in short course/micro-credential qualifications that are work based or work integrated. Industry have indicated there are too many graduates from long form courses who still need to train further in order to gain an entry level position, and not enough career changers or savvy starters to meet the needs for crew working in production and postproduction roles.

### **FROM WDP:**

TEC to widen its criteria for provider funding to include pilot funding for non-NZQCF (New Zealand Qualifications and Credentials Framework) listed, industry-defined and delivered short-form courses and stackable micro-credentials that are flexible, nimble and meet immediate industry need.

TEC to incentivise vocational education providers to work closely with industry to provide work opportunities and integrated learning for trainees (and conversely, encourage industry to engage trainees in the workplace), to enable the same opportunities regionally as in the main metropolitan areas. Toi Mai is working with industry to design a suite of standardised, work-integrated qualifications that will enable trainees to learn on the tools, learn from industry experts and gain real-world experience of the screen production process. Additional resource is needed to:

- Support initiatives that increase the visibility of roles and pathways into screen and creative tech careers for new entrants, in particular with Māori and Pacific communities
- Develop short courses that can upskill mid-career screen professionals and that can provide entry points for people coming in from adjacent sectors
- Design a campaign that will attract diverse talents and also provide a realistic view of screen-sector careers through short introductory courses that clearly communicate the 'lived experience' of available roles and the nature of work in a 'gig-based' industry
- Increase screen-relevant business skills training through shared resources and micro-credentials that support screen-sector contractors.

# *Toi ā-Ringa*



## TOI-Ā-RINGA

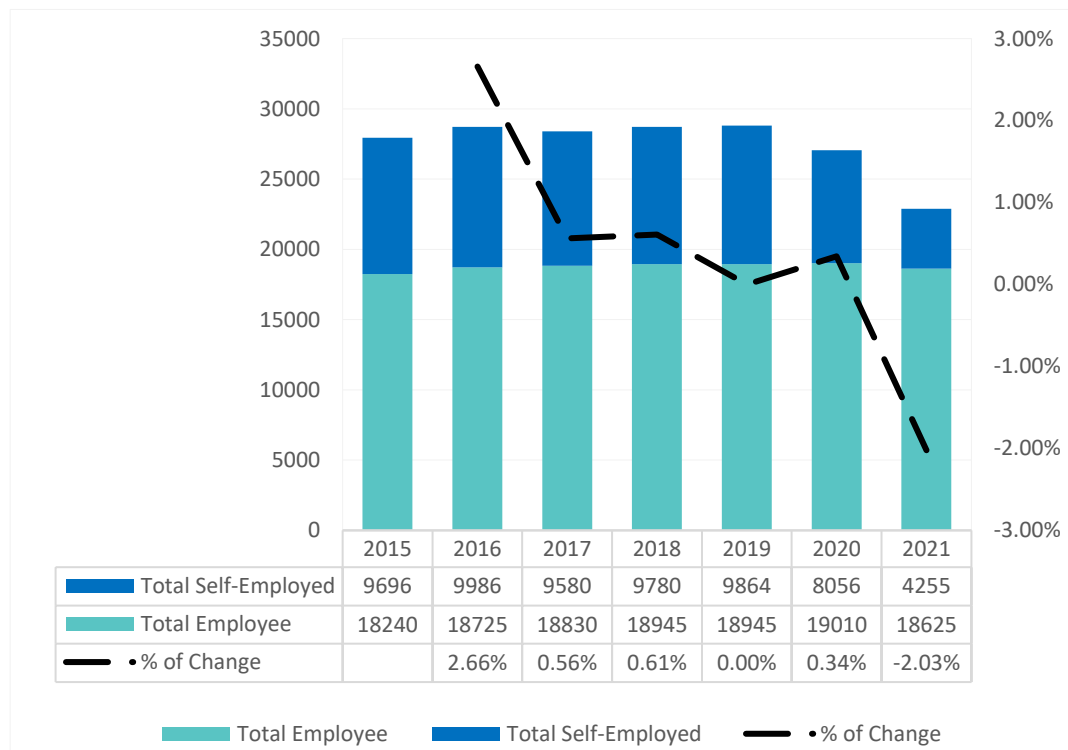
### ART AND DESIGN

Hands-on (haptic/tactile) art and design, hairdressing, beauty, fashion, advertising, visual media and communication.

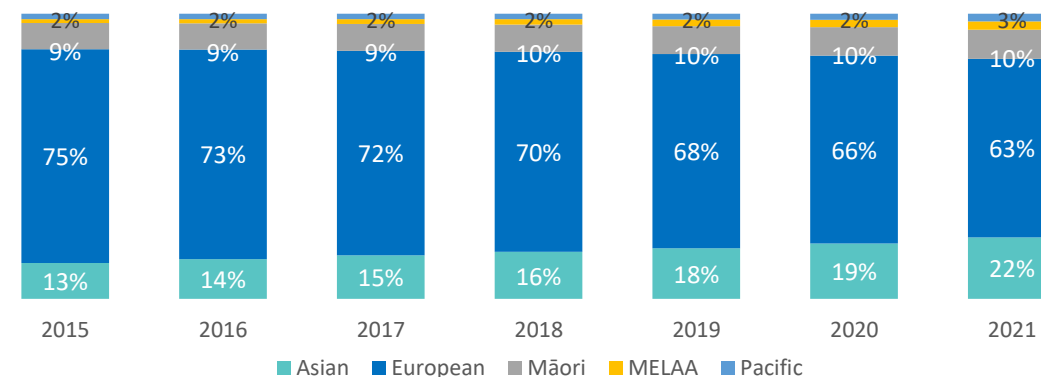
Toi-ā-ringā uses a range of tools, materials and technologies to shape creative outputs. Almost three in four people in this sector are women, and hairdressing is the largest of the occupations under Toi Mai's umbrella.

# Toi ā-Ringa Sector Overview

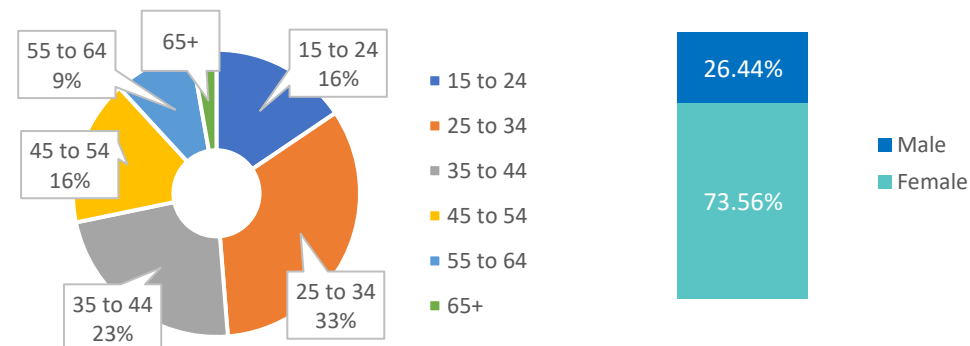
### Workforce Size and Percentage Change in Total Employee Number



### Workforce Ethnicity Breakdown By Reporting Year

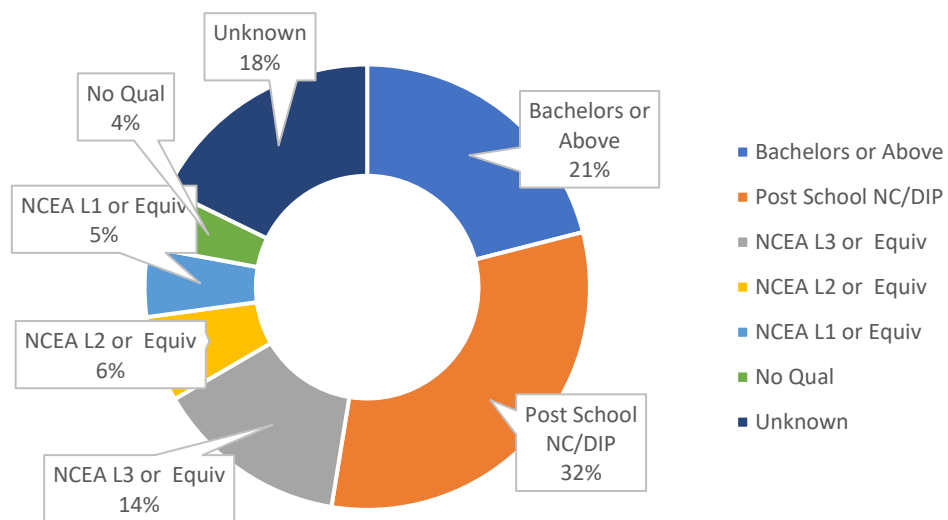


### Workforce Age Group and Gender Breakdown

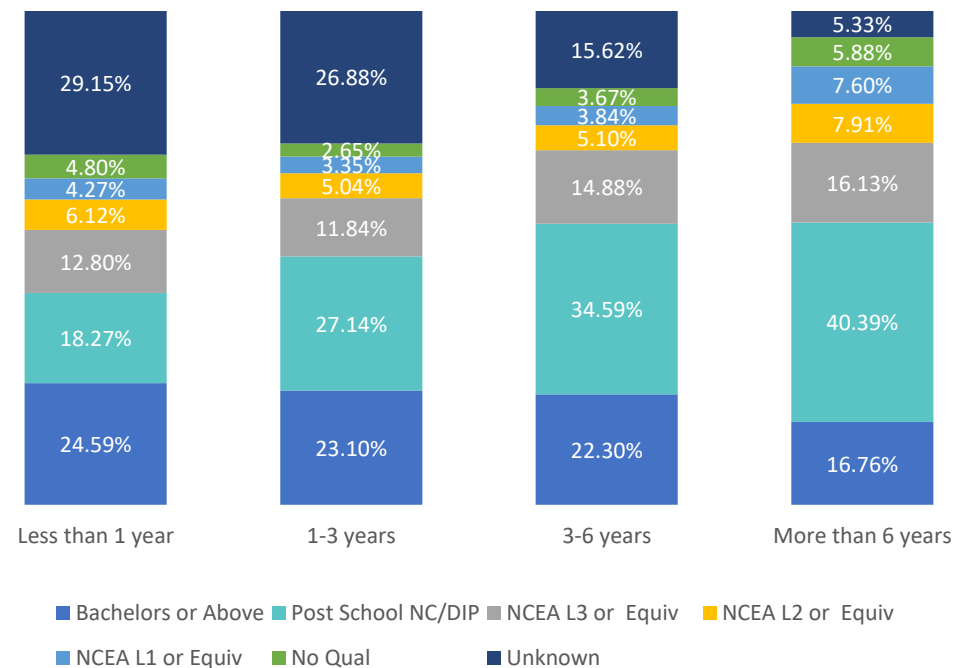


# Toi ā-Ringa Sector Overview

*Workforce Size By Highest Qualification as at 2018 Census*



*Length of Industry Tenure by Highest Qualification*



# Toi ā-Ringa Sector Overview

## Level 7+ Qual Graduate Contributions to Toi ā-Ringa by year

2017	2018	2019	2020	2021
1511	1726	1736	1511	1660

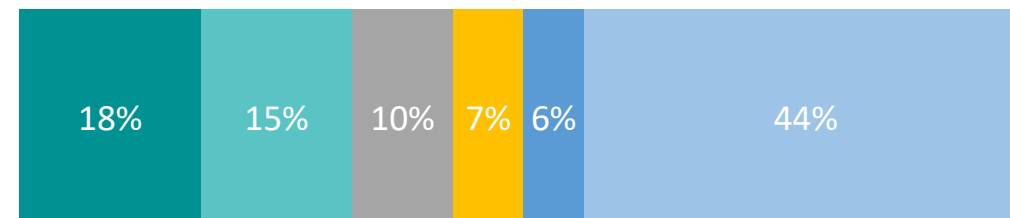
*\*\*Relevant graduates can turn up anywhere as junior art and design professionals*

## Level 4-6 NC/DIP Graduate Contributions to Toi ā-Ringa

2017	2018	2019	2020	2021
2251	2921	3358	3153	3243

## Attrition Rate

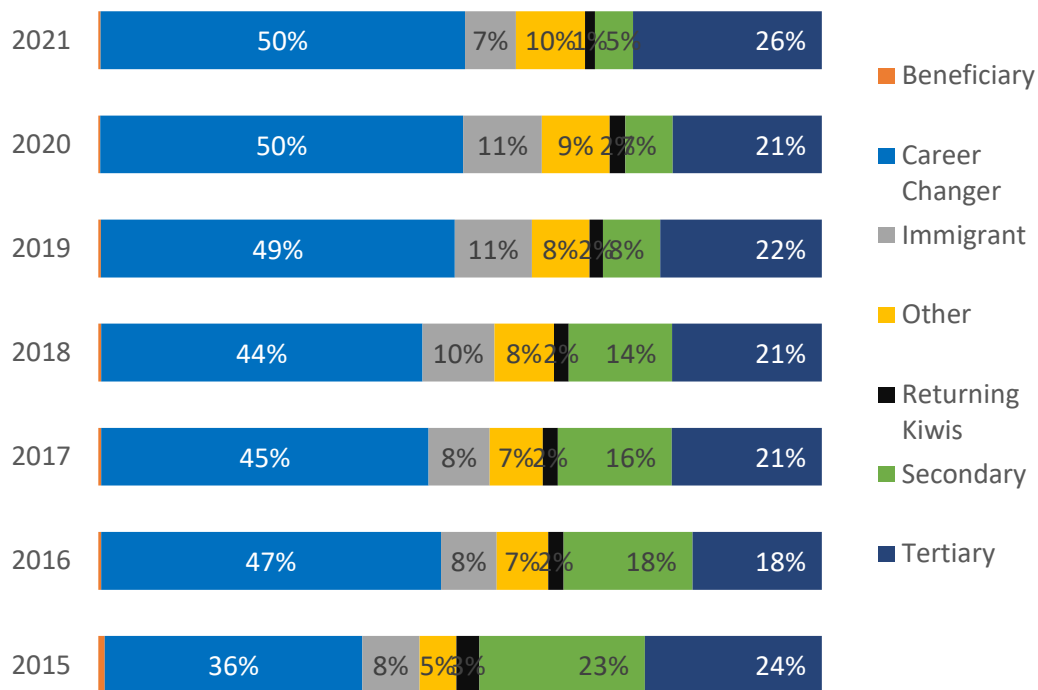
### Toi ā-Ringa Industry Tenure



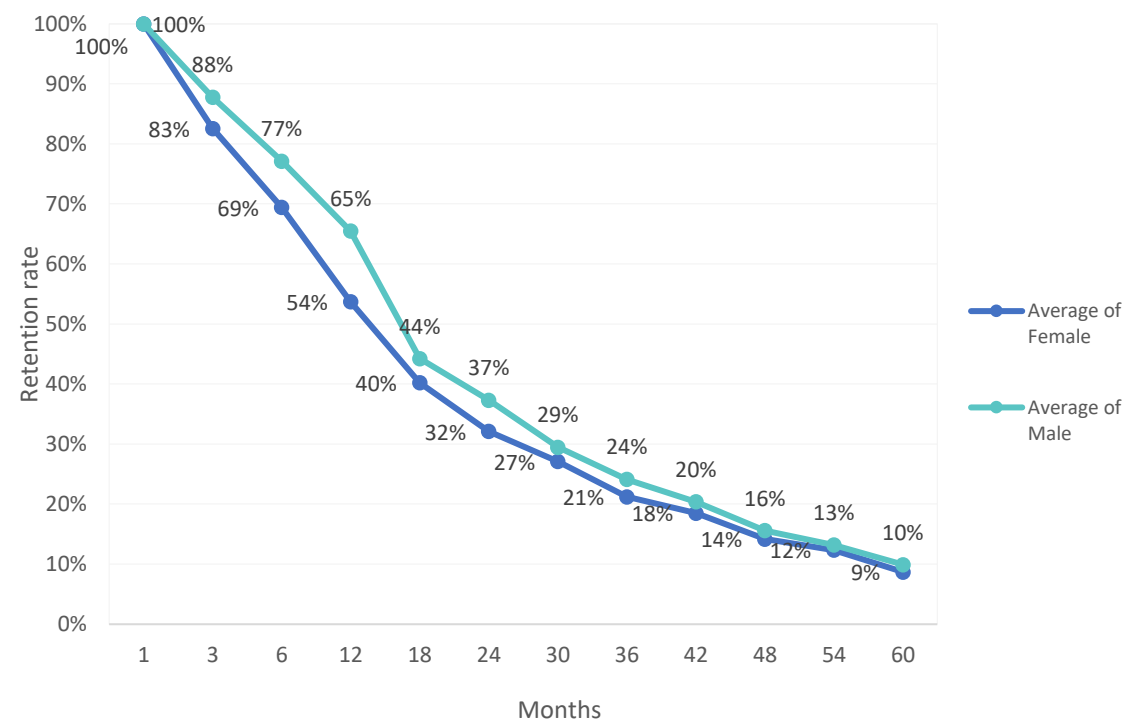
- Less than 12 months
- 12 to 23 months
- 24 to 35 months
- 36 to 47 months
- 48 to 59 months
- 60+ months

# Toi ā-Ringa Sector Overview

*New Entrants by Source*



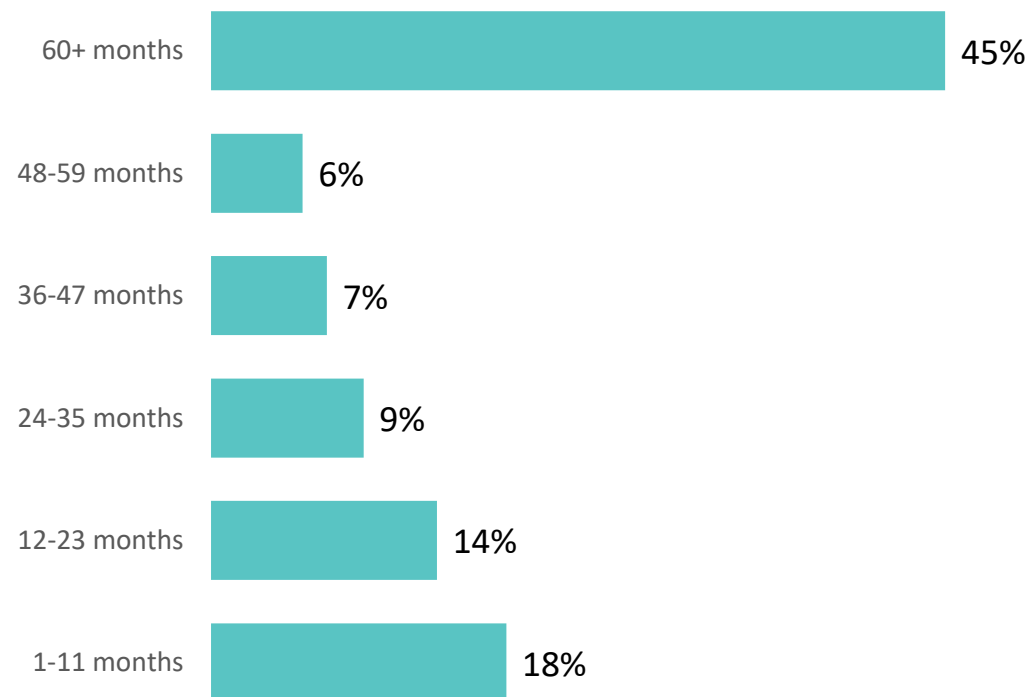
*Average Retention Rate of New Entrant By Gender and Number of Months in Industry*



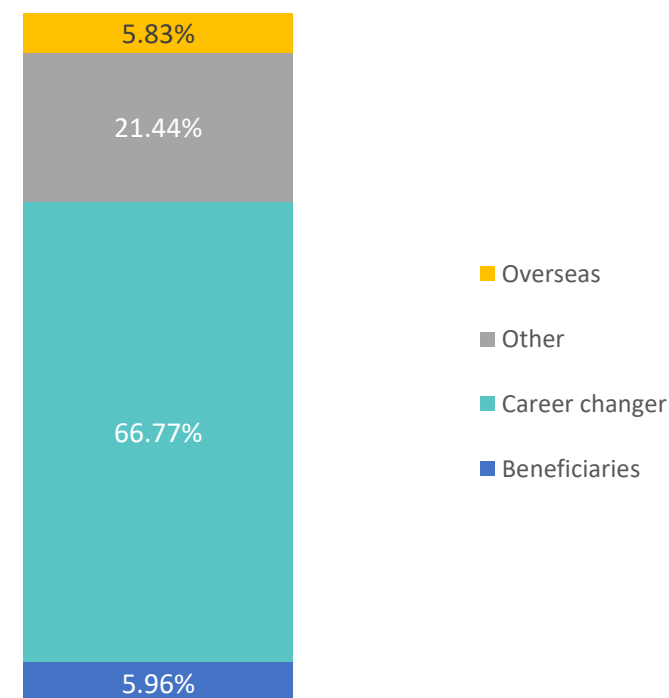


# Toi ā-Ringa Sector Overview

## Average Industry Tenure

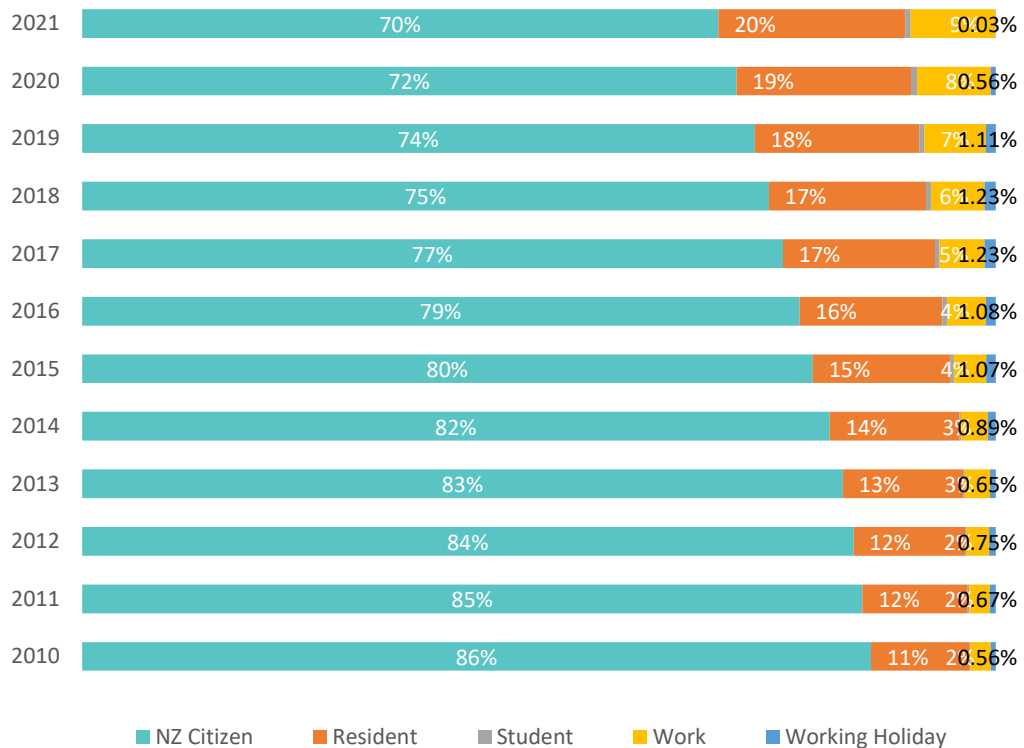


## Destination of Workforce Leavers in 2020

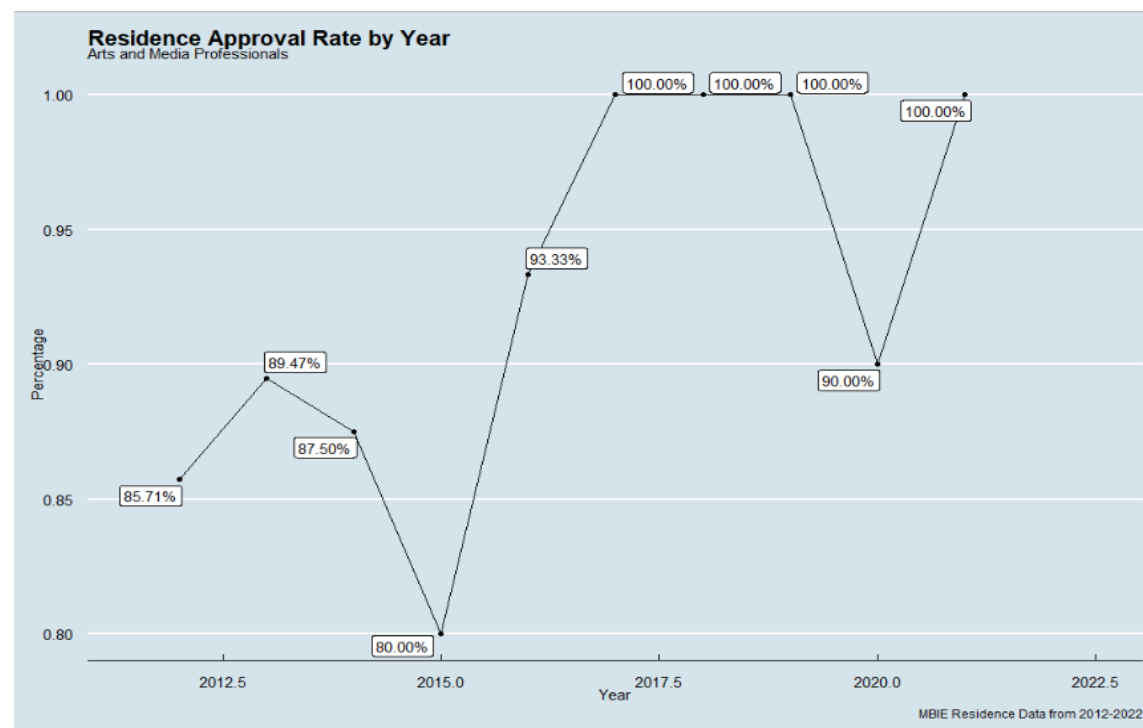


# Toi ā-Ringa Sector Overview

*Workforce by Visa Status*

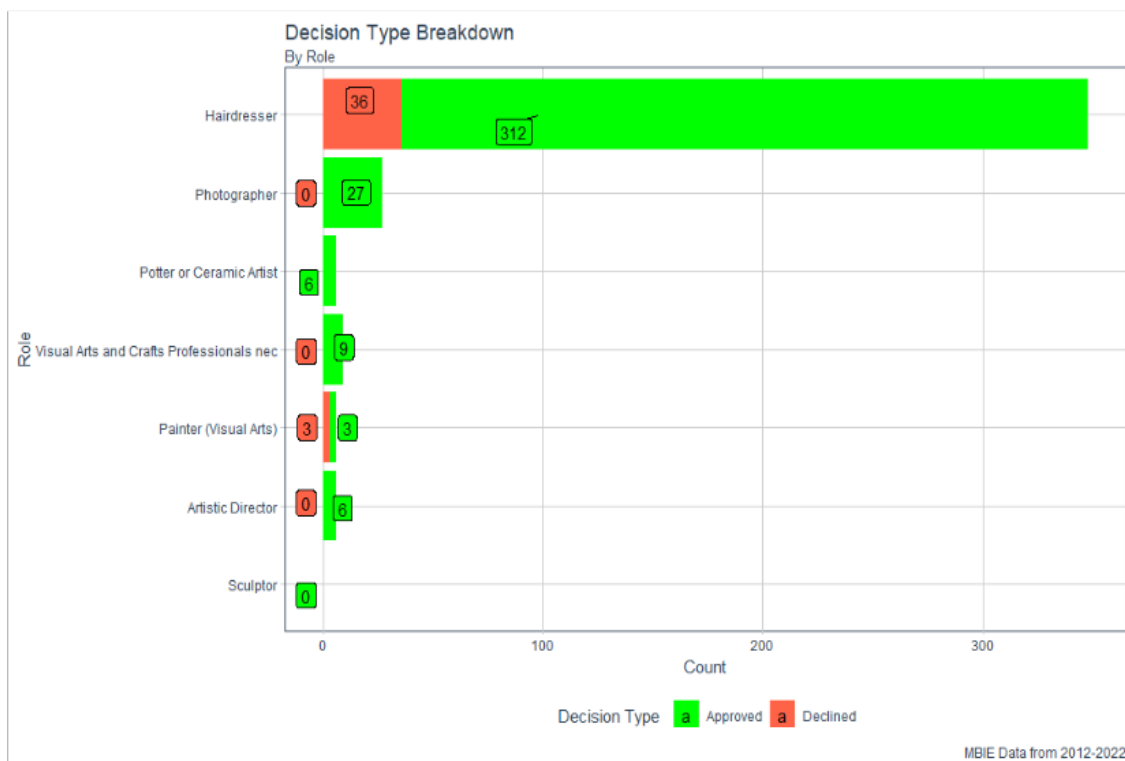


*INZ Residence Approval Rate by Year*

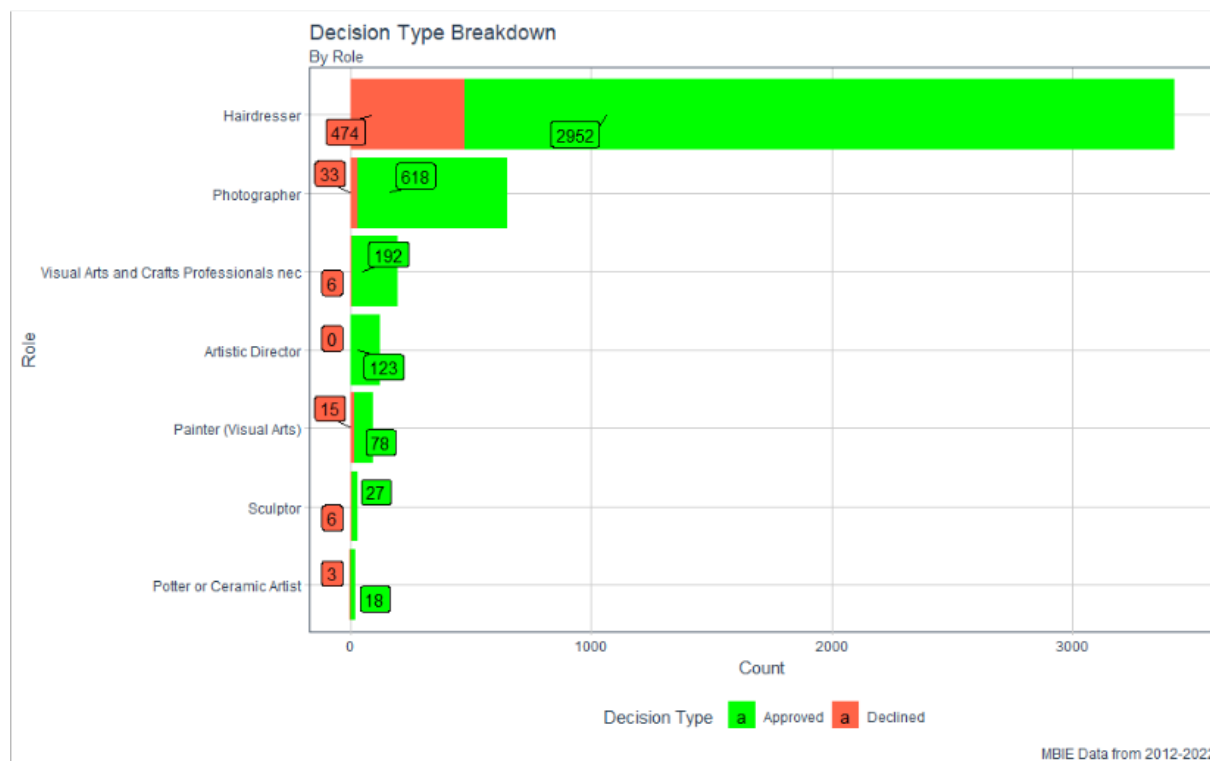


# Toi ā-Ringa Sector Overview

Rank of Art and Design Roles by number of residence visas applications to INZ



Rank of Art and Design Roles by number of work visas applications to INZ



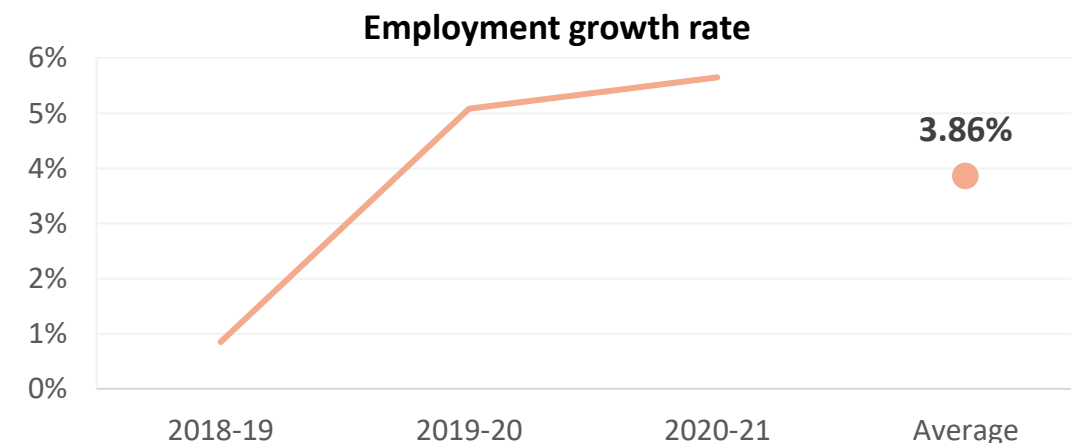
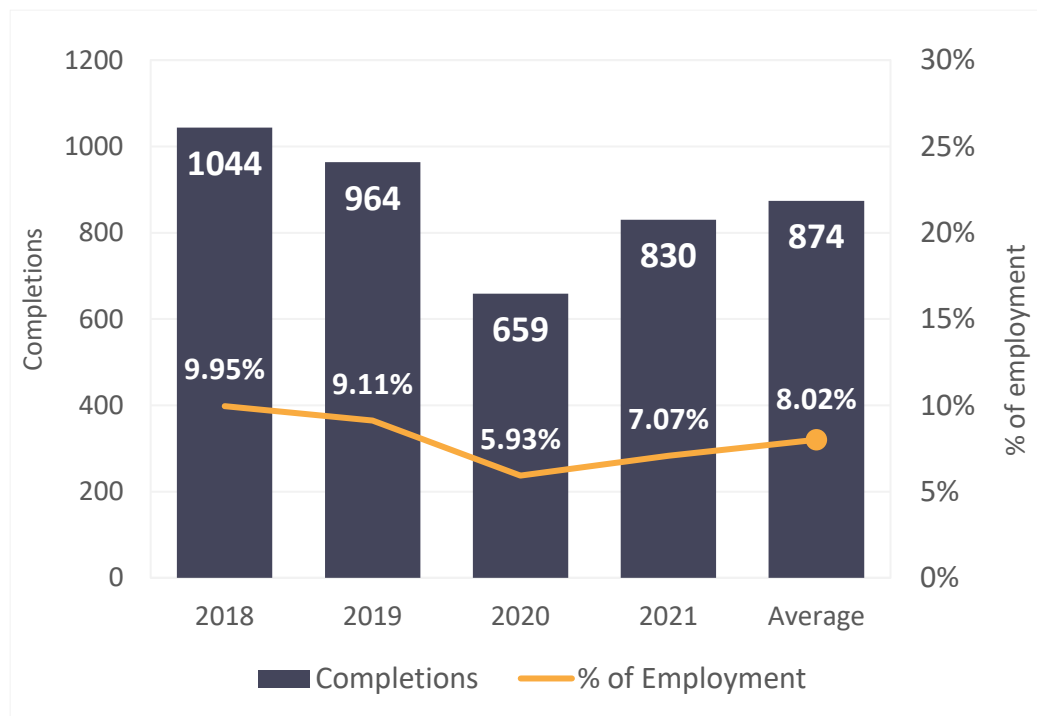
The charts above indicate residence visa (left), and work visa (right) applications for specific occupations working within ANZSIC (industry) codes assigned to each pou. **These may indicate shortages given that these visas are granted based on employment OR the number of workers in this sector coming in temporarily to work on projects and then leave.**

Source: MBIE (2022)

# Hairdresser and barber

**Interim assessment:  
Completions are just about right**

Completions of Toi Mai related quals as a percentage of employment



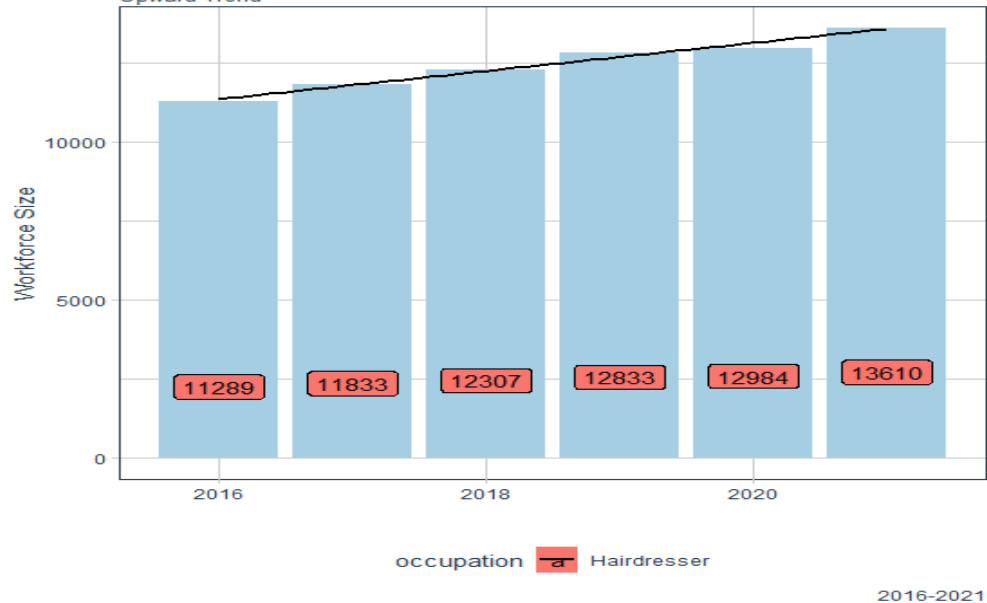
Completions by ethnicity



Qualifications included:  
 NZ Certificate in Hairdressing (Salon Support) (Level 3) (2411), NZ Certificate in Hairdressing (Emerging Stylist) (Level 4) (2412), NZ Certificate in Hairdressing (Professional Stylist) (Level 4) (2413), NZ Certificate in Hairdressing (Advanced Cutting Skills) (Level 5) (2727), NZ Certificate in Barber Skills (Level 3) (2114)

# Hairdresser and barber

Hairdresser Workforce Size for The Entire Economy by Year  
Upward Trend



Qualifications included:

NZ Certificate in Hairdressing (Salon Support) (Level 3) (2411), NZ Certificate in Hairdressing (Emerging Stylist) (Level 4) (2412), NZ Certificate in Hairdressing (Professional Stylist) (Level 4) (2413), NZ Certificate in Hairdressing (Advanced Cutting Skills) (Level 5) (2727), NZ Certificate in Barber Skills (Level 3) (2114), NZ Certificate in Commercial Barbering (Level 4) (2115)

## NZQA Achievement Data by Qualification and Provider between 15-22

Qualification & Provider	2015	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2411 - New Zealand Certificate in Hairdressing (Salon Support)</b>	<b>1</b>	<b>415</b>	<b>617</b>	<b>438</b>	<b>425</b>	<b>269</b>	<b>387</b>	<b>15</b>	<b>2567</b>
Servilles Academy of Hairdressing		116	96	53	42	30	43	7	387
Premier Institute of Education Limited		51	98	36	33	29	37		284
New Zealand School of Tourism Limited				63	51	1	74		189
Te Pūkenga Trading As Toi Ohomai Institute of Technology		39	25	20	39	24	37		184
Ara Institute of Canterbury Ltd		20	17	27	27	29	32		152
Varda		30	36	18	24	12	13	6	139
Intueri Education New Zealand Limited		38	90						128
Manukau Institute of Technology Ltd		41	26	21	12	16	11		127
Universal College of Learning (UCOL) Limited			32	23	17	17	25		114
Southern Institute of Technology Ltd	1		11	21	19	19	23		94
Otago Polytechnic Ltd			15	20	16	17	19		87
Tauranga Hair Design Academy Limited		24	15	14	10	5	7		75
Nelson Marlborough Institute of Technology Limited		14	17	22	12	9			74
Western Institute of Technology at Taranaki Ltd		14	14	10	13	7	11		69
Manawatu Education Academy (PN) Limited		3	29	6	9	10	10		67
Wellington Institute of Technology Limited			23	11	16		15		65
Face & Beauty Academy Limited		7	8	29	12				56
Northland Polytechnic Ltd			10	10	12	14	10		56
Eastern Institute of Technology Ltd			11	8	11	11	10		51
Te Pūkenga Trading As Waikato Institute of Technology			13		25				38
Whitireia Community Polytechnic Limited			10	8	10	3	7		38
Community Colleges New Zealand Limited		7	8	6	2	4			27
Harrington/Vaughan Academy of Hairdressing Limited			6	3	8	3	3	2	25
Service Skills Centre		5	3	5	5	4			22
Avonmore Tertiary Institute			4	4					8
People Potential Limited		6							6
JTP Consultants Limited						3			3
Waikato Institute for Leisure and Sport Studies Trust Board						2			2

# Hairdresser and barber

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2015	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2412 - New Zealand Certificate in Hairdressing (Emerging Stylist)</b>	<b>3</b>	<b>234</b>	<b>336</b>	<b>280</b>	<b>188</b>	<b>129</b>	<b>134</b>	<b>22</b>	<b>1326</b>
Servilles Academy of Hairdressing	3	104	77	49	18	16	11	10	288
Premier Institute of Education Limited		74	72	52	24	10	27		259
Te Pūkenga Trading As Toi Ohomai Institute of Technology		22	17	20	23	24	17		123
New Zealand School of Tourism Limited				34	31	21	18		104
Manukau Institute of Technology Ltd		26	29	14	3	5	5		82
Varda		6	14	15	12	11	5	11	74
Universal College of Learning (UCOL) Limited			17	22	9	13	6		67
Ara Institute of Canterbury Ltd			7	11	9	7	12		46
Tauranga Hair Design Academy Limited			14	6	5	7	4		36
Manawatu Education Academy (PN) Limited			14	6	7		9		36
Nelson Marlborough Institute of Technology Limited			9	8	5	3	5		30
Wellington Institute of Technology Limited			9	12	7				28
Southern Institute of Technology Ltd			8	6	2	4	2		22
Eastern Institute of Technology Ltd			6	4	5	4	3		22
Intueri Education New Zealand Limited			20						20
Face & Beauty Academy Limited			4	1	14				19
Western Institute of Technology at Taranaki Ltd			9	4	1		5		19
Northland Polytechnic Ltd			6	4	3	3			16
Harrington/Vaughan Academy of Hairdressing Limited			4	3		1	5	1	14
Te Pūkenga Trading As Waikato Institute of Technology				5	7				12
Otago Polytechnic Ltd				1	3				4
New Zealand Institute of Electrolysis and Beauty Therapy				3					3
People Potential Limited		2							2

Qualifications included:

NZ Certificate in Hairdressing (Salon Support) (Level 3) (2411), NZ Certificate in Hairdressing (Emerging Stylist) (Level 4) (2412), NZ Certificate in Hairdressing (Professional Stylist) (Level 4) (2413), NZ Certificate in Hairdressing (Advanced Cutting Skills) (Level 5) (2727), NZ Certificate in Barber Skills (Level 3) (2114), NZ Certificate in Commercial Barbering (Level 4) (2115)

# Hairdresser and barber

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2014	2015	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2114 - New Zealand Certificate in Barber Skills</b>	5	2	56	180	247	208	143	140	3	984
Mr Barber Limited	2	1	15	46	60	60	22	18		224
Varda			21	26	34	25	19	9		134
Premier Institute of Education Limited			3	19	29	31	14	32		128
Servilles Academy of Hairdressing				16	27	12	16	25	3	99
New Zealand School of Tourism Limited	1				70	15	2	2		90
Intueri Education New Zealand Limited	2	1	17	64						84
Wellington Institute of Technology Limited					11	11	13	14		49
Te Pūkenga Trading As Toi Ohomai Institute of Technology						12	27	9		48
Tauranga Hair Design Academy Limited				9	10	7	9	9		44
Harrington/Vaughan Academy of Hairdressing Limited						9	9	7		25
Eastern Institute of Technology Ltd						5	10	4		19
Manawatu Education Academy (PN) Limited					2		2	11		15
Ara Institute of Canterbury Ltd						14				14
Face & Beauty Academy Limited					4	7				11
<b>2413 - New Zealand Certificate in Hairdressing (Professional Stylist)</b>			10	39	77	143	117	168	101	655
NZ Hair and Beauty Industry Training Organisation Inc			10	39	77	143	116	168	101	654
Varda							1			1
<b>2727 - New Zealand Certificate in Hairdressing (Advanced Cutting Skills)</b>					2		1	1	1	5
NZ Hair and Beauty Industry Training Organisation Inc					2		1	1	1	5
<b>Grand Total</b>	<b>5</b>	<b>6</b>	<b>715</b>	<b>1172</b>	<b>1044</b>	<b>964</b>	<b>659</b>	<b>830</b>	<b>142</b>	<b>5537</b>

Qualifications included:

NZ Certificate in Hairdressing (Salon Support) (Level 3) (2411), NZ Certificate in Hairdressing (Emerging Stylist) (Level 4) (2412), NZ Certificate in Hairdressing (Professional Stylist) (Level 4) (2413), NZ Certificate in Hairdressing (Advanced Cutting Skills) (Level 5) (2727), NZ Certificate in Barber Skills (Level 3) (2114), NZ Certificate in Commercial Barbering (Level 4) (2115)

# Hairdresser and barber

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification and Provider	2016	2017	2018	2019	2020	2021	2022	Grand Total
New Zealand Certificate in Commercial Barbering	4	31	44	47	62	168	48	404
Ara Institute of Canterbury Ltd					19	30		49
Harrington/Vaughan Academy of Hairdressing Limited				1	2	3	1	7
Manawatu Education Academy (PN) Limited			5	10	11	7		33
New Zealand School of Tourism Limited						26		26
NZ Hair and Beauty Industry Training Organisation Inc	4	29	36	34	30	30	35	198
Te Pūkenga Trading As Toi Ohomai Institute of Technology						28		28
Varda		2	3	2		30	12	49
Wellington Institute of Technology Limited						14		14

Qualifications included:

NZ Certificate in Hairdressing (Salon Support) (Level 3) (2411), NZ Certificate in Hairdressing (Emerging Stylist) (Level 4) (2412), NZ Certificate in Hairdressing (Professional Stylist) (Level 4) (2413), NZ Certificate in Hairdressing (Advanced Cutting Skills) (Level 5) (2727), NZ Certificate in Barber Skills (Level 3) (2114), NZ Certificate in Commercial Barbering (Level 4) (2115)



## Hairdresser and barber

Based on all the given information, the tertiary education system needs to provide roughly **474** Hairdressers and barbers to the industry to meet the need.

**\*\* Calculation: 13610 \* ( 12% + 3.86% ) \* 22%**



The diagram illustrates the calculation components for the tertiary education system's need for hairdressers and barbers. It shows four boxes with arrows pointing up to the calculation formula above them:

- 2021 Workforce Size
- Churn Rate
- Occupation growth rate
- New Entrant Tertiary Contribution Rate

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## Summary – Hairdressing and Barbering

What the data can't reflect is that, at provider level, graduates that have completed the NZ Certificate of Hairdressing (Salon Support) (Level 3) currently go in a variety of directions. Some progress to a higher level of qualification, either completing the NZ Certificate of Hairdressing (Emerging Stylist) (Level 4) at a provider or transitioning into employment in a salon and completing the New Zealand Certificate in Hairdressing (Professional Stylist) (Level 4); others move directly into employment either for themselves or in some cases in a salon, while others move out of the industry. Anecdotally not enough are progressing to senior stylist level and there is currently a very high unfilled demand in the sector for those kinds of roles.

We expect the data will differ in the upcoming years due to changes in the qualification landscape. The New Zealand Certificate of Hairdressing (Emerging Stylist) (Level 4) is planned to expire in 2026 as the result of a recent qualification review. As a result, in the future graduates will complete the same qualifications of New Zealand Certificate in Hairdressing (Level 3) and then the New Zealand Certificate in Professional Stylist (Level 4) regardless of whether they complete training in a workplace or at a provider.

The Barbering landscape has already changed with the expiry of the New Zealand Certificate in Barbering Skills (Level 3) at the end of 2022, leaving only the New Zealand Certificate of Commercial Barbering (Level 4) for those wanting to qualify as Barbers.

Considering that Covid has had a huge impact on the industry it's encouraging to see the industry employment rate has continued to rise.

# Fashion

**Occupations:**

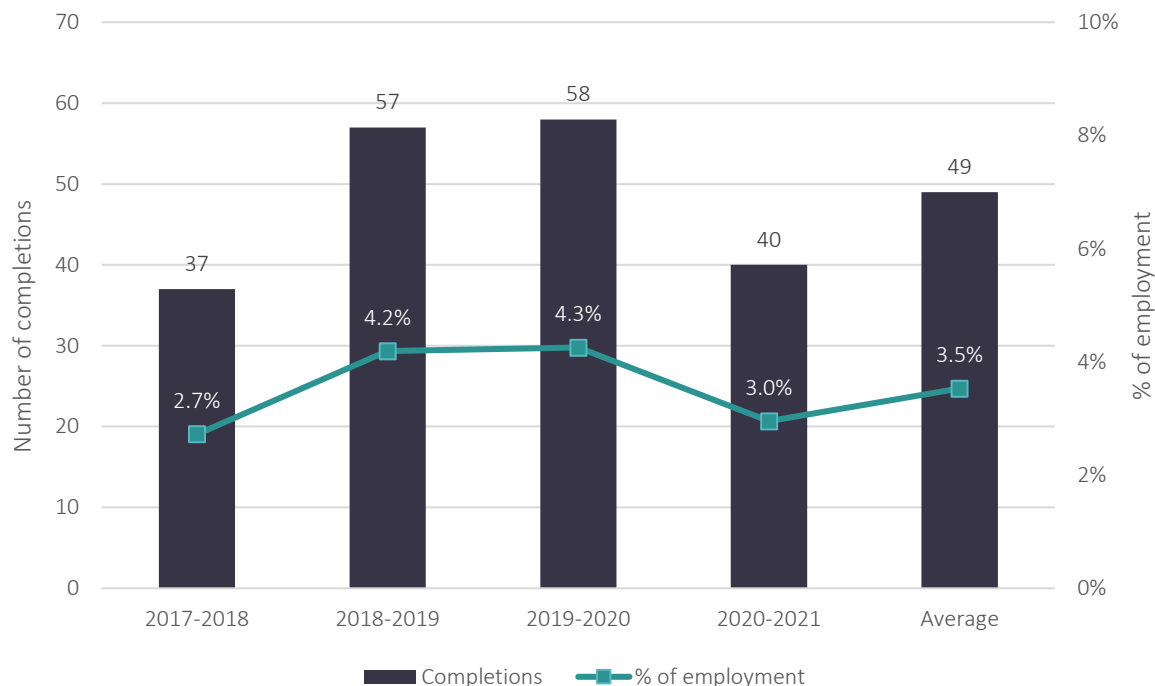
- Fashion Designer
- Apparel Cutter
- Garment Technician

**Interim assessment:**  
**- Current VET provision is sufficient**

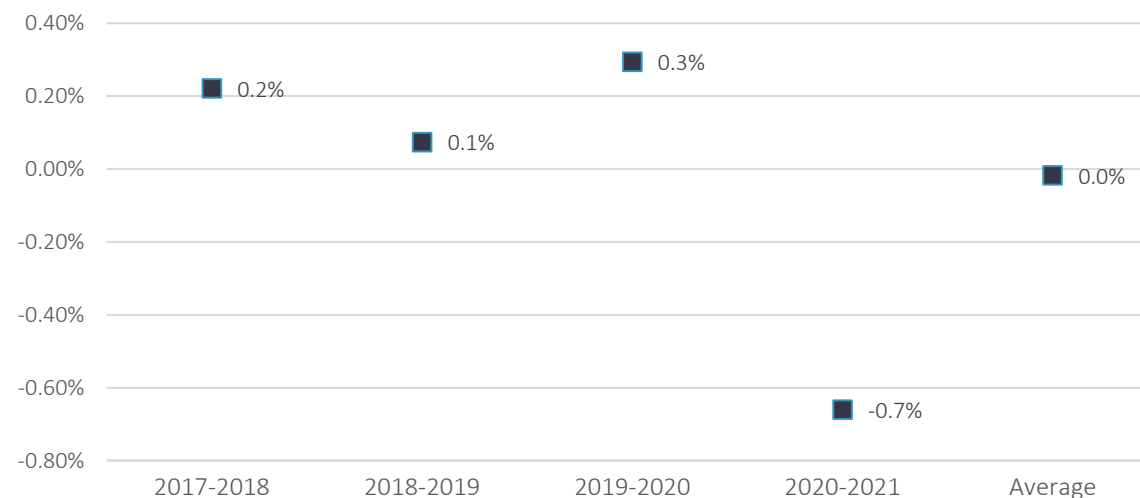
**- Greater connection needed between training with the fashion manufacturing side of the industry (WIL)**

**- Toi Mai approached by a provider to discuss developing a pattern-cutting micro-credential to sit alongside fashion design programme**

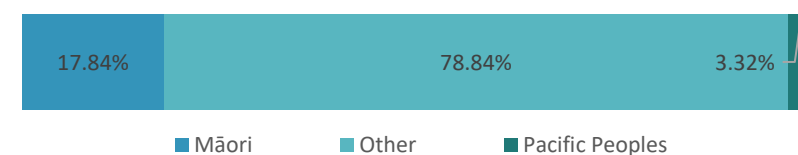
*Completions of qualifications as a percentage of employment*



*Employment growth rate*



**Completions by ethnicity**



Qualifications included: NZ Certification in Fashion (2630), NZ Diploma in Fashion Design (2640), NZ Diploma in Fashion (2641)

# Fashion

Qualifications & Provider	2017	2018	2019	2020	2021	Grand Total
<b>2630 - New Zealand Certificate in Fashion</b>	<b>23</b>	<b>33</b>	<b>35</b>	<b>21</b>	<b>38</b>	<b>150</b>
Ara Institute of Canterbury Ltd	17	15	16	6	23	77
Intueri Education New Zealand Limited	6					6
Otago Polytechnic Ltd		9	11	14	13	47
Palmerston North School of Design					2	2
Southern Institute of Technology Ltd		2				2
Yoobee Colleges Limited		7	8	1		16
<b>2640 - New Zealand Diploma in Fashion Design</b>		<b>5</b>	<b>4</b>	<b>1</b>		<b>10</b>
Southern Institute of Technology Ltd		5	4	1		10
<b>2641 -New Zealand Diploma in Fashion</b>	<b>14</b>	<b>19</b>	<b>19</b>	<b>18</b>	<b>11</b>	<b>81</b>
Eastern Institute of Technology Ltd	14	8	11	11	11	55
Southern Institute of Technology Ltd		7	4	1		12
Yoobee Colleges Limited		4	4	6		14
<b>Grand Total</b>	<b>37</b>	<b>57</b>	<b>58</b>	<b>40</b>	<b>49</b>	<b>241</b>

Based on all the given information, the tertiary education system needs to provide roughly **31** Fashion graduates to the industry to meet the need.

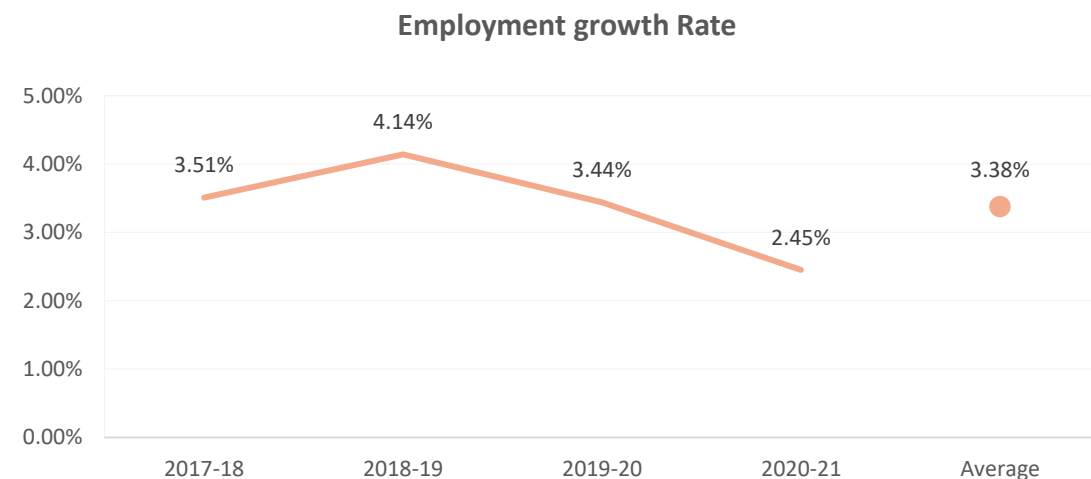
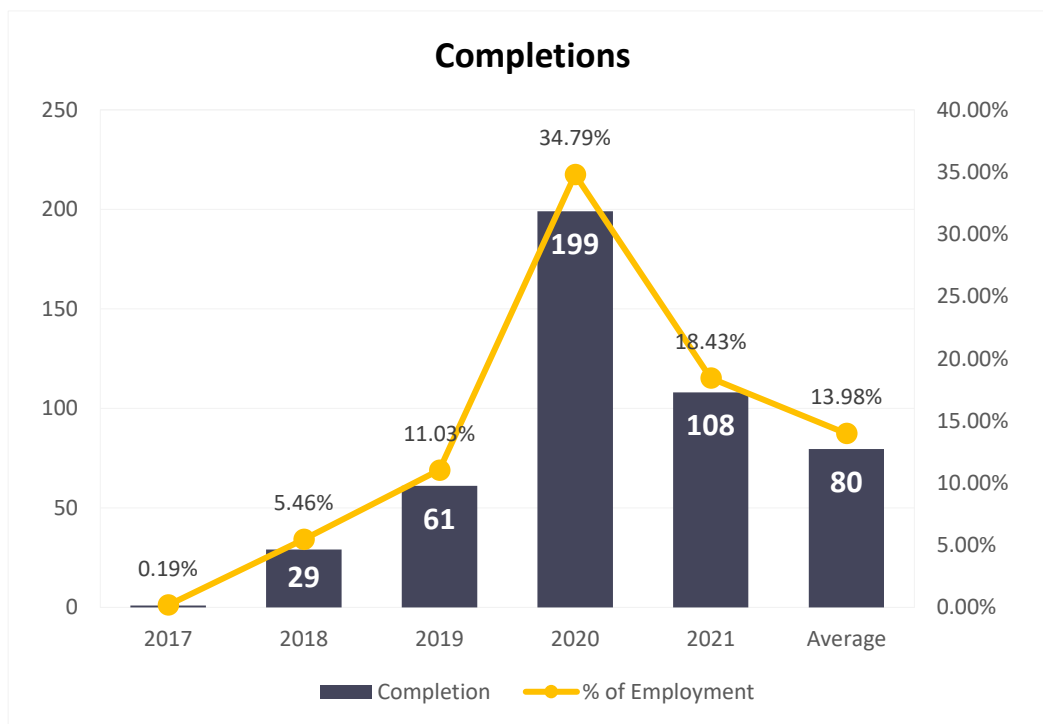
**\*\* Calculation: 1355 \* ( 12% + 0% ) \* 22%**



# Make-up Artists

**Interim assessment:  
More work-based learning is needed**

*Completions as a percentage of employment*



**Completions by ethnicity**



Qualifications included:

3442 - New Zealand Certificate in Makeup and Skincare (Level 3), 3456 - New Zealand Certificate in Makeup Artistry (Level 4) with optional strand in Face Casting and 3455 - New Zealand Certificate in Performance Makeup and Prosthetics (Level 4)

# Make-up Artists

## NZQA Achievement Data by Qualification and Provider between 17-21

Qualification	2017	2018	2019	2020	2021	2022	Grand Total
<b>New Zealand Certificate in Makeup and Skin Care (Introduction)</b>	<b>97</b>	<b>447</b>	<b>568</b>	<b>535</b>	<b>414</b>	<b>17</b>	<b>2078</b>
Ara Institute of Canterbury Ltd		15	24	17			56
Eastern Institute of Technology Ltd		16	21	14	20		71
Face & Beauty Academy Limited		9					9
Intuери Education New Zealand Limited	55						55
Manawatu Education Academy (PN) Limited				5			5
New Zealand School of Tourism Limited		279	261	267	258		1065
NZ Hair and Beauty Industry Training Organisation Inc		5	8	5	1		19
Premier Institute of Education Limited		4	10	9	3		26
Samala Robinson Academy Limited			76	66	14	7	163
Servilles Academy of Hairdressing	30	39	20	23	20	7	139
South Pacific Islands Institute			6	11		3	20
Te Pūkenga Trading As Toi Ohomai Institute of Technology			91	72	47		210
Universal College of Learning (UCOL) Limited					25		25
Varda			7	7			14
Wellington Institute of Technology Limited	12	78	47	32	9		178
Whitireia Community Polytechnic Limited		17	6				23
<b>New Zealand Certificate in Makeup Artistry</b>	<b>1</b>	<b>29</b>	<b>61</b>	<b>199</b>	<b>108</b>	<b>4</b>	<b>402</b>
Face & Beauty Academy Limited		13					13
New Zealand School of Tourism Limited			1	94	50		145
Samala Robinson Academy Limited				11			11
Servilles Academy of Hairdressing			13	9	8	3	33
Southern Institute of Technology Ltd		11	11	10	5		37
Varda					3	1	4
Wellington Institute of Technology Limited	1	5	36	25	22		89
Yoobee Colleges Limited				50	20		70
<b>Grand Total</b>	<b>98</b>	<b>476</b>	<b>629</b>	<b>734</b>	<b>622</b>	<b>21</b>	<b>2480</b>

Industry is split into two areas for make-up artists.

1. The fashion and beauty industry including day make-up as well as make-up for weddings and special events.
2. The film and television industry where specialized knowledge is needed around etiquette and professional conduct in these contexts and the structure of the industry, as well as the skills of the role.

Insights from industry would suggest that graduates are emerging from programmes with little experience in the latter. **More work-based learning is needed.** Social media is having a huge impact on the expectations of graduates in the former leading to dissatisfaction with the qualifications.

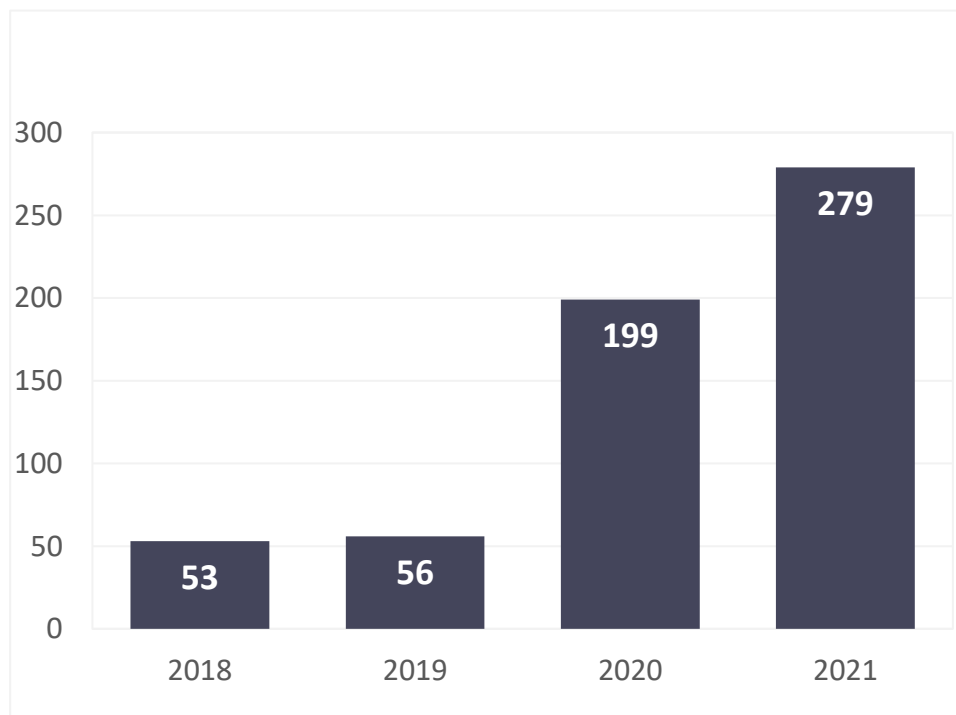
Based on all given information, the tertiary education system must provide roughly **18** Make-Up Artists to the industry to meet the need.

\*\* Calculation: 586 \* ( 10% + 4.56% ) \* 22%



# Florist

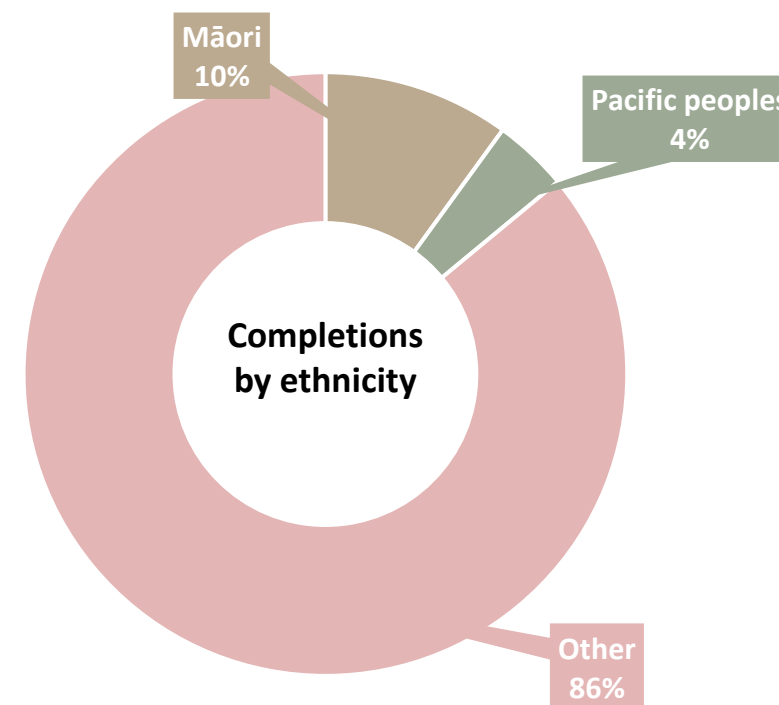
## Completions



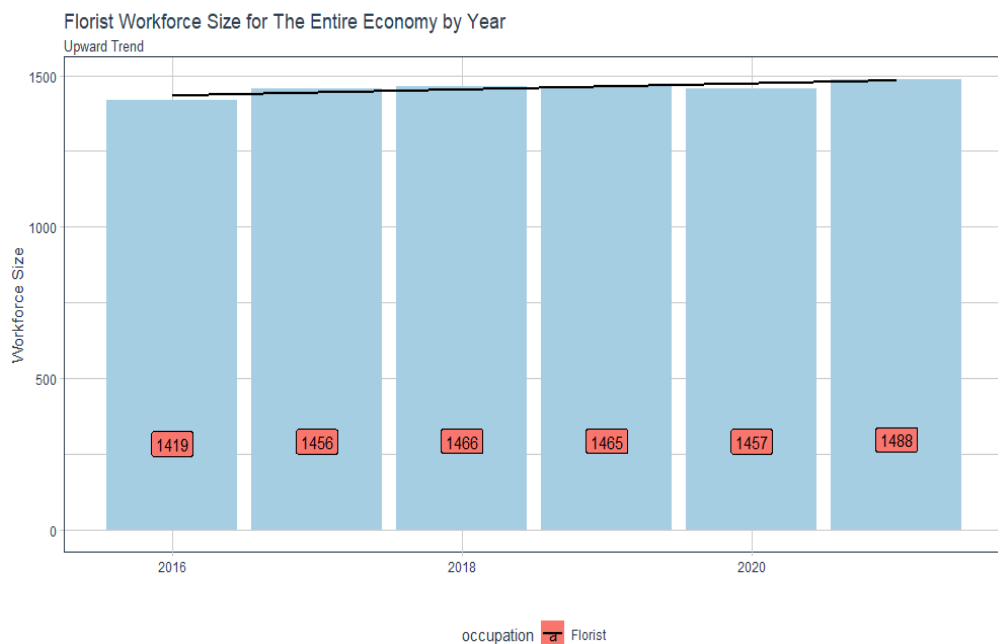
Qualifications included:  
 NZ Certificate in Floristry (Level 2) (2671), NZ Certificate in Floristry (Level 3) (2672), NZ Certificate in Floristry (Level 4) (2673)

**1,413**  
 Florists  
 (2018 Census)

**Interim assessment:**  
 Completions are variable – seem fine on average



# Florist



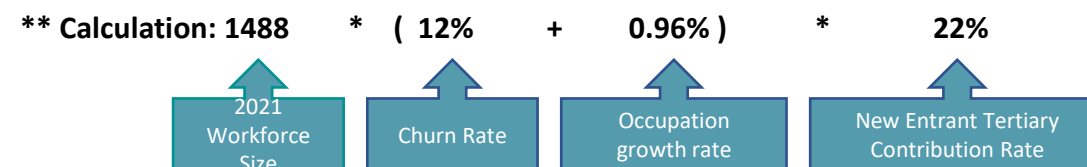
The workforce increase percentage is at 0.96% on average, and the tertiary education system contributes an average of 21.83% of new entrants to the industry. The average post-school NC/Dip percentage is 33.43%, while Level 7+ Bachelor or above is 66.57%.

Qualifications included:  
 NZ Certificate in Floristry (Level 2) (2671), NZ Certificate in Floristry (Level 3) (2672), NZ Certificate in Floristry (Level 4) (2673)

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualifications & Providers	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2671 - New Zealand Certificate in Floristry</b>	75		12	20	80	148	94	429
The Open Polytechnic of New Zealand Ltd					45	116	94	255
Manukau Institute of Technology Ltd	75		12	20	34	32		173
New Zealand Management Academies Limited					1			1
<b>2672 - New Zealand Certificate in Floristry</b>	43	117	23	12	90	87		372
Manukau Institute of Technology Ltd	43	45	16	4	19	15		142
New Zealand Management Academies Limited					71	66		137
Intueri Education New Zealand Limited		72						72
Southern Institute of Technology Ltd			7	8		6		21
<b>Grand Total</b>	<b>118</b>	<b>117</b>	<b>35</b>	<b>32</b>	<b>170</b>	<b>235</b>	<b>94</b>	<b>801</b>

Based on all given information, the tertiary education system needs to provide roughly **42 Florist** to the industry to meet the need.



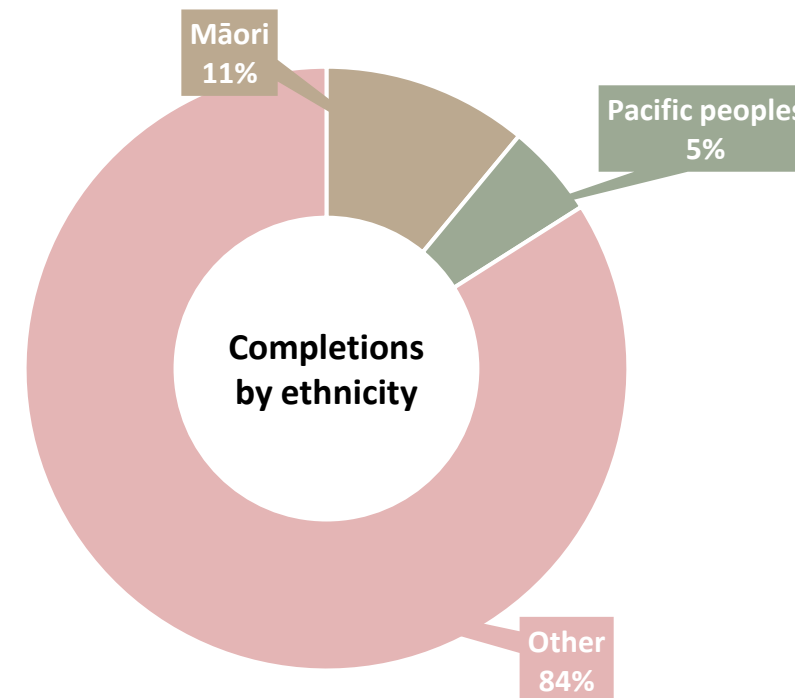
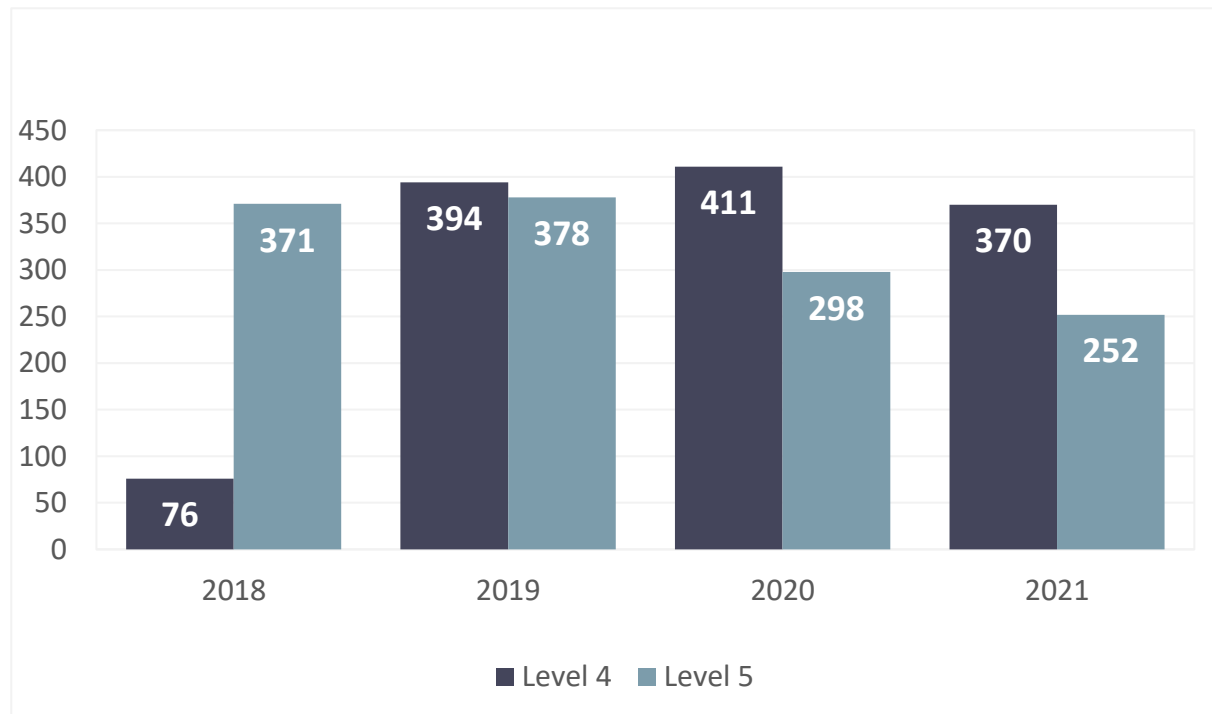


# Toi ā-Ringa Qualifications

Qualification Title	Qualification Num	Total Completions (2011-2022)
☐ New Zealand Certificate in Hairdressing (Salon Support)	2411	2567
☐ New Zealand Certificate in Makeup and Skin Care (Introduction)	3442	2078
☐ New Zealand Diploma in Digital Media and Design	2638	1732
	2639	307
☐ New Zealand Certificate in Arts and Design	2625	11
	2626	378
	2627	1357
☐ New Zealand Certificate in Digital Media and Design	2628	58
	2629	1302
☐ New Zealand Certificate in Hairdressing (Emerging Stylist)	2412	1326
☐ New Zealand Certificate in Barber Skills	2114	984
☐ New Zealand Certificate in Floristry	2671	429
	2672	372
	2673	163
☐ New Zealand Certificate in Hairdressing (Professional Stylist)	2413	655
☐ New Zealand Diploma in Arts and Design	2636	301
	2637	107
☐ New Zealand Certificate in Commercial Barbering	2115	404
☐ New Zealand Certificate in Makeup Artistry	3456	402
☐ New Zealand Certificate in Salon Skills (Introductory)	2201	376
☐ New Zealand Diploma in Photography	2648	259
	2649	73
☐ New Zealand Diploma in Web Design and Production	2645	222
☐ New Zealand Diploma in Creativity	2868	176
☐ New Zealand Certificate in Fashion	2630	150
☐ New Zealand Diploma in Fashion	2641	81
☐ New Zealand Certificate in Jewellery	2631	67
☐ New Zealand Diploma in Jewellery	2646	41
	2647	15
☐ New Zealand Diploma in Fashion Design	2640	10
☐ New Zealand Diploma in Graphic Design	2642	6
☐ New Zealand Certificate in Hairdressing (Advanced Cutting Skills)	2727	5

# NZ Diploma in Digital Media and Design

## Completions



# *Toi Whānui*



## TOI WHĀNUI

### ENABLING TECHNOLOGIES

Innovative technology platforms, products and services for industry and end-users, including emerging technologies like Artificial Intelligence, Cyber Security, Virtual Reality and Software as a Service (SaaS). Toi Whānui involves inventions that are applied to enable and improve user capabilities. This is the largest of Toi Mai's sectors and has historically been growing rapidly (largely through migration), but has relatively low employment of Māori, Pacific people and women.

## Toi Whānui – Enabling Technologies



***Toi Whānui*** involves inventions that are applied to enable and improve user capabilities.

### Snapshot of the sector

- In 2022, there were over 52,800 filled jobs in the sector, 13% of which are Developer Programmers. Employment grew 4.3% compared to its level in 2021.
- Toi Whānui GDP contribution expanded by 12% to \$8,931m million last year. The sector has been accelerating at a higher rate than the New Zealand economy.
- The number of business units in the sector has been on an upward trend over the past decade with over 14,600 business units recorded in 2022.
- Māori and Pacific peoples have employment shares of 5.1% and 2.4%, respectively.
- Approximately one in five tech workers is self-employed.

*Source: Infometrics sector profile*

Significant targeted investment and new development is needed across Toi Whānui to meet the workforce needs in New Zealand.

Attracting high school leavers to consider careers in technology, informing and training career changers quickly, limited diversity in those attracted to the sector and access and internal mentorship capacity of employers to deliver on-going training and support for graduates are some of the challenges the sector faces.

Investing in pathways and digital capability focused programmes at Levels 3 and 4 will improve technology skills across the workforce, while also enabling those who currently cannot access Level 5+ training in technology to begin on these pathways.

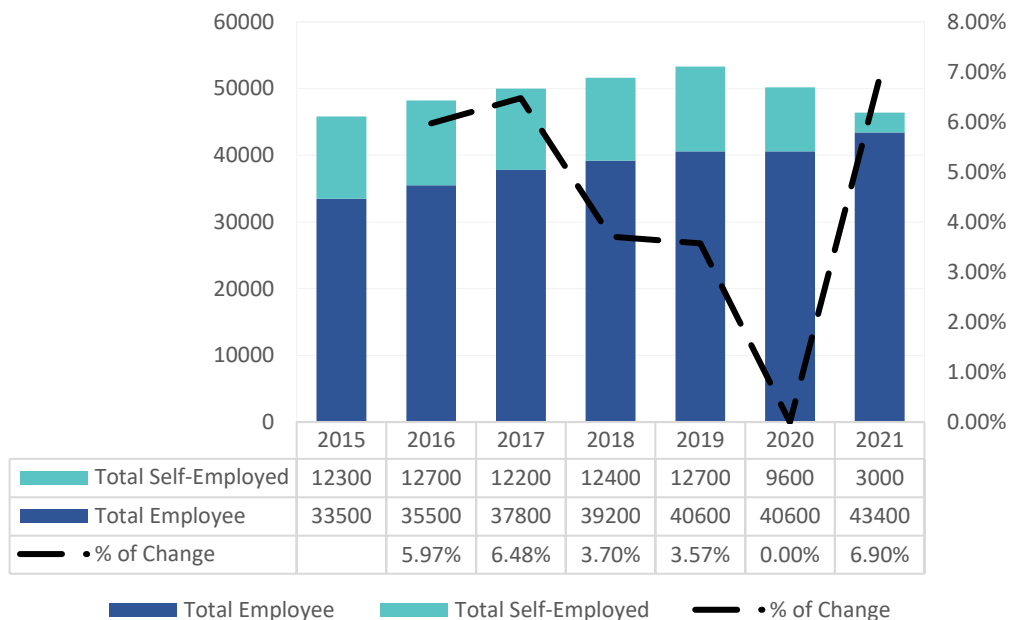
Level 5 and 6 programmes primarily feed degree programmes and specialisations. These programmes offer broad foundational knowledge, and graduates can be employed in entry level roles with supervision, but the majority continue with further study. Greater connection with industry through capstone projects and work integrated learning is recommended where viable at levels 5 and 6 to connect learners with industry.

There is a need for significant further development of short format programmes focused on career changers to move into software sales, project and product management roles. There are currently no appropriate qualifications and accredited programme provision in New Zealand to meet this need.

Micro credential development is necessary to meet industries rapidly changing needs, and to enable access for those who do not have the time and financial resource to study full time.

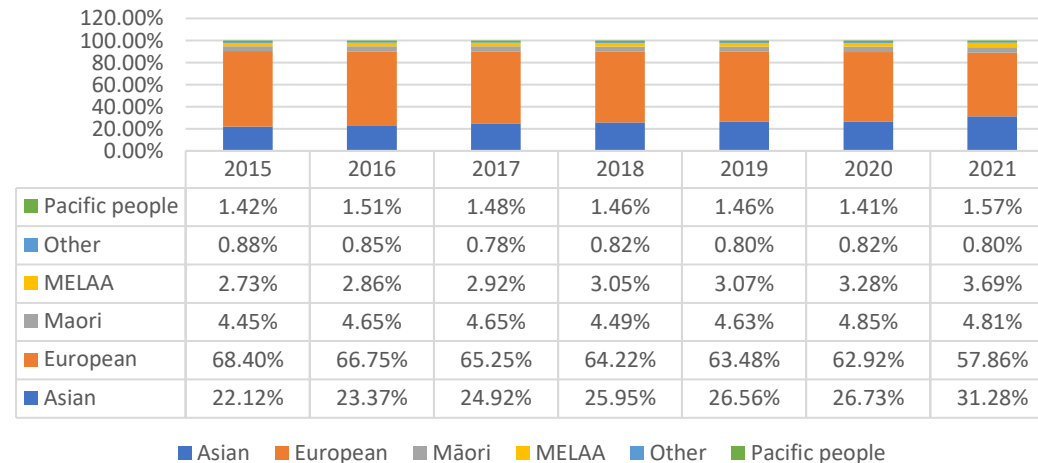
# Toi Whānui Sector Overview

### Workforce Size and Percentage Change in Total Employee Number

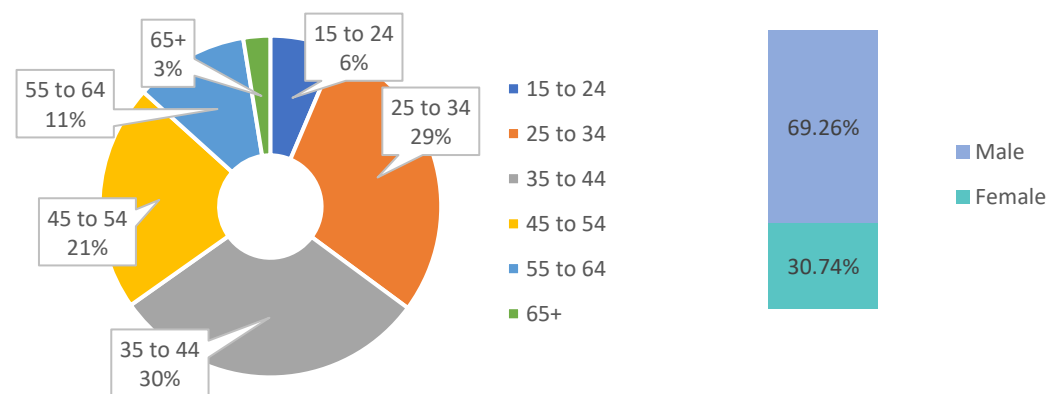


Source: Scarlatti (2021)

### Workforce Ethnicity Breakdown By Reporting Year

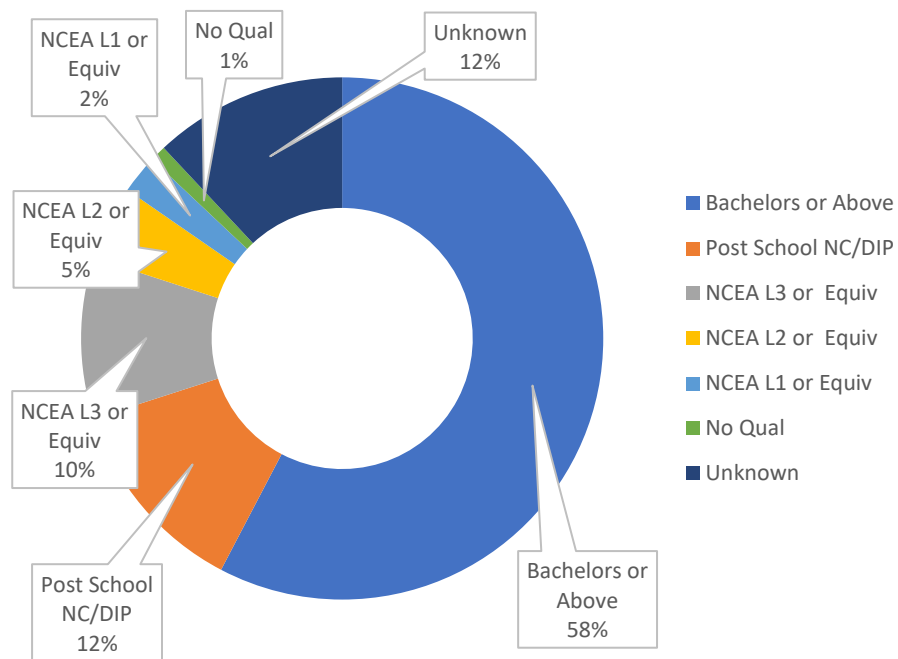


### Workforce Age Group and Gender Breakdown



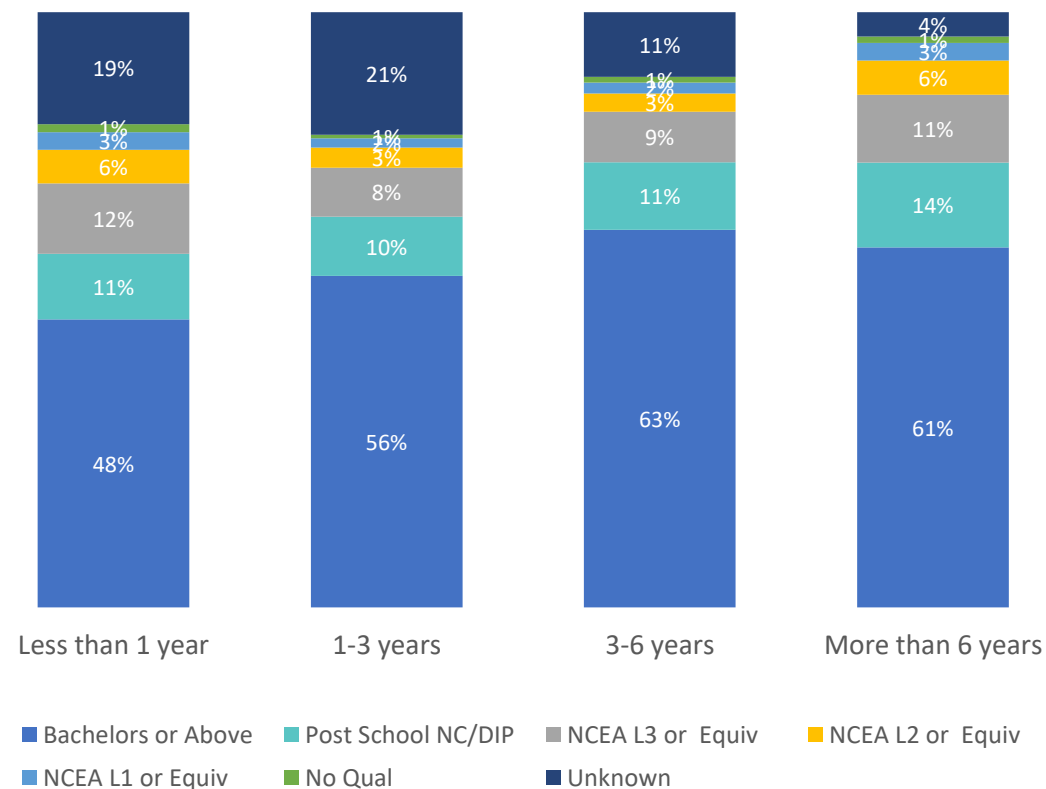
# Toi Whānui Sector Overview

Workforce Size By Highest Qualification as at 2018 Census



Source: Scarlatti (2022)

Length of Industry Tenure by Highest Qualification





# Toi Whānui Sector Overview

## Level 7+ Qual Graduate Contributions to Toi Whānui by year

2017	2018	2019	2020	2021
2067	2507	2383	2476	1683

*\*\*Graduates can turn up anywhere as junior IT Professionals*

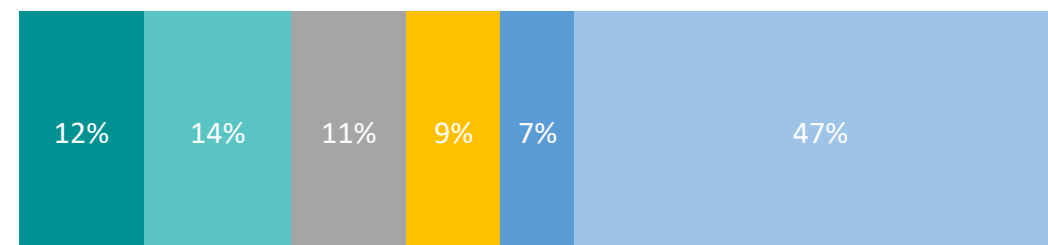
## Level 4-6 NC/DIP Graduate Contributions to Toi Whānui by year

2017	2018	2019	2020	2021
1344	2788	2286	1976	2147

Source: NZQA

## Attrition Rate

### Toi Whānui Industry Tenure



■ Less than 12 months   
 ■ 12 to 23 months   
 ■ 24 to 35 months  
■ 36 to 47 months   
 ■ 48 to 59 months   
 ■ 60+ months

Source: Toi Mai COVID-19 Recovery BED Project (2022)

## Toi Whānui Sector Overview

Roles are categorised as ICT Professionals:

Analyst Programmer\*\*,  
Computer Network and Systems Engineer,  
Database Administrator,  
Developer Programmer\*\*,  
ICT Business Analyst,  
ICT Quality Assurance Engineer,  
ICT Security Specialist\*\*,  
ICT Support and Test Engineers nec,  
ICT Support Engineer,  
ICT Systems Test Engineer,  
Multimedia Specialist\*\*,  
Network Administrator,  
Network Analyst,  
Software and Applications Programmers nec\*\*,  
Software Engineer\*\*,  
Software Tester\*\*,  
Systems Administrator,  
Systems Analyst,  
Telecommunications Engineer,  
Telecommunications Network Engineer,  
Web Developer

**\*\* Roles highlighted are currently on MBIE's residence green list.  
Applicants who meet the criteria are eligible for Tier 1 Straight to  
Residence or Tier 2 Work to Residence.**

	2016	2017	2018	2019	2020	2021
Total Workforce Size	53881	56361	58627	60749	62377	63966
Diff Against the previous year		2480	2266	2122	1628	1589
% Diff Against the previous year		4.60%	4.02%	3.62%	2.68%	2.55%

# Toi Whānui Sector Overview

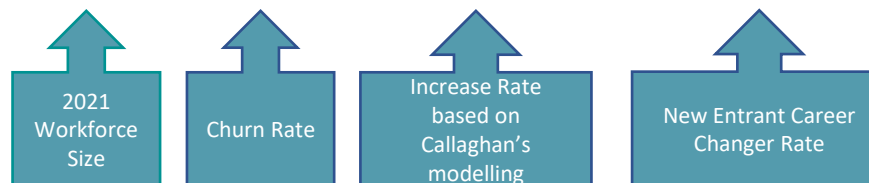
Level 7+ Qual Graduate Contributions to Toi Whanui by year

2017	2018	2019	2020	2021
2067	2507	2383	2476	1683

Assuming that the quality is sufficient, degree level courses are already meeting **50-70%** of the needs of the tech sector new entrants from tertiary

Based on all given information, the tertiary education system needs to provide roughly **3198** ICT Professionals to the industry to meet the need.

\*\*Calculation: 63966 \* (13% + 9%) \* 22.73%

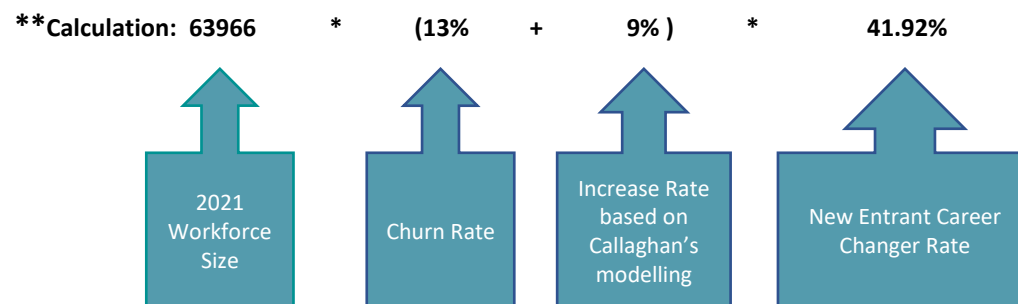


## Toi Whānui Sector Overview

Historical Career Changer New Entrant Contribution Rate							Average
2015	2016	2017	2018	2019	2020	2021	
24.67%	43.39%	44.43%	41.23%	45.97%	45.52%	48.20%	41.92%

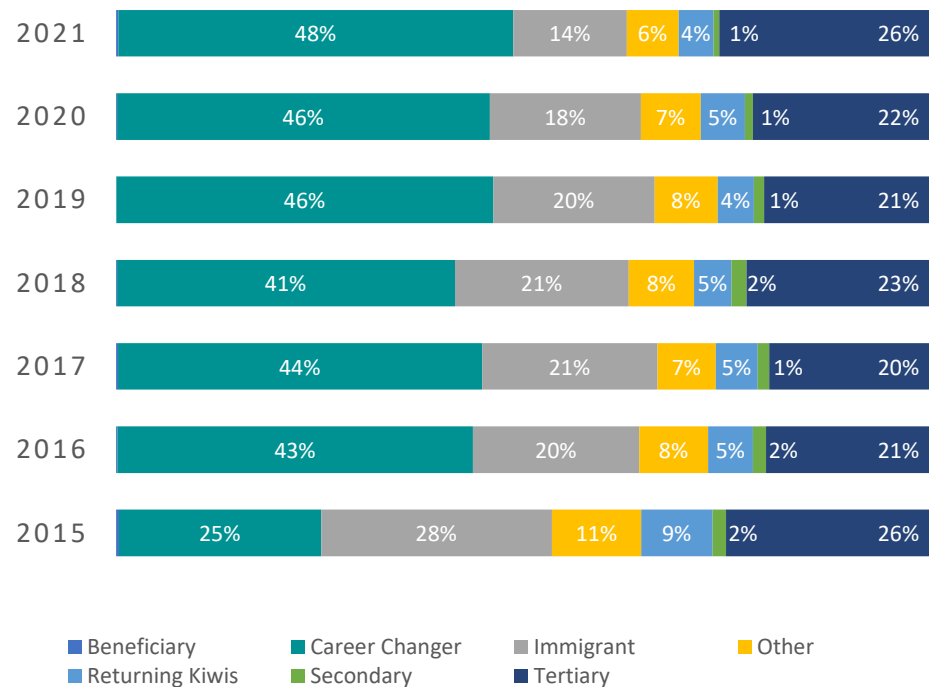
The real gap is short courses for career changers

Based on all given information, career changers can potentially contribute **5899** ICT Professionals to the industry to meet the need.



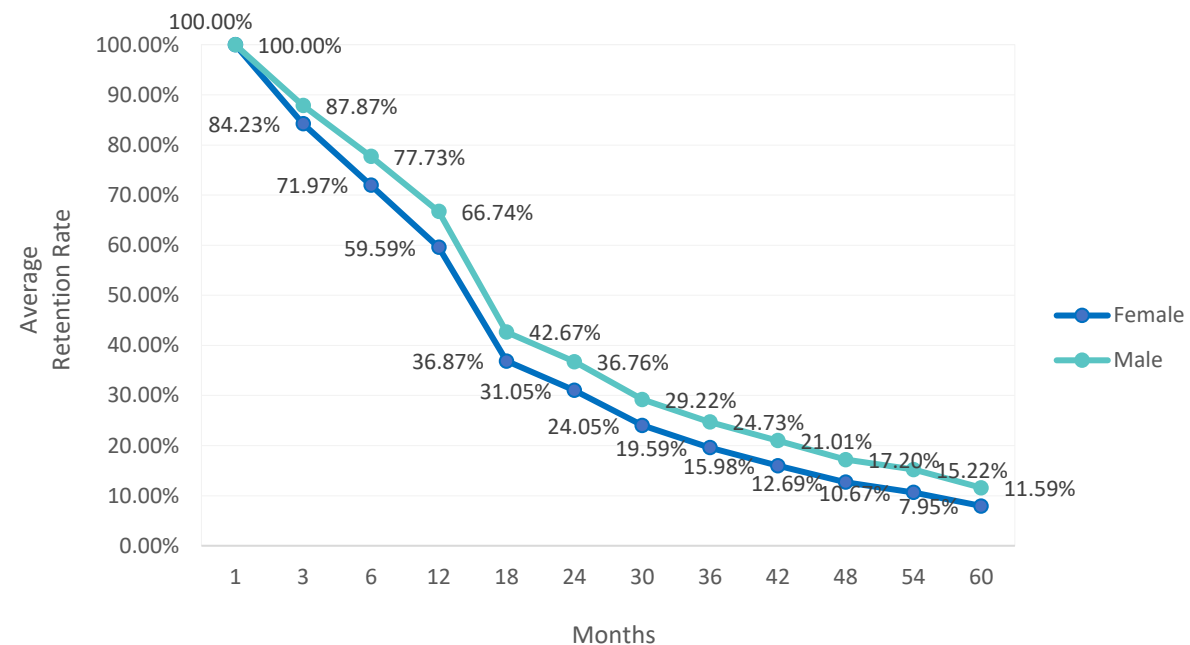
# Toi Whānui Sector Overview

## New Entrants by Source



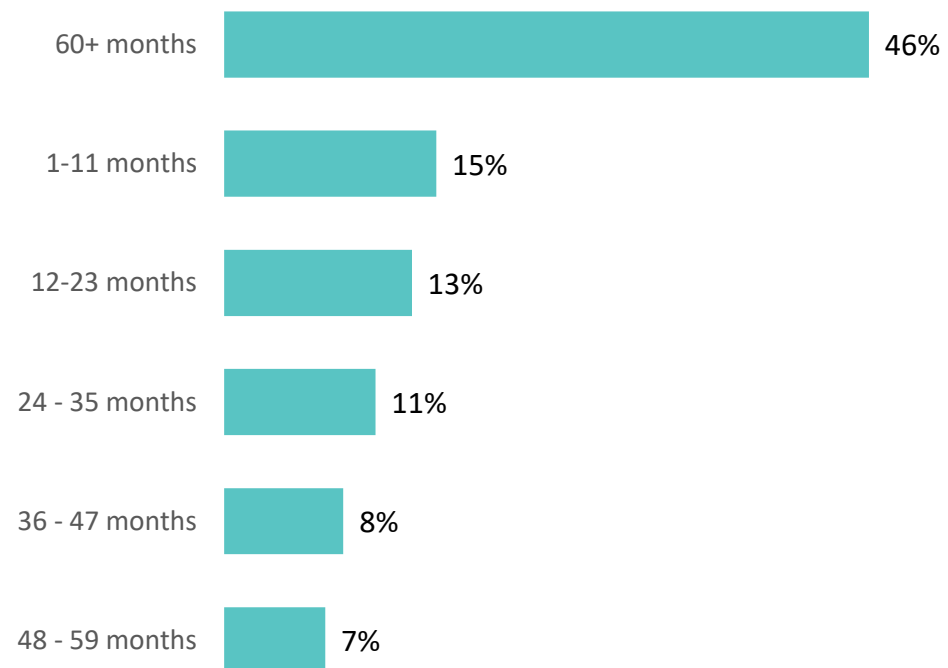
Source: Scarlatti (2022)

## Average Retention Rate of New Entrant By Gender and Number of Months in Industry



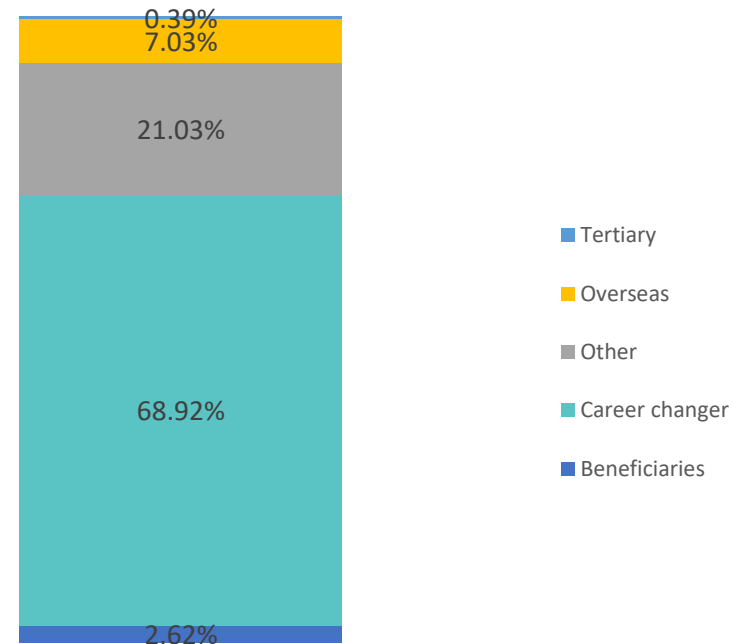
# Toi Whānui Sector Overview

## Average Industry Tenure



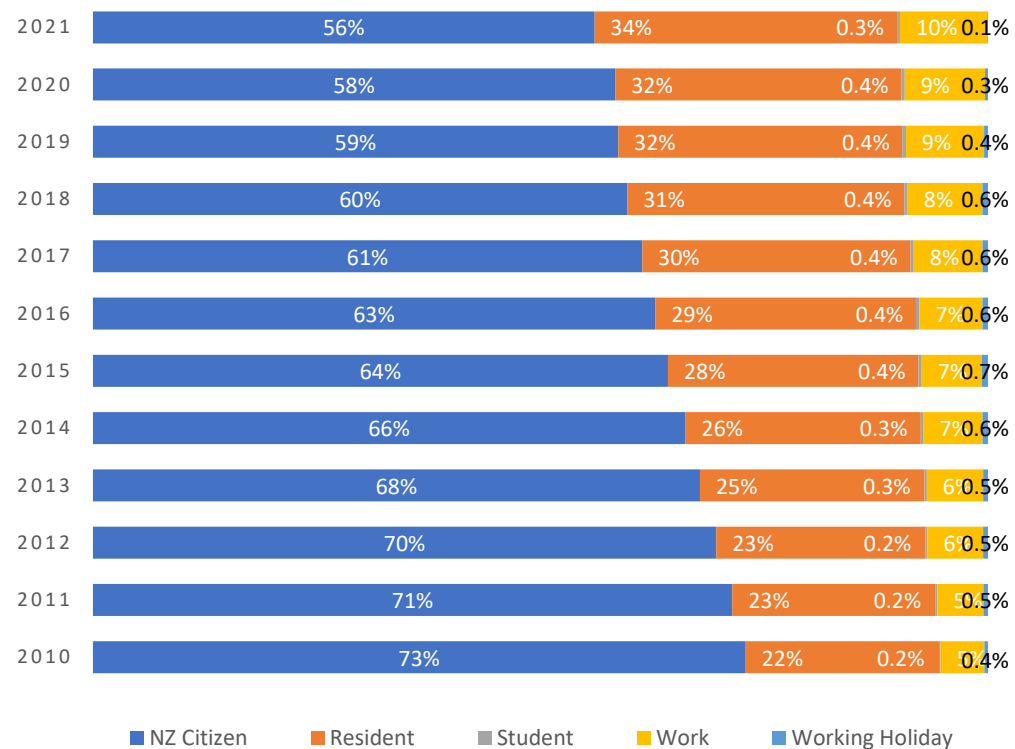
Source: Scarlatti (2022)

## Destination of Workforce Leavers in 2020



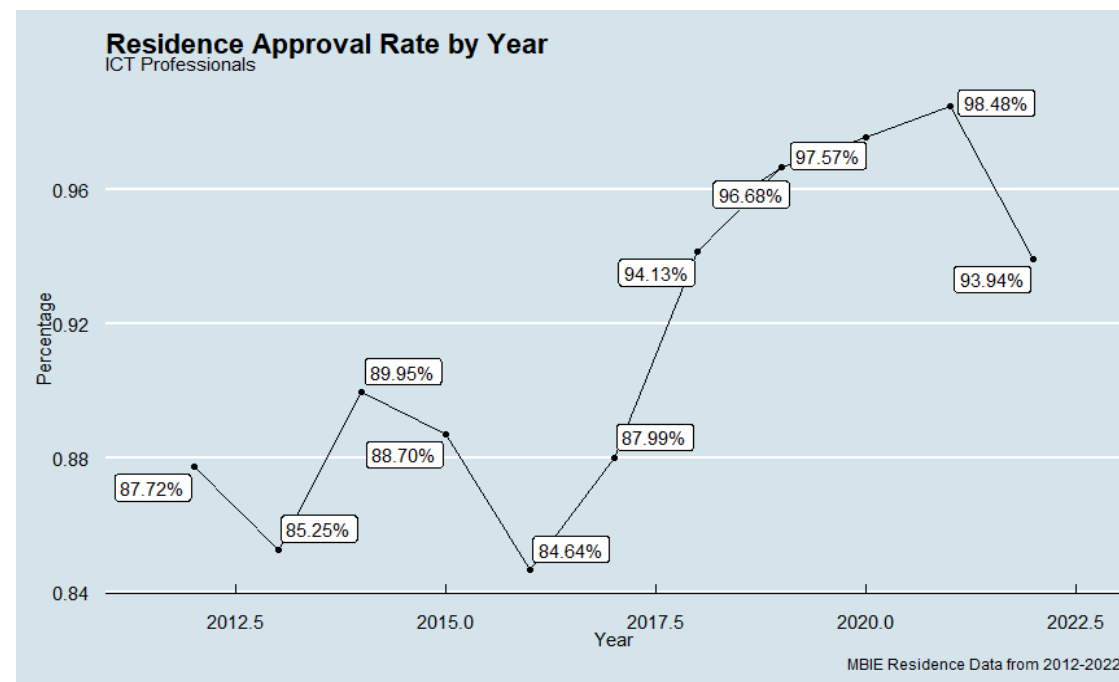
# Toi Whānui Sector Overview

## Workforce by Visa Status



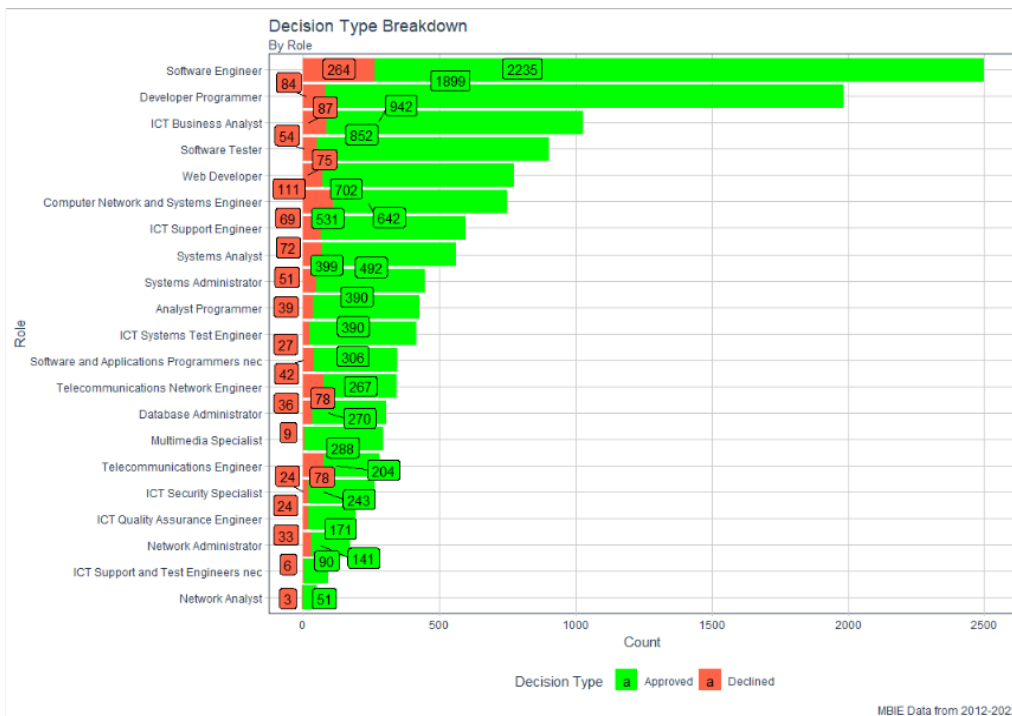
Source: Scarlatti (2022)

## INZ Residence Approval Rate by Year

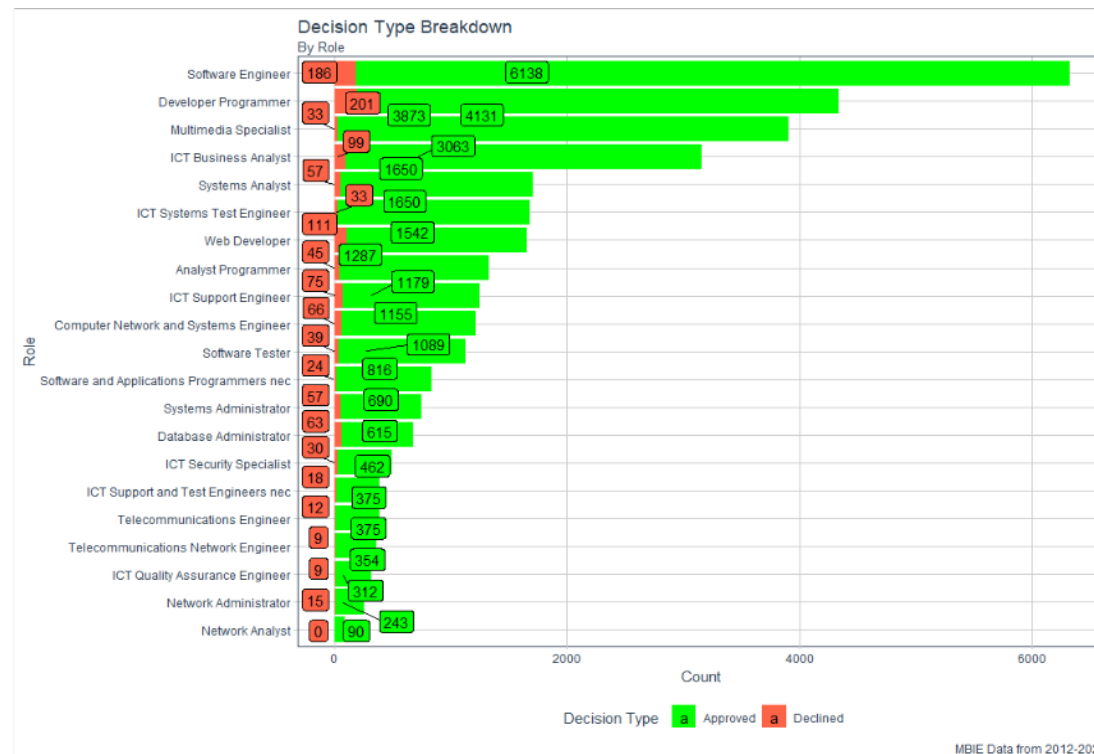


# Toi Whānui Sector Overview

Rank of ICT Roles by number of residence visas applications to INZ



Rank of ICT Roles by number of work visas applications to INZ



The charts above indicate residence visa (left), and work visa (right) applications for specific occupations working within ANZSIC (industry) codes assigned to each pou. These indicate possible shortages given that these visas are granted based on employment.

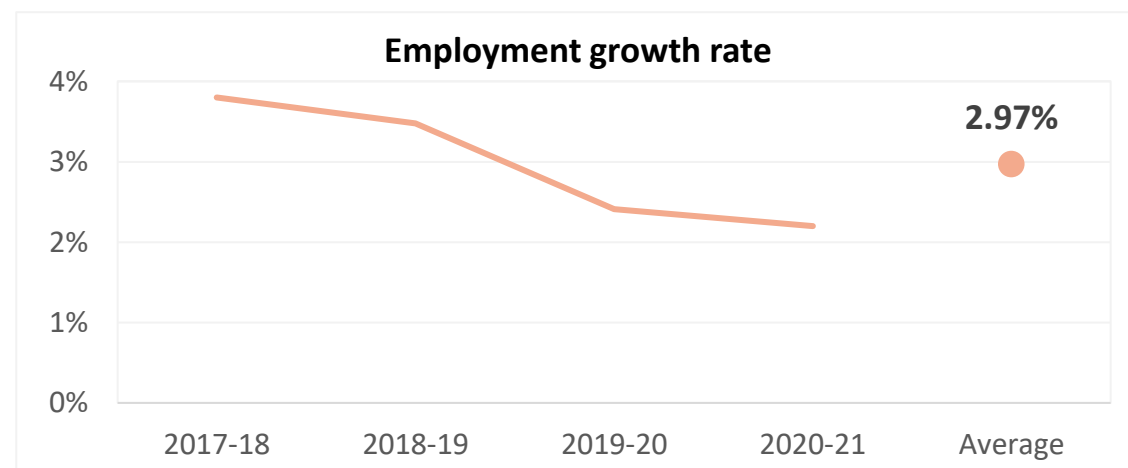
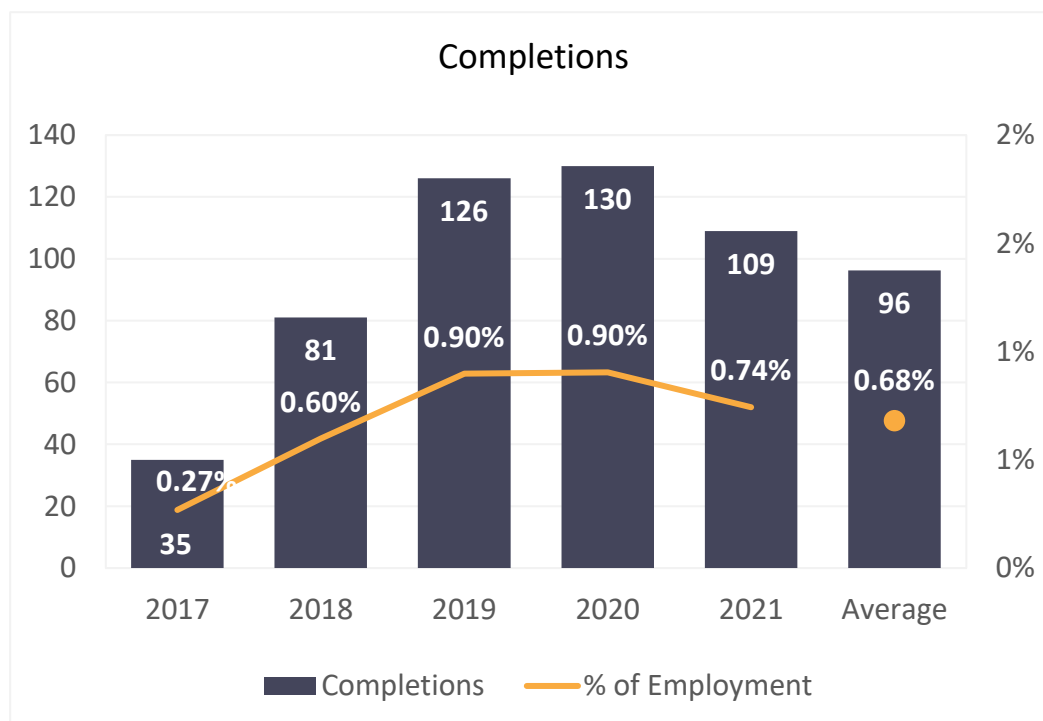
Source: MBIE (2022)



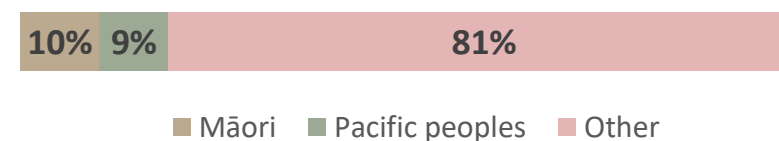
# Systems Analyst

**Interim assessment:**  
**There is an urgent need to increase training**

Completions as a percentage of employment



Completions by ethnicity

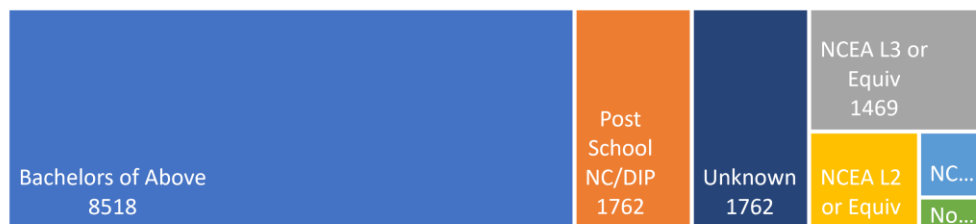
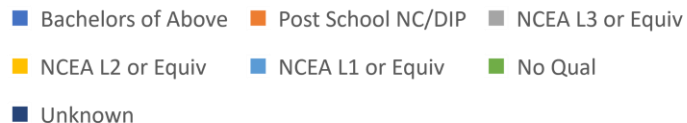


Qualifications included:  
NZ Diploma in Systems Administration (Level 6) (2601)

# Systems Analyst

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

## System Analyst Workforce Composition by Highest Qualification



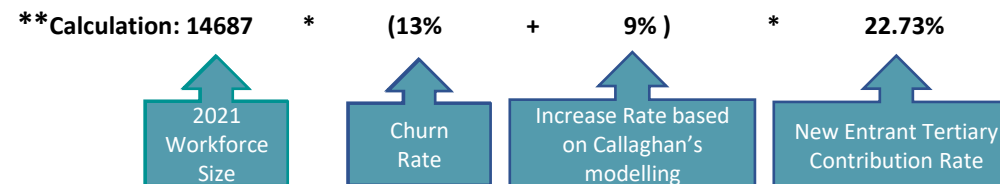
- Workforce increase percentage is at 3% averagely
- Tertiary education system contributes averagely 22.73% of new entrants to the industry.
- The churn rate for the industry is 13%
- The percentage for post school NC/Dip is 48.29% averagely, while Level 7+ Bachelors of above is 51.71%.

Qualifications included:  
 NZ Diploma in Systems Administration (Level 6) (2601)

## NZQA Achievement Data by Qualification and Provider between 17-22

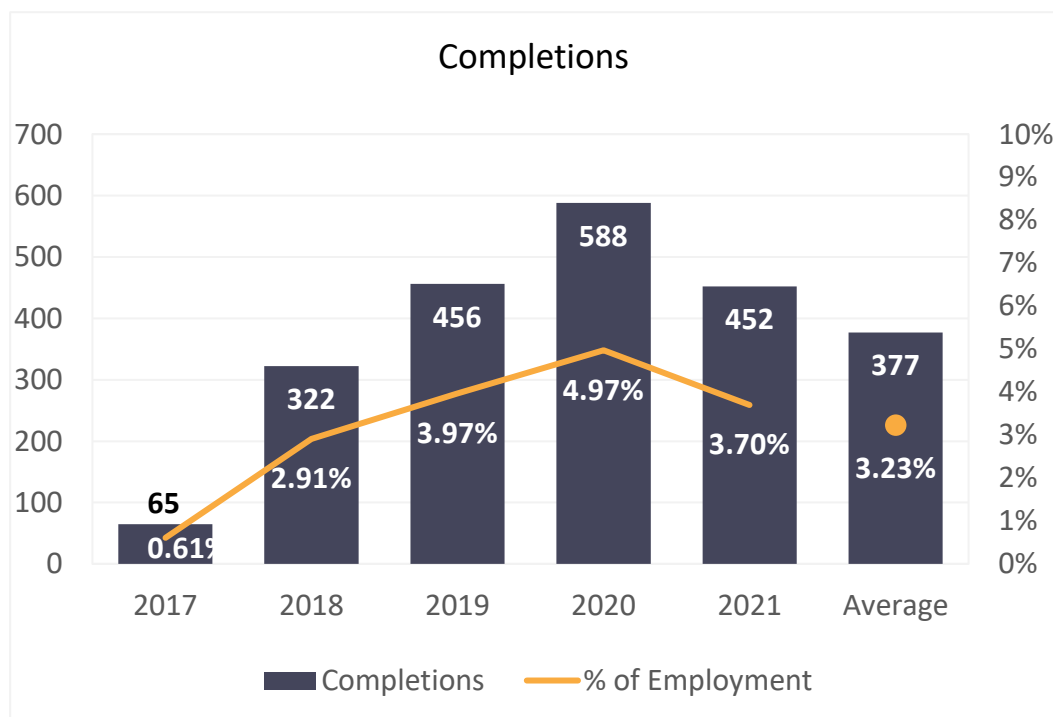
Qualification & Provider	2017	2018	2019	2020	2021	2022	Grand Total
2601 - New Zealand Diploma in Systems Administration	35	81	126	130	109	7	488
Techtorium New Zealand Institute of Information Technology Limited	32	38	48	50	48		216
Aspire2 International Business & Technology Limited		1	58	39	28	2	128
Manukau Institute of Technology Ltd	2	9	8	11	12		42
EmployNZ Limited		11	5	13	8		37
Ara Institute of Canterbury Ltd		4	1	11	6		22
Whitecliffe College		2	5	3			10
Avonmore Tertiary Institute		7					7
Yoobee Colleges Limited					6		6
AGI Education Limited			1	3	1		5
Aspire2 Education Limited						5	5
FutureCOL		5					5
International College of Auckland Limited		3					3
National Technology Institute Limited	1	1					2

Based on the given information, the tertiary education system needs to provide roughly **734** System Analysts to the industry to meet the need.



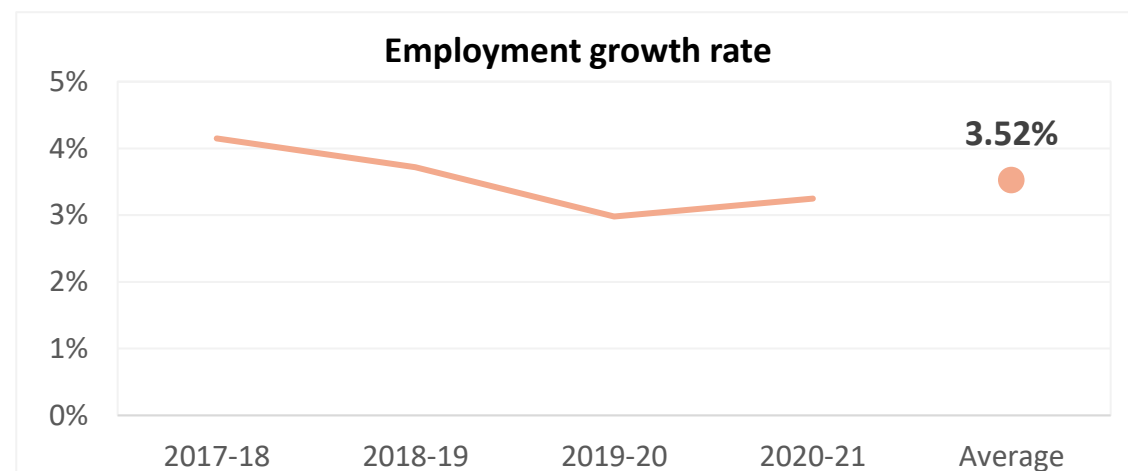
# Software Engineer

Completions as a percentage of employment

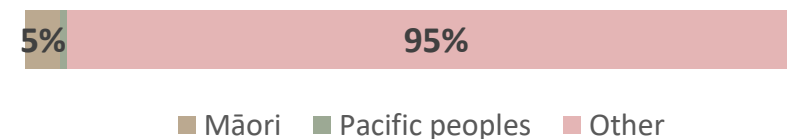


Qualifications included:  
NZ Diploma in Software Development (Level 6) (2604), NZ Diploma in Web Development and Design (Level 5) (2598)

**Interim assessment:**  
Training for school leavers is adequate  
There is an urgent need to increase training for career changers

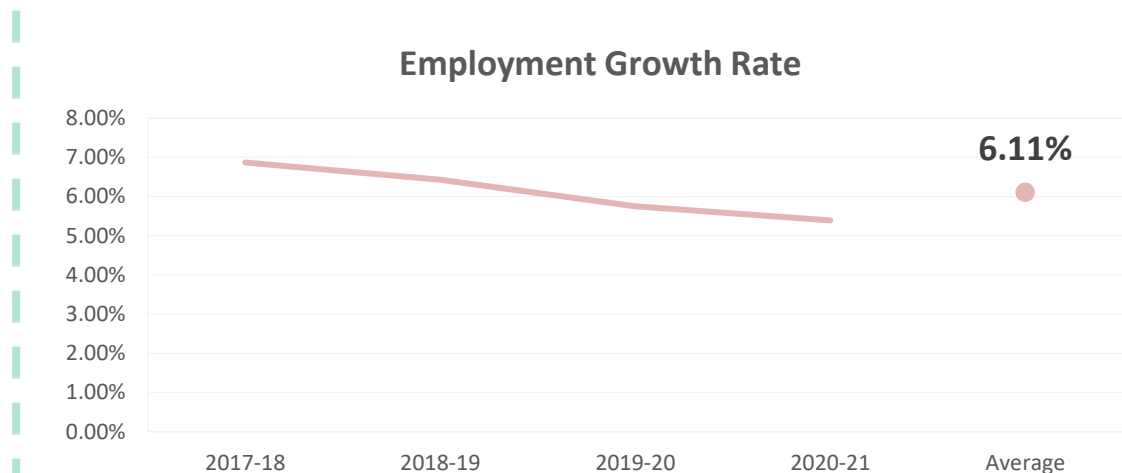
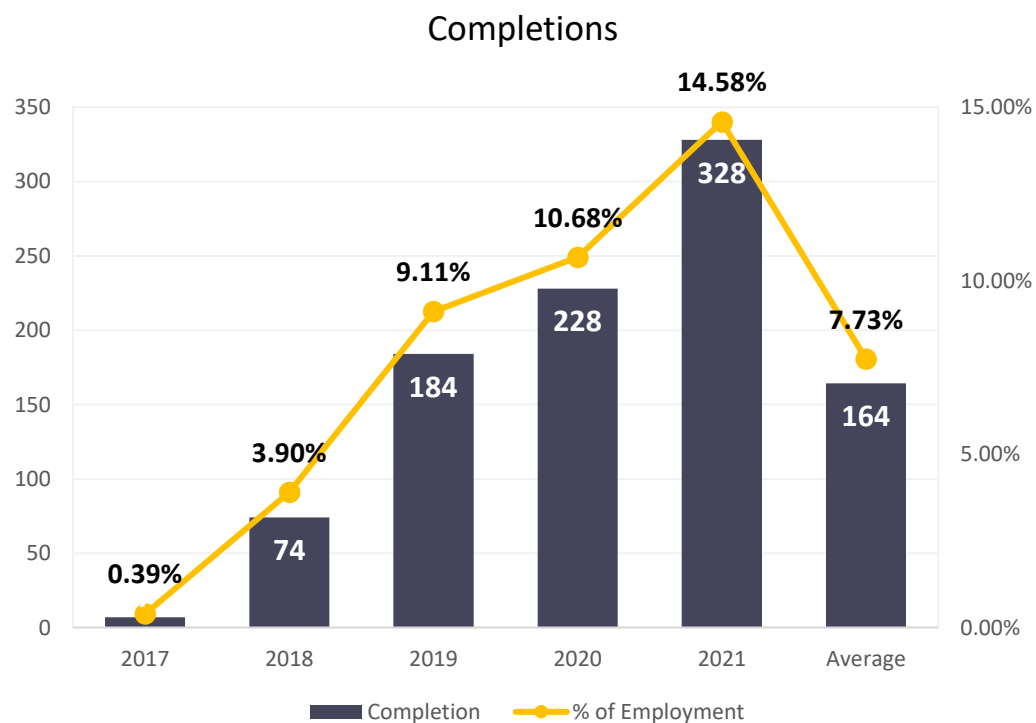


Completions by ethnicity

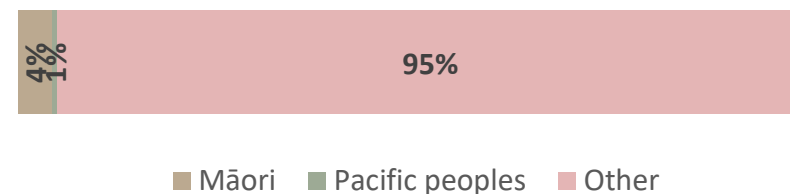


# Software Tester

Completions as a percentage of employment



### Completions by ethnicity



Qualifications included:  
NZ Diploma in Software Development (Level 6) (2604)

# Software Tester

To apply Scarlatti’s information on workforce composition by highest qualification to Infometrics’ continuous measurement on the role in 2021. We can assume:

## Software Tester Workforce Composition by Highest Qualification

- Bachelors of Above
- Post School NC/DIP
- NCEA L3 or Equiv
- NCEA L2 or Equiv
- NCEA L1 or Equiv
- No Qual
- Unknown



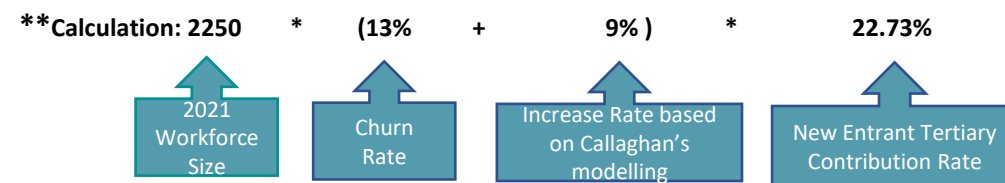
- Workforce increase percentage at 3.55%
- Tertiary education system contributes averagely 22.73% of new entrants to the industry.
- The percentage for post school NC/Dip is 48.29% averagely, while Level 7+ Bachelors of above is 51.71%.

Qualifications included:  
 NZ Diploma in Software Development (Level 6) (2604)

## NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2017	2018	2019	2020	2021	2022	Grand Total
2604 - New Zealand Diploma in Software Development	7	74	184	228	328	2	823
Vision College		3	59	103	220		385
Te Pūkenga Trading As Toi Ohomai Institute of Technology	7	35	26	27	33		128
Techtorium New Zealand Institute of Information Technology Limited		13	34	21	25		93
Whitecliffe College			33	23	8		64
New Zealand School of Education Limited			12	26	25		63
Northland Polytechnic Ltd		23	17	16	7		63
Southern Institute of Technology Ltd			3	12	10		25
Developers Institute Limited						2	2
<b>Grand Total</b>	<b>65</b>	<b>322</b>	<b>456</b>	<b>588</b>	<b>452</b>	<b>62</b>	<b>1945</b>

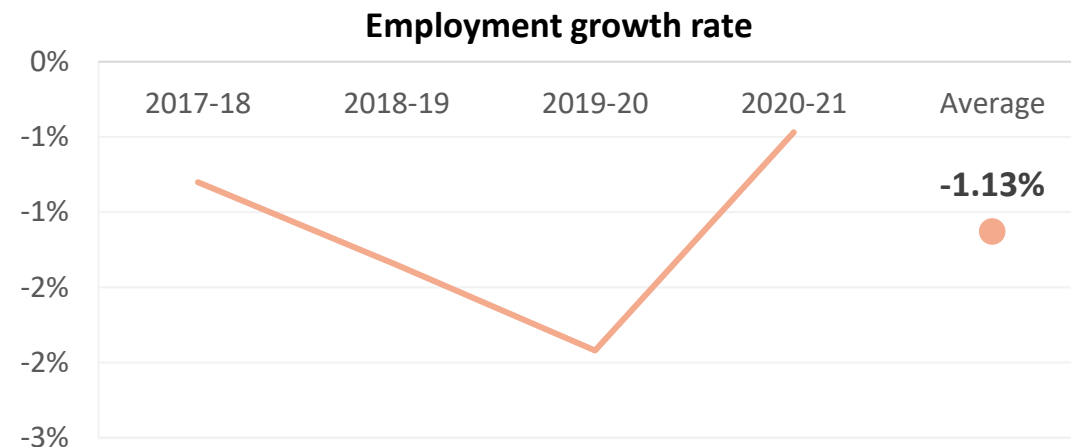
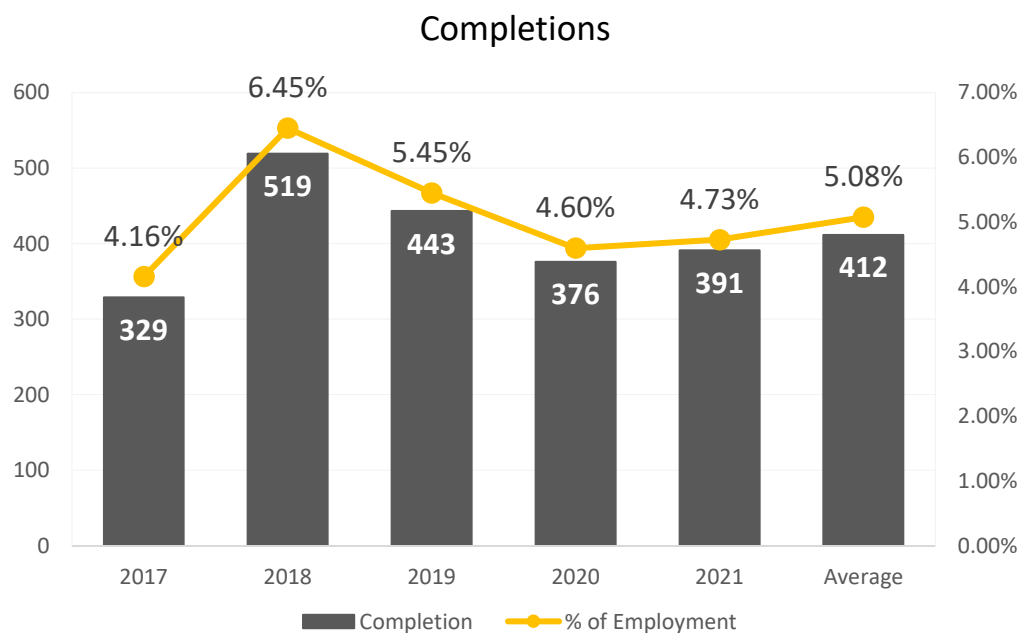
Based on all the given information, the tertiary education system needs to provide roughly **112** Software Testers to the industry to meet the need.



# ICT Support Technician

**Interim assessment:**  
**Completions are okay – need to shift to work based learning**

Completions as a percentage of employment

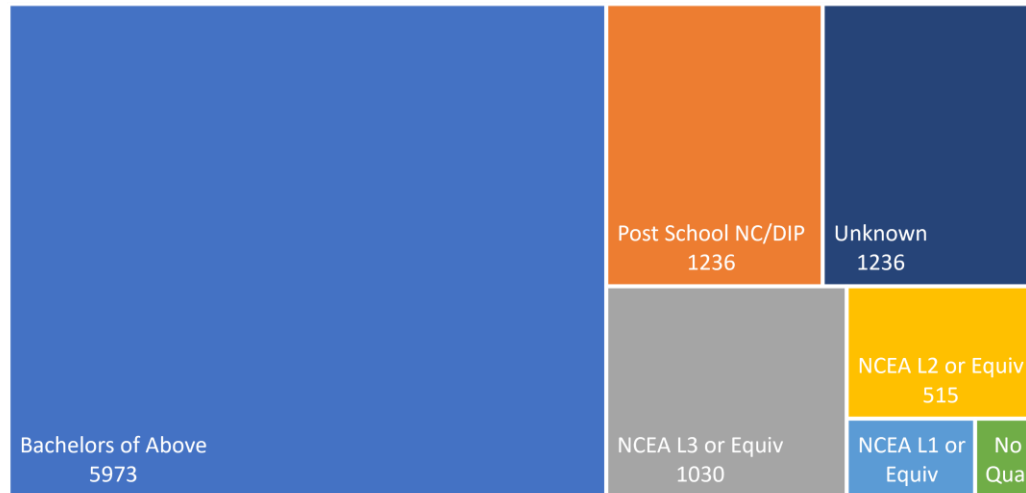


Qualifications included:  
 NZ Diploma in Information Technology Technical Support (Level 5) (2596)

# ICT Support Technician

To apply Scarlatti’s information on workforce composition by highest qualification to Infometrics’ continuous measurement on the role in 2021. We can assume:

ICT Support Technician Workforce Composition by Highest Qualification

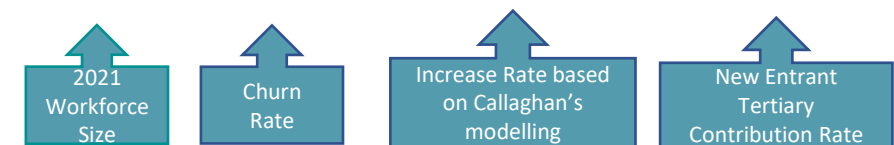


- Workforce increase percentage is at 1.47% averagely between 2017 and 2021
- Tertiary education system contributes averagely 22.73% of new entrants to the industry.
- The percentage for post school NC/Dip is 48.29% averagely, while Level 7+ Bachelors of above is 51.71%.

Qualifications included:  
 NZ Diploma in Information Technology Technical Support (Level 5) (2596)

Based on all the given information, the tertiary education system needs to provide roughly **515** ICT Support Technicians to the industry to meet the need.

**\*\*Calculation: 10299 \* (13% + 9%) \* 22.73%**



# ICT Support Technician

*NZQA Achievement Data by Qualification and Provider between 17-22*

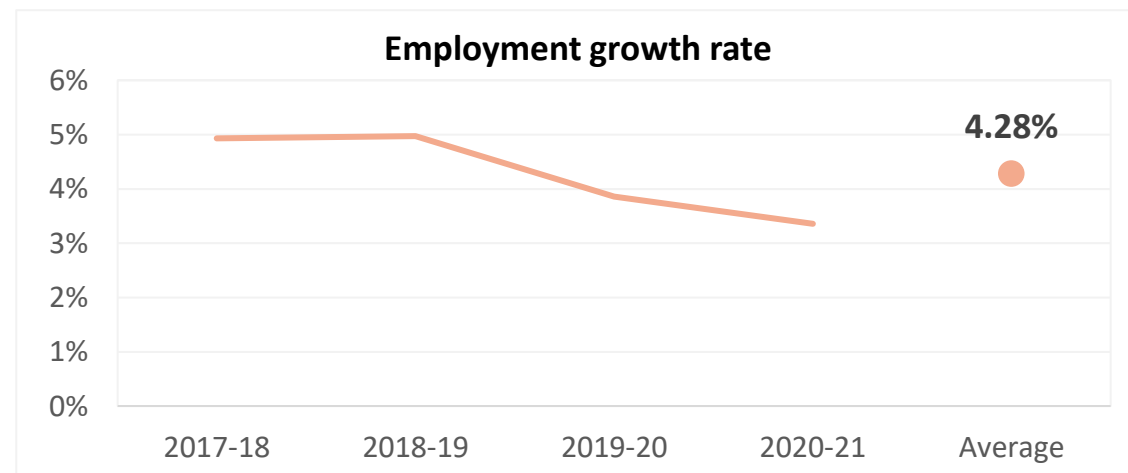
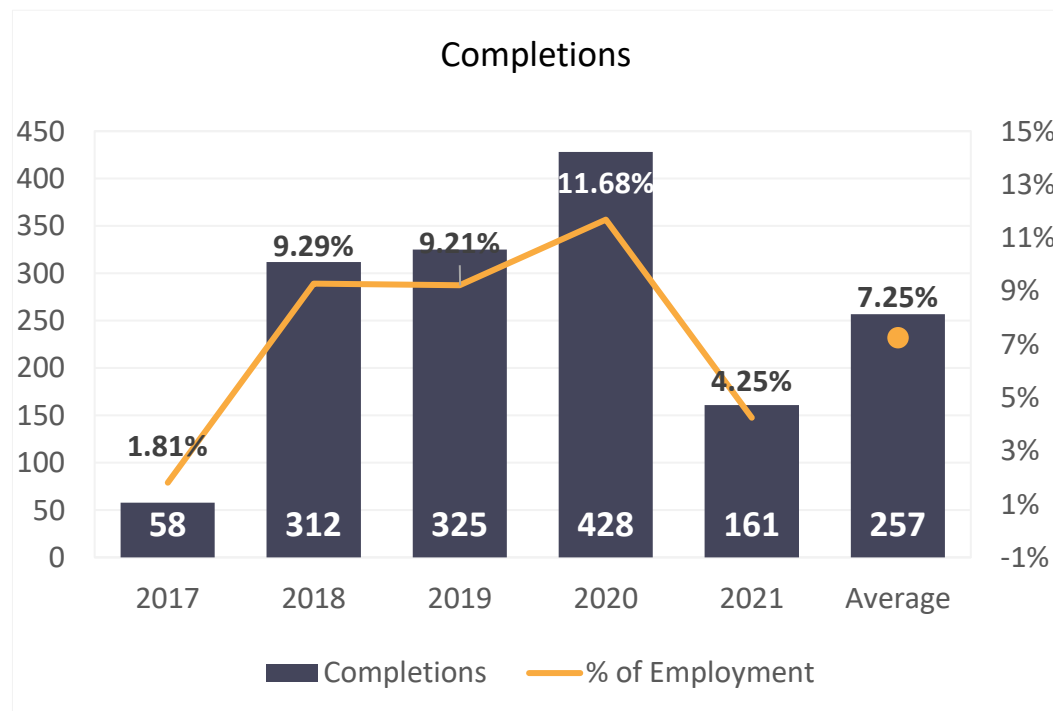
Qualification & Provider	2016	2017	2018	2019	2020	2021	2022	Grand Total
2596 - New Zealand Diploma in Information Technology Technical Support	30	329	519	443	376	391	51	2139
Tectorium New Zealand Institute of Information Technology Limited		50	74	76	67	72		339
Wellington Institute of Technology Limited		33	56	53	24	48		214
Aspire2 International Business & Technology Limited			3	73	57	23	23	179
New Zealand School of Education Limited		38	36	19	30	39		162
Manukau Institute of Technology Ltd		17	35	21	47	35		155
Te Pūkenga Trading As Waikato Institute of Technology	18	20	33	21	22	39		153
Whitecliffe College			28	47	40	17		132
Ara Institute of Canterbury Ltd		20	31	29	18	26		124
Avonmore Tertiary Institute		41	52					93
Te Pūkenga Trading As Toi Ohomai Institute of Technology		7	11	25	25	4		72
Tasman International Academies		21	20	20	6	4		71
International College of Auckland Limited		10	56					66
Universal College of Learning (UCOL) Limited			17	12	4	29		62
EmployNZ Limited			10	18	12	19	1	60
Western Institute of Technology at Taranaki Ltd		11	15	9	8	4		47
People Potential Limited	12	9	7	5	7	6		46
Whitireia New Zealand Ltd		18	25					43
Aspire2 Education Limited						14	27	41
Southern Institute of Technology Ltd			3	5	6	9		23
Nelson Marlborough Institute of Technology Limited		4	2	6	2	3		17
Queens Academic Group Limited		13						13
FutureCOL		8						8
AGI Education Limited			2	2	1			5
Tai Poutini Polytechnic Ltd		4						4
Skills Update Limited				2				2
Abacus Institute of Studies			2					2
National Technology Institute Limited		1	1					2
AWI International Education Group		2						2
Newton College of Business and Technology Limited		1						1
Intueri Education New Zealand Limited		1						1
Grand Total	30	329	519	443	376	391	51	2139



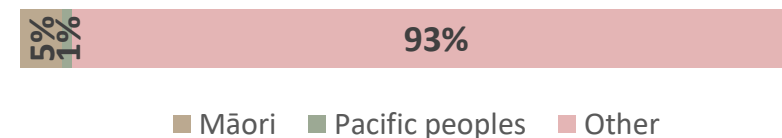
# Web Developer

**Interim assessment:  
Completions are just about right**

Completions as a percentage of employment



Completions by ethnicity

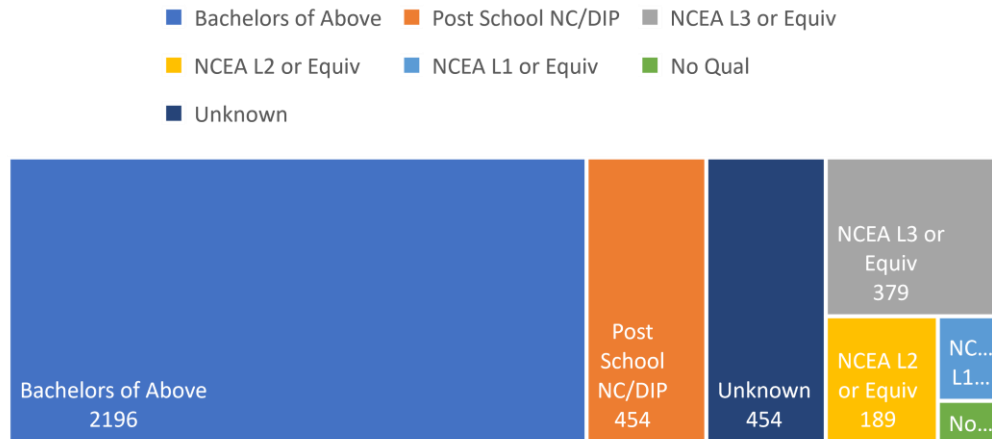


Qualifications included:  
 NZ Diploma in Web Development and Design (Level 5) (2598)  
 NZ Diploma in Web Design and Production (Level 6) (2645)

# Web Developer

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

### Web Developer Workforce Composition by Highest Qualification



- Workforce increase percentage is at 4.66% averagely
- Tertiary education system contributes averagely 22.73% of new entrants to the industry.

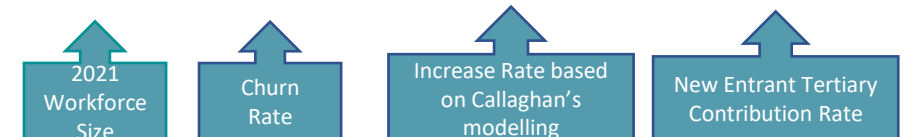
Qualifications included:  
 NZ Diploma in Web Development and Design (2598)  
 NZ Diploma in Web Design and Production (2645)

### NZQA Achievement Data by Qualification and Provider between 17-22

Qualification & Provider	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2603 - New Zealand Diploma in Web Development and Design</b>								
Vision College		26	123	163	247	28		587
Te Pūkenga Trading As Toi Ohomai Institute of Technology		7	41	32	41	9		130
The Open Polytechnic of New Zealand Ltd					10	23	51	84
Whitecliffe College			13	23	16	29		81
Ara Institute of Canterbury Ltd		13	17	11	10	11		62
Northland Polytechnic Ltd			29	14	6	4		53
Southern Institute of Technology Ltd		2	8	17	12			39
Developers Institute Limited					9	19	9	37
Whitireia New Zealand Ltd		8	16					24
Yoobee Colleges Limited				11	8			19
Nelson Marlborough Institute of Technology Limited		2	1	1	1	1		6
<b>2645 - New Zealand Diploma in Web Design and Production</b>								
Yoobee Colleges Limited			64	53	68	37		222
<b>Grand Total</b>		58	312	325	428	161	60	1344

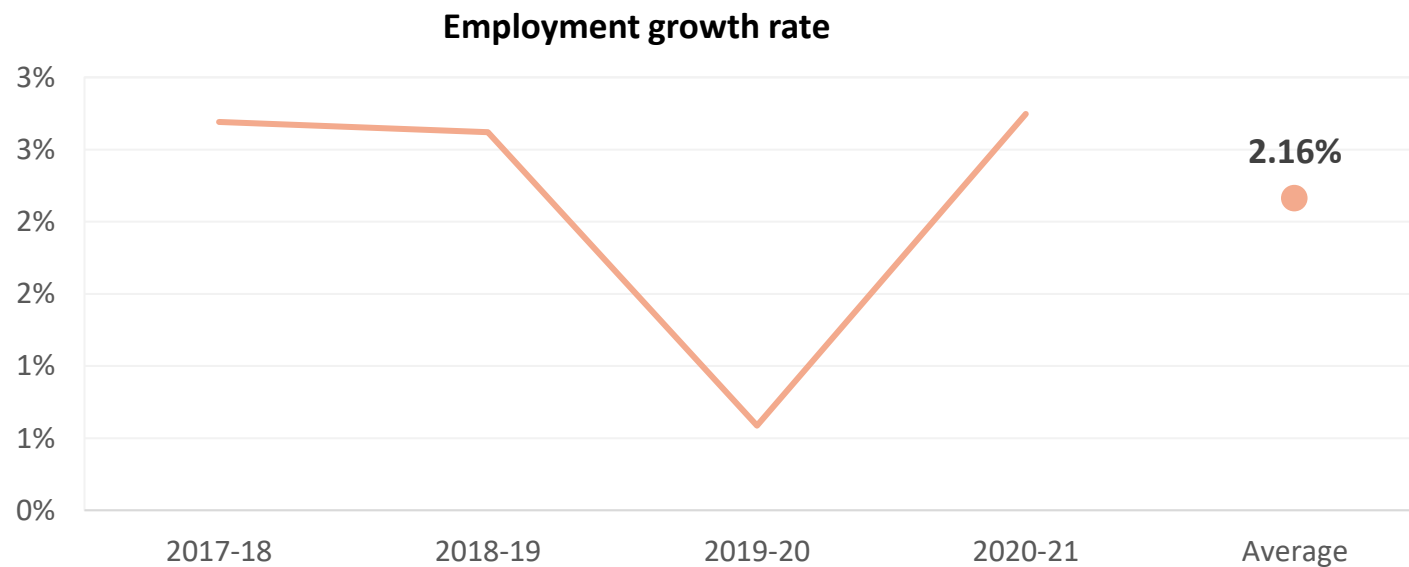
Based on all given information, the tertiary education system needs to provide roughly **189** Web Developer to the industry to meet the need.

**\*\*Calculation: 3786 \* (13% + 9%) \* 22.73%**



# IT Project Manager

**Interim assessment:**  
**This is one of the most in-demand jobs.**  
**There is a need to increase training.**



*Completions recorded are only for 2019, where there were 5 graduates.*

Qualifications included:  
NZ Diploma in Information Systems (Level 6) (2603)

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## IT Project Manager

Product sales and IT project and product managers have been identified by industry as a significant need which career changers are often well suited to. Current training options do not enable graduates to be work ready for IT product manager roles.

There is a need for short training options to enable career changers to upskill into these non-technical roles, as well as a need to support intermediate staff already working in IT to upskill into project management roles.

Investment is needed into both qualification and programme development to meet this need.

# Toi Whānui Qualifications

Title	Award number	Total Completions (2011-2022)	Roles Might lead to
New Zealand Diploma in Information Technology Technical Support (Level 5)	2596	2139	
New Zealand Certificate in Computing (User Fundamentals) (Level 2)	2591	2075	
New Zealand Certificate in Information Technology Essentials (Level 4)	2594	1654	
New Zealand Diploma in Web Development and Design (Level 5)	2598	1122	
New Zealand Certificate in Computing (Intermediate User) (Level 3)	2592	994	
New Zealand Certificate in Information Technology (Level 5)	2595	979	Junior Industry Role
New Zealand Diploma in Software Development (Level 6)	2604	823	
New Zealand Diploma in Systems Administration (Level 6)	2601	488	
New Zealand Certificate in Computing (Advanced User) (Level 4)	2593	228	
New Zealand Diploma in Web Design and Production (Level 6)	2645	222	Web Developer
New Zealand Diploma in Networking (Level 6)	2600	205	Network Analyst/Network Administrator
New Zealand Diploma in Information Systems (Level 5)	2597	189	Junior Industry Role
New Zealand Certificate in Information Technology Practitioner (Level 6) with strands in Server Administration, Network Administration, Information Technology Security, and Software Testing	2599	40	Computer Network Engineer
New Zealand Diploma in Cybersecurity (Level 6)	3837	39	Cybersecurity Analyst
New Zealand Certificate in Computing (Foundation User) (Level 2)	4132	7	
New Zealand Diploma in Information Systems (Level 6) with strands in Business Analysis, User Experience, IT Project Management, Information Systems Innovation, and Data Analysis	2603	5	Business Analyst/Analyst Programmer
New Zealand Diploma in IT Infrastructure (Level 6) with strands in Networking, and Systems Administration	4129	0	Network Engineer/System Administrator
New Zealand Diploma in Software Testing (Level 6)	3849	0	Software Tester/Testing Analyst
<b>Total completions</b>		<b>11209</b>	

## Toi Whānui Qualifications not covered in this TEC Advice (1)

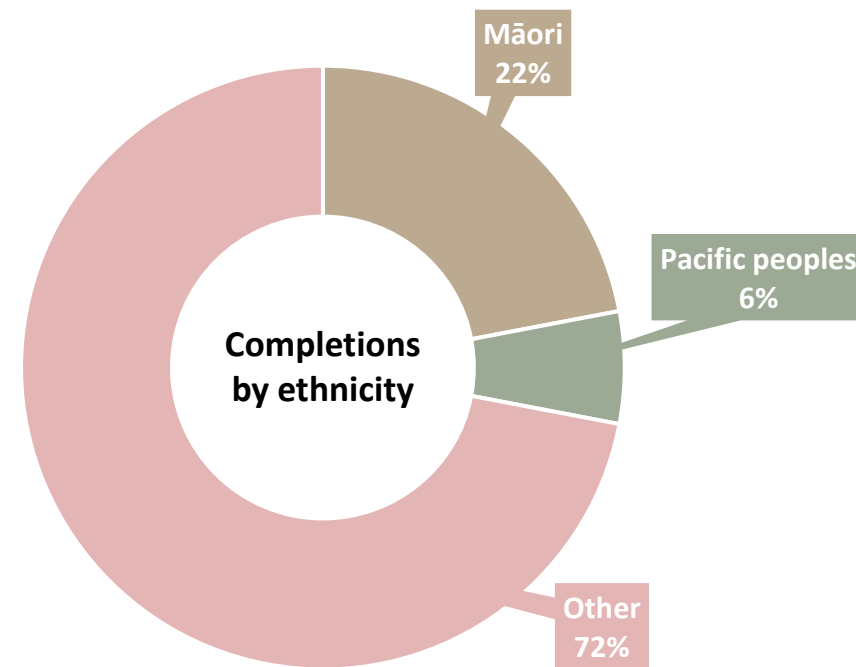
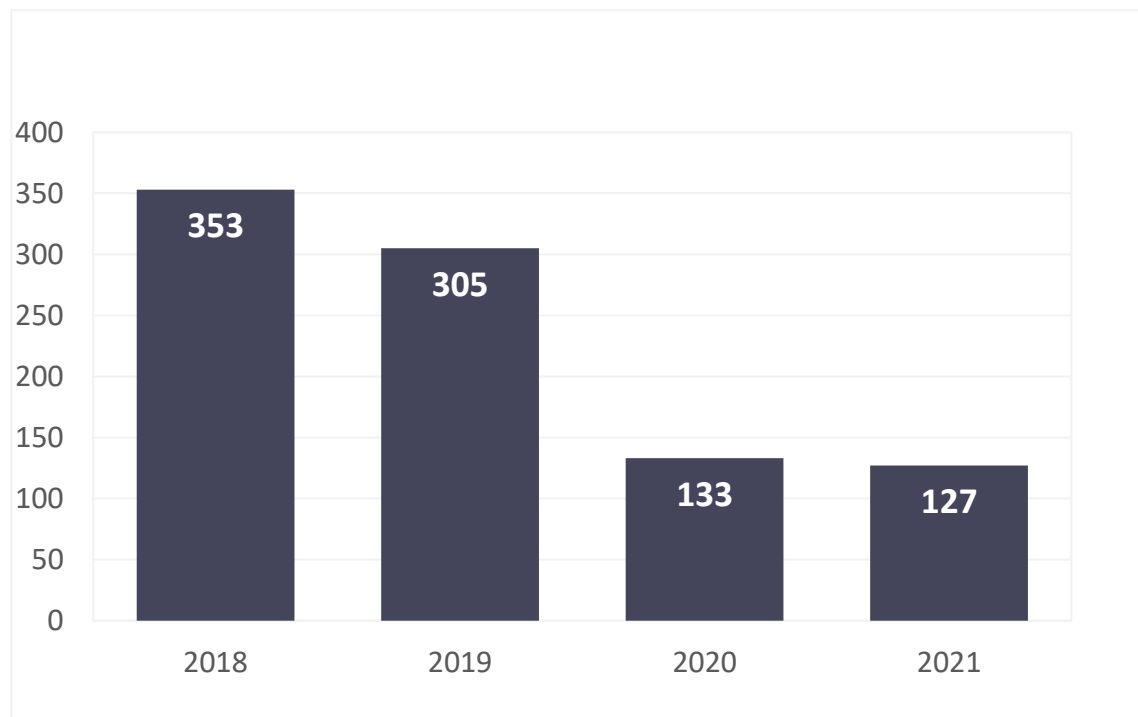
Row Labels	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2591</b>	<b>50</b>	<b>495</b>	<b>696</b>	<b>407</b>	<b>189</b>	<b>206</b>	<b>32</b>	<b>2075</b>
<b>New Zealand Certificate in Computing (User Fundamentals)</b>								
Te Pūkenga Trading As Toi Ohomai Institute of Technology		201	388	68	38	82		777
Eastern Institute of Technology Ltd		36	45	141	69	51	31	373
Te Wananga o Aotearoa		156	108	87				351
Capital Training Limited		38	54	23	14	26		155
People Potential Limited	32	15	3	27	18	22	1	118
Southern Institute of Technology Ltd		12	9	12	21	10		64
Achievement NZ Limited		8	17	5	10	2		42
Target Training Centre Limited				19	6	6		31
Whitireia Community Polytechnic Limited		10	10	7				27
Quality Education Services Limited			6	6	8	5		25
EmployNZ Limited		9	12	1				22
The Salvation Army Education & Employment			1	9	8			18
Avonmore Tertiary Institute	17							17
Horowhenua Learning Centre Trust			12	2				14
Personalised Education Ltd			8		1	1		10
Kokiri Marae Keriana Olsen Trust			7	1	1	1		10
Vision College		7	1					8
Nelson Marlborough Institute of Technology Limited			4					4
Matapuna Trust					3			3
Valley Education and Training Enterprises Limited			3					3
FutureCOL		2						2
Education Action Limited	1							1
<b>2594</b>	<b>23</b>	<b>197</b>	<b>407</b>	<b>313</b>	<b>280</b>	<b>433</b>	<b>1</b>	<b>1654</b>
<b>New Zealand Certificate in Information Technology Essentials</b>								
New Zealand School of Education Limited			110	51	51	59		271
Ara Institute of Canterbury Ltd	9	29	36	40	26	44		184
Otago Polytechnic Ltd		11	44	37	27	44		163
Wellington Institute of Technology Limited		30	35	23	28	46		162
Manukau Institute of Technology Ltd		26	26	34	30	36		152
Unitec New Zealand Limited			37	32	31	41		141
Universal College of Learning (UCOL) Limited		15	26	26	22	33		122
Te Pūkenga Trading As Toi Ohomai Institute of Technology	4	41	28	17	5	15	1	111
Western Institute of Technology at Taranaki Ltd		15	14	12	5	24		70
Whitecliffe College					24	40		64
Eastern Institute of Technology Ltd		8	8	17	7	16		56
People Potential Limited	10	9	7	8	11	11		56
Nelson Marlborough Institute of Technology Limited		7	13	4	6	8		38
Southern Institute of Technology Ltd		6	15	7	1	2		31
Northland Polytechnic Ltd				5	6	14		25
Yoobee Colleges Limited			8					8
<b>2592</b>	<b>28</b>	<b>38</b>	<b>353</b>	<b>305</b>	<b>133</b>	<b>127</b>	<b>10</b>	<b>994</b>

## Toi Whānui Qualifications not covered in this TEC Advice (2)

Row Labels	2016	2017	2018	2019	2020	2021	2022	Grand Total
<b>2592</b>	<b>28</b>	<b>38</b>	<b>353</b>	<b>305</b>	<b>133</b>	<b>127</b>	<b>10</b>	<b>994</b>
<b>New Zealand Certificate in Computing (Intermediate User)</b>								
Te Wananga o Aotearoa			219	141	8	7		375
Ara Institute of Canterbury Ltd		4	52	41	35	14		146
Te Pūkenga Trading As Waikato Institute of Technology			21	33	33	42		129
Eastern Institute of Technology Ltd			2	34	22	13	5	76
People Potential Limited			16	19	14	14	5	68
Otago Polytechnic Ltd		10	14	10	6	4		44
Universal College of Learning (UCOL) Limited		8	16	9		4		37
Nelson Marlborough Institute of Technology Limited		11	3	4	6	8		32
New Zealand School of Education Limited	23							23
New Zealand Management Academies Limited				9	7			16
Te Pūkenga Trading As Toi Ohomai Institute of Technology	5	5				5		15
Regent Training Centre Limited			6	1		5		12
Northland Polytechnic Ltd				1	2	8		11
EmployNZ Limited			4	3				7
Quality Education Services Limited						3		3
<b>2595</b>	<b>32</b>	<b>174</b>	<b>161</b>	<b>122</b>	<b>160</b>	<b>217</b>	<b>113</b>	<b>979</b>
<b>New Zealand Certificate in Information Technology</b>								
Yoobee Colleges Limited			56	46	79	80	1	262
The Open Polytechnic of New Zealand Ltd				11	25	50	112	198
Whitecliffe College			17	21	24	51		113
Te Pūkenga Trading As Waikato Institute of Technology	12	24	14	12	15	26		103
Avonmore Tertiary Institute		77	11					88
New Zealand School of Education Limited	20	28	9	1				58
Whitireia Community Polytechnic Limited		10	23	9	2			44
Te Pūkenga Trading As Toi Ohomai Institute of Technology		14	15	9		1		39
Whitireia New Zealand Ltd		18	4					22
Southern Institute of Technology Ltd			4	5	7	5		21
Nelson Marlborough Institute of Technology Limited		3		4	3	4		14
Eastern Institute of Technology Ltd				4	5			9
Ara Institute of Canterbury Ltd			7					7
EmployNZ Limited			1					1

## NZ Certificate in Computing (Intermediate User) (Level 3)

Completions





# *Toi Puaki*



## TOI PUAKI

### EXPRESSIVE ARTS

Expressive art forms and technologies in music, stage and theatre. Toi Puaki, as part of one of the creative sectors, applies the creative process to show, reveal and give testimony (puaki) to ideas and thoughts through artistic and performance skills. This sector has the highest rates of self-employment and was one of the most negatively impacted by COVID-19 with the widespread closure of venues.

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Toi Puaki is a broad and varied sector that includes practitioners in:

- dance
- music
- acting
- Pacific dance
- circus arts
- comedy
- spoken word

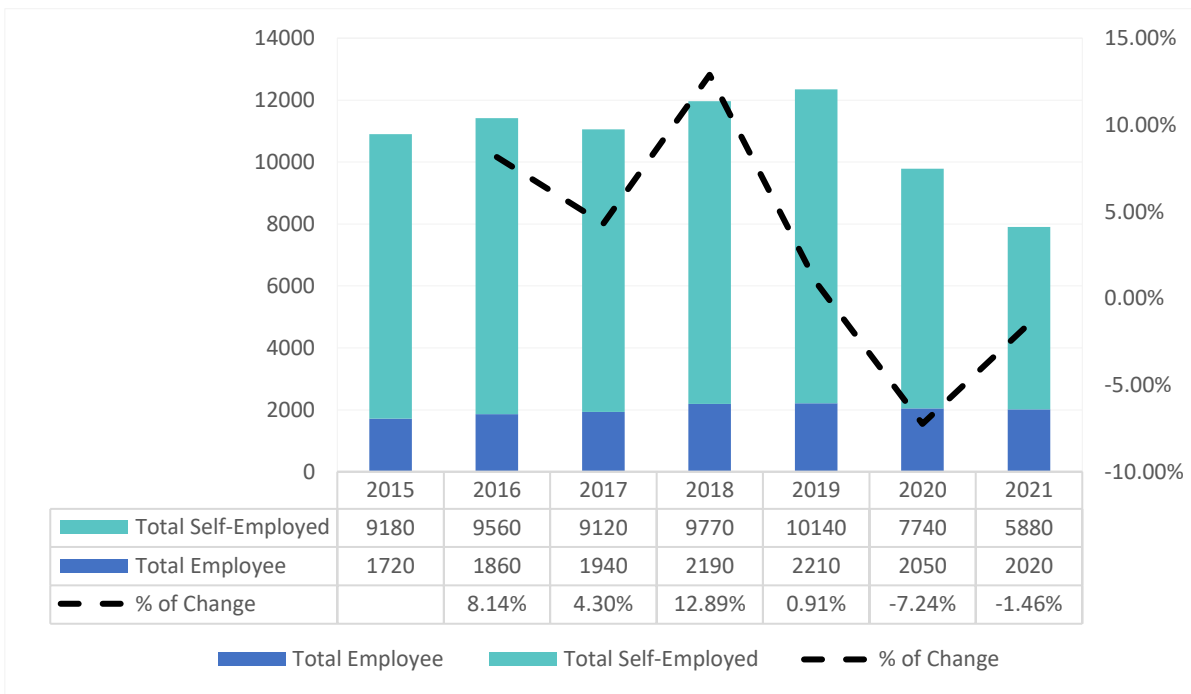
as well as technicians in staging, sound, visuals, scenes and costume for theatre and stage.

There are a multitude of qualifications which create pathways to these roles.

The ANZIC categories do not reflect the language of the sector but the data in the following slides is sourced from these classifications.

# Toi Puaki Sector Overview

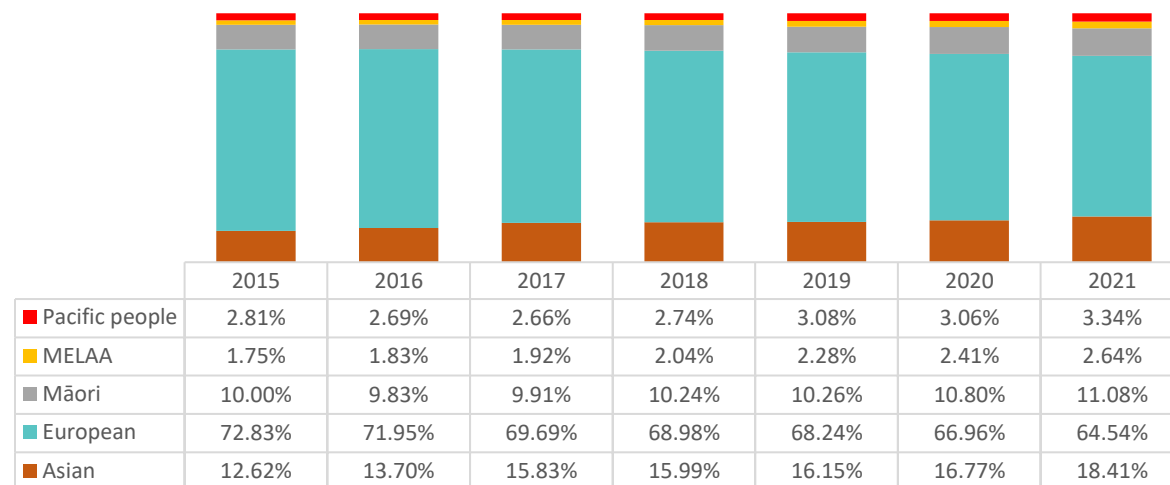
## Workforce Size and Percentage Change in Total Employee Number



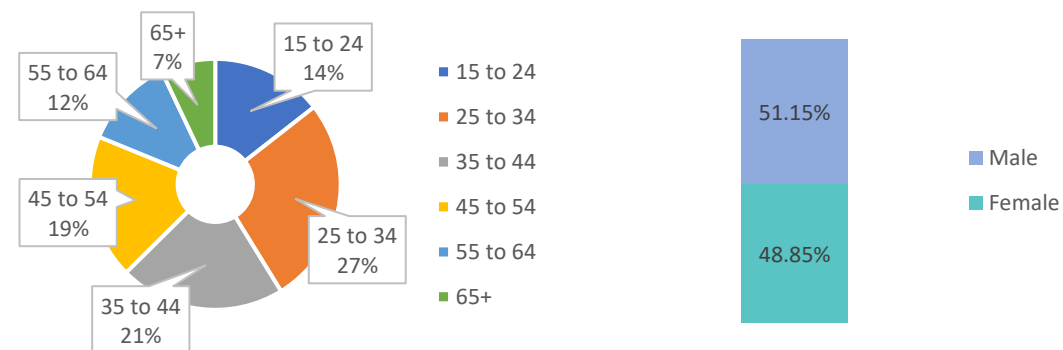
A significant drop in self-employed between 2019 and 2021 is highlighted in the above diagram (10k to 5.8k).  
 The number of employees within the Toi Puaki sector has stayed relatively stable, though a drop of around 200 is seen between 2019 and 2020.

Source: Scarlatti (2022)

## Workforce Ethnicity Breakdown By Reporting Year

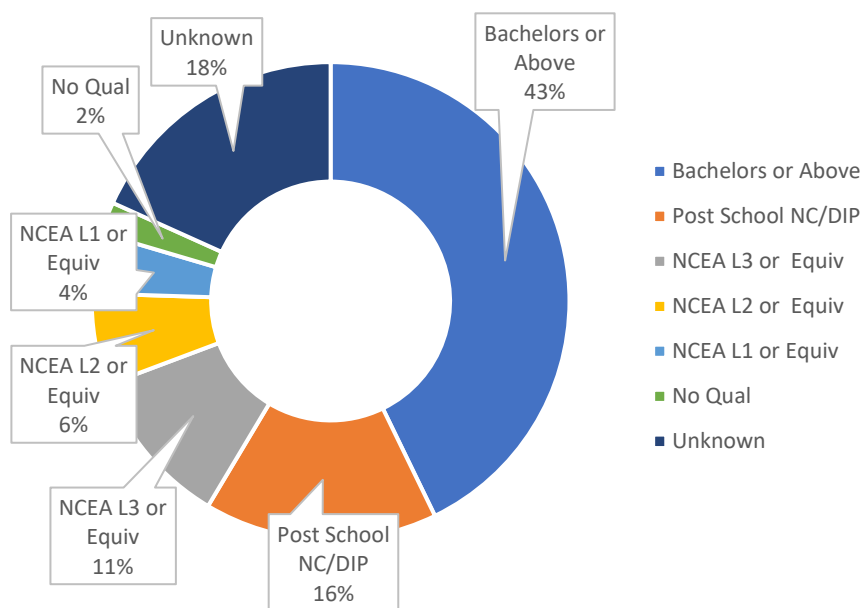


## Workforce Age Group and Gender Breakdown



# Toi Puaki Sector Overview

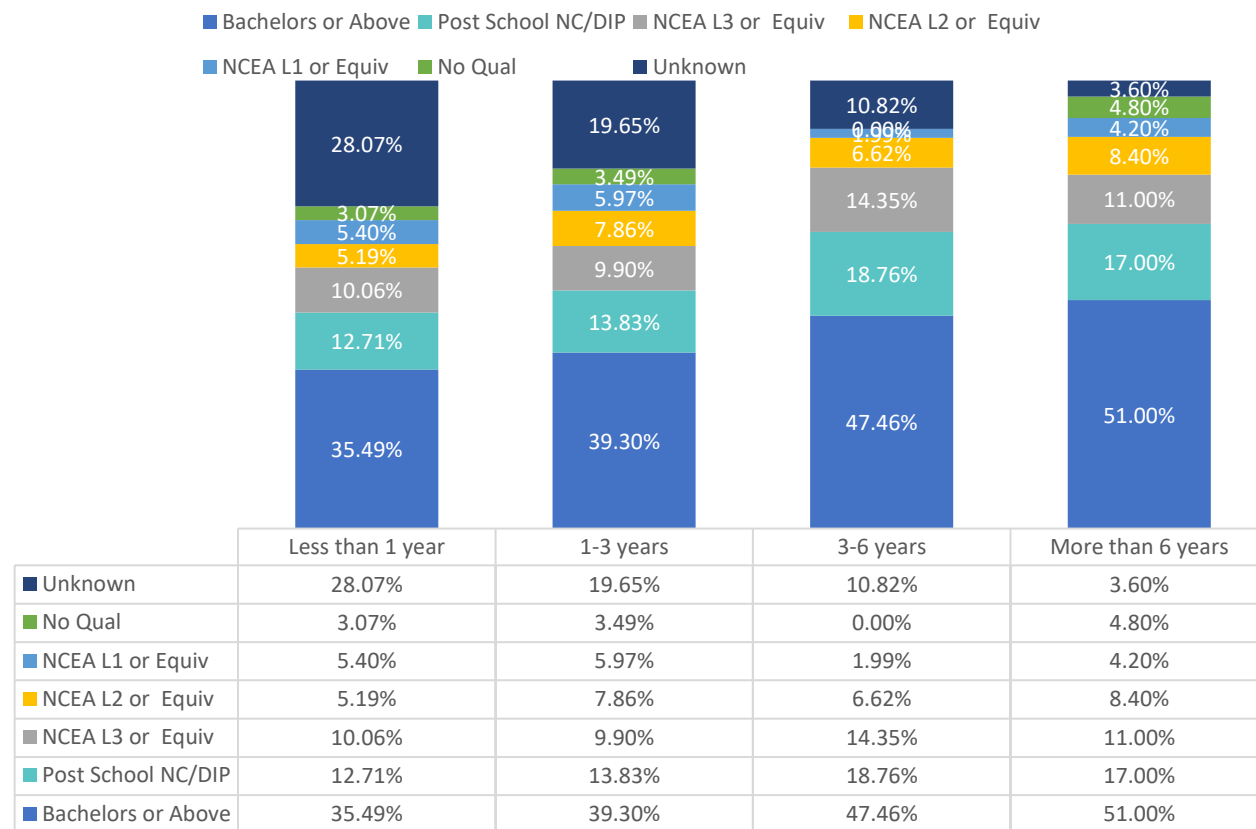
### Workforce Size By Highest Qualification as at 2018 Census



The highest qualifications above are not necessarily qualifications related to the sector. The above diagram indicates that 43% have a Bachelors Degree or above.

Source: Scarlatti (2022)

### Length of Industry Tenure by Highest Qualification



## Toi Puaki Sector Overview

### Level 7+ Qual Graduate Contributions to Toi Puaki by

2017	2018	2019	2020	2021
406	558	522	488	563

*\*\*Relevant graduates can turn up anywhere as junior Expressive Arts Professionals*

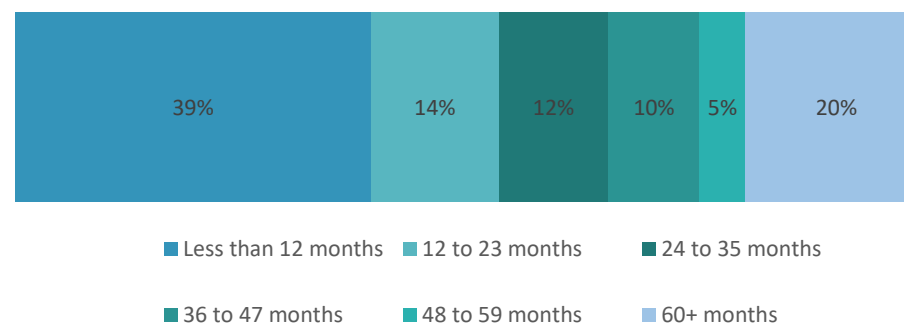
### Level 4-6 NC/DIP Graduate Contributions to Toi Puaki by year

2017	2018	2019	2020	2021
0	154	250	304	293

Source: NZQA

### Attrition Rate

#### Toi Puaki Industry Tenure

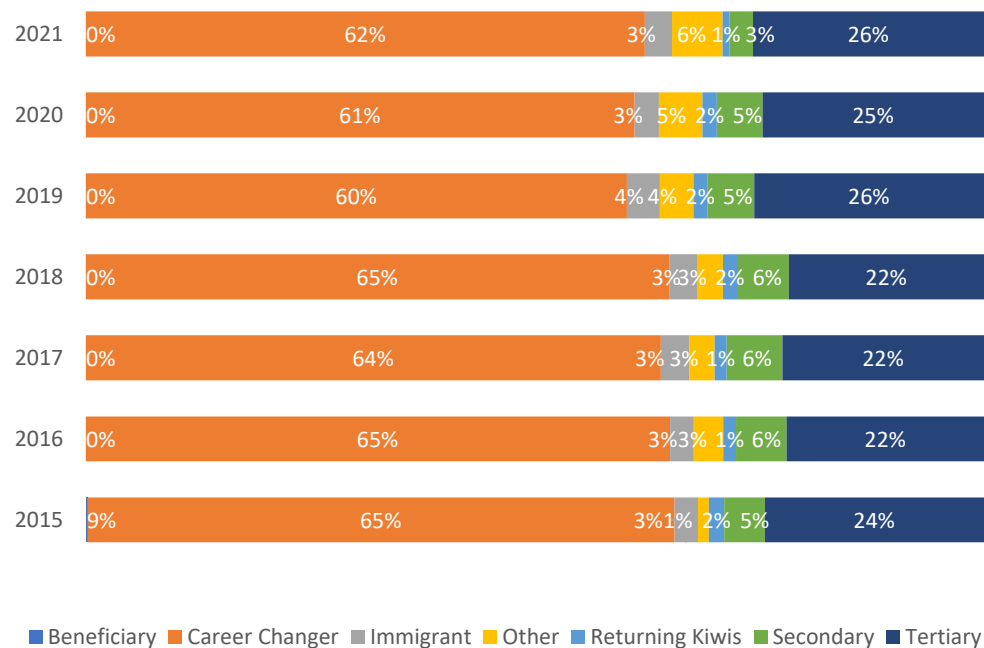


Around 40% of those working within the industry have been involved for less than 12 months. This is the highest of the Toi Mai industries. Only 20% have been in the industry for 60+ months, which suggests that opportunities to progress and remain in the industry sustainably is limited.

Source: Toi Mai COVID-19 Recovery BED Project (2022)

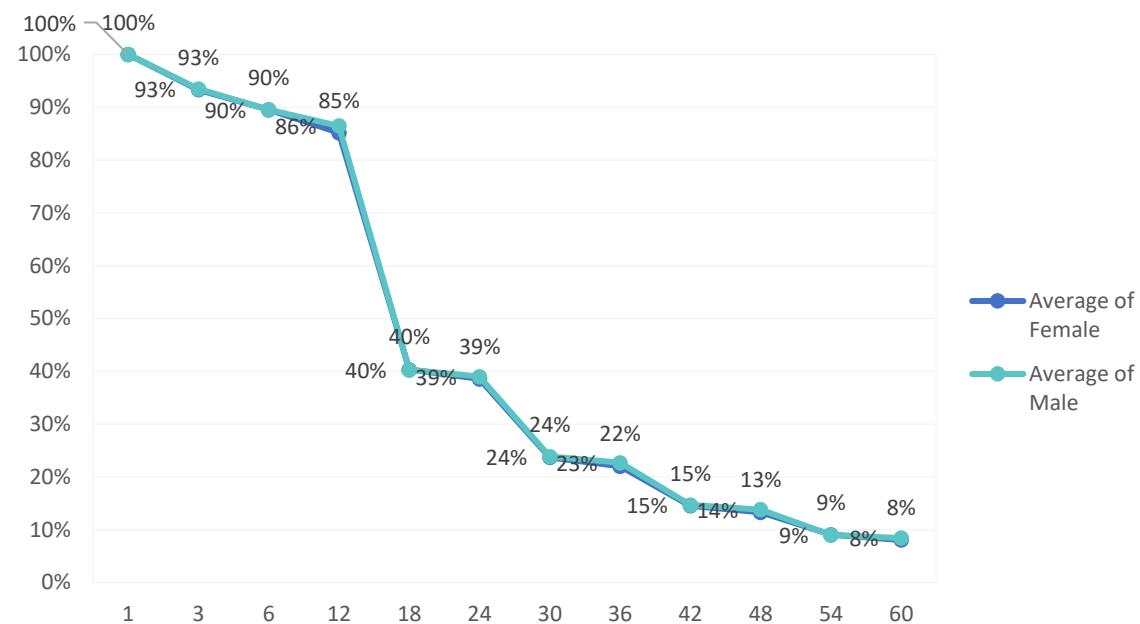
# Toi Puaki Sector Overview

## New Entrants by Source



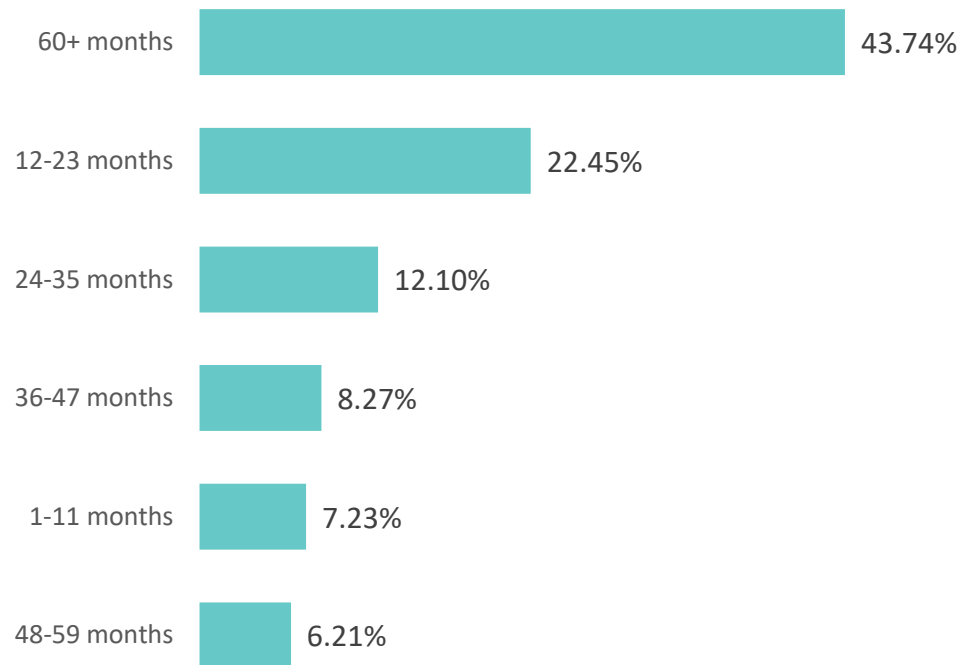
Source: Scarlatti (2022)

## Average Retention Rate of New Entrant By Gender and Number of Months in Industry



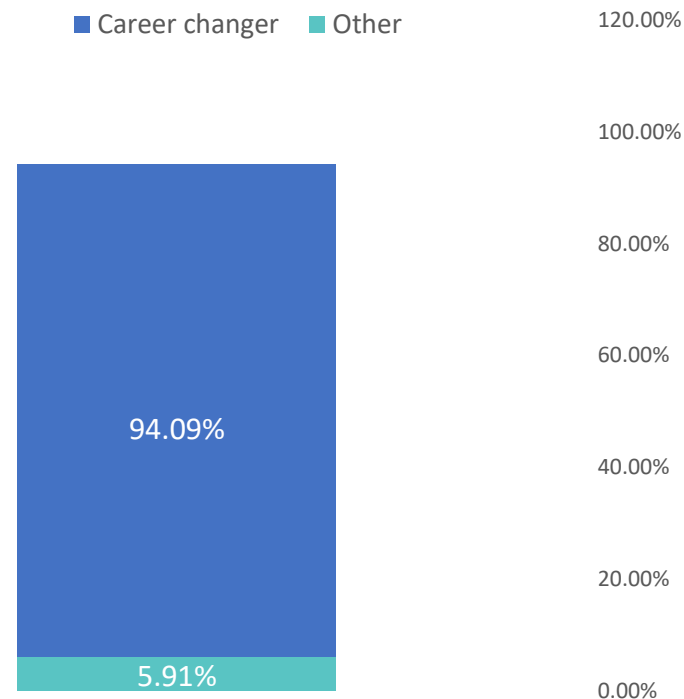
# Toi Puaki Sector Overview

## Average Industry Tenure



Source: Scarlatti (2022)

## Destination of Workforce Leaver in 2020

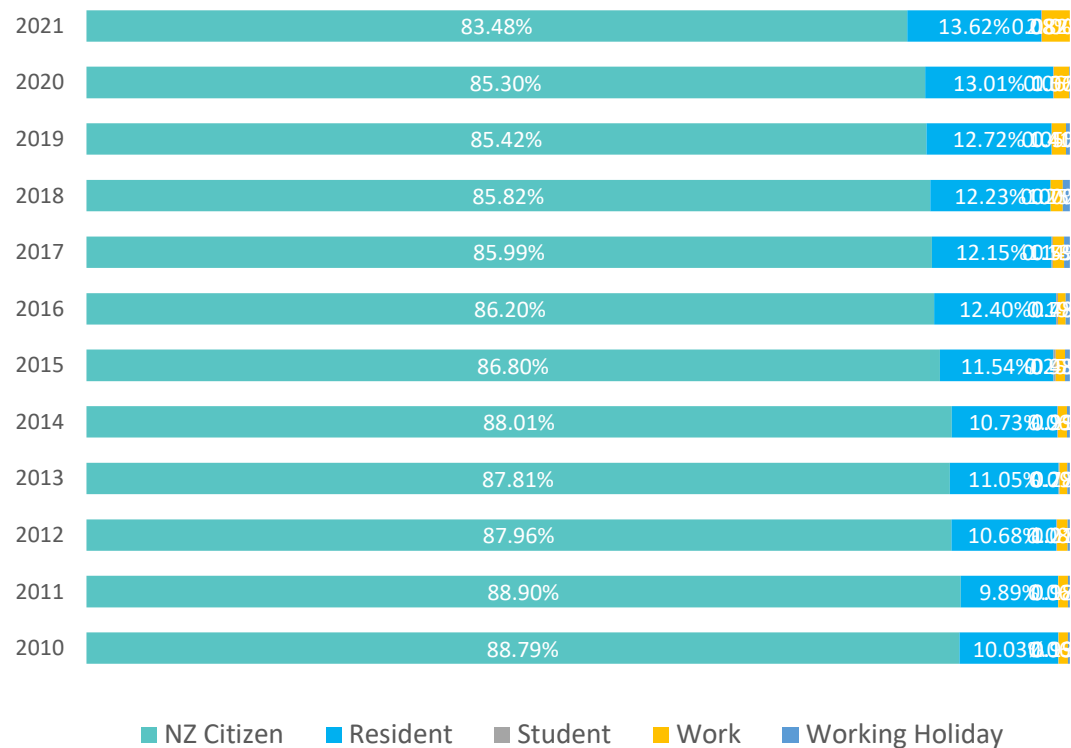


*Career changers:* New entrants who previously worked in a different industry prior to joining workforce (i.e. would be considered a workforce member in a different industry).



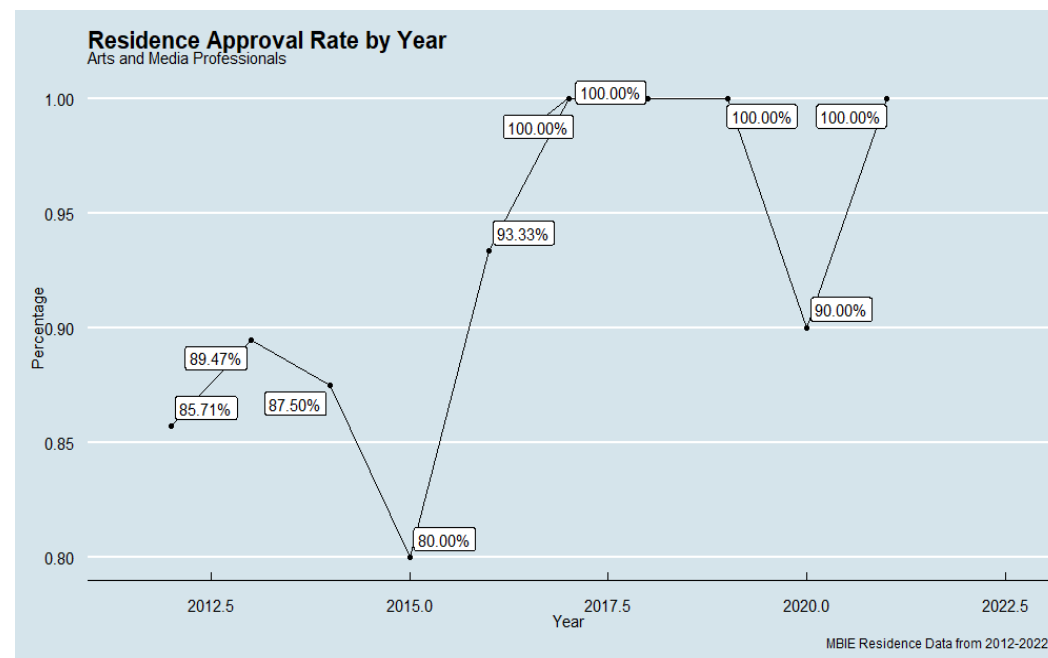
# Toi Puaki Sector Overview

## Workforce by Visa Status



Source: Scarlatti (2022)

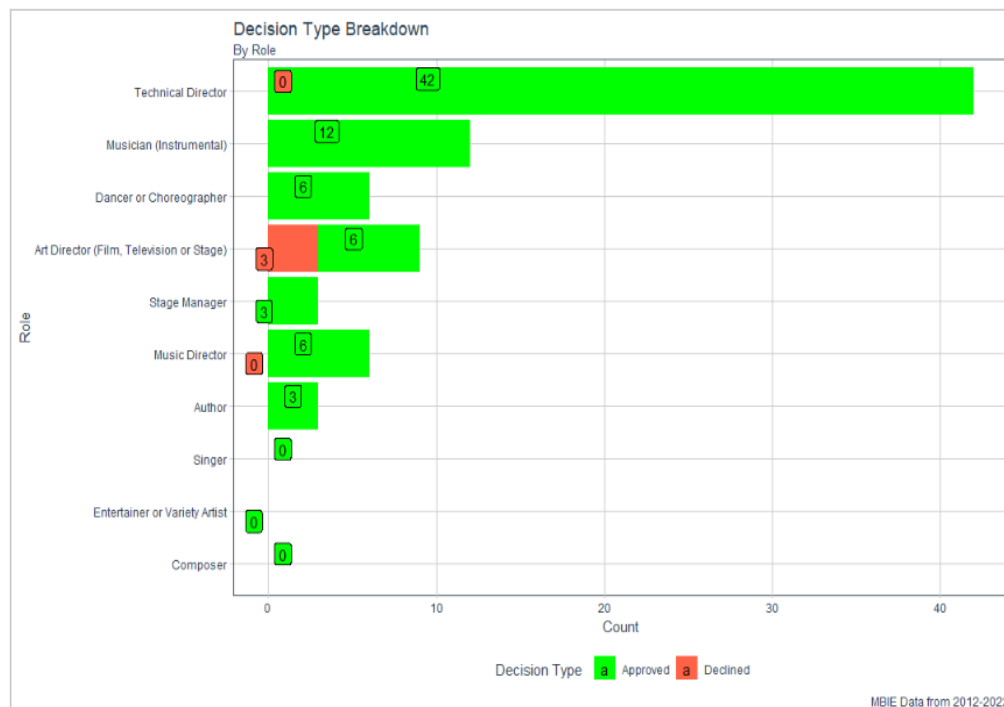
## INZ Residence Approval Rate by Year



According to IBISWorld, compared with 2014, the revenue for the New Zealand Performing Arts industry went up by 20.03% in 2015, which is peak in last 10 years.

# Toi Puaki Sector Overview

Rank of Expressive Arts Roles by number of residence visas applications to INZ



Rank of Expressive Arts Roles by number of work visas applications to INZ



The charts above indicate residence visa (left), and work visa (right) applications for specific occupations. These indicate possible shortages given that these visas are granted based on employment. For Music Professionals, 98% of visa are through criteria 'Entertainers and Associated Workers' & 'Specific Purpose or Events' visas. 3909 of Entertainers or Variety Artists were approved through the same criteria

Source: MBIE (2022)

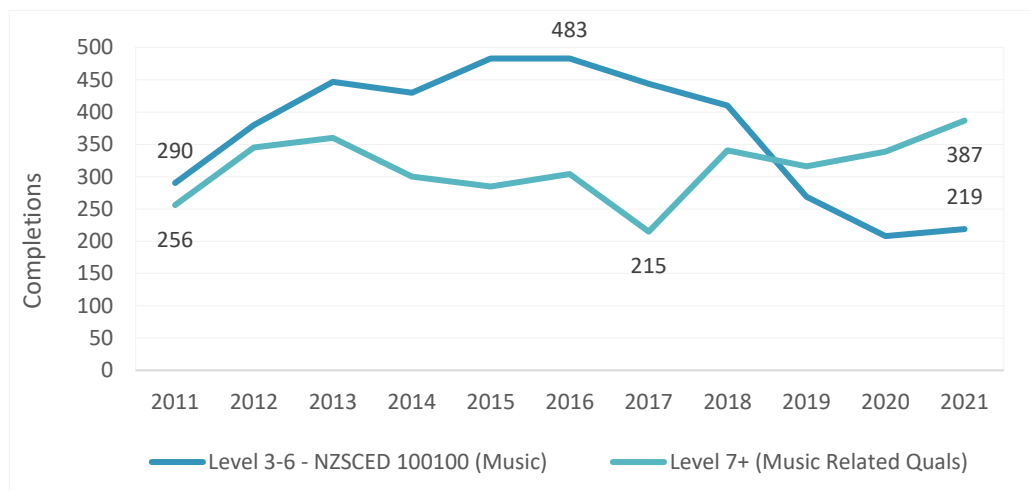
# Musician

Occupations included in this analysis are:

- Musician (Instrumental)
- Music Teacher (Private tuition)

Total employment for these occupations for 2021 are **5195**

**NZSCED 100100 (Music): Level 3-6 Qualifications & Level 7+ Music Related Quals**

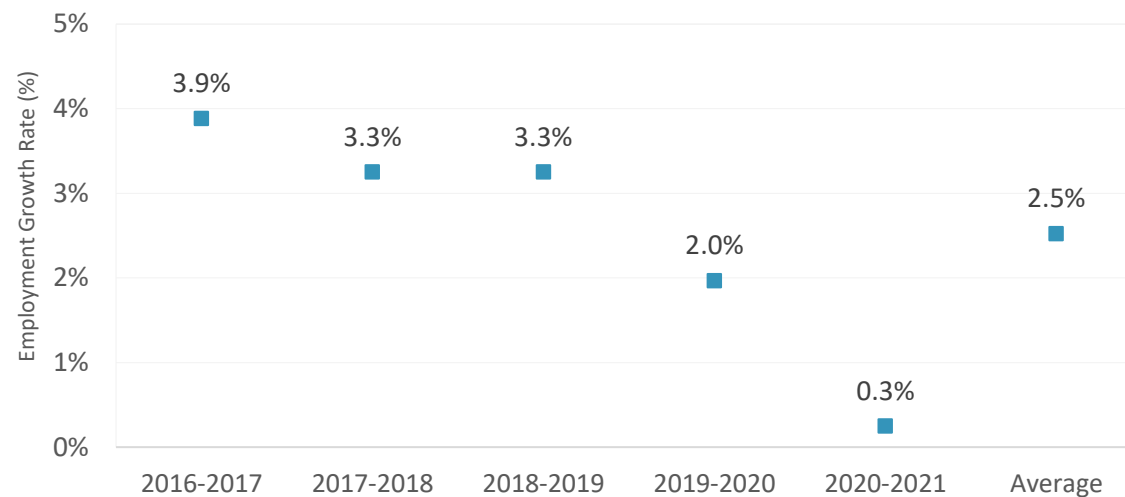


The graph above shows a clear trend between the completions of music related qualifications at level 3-6 qualifications and level 7+ qualifications across 2011-2022. While qualifications for level 3-6 peaked have sharply declined from its peak in 2016, simultaneously, there has been a rise in the number of qualifications at the level 7+ level.

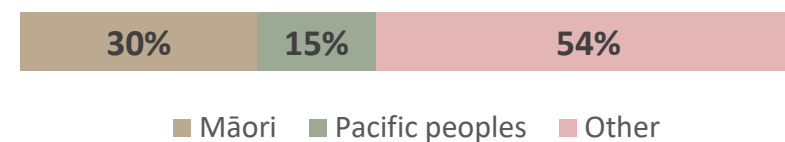
Qualifications included:

NZ Certificate in Music (Level 4) (3418) – **Feeder to Level 5**, NZ Diploma in Music (Level 5) (3431) – **Work Ready**, NZ Diploma in Music (Level 6) (3432) – **Work Ready**

**Employment Growth Rate**

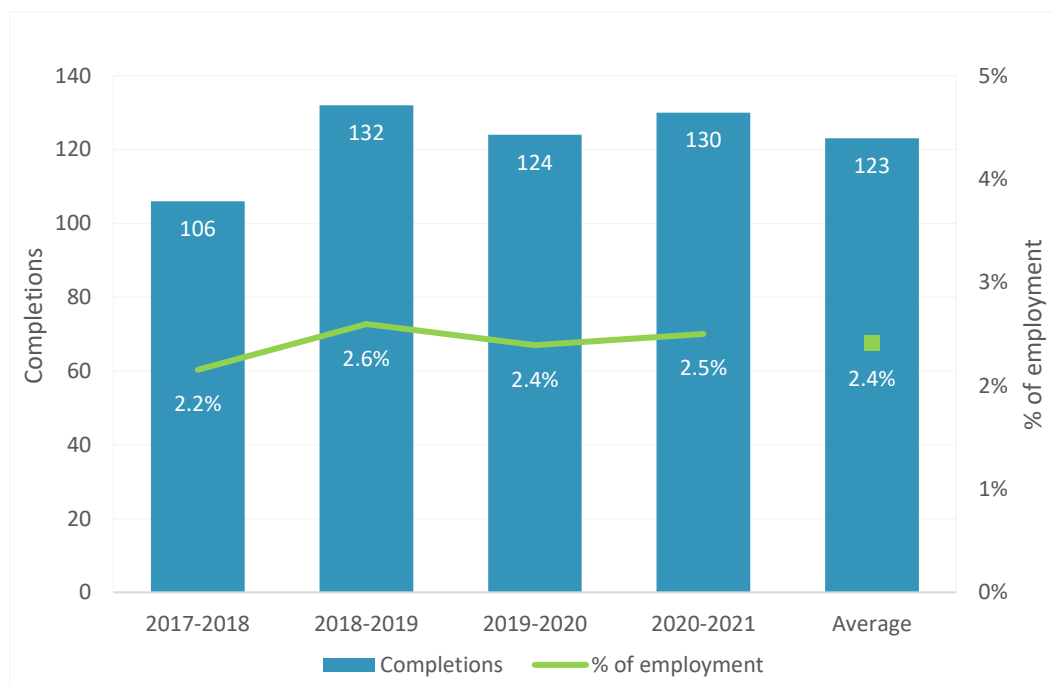


## Completions by ethnicity

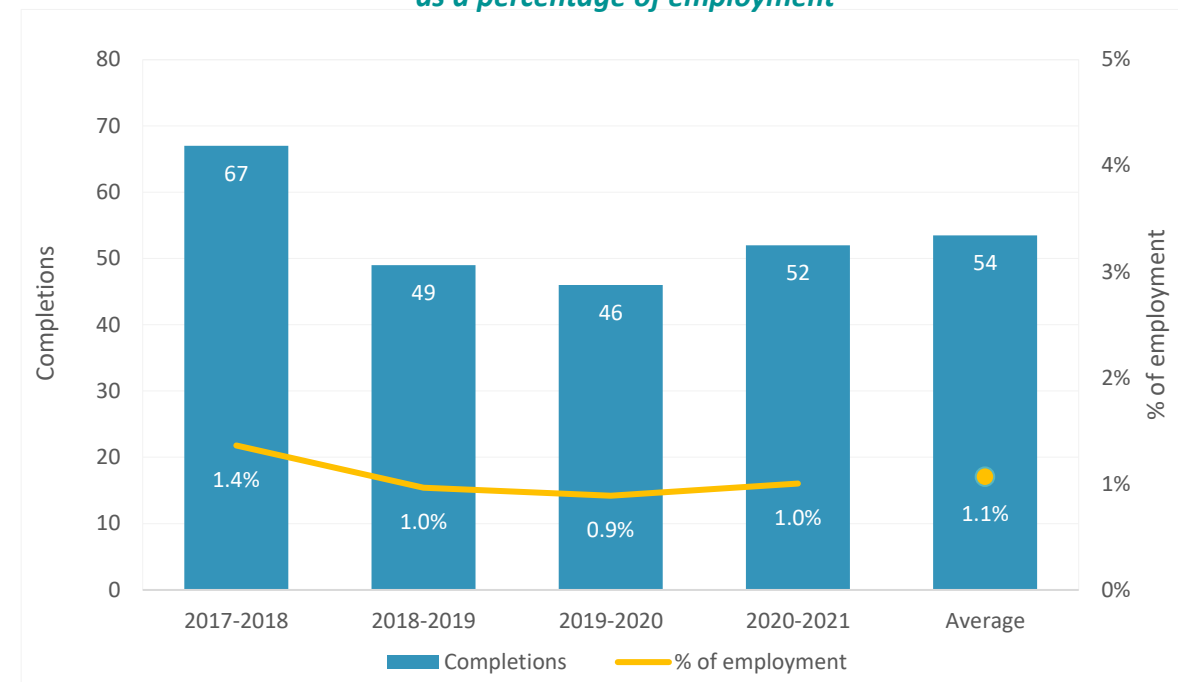


# Musician

*Toi Mai Music related level 3-6 completions as a percentage of employment*



*Toi Mai Work-Ready Music related completions (level 5 & 6) as a percentage of employment*



Both graphs above provide comparison of Toi Mai qualifications related to Music, showing it as a percentage against the Musician and Music Teacher occupations. For the qualifications which consider a graduate 'work-ready' (level 5&6), those who have the necessary skills for employment, there are 54 completions on average across 2017-2021, on average 1.1% of the employment. For all qualifications, there is on average 123 completions, with the NZ Certificate in Music (Level 4) considered to be a feeder to the level 5 Diploma in Music.

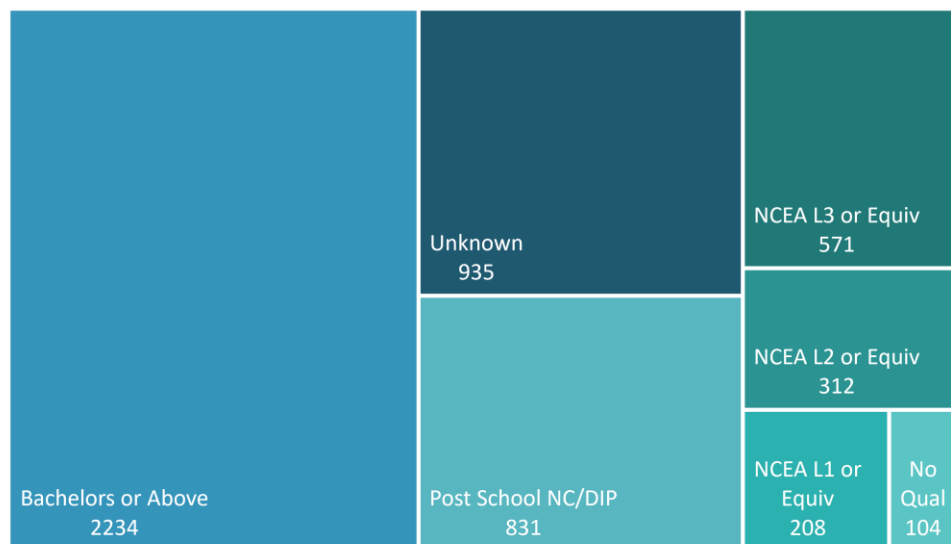
Qualifications included:

NZ Certificate in Music (Level 4) (3418) – **Feeder to Level 5**, NZ Diploma in Music (Level 5) (3431) – **Work Ready**, NZ Diploma in Music (Level 6) (3432) – **Work Ready**

# Musician

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Musician Workforce Composition by Highest Qualification



The workforce increased 2.5% on average between 2017-2021, and the tertiary education system contributes an average of 23.03% of new entrants to the industry (2015-2021).

Qualifications included:  
 NZ Certificate in Music (Level 4) (3418) – **Feeder to Level 5**, NZ Diploma in Music (Level 5) (3431) – **Work Ready**, NZ Diploma in Music (Level 6) (3432) – **Work Ready**

NZQA Achievement Data by Toi Mai Qualification and Provider between 18-21 Level 3-6

Qualifications & Provider	2018	2019	2020	2021	Grand Total
<b>3418 - New Zealand Certificate in Music</b>	<b>39</b>	<b>83</b>	<b>78</b>	<b>78</b>	<b>278</b>
Ara Institute of Canterbury Ltd		5		10	15
Excel Ministries Charitable Trust	23	17	13		53
Nelson Marlborough Institute of Technology Limited		8	6	5	19
Southern Institute of Technology Ltd	16	12	11	8	47
Te Pūkenga Trading As Toi Ohomai Institute of Technology		18	27	30	75
Universal College of Learning (UCOL) Limited		5	6	12	23
Whitireia Community Polytechnic Limited		18	15	13	46
<b>3431 - New Zealand Diploma in Music</b>	<b>67</b>	<b>49</b>	<b>46</b>	<b>45</b>	<b>207</b>
Eastern Institute of Technology Ltd	20	14	13	7	54
Excel Ministries Charitable Trust		17	9		26
Nelson Marlborough Institute of Technology Limited		3	6	5	14
Southern Institute of Technology Ltd	47	15	1	5	68
Te Pūkenga Trading As Toi Ohomai Institute of Technology			6	16	22
Whitireia Community Polytechnic Limited			11	12	23
<b>3432 - New Zealand Diploma in Music</b>				<b>7</b>	<b>7</b>
Whitireia Community Polytechnic Limited				7	7
<b>Grand Total</b>	<b>106</b>	<b>132</b>	<b>124</b>	<b>130</b>	<b>292</b>

Based on all given information, the tertiary education system needs to provide roughly **174 Musicians** to the industry to meet the need.

\*\*Calculation: 5195 \* (10% + 1.1%) \* 23.03%



# Musician

## NZQA Achievement Data by Qualification and Provider between 11-21 Level 7+

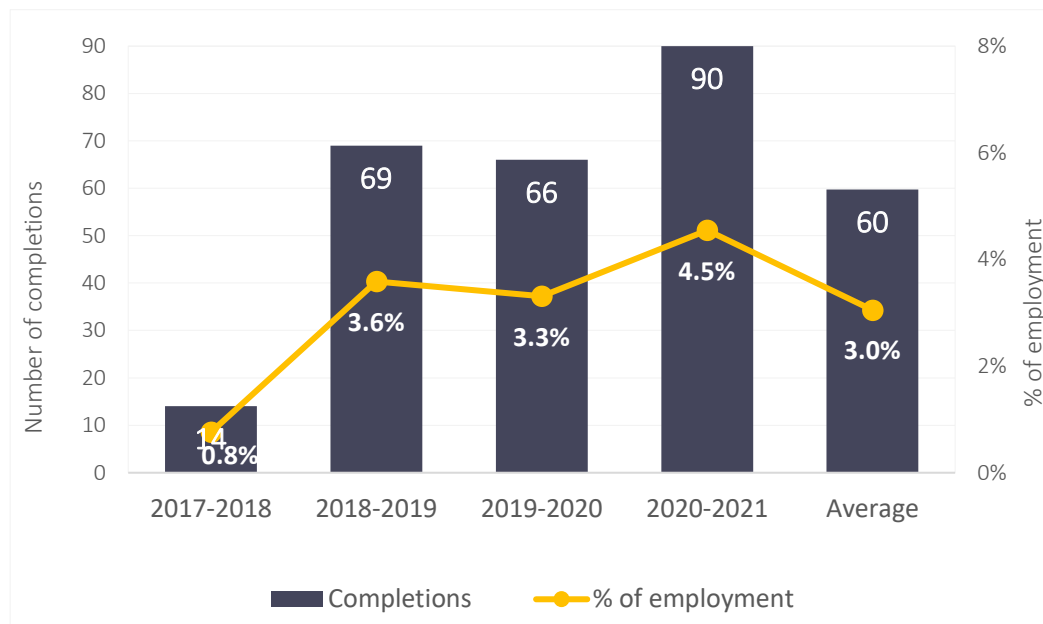
Qualification	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Grand Total
Bachelor of Arts/Bachelor of Music (Conjoint)								1				1
Bachelor of Commercial Music								35	35	49	56	175
Bachelor of Commercial Music (Honours)											13	13
Bachelor of Contemporary Music	3	4	16	14	13	6	8	2	10	2	13	91
Bachelor of Music	136	158	143	133	114	129	88	153	135	145	160	1494
Bachelor of Music (Contemporary Christian Music)	2	6	12	24	7	1	7	3	4	5		71
Bachelor of Music (Honours)	24	23	39	24	17	28	21	20	25	29	13	263
Bachelor of Music and Performing Arts											5	5
Bachelor of Music Arts	1					20	22	20	20	18	29	130
Bachelor of Music Production										6	13	19
Bachelor of Music with Honours	24	29	26	15	31	36	30	35	30	29	43	328
Bachelor of Musical Arts		28	40	29	32	9		9	16	10	11	184
Bachelor of Performing Arts (Music Theatre)		26	23	15	18							82
Conjoint: Bachelor of Music/Bachelor of Science	1	4	4	6	5	12	7	6	6	8	3	62
Doctor of Music	1					1		2	1		1	6
Doctor of Musical Arts	2	1	1	4	3	4	3	7	2	3	5	35
Graduate Certificate in Contemporary Music					4	5	1	1			2	13
Graduate Diploma in Contemporary Music	2		2	2		1	3	3	1	1		15
Graduate Diploma in Music	4	7	4	6	2	2		6	6	4	3	44
Graduate Diploma in Music Production								1	1		1	3
Master of Music	19	39	16	10	26	27	14	24	13	14	10	212
Master of Music (after Bachelor of Music with Honours)						1	2	3	1	7	1	15
Master of Musical Arts	4	2	5	6	2	8		4	3	2	2	38
Postgraduate Diploma in Music	33	18	29	12	11	14	9	6	7	7	3	149
<b>Grand Total</b>	<b>256</b>	<b>345</b>	<b>360</b>	<b>300</b>	<b>285</b>	<b>304</b>	<b>215</b>	<b>341</b>	<b>316</b>	<b>339</b>	<b>387</b>	<b>3448</b>

# Performers

ANZSIC occupations included in this analysis are:

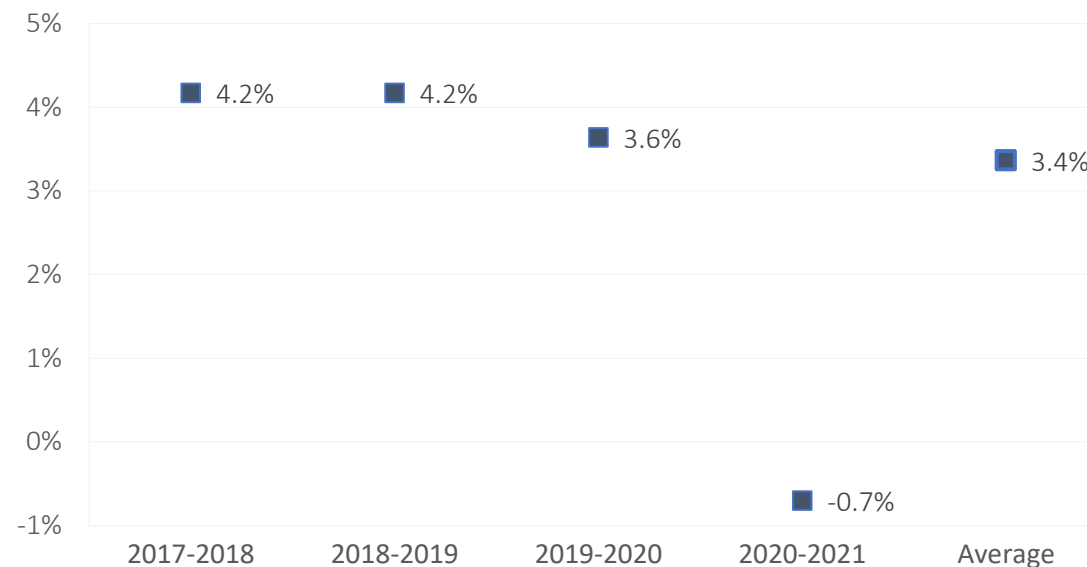
- Entertainer or Variety Artist
- Actor
- Dancer or Choreographer
- Actors, Dancers and Other Entertainers nec

## Completions as a percentage of employment



**Interim assessment:**  
**Completions are just about right relevant to the new entrant tertiary contribution to the sector**

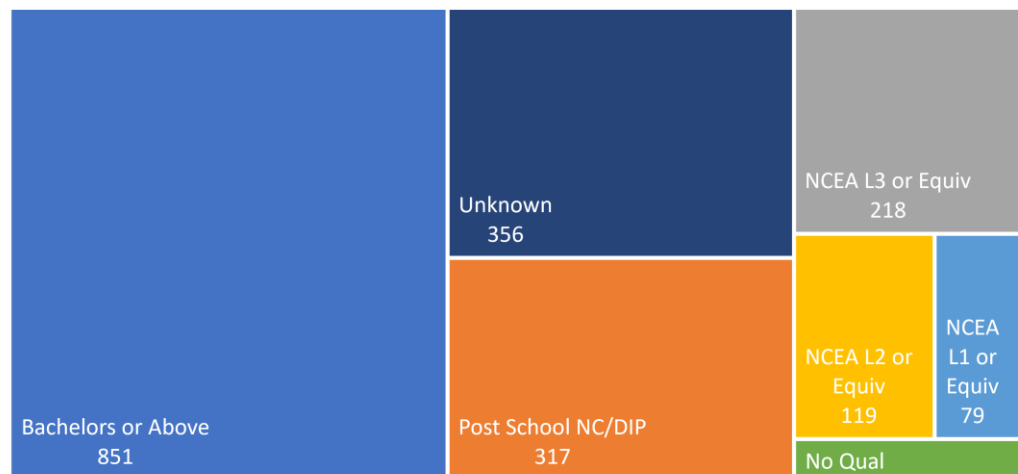
## Employment Growth Rate



# Performers

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Entertainer or Variety Artist Workforce Composition by Highest Qualification



The workforce increased 3% on average, and the tertiary education system contributes an average of 23.03% of new entrants to the industry. The average post-school NC/Dip is 33.43%, while Level 7+ Bachelor or above is 66.57%.

Qualifications included:

New Zealand Certificate in Dance (Level 4), New Zealand Certificate in Drama (Level 4), New Zealand Certificate in Performing Arts (Level 3), New Zealand Certificate in Performing Arts (Level 4), New Zealand Diploma in Performing Arts (Level 5), New Zealand Diploma in Performing Arts (Level 6), New Zealand Diploma in Dance (Level 5), New Zealand Diploma in Dance (Level 6), New Zealand Diploma in Drama (Level 5), New Zealand Diploma in Drama (Level 6)

## NZQA Achievement Data by Qualification and Provider between 18-21

Qualification Title	Provider Name	2018	2019	2020	2021	Grand Total
3413 - New Zealand Certificate in Dance	Excel Ministries Charitable Trust	8	8	1		17
3415 - New Zealand Certificate in Drama	Excel Ministries Charitable Trust	6	3	3		12
3419 - New Zealand Certificate in Performing Arts	Whitireia Community Polytechnic Limited		28	7	9	44
3420 - New Zealand Certificate in Performing Arts	Ara Institute of Canterbury Ltd				11	11
3425 - New Zealand Diploma in Dance	Excel Ministries Charitable Trust		4	6		10
3426 - New Zealand Diploma in Dance	Whitireia Community Polytechnic Limited			16	17	33
3428 - New Zealand Diploma in Drama	Excel Ministries Charitable Trust		5	2		7
	Yoobee Colleges Limited		21		5	26
3429 - New Zealand Diploma in Drama	Whitireia Community Polytechnic Limited			11	9	20
	Yoobee Colleges Limited			7	18	25
3434 - New Zealand Diploma in Performing Arts	Whitireia Community Polytechnic Limited			13	21	34

Based on all given information, the tertiary education system needs to provide roughly **61** Entertainer or Variety Artists to the industry to meet the need.

\*\*Calculation: 1980 \* (10% + 3.4%) \* 22.73%





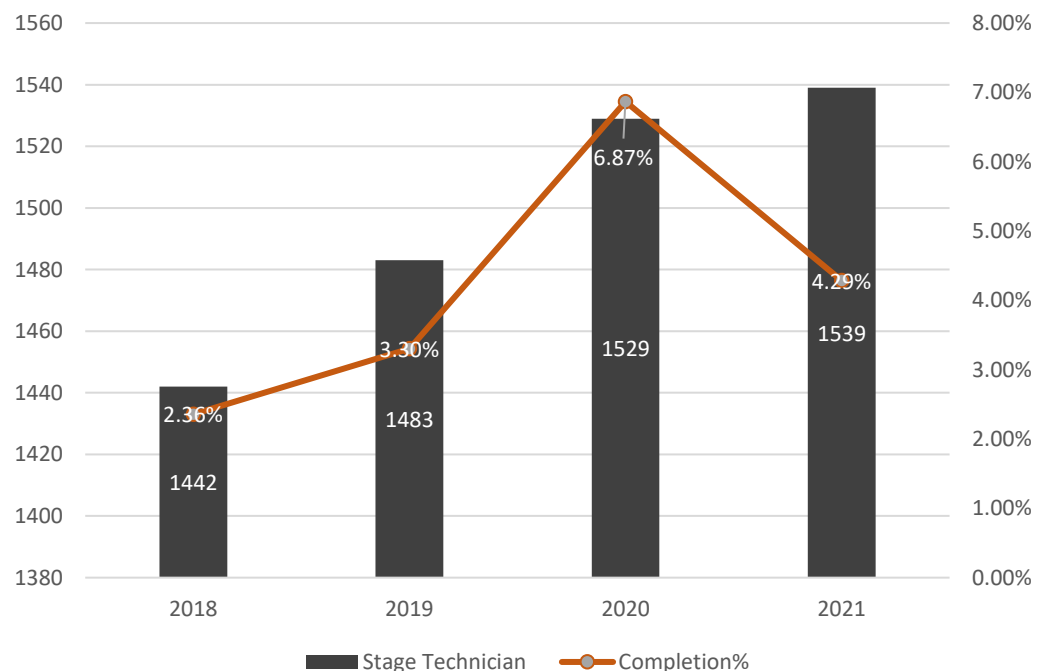
# Stage Technicians

ANZSIC occupations included in this analysis are:

- Light Technicians
- Sound Technicians
- Performing Arts Technicians nec

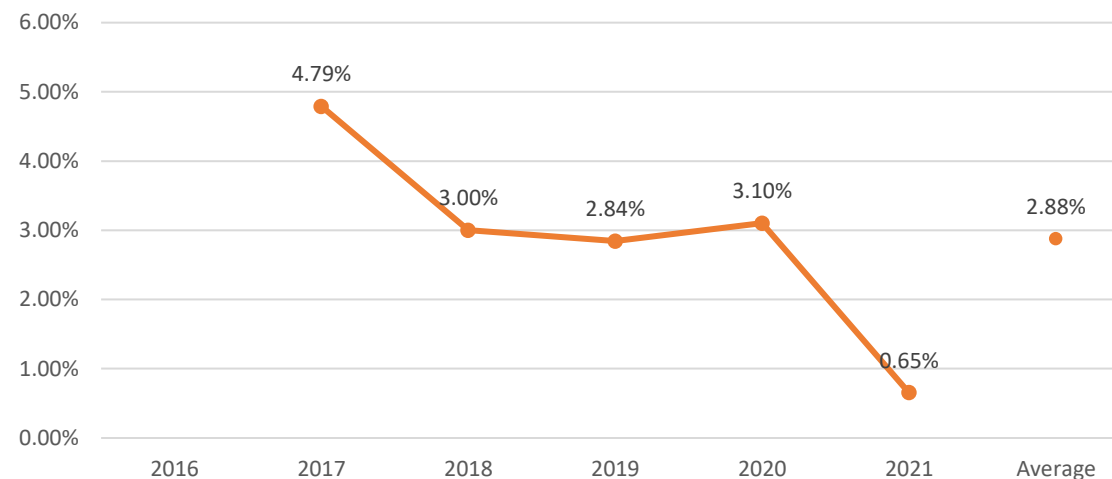
Interim assessment:

## Completions as a percentage of employment

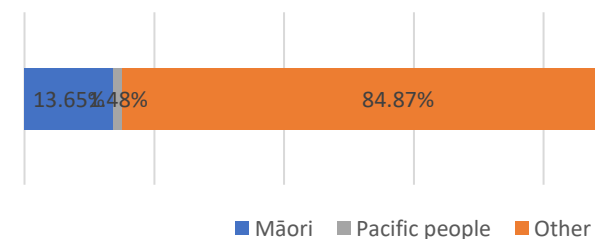


Qualifications included:  
New Zealand Certificate in Entertainment and Event Operations (Level 3) – 3416, New Zealand Certificate in Entertainment and Event Technology (Level 4)-3417, New Zealand Certificate in Entertainment and Event Technology (Level 5)-4493

## Employment Growth Rate



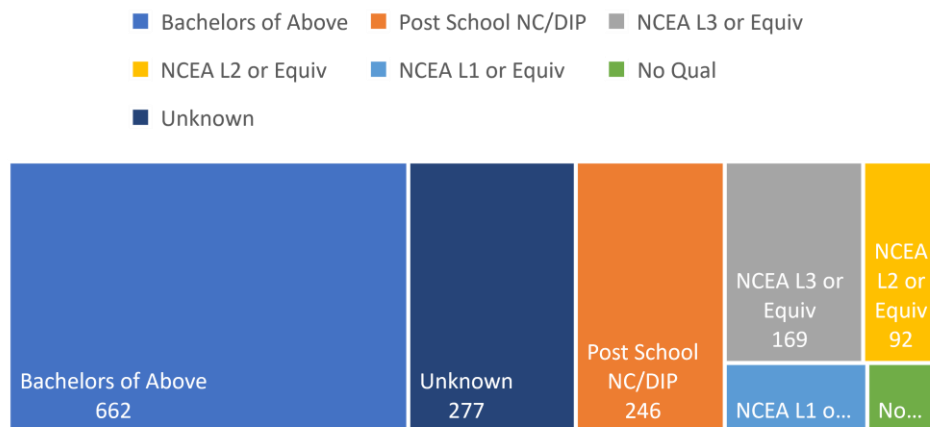
## Completions by ethnicity



# Stage Technicians

To apply Scarlatti's information on workforce composition by highest qualification to Infometrics' continuous measurement on the role in 2021. We can assume:

Stage Technicians Workforce Composition By Highest Qualification



The workforce increased 2.88% on average, and the tertiary education system contributes an average of 23.03% of new entrants to the industry. The average post-school NC/Dip is 33.43%, while Level 7+ Bachelor or above is 66.57%.

Qualifications included:  
 New Zealand Certificate in Entertainment and Event Operations (Level 3) – 3416, New Zealand Certificate in Entertainment and Event Technology (Level 4)-3417, New Zealand Certificate in Entertainment and Event Technology (Level 5)-4493

## NZQA Achievement Data by Qualification and Provider between 18-21

Qualification	2018	2019	2020	2021	2022	Grand Total
<b>New Zealand Certificate in Entertainment and Event Operations</b>	13	35	85	54	17	204
<b>3416</b>	13	35	85	54	17	204
Skills Active Aotearoa Limited	13	35	85	54	17	204
<b>New Zealand Certificate in Entertainment and Event Technology</b>	21	14	20	12		67
<b>3417</b>	21	14	20	12		67
Northland Polytechnic Ltd				1		1
Skills Active Aotearoa Limited	3	14	4	4		25
Southern Institute of Technology Ltd	18		16	7		41
<b>Grand Total</b>	34	49	105	66	17	271

Based on all given information, the tertiary education system needs to provide roughly **46** Stage Technicians to the industry to meet the need.

$$**\text{Calculation: } 1539 * (10\% + 3.4\%) * 22.73\%$$



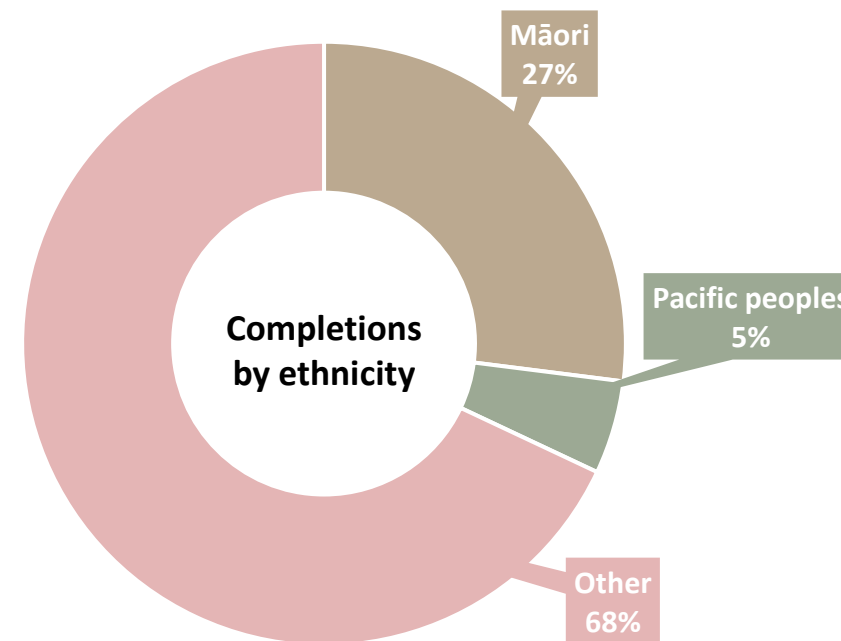
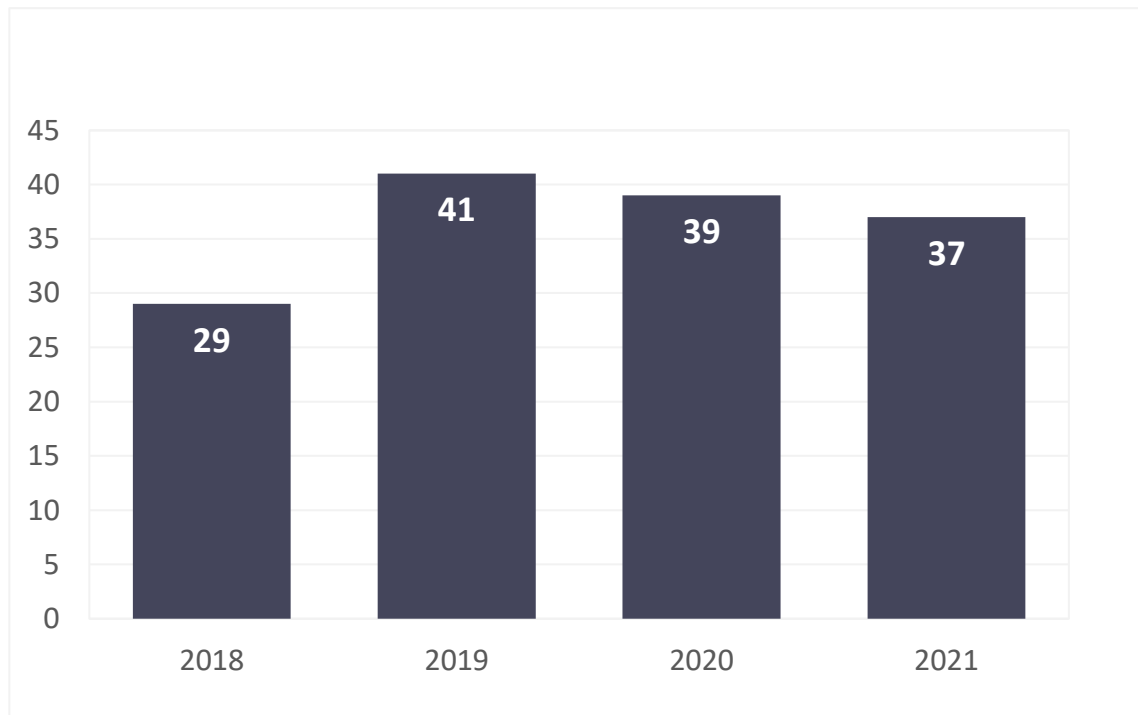
## Toi Puaki Qualifications

Qualification Title	Qualification Num	Total Completions (2011-2022)
☐ New Zealand Certificate in Music	3418	278
☐ New Zealand Diploma in Music	3431	207
	3432	7
☐ New Zealand Certificate in Entertainment and Event Operations	3416	204
☐ New Zealand Diploma in Drama	3428	33
	3429	45
☐ New Zealand Certificate in Entertainment and Event Technology	3417	67
☐ New Zealand Certificate in Performing Arts	3419	44
	3420	11
☐ New Zealand Diploma in Dance	3425	10
	3426	33
☐ New Zealand Diploma in Performing Arts	3434	34
☐ New Zealand Certificate in Dance	3413	17
☐ New Zealand Diploma in Costume Construction	3424	16
☐ New Zealand Certificate in Drama	3415	12

Cover in This Run of Advice

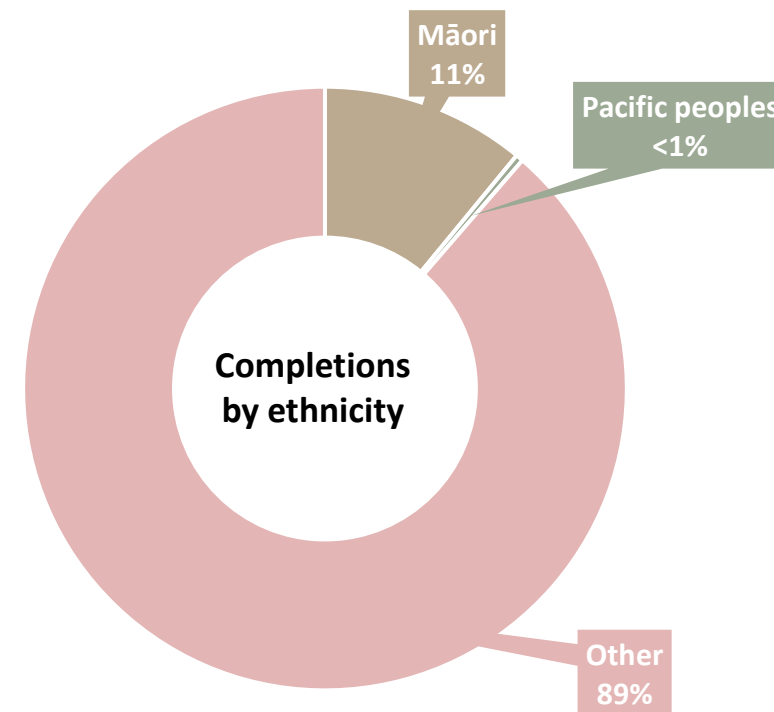
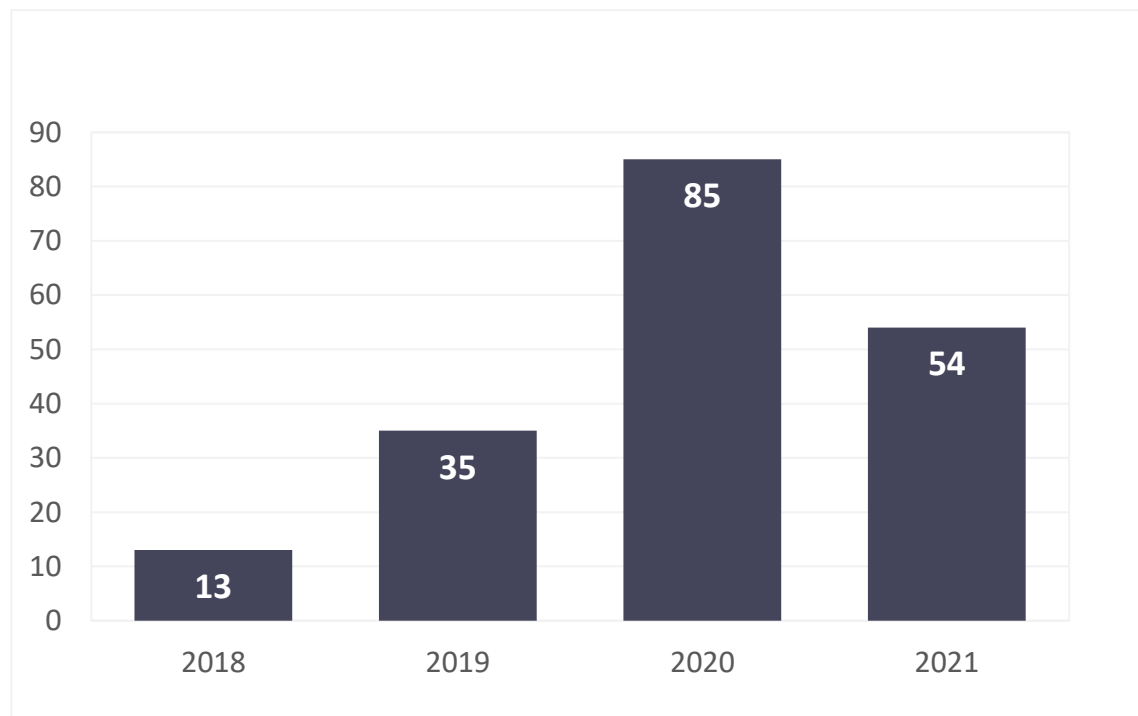
## NZ Certificate in DJ and Electronic Music Production (Level 4)

Completions



## NZ Certificate in Entertainment and Event Operations (Level 3)

Completions



# *Toi Māori*



## TOI MĀORI

Practitioners specialising in the creation of taonga works. For example, weavers, carvers, tohunga tā moko, writers, musicians, mōteatea and kapa haka performers, composers and choreographers, visual artists, designers, waka and wharenui designers and builders. Low data makes it challenging to assess employment in this sector.

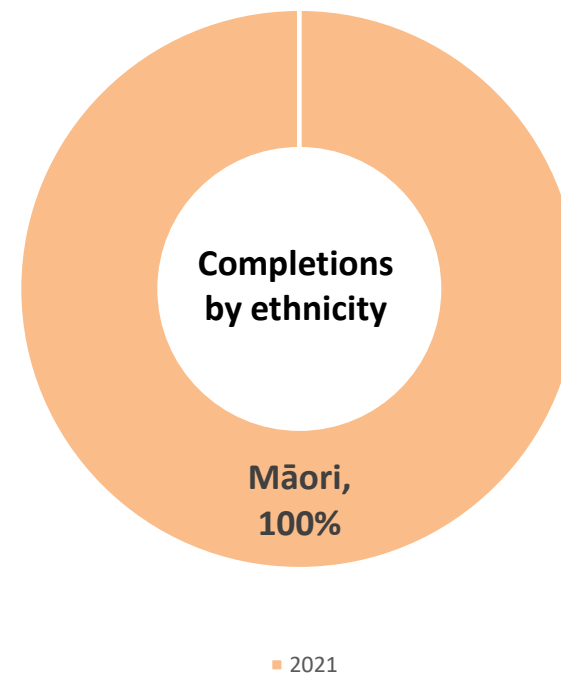
# NZ Certificate in Nga Taonga Takaro (Level 3)

Key Provider: 8129 – Skills Active Aotearoa Limited

## Completions



*\*TEC's enrolment data was implemented with the suppression rule. As a result, min 3, max 5 tauira enrolled on the course in 2021. The enrolment for 2022 was 11.*

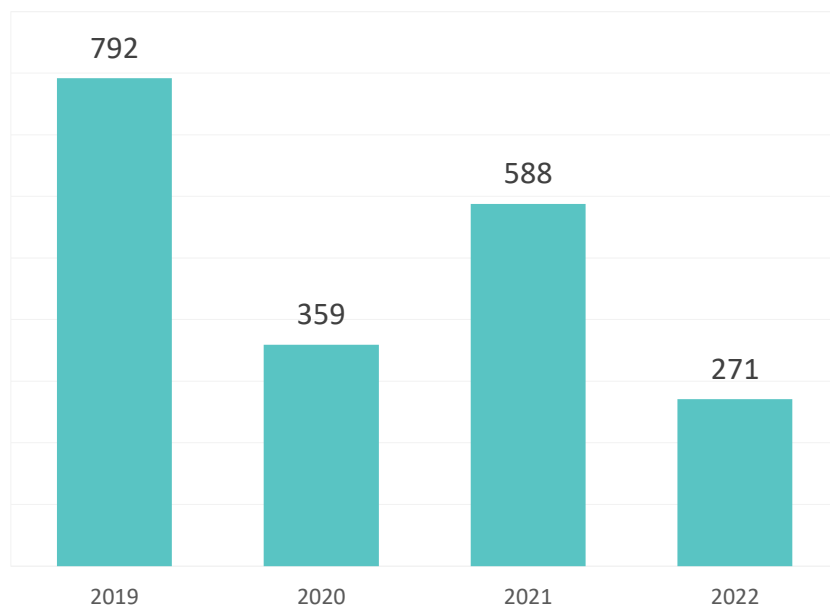




# NZ Certificate in Ngā Toi (Level 3)

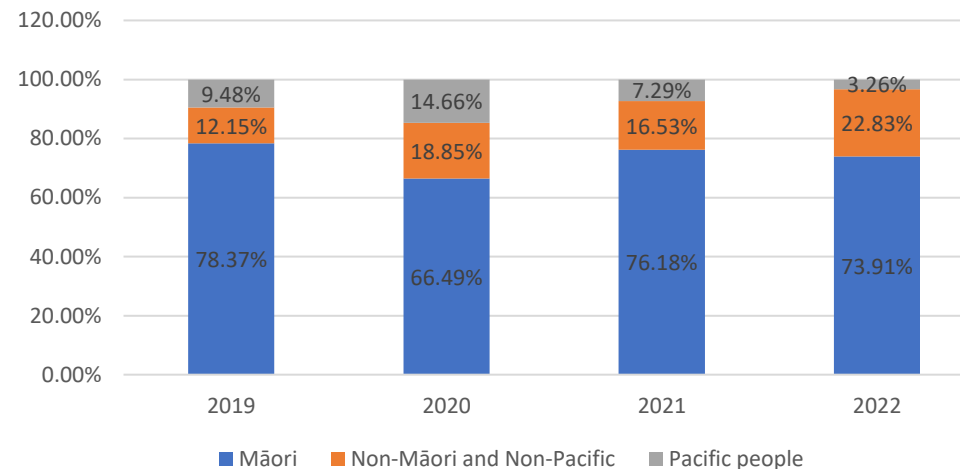
Key Providers: 6011 – Te Pūkenga trading as NMIT  
8630 – Te Wānanga o Aotearoa

**Number of Learners By Reporting Year**

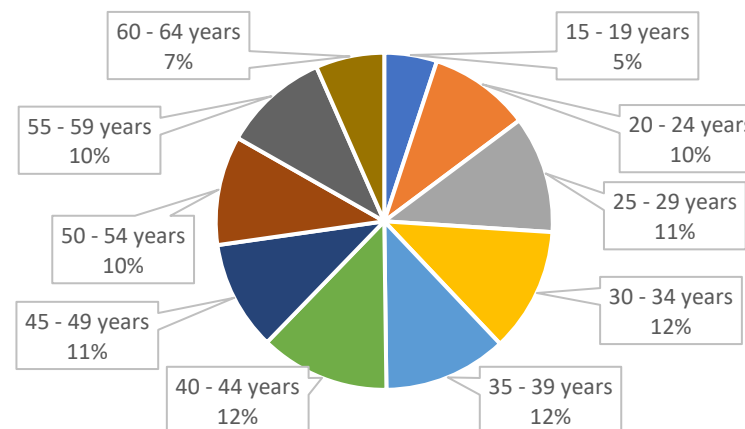


*\*This qualification is owned and quality assured by NZQA. Toi Mai doesn't have access to detailed completion data*

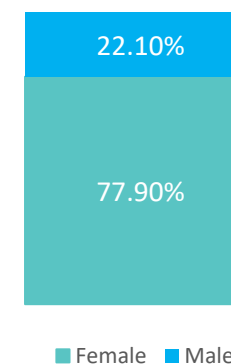
**Enrolment Percent by Ethnicity and Reporting Year**



**Average Enrolment Percent by Age Group**



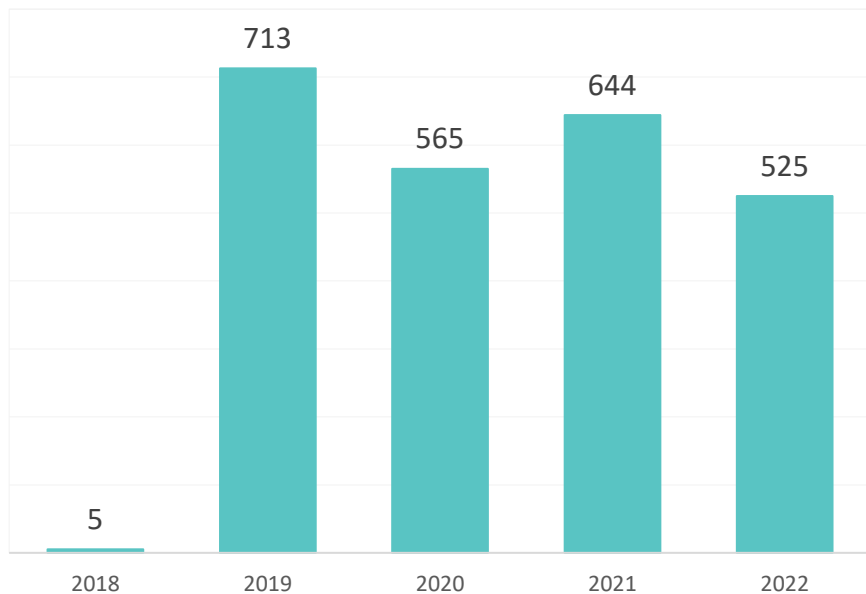
**Average Enrolment Percent by Gender**



# NZ Certificate in Ngā Toi (Level 4)

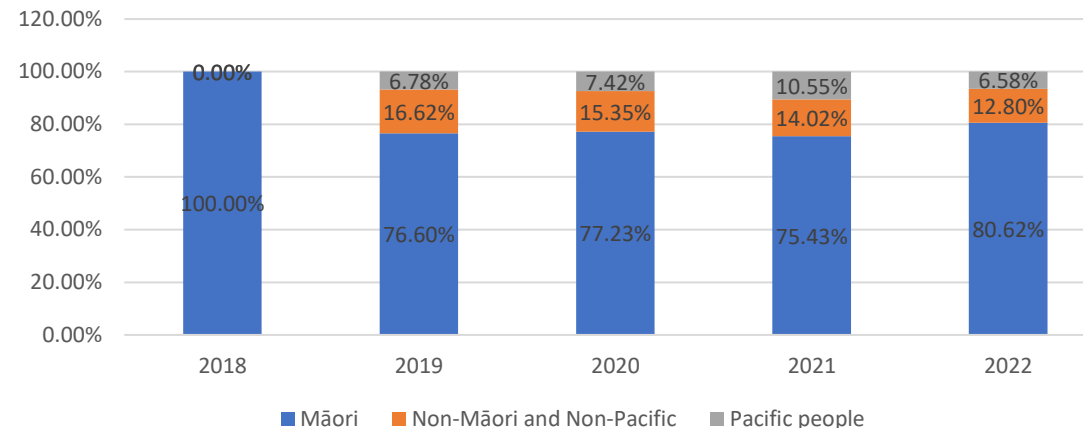
Key Providers: 6007 - Te Pukenga trading as EIT  
 6012 - Te Pukenga trading as NorthTec  
 8630 - Te Wānanga o Aotearoa

### Number of Learners by Reporting Year

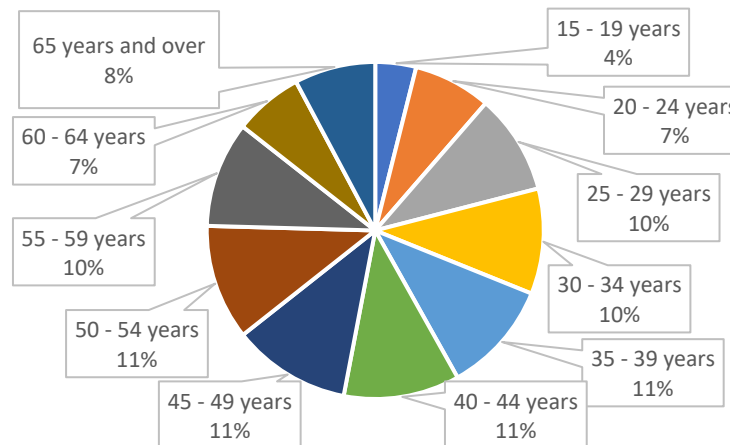


*\*This qualification is owned and quality assured by NZQA. Toi Mai doesn't have access to detailed completion data.*

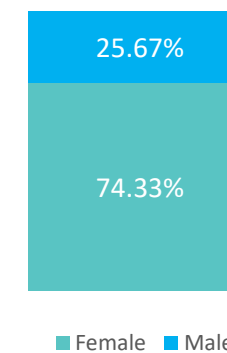
### Enrolment Percent By Ethnicity and Reporting Year



### Average Enrolment Percent by Age Group



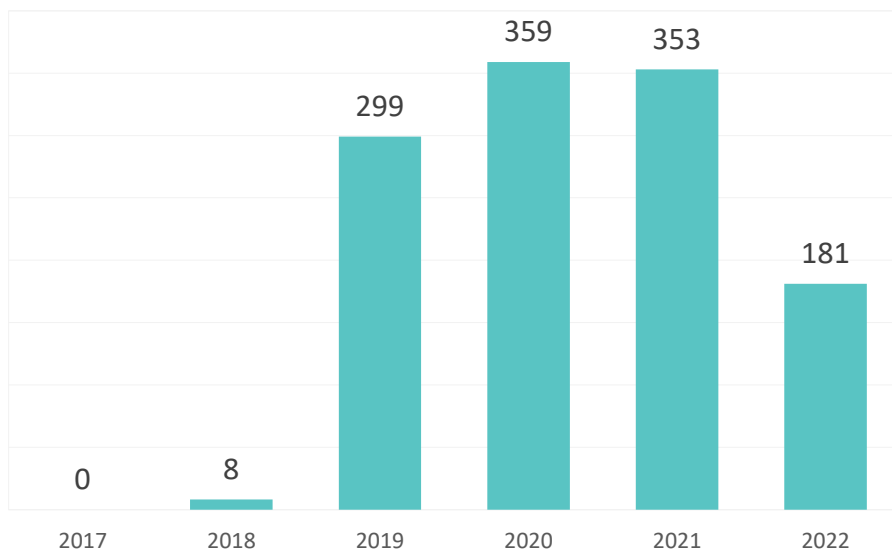
### Average Enrolment Percent by Gender



# NZ Certificate in Ngā Toi (Level 5)

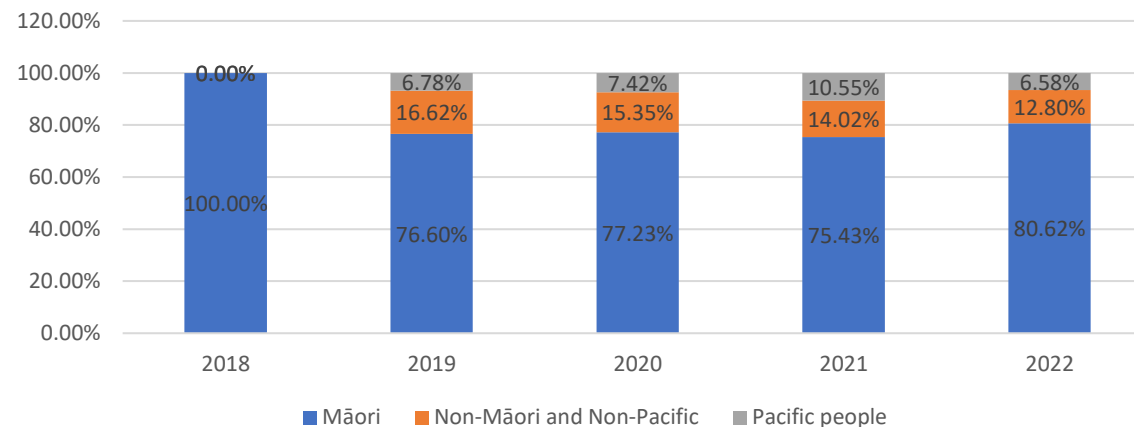
Key Providers: 6007 - Te Pukenga trading as EIT  
 6014 - Te Pukenga trading as Whitireia  
 8630 - Te Wānanga o Aotearoa  
 9847 - Takitimu Performing Arts School Trust

**Number of Learners by Reporting Year**

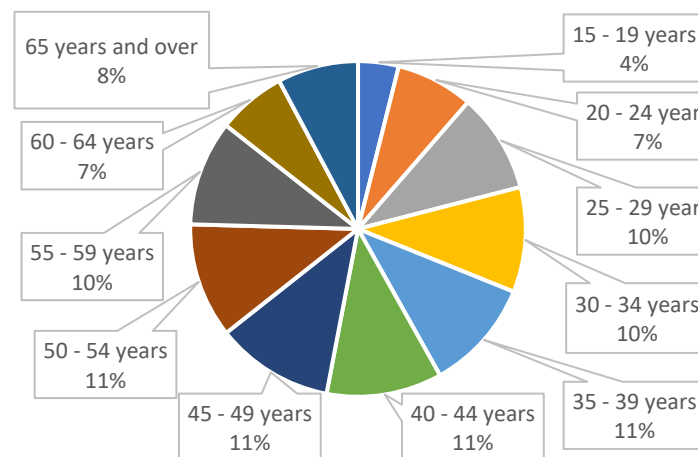


*\*This qualification is owned and quality assured by NZQA. Toi Mai doesn't have access to detailed completion data*

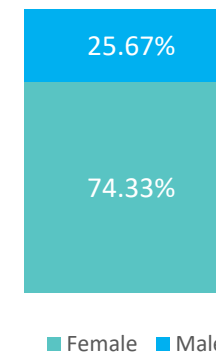
**Enrolment Percent by Ethnicity and Report Year**



**Average Enrolment Percent by Age Group**



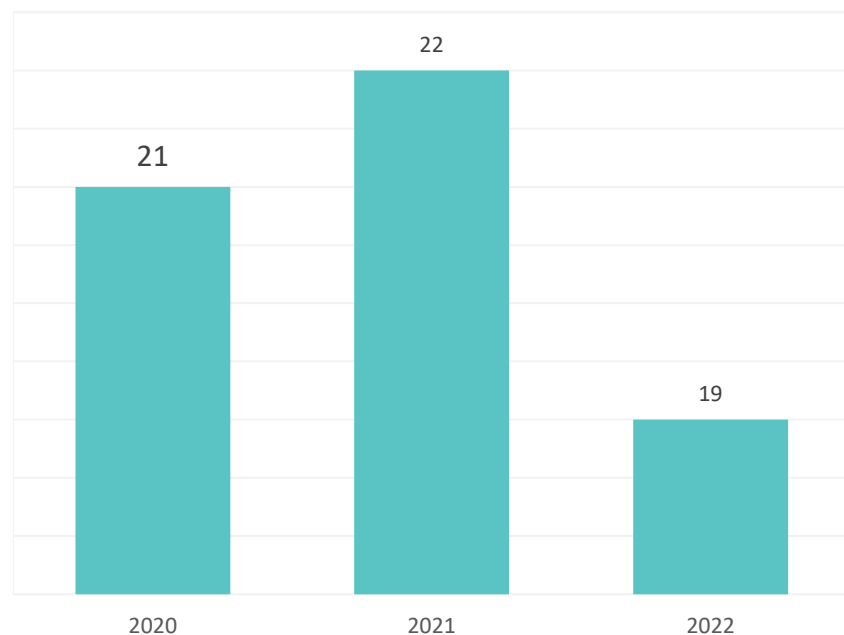
**Average Enrolment Percent by Gender**



# NZ Certificate in Ngā Toi (Level 6)

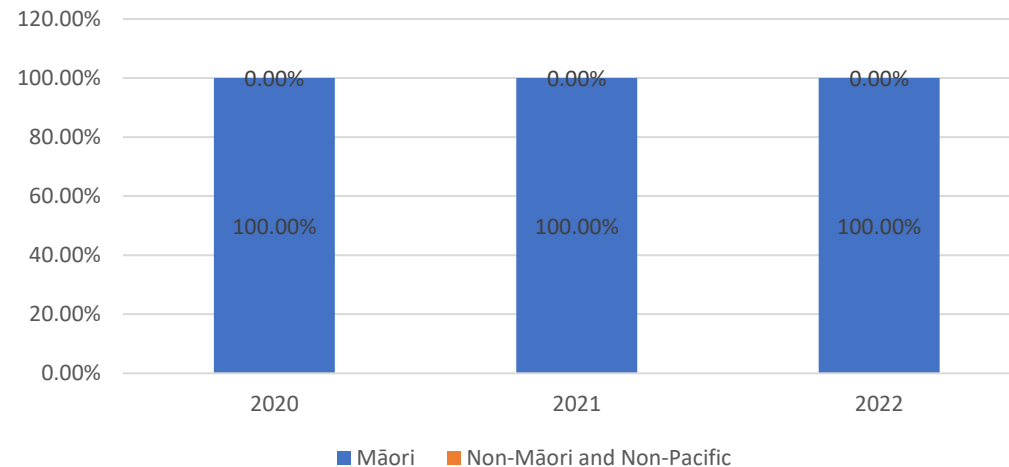
Key Provider: 9847 – Takitimu Performing Arts School Trust

Number of Learners by Reporting Year

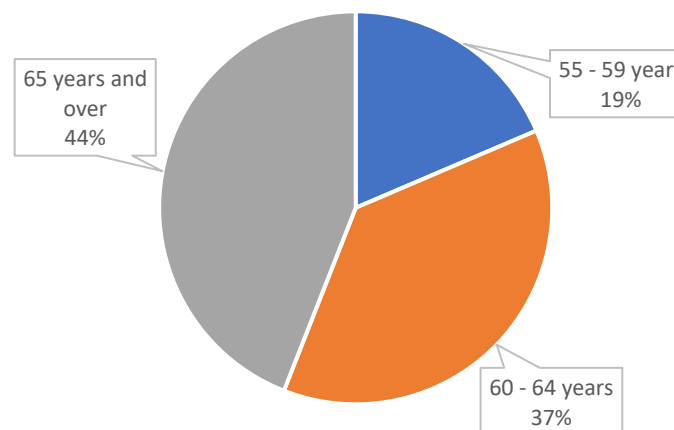


*\*This qualification is owned and quality assured by NZQA. Toi Mai doesn't have access to detailed completion data*

Enrolment percent by Ethnicity and Reporting Year



Average Enrolment Percent By Age Group



Average Enrolment Percent By Gender

