



# Economic Trends in the New Zealand Screen Sector

FEBRUARY 2024 2ND EDITION



MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT  
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa  
New Zealand Government



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**ISBN: ONLINE 978-1-991092-91-5**

**FEBRUARY 2024**

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## Executive summary

Screen has been recognised as a growing sector with potential to contribute to Aotearoa New Zealand's GDP, employment, and economic diversification. The information presented in this report builds upon the first edition of the *Economic Trends in the Screen Sector* report (2021), providing further detail on the composition of the sector's workforce, demographics, and firms. However, it also makes use of different data sources and concepts, which mean that the results in this report are not comparable with the 2021 report. Key findings of this report are highlighted below, providing a snapshot of the sectors current composition and performance.

### Key findings

- There were 24,096 people working in the screen sector over the 12-month period to March 2021, which has increased by 14 per cent over the past decade.
- Screen sector firms generated \$3.3 billion in revenue in 2021.
- As at March 2021, there were 5,166 screen sector firms in Aotearoa New Zealand, which was an increase of 44 per cent over the past decade.
- Most screen sector workers work for firms primarily engaged in Production activities (60 per cent in 2021).
- The Auckland region had the largest number of screen sector firms in Aotearoa New Zealand with approximately 2,400 firms, in 2021. Auckland and Wellington accounted for 83 per cent of all screen sector firms in Aotearoa New Zealand.
- Women comprised approximately 50 per cent of the screen sector workforce over the entire period, with average earnings for women being per cent of that for their male colleagues in 2021.
- There has been a 43 per cent increase in the number of Māori-owned firms in Aotearoa New Zealand between 2012 and 2021.

## Feedback

This second edition of MBIE's *Economic Trends in the New Zealand Screen Sector* makes use of Stats NZ's Longitudinal Business Database (LBD) and Integrated Data Infrastructure (IDI). The use of these databases has allowed Nicholson Consulting and MBIE to produce a richer set of statistics in this edition.

MBIE is seeking feedback from users about the usefulness of data presented in this report. We are seeking to understand areas where these data have met users' needs and suggestions on where further work can be done in later editions.

Please send feedback to: [EconomicInsights@mbie.govt.nz](mailto:EconomicInsights@mbie.govt.nz)

## Authorship

The Ministry of Business, Innovation and Employment (MBIE) commissioned this report. Nicholson Consulting carried out the development of the code base in the Integrated Data Infrastructure, the data analysis, and the interpretation with collaboration from MBIE. MBIE and Nicholson Consulting co-authored the report.

## Microdata disclaimer

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the *Data and Statistics Act 2022*. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers. These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) which are carefully managed by Stats NZ. For more information about the IDI and LBD please visit <https://www.stats.govt.nz/integrated-data/>. The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the *Tax Administration Act 1994* for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes and is not related to the data's ability to support Inland Revenue's core operational requirements.

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# Introduction

## The purpose of this report

The purpose of this report is to provide meaningful and timely information on the screen sector's size, value, and performance which is important to both the Government and the screen sector stakeholders. The Government makes a significant investment in the screen sector, most notably through the New Zealand Screen Production Rebate. For policymakers, having access to quality data is essential for designing and measuring the impact of policy interventions. It provides visibility of the sector's growth and maturation, supports the understanding of the sector's contribution to the economy, and the characteristics of people working in the industry. For people and firms in the screen sector, having access to quality data enables identification of trends and provides information to support firms and workforce planning.

Nicholson Consulting has been commissioned to build the second edition of the Economic Trends in the Screen Sector report by the Ministry of Business, Innovation and Employment (MBIE) utilising data available in the Stats NZ Integrated Data Infrastructure (IDI) and the Longitudinal Business Database (LBD). This reporting is intended to contribute to filling the information gap left by the discontinuation of Stats NZ's Screen Industry Survey and to broaden the scope of the reporting based on key stakeholder feedback from the *Economic Trends in the New Zealand Screen Sector* first edition report in 2021.

## Defining the screen sector

The definition of the screen sector used for this report matches that used in MBIE's *Economic Trends in the New Zealand Screen Sector report* (2021). This defines the screen sector as the combination of production, distribution, and exhibition of motion pictures and video productions. This definition captures data from five Australian and New Zealand Standard Industrial Classification (ANZSIC) categories (sub-sectors).

Table 1:  
Screen sector sub-sectors by ANZSIC code

Sub-sector Description	ANZSIC code and description
Production	J5511 - Motion Picture and Video Production
Distribution	J5512 - Motion Picture and Video Distribution
Exhibition	J5513 - Motion Picture Exhibition
Post-production	J5514 - Postproduction Services and Other Motion Picture and Video Activities
Broadcasting	J5621 - Free-to-Air Television Broadcasting

## Number and size of firms in the screen sector

As at March 2021, there were 5,166 screen sector firms in Aotearoa New Zealand<sup>1</sup>. Table 2 shows that the number of firms in the sector increased at about 4 per cent annually between 2012 and 2021. This rate of increase is in line with the growth in the number of firms in the economy, with the number of live firms in Stats NZ's Business Register also increasing at about the same rate.

For this report three categories of screen sector workers (hereafter 'workers') in the screen sector workforce have been defined: Directors/Shareholders/Partners, Sole traders, and Waged & Salaried employees.

- Directors/Shareholders/Partners<sup>2</sup> are often involved in forming and establishing a firm, owning a firm, managing a firm, and the decision making for that firm.
- Sole traders tend to have their own firm, working for themselves or work as a contractor for another person or firm.
- Waged and salaried employees are those employed by a firm as an employee while being paid a wage or a salary. They could be employed in a permanent capacity, fixed term capacity, seasonally, or casually.

Between 2012 and 2021 growth in firm numbers was isolated to firms without Waged and salaried employees. The share of firms that don't employ Waged and salaried employees increased from 88 per cent of screen sector firms in 2012 to 93 per cent in 2021 (Figure 1).

Between 2012 and 2021 these smaller firms have seen the most growth, while the numbers of people working in larger firms has remained relatively stable and is a much lower proportion of all firms in the sector (Figure 2).

*Table 2:  
Count of screen sector firms 2012 - 2021*

Year	Count of screen sector firms
2012	3,600
2013	3,660
2014	3,927
2015	3,960
2016	4,299
2017	4,362
2018	4,710
2019	4,683
2020	4,923

<sup>1</sup> The data in this report represent an analysis of the entire set of firms "live" between 2012-2021 and identifiable as belonging to the screen sector. This approach reveals a greater number of firms than would be reported through official statistics, which impose a test of economic significance for inclusion. Future reports in this series are expected to cover both the economically significant, and the totality of the sector.

<sup>2</sup> "Directors, Shareholders and Partners" are generic descriptions for the purposes of tax filings; they do not indicate alignment to particular roles in the screen sector such as director of a film.

Year	Count of screen sector firms
2021	5,166

Figure 1:  
Share of screen sector firms employing Waged and salaried employees by firm size

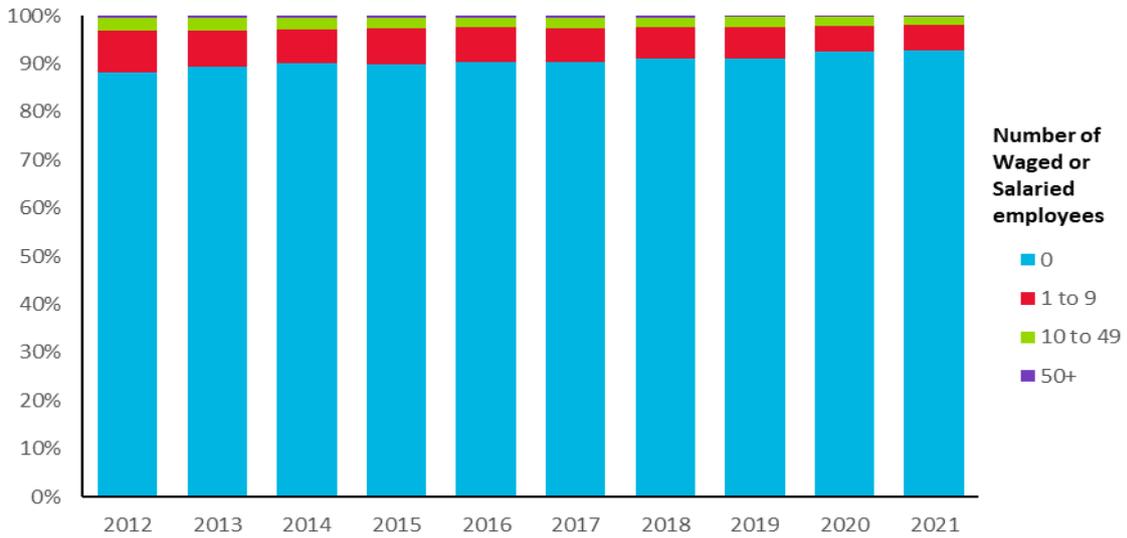
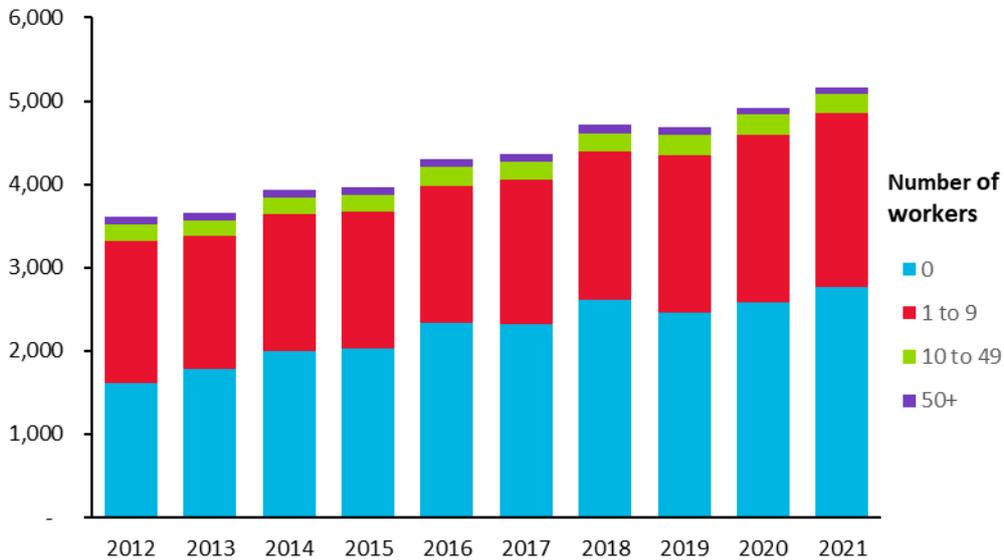


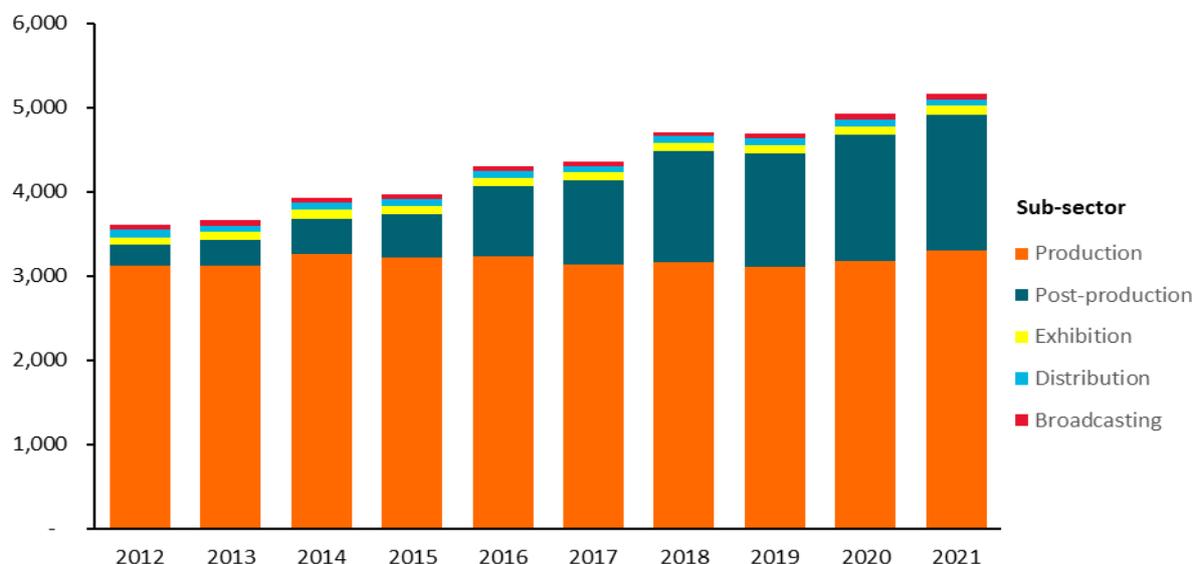
Figure 2:  
Count of screen sector firms broken down by firm size (number of workers)



## Sub-sectors

Most firms<sup>3</sup> in Aotearoa New Zealand’s screen sector operate in the Production and the Post-production sub-sectors. Figure 3 shows that the number of firms in the Production sub-sector has remained relatively steady between 2012 and 2021.

Figure 3:  
Count of screen sector firms broken down by sub-sector



## Survival rate of firms in the screen sector

Firm survival rate examines how long a cohort of firms remain in operation. At any point in time the screen sector includes several firms that have been established for a specific production or project, which means that the survival rates of firms in the screen sector aren’t comparable to the wider economy.

Screen sector firms established in 2011 have a 1-year survival rate of 91 per cent, a 5-year survival rate of 54 per cent and a 10-year survival rate of 33 per cent. Firms established in 2016 had better 1-year and 5-year survival rates at 95 per cent and 58 per cent respectively. The 1-year survival rate of firms established in 2020 was back down to 92 per cent (Figure 4).

In 2021, 40 per cent of screen sector firms were established 10 or more years ago. 132 screen sector firms had been live for less than a year, and 20 per cent of screen sector firms were either 1-year or 2-years-old (Table 3).

<sup>3</sup> Note, firms with zero workers include firms that have no links to people in IRD data in the reference year but have had links (and thus workers) in previous years. Firms may no longer be active in the reference year but have not yet registered as exited, or they could be special purpose vehicles. We will look to explore this further in the next iteration of this report as the high number of firms with zero workers could be due to the nature of the screen sector.

Figure 4:  
Survival rate of screen sector firms established in years 2011 to 2021

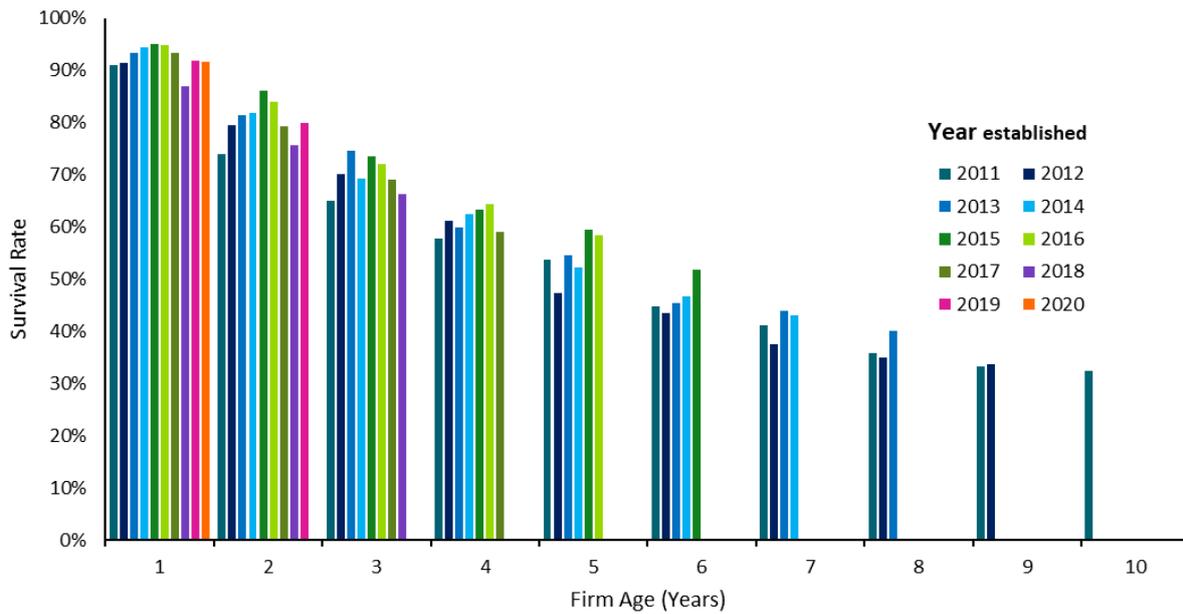


Table 3:  
Count of screen sector firms in 2021 by age since establishment

Firm age (years) since establishment	Number of firms
0	132
1	537
2	507
3	345
4	363
5	357
6	309
7	162
8	195
9	156
10+	2,082

## Screen sector workforce

The screen sector's workforce is made up of Directors/Shareholders/Partners, Sole traders, and Waged and salaried employees. In the year to March 2021, a total of 24,096<sup>4,5</sup> people worked in the screen sector. Between 2012 and 2021 the number of screen sector workers increased from 21,048 to 24,096, growing at an average rate of 1.7 per cent each year (Table 4).

In 2021, 15,222 people worked in the screen sector as sole traders and made-up 61 per cent of the workforce. There were also 6,855 Waged and salaried employees, accounting for 28 per cent of the workforce (Figure 5).

Employment relationships in the screen sector have continued to move away from traditional employment relationships where employees are engaged through written employment agreements and compensated through wages or salaries, towards agreements where workers are hired as contractors or sole traders. Accordingly, the share of screen sector workers earning income through wages or salaries decreased from 36.2 per cent in 2012 to 25.6 per cent in 2021. This transition has been notable within both the Production and Distribution sub-sectors, where between 2012 and 2021 the share of Waged and salaried employees decreased from 11 per cent to 7 per cent for Production, and from 82 per cent to 68 per cent for Distribution.

In contrast the Post-production sub-sector has seen a decrease in the proportion of sole traders contracted, decreasing from 85 per cent in 2012 to 76 per cent in 2021. The shares of both Waged and salaried employees, and Directors, Shareholders, and Partners increased (Figures 5).

The share of screen sector workers engaged by Production firms increased from 50 per cent of workers in 2012 to 60 per cent in 2021 (Figure 6).

*Table 4:  
Count of people working in the screen sector*

Year	Count of workers
2012	21,048
2013	20,031
2014	18,699
2015	19,164
2016	20,718
2017	21,165
2018	20,661

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<sup>4</sup> The screen sector workforce includes any person who works in the industry at any point over the 12-month period. This means that someone who worked in the screen sector for one day will be counted, as will someone who worked in the sector for three months, or the full year. A person is counted only once for each year they worked in the screen sector even if they worked for multiple businesses in that year.

<sup>5</sup> The previous version of this report captured a monthly snapshot of people working in the screen sector as of February 2020 (13,900), for comparison the number of people working in the screen sector as at March 2021 was 13,926.

Year	Count of workers
2019	21,999
2020	25,416
2021	24,096

Figure 5:  
Count of people working in the screen sector broken down by year and worker type

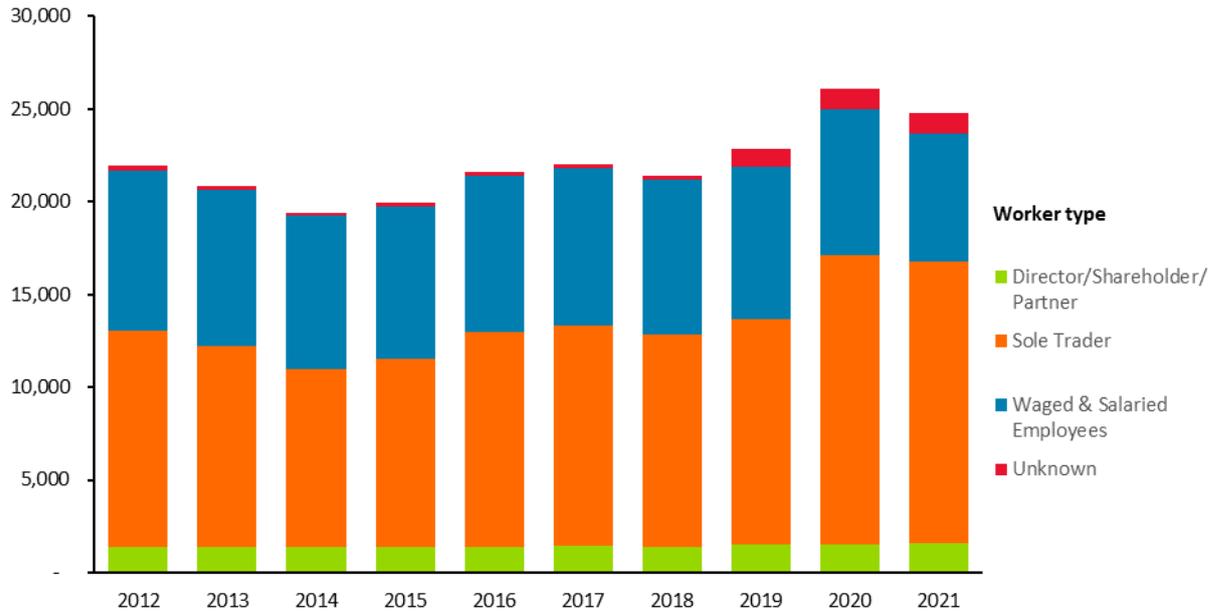
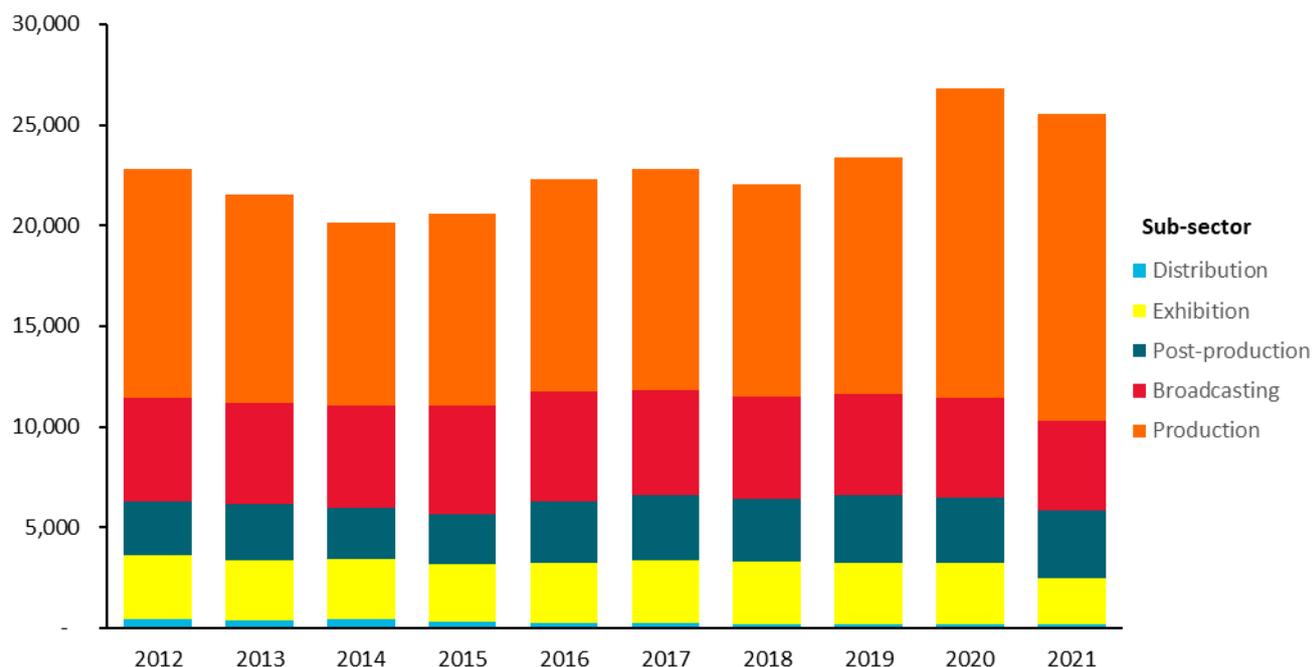


Figure 6:  
Count of people working in the screen sector broken down by sub-sector



## Earnings

The average earnings of screen sector workers has increased from \$38,409 in 2012 to \$46,818 in 2021, an increase of 22 per cent (Table 5)<sup>6</sup>.

In the tax year ending March 2021, people working for firms in the Post-production sub-sector had the highest average earnings of \$90,300. Workers engaged by the Exhibition and Production sub-sectors had the lowest average earnings at \$16,700 and \$34,600 respectively (Figure 7).

Between 2012 and 2021, screen sector workers in the Distribution sub-sector had the largest increase in average earnings from \$39,600 to \$61,600, up by 55 per cent. Over the same period, average earnings in the Broadcasting sub-sector were relatively flat, increasing by 19 per cent (Figure 7).

When it comes to worker types, Waged and salaried employees had the greatest increase in average earnings between 2012 and 2021 increasing from \$39,500 to \$54,700, or 38 per cent.

Comparatively, shareholders earnings increased by 21 per cent and sole traders were up 19 per cent (Figure 8).

<sup>6</sup> This measure is only inclusive of earnings from the screen sector and includes screen sector earnings from all worker types. Average hourly wage cannot be derived from this data as it is not exclusive to full time equivalent employees.

Table 5:  
Average earnings of workers in the screen sector

Year	Average earnings
2012	38,409
2013	38,117
2014	38,506
2015	40,205
2016	41,791
2017	43,054
2018	44,681
2019	45,428
2020	42,834
2021	46,818

Figure 7:  
Average earnings of screen sector workers broken down by sub-sector

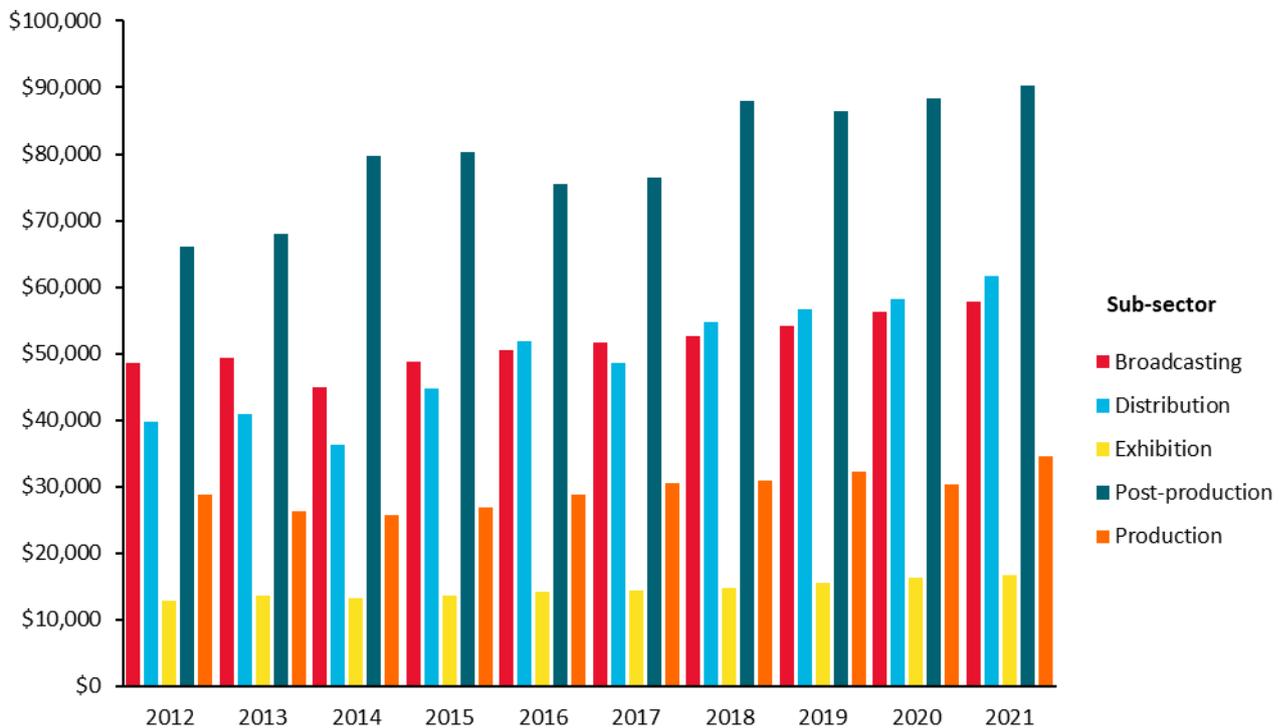
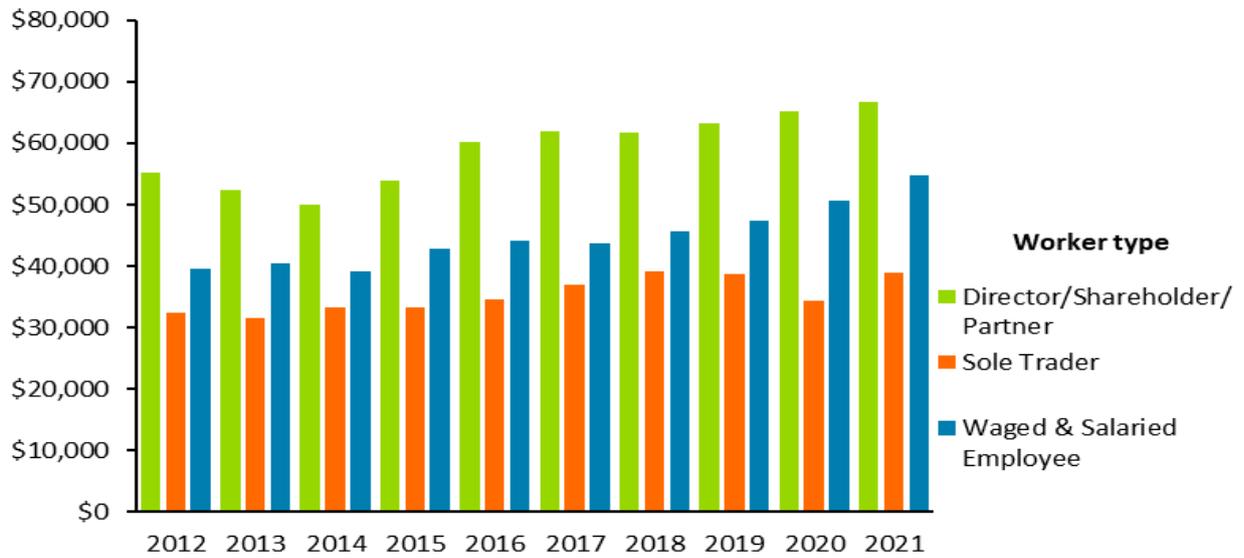


Figure 8:  
Average earnings of screen sector workers broken down by worker type



## Workforce demographics

### Age

In March 2021, just over half of the screen sector's workforce (53 per cent) was aged between 20 and 39, while those 50 and over accounted for about 20 per cent of the screen sector's workforce (Figure 9).

Figure 10 shows that in the tax year ending March 2021, screen sector workers within the 50 to 54 years age category had the highest average earnings of \$75,600 per annum.

Figure 9:

Count of screen sector workers broken down by five-year age groups in the tax year ending March 2021

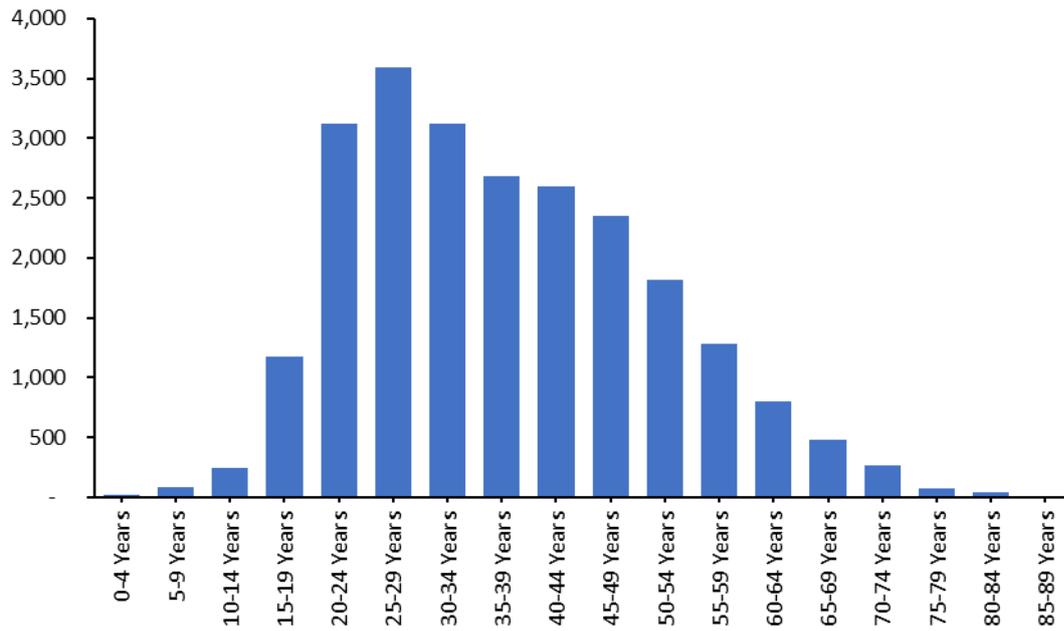
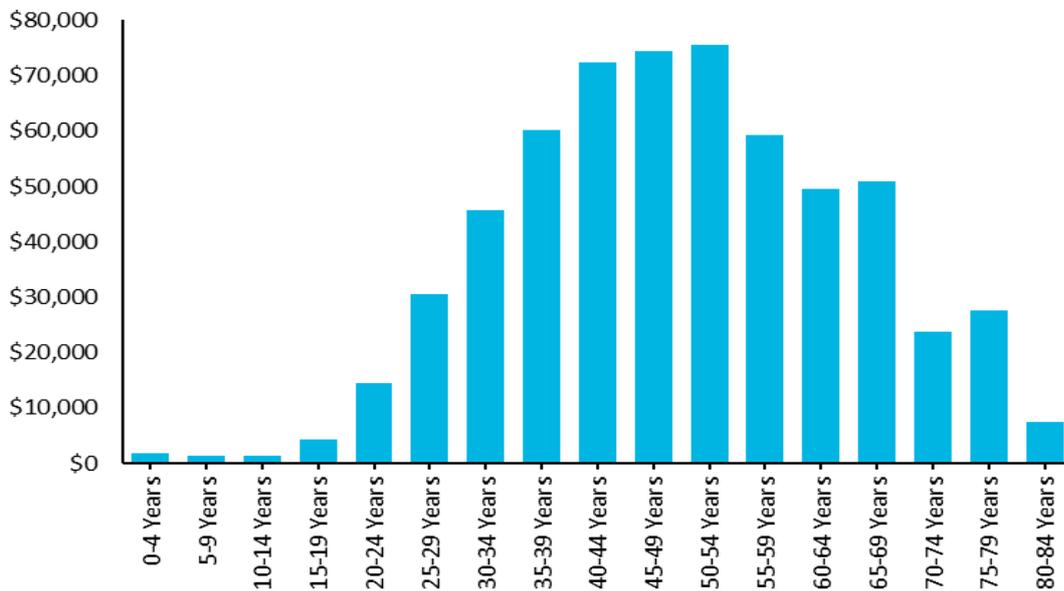


Figure 10:

Average earnings of screen sector workers broken down by five-year age groups in the tax year ending March 2021



## Gender

In 2021, female workers accounted for 50.2 per cent of the screen sector workforce and males accounted for 49.8 per cent<sup>7</sup> (Table 6). This 50/50 split between male and female workers has remained stable over the last decade.

The distribution of earnings between male and female workers in the screen sector was relatively even in the tax year ending March 2021, with males and females having average earnings of \$46,928 and \$46,427 respectively<sup>89</sup> (Table 6).

*Table 6:  
Female and male share of workforce and average earnings*

	Female	Male
<b>Share of workforce</b>	50.2 per cent	49.8 per cent
<b>Average earnings</b>	\$46,427	\$46,928

## Ethnicity

In the year ending March 2021, most screen sector workers (77 per cent) identified with being European. This was followed by Māori at 17 per cent, Asian at 11 per cent, and Pacific at seven per cent (Table 7)<sup>10</sup>.

In 2021, 21 per cent of sole traders identified with being Māori. 15 per cent of Directors, Shareholders, and Partners, and 14 per cent of Waged and salaried employees identified with being Māori (Table 8).

Between 2012 and 2021 average earnings for Māori workers receiving wages or salaries increased by 38 per cent. Over the same period, the average earnings for Māori Directors, Shareholders and Partners increased by 21 per cent, while the average earning for Māori sole traders increased by 19 per cent.

In 2021 the average earnings of Māori Directors, Shareholders, and Partners were four per cent less than non-Māori. The average earnings of Māori sole traders were 52 per cent lower than the average earnings of non-Māori sole traders, and the average earnings of Waged and salaried Māori employees were 17 per cent less than non-Māori (Figure 12).

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<sup>7</sup> It is important to note that gender data is not recorded for 25 per cent of screen sector workers, additionally information on non-binary genders was not available in the source data.

<sup>8</sup> The average earnings of screen sector workers with no gender information available is \$47,200. Given that gender information is sourced from the 2018 Census a reasonable explanation is that this group has a higher number of immigrants (whom have a higher average earning than non-immigrants). Females have had a 24 per cent increase in average earnings since 2012 which is higher than males 21 per cent increase.

<sup>9</sup> It is important to note that average earnings data does not account for the number of hours worked and can't be used as a measure/comparison of pay rates.

<sup>10</sup> People can identify with more than one ethnicity, therefore the sum of all individuals by ethnicity would be greater than the total. All proportions are fractions of the total e.g. 77 per cent of the workforce identify as European vs. 23 per cent who do not identify as European and 11 per cent of the workforce identify as Asian vs. 89 per cent who don't identify as Asian.

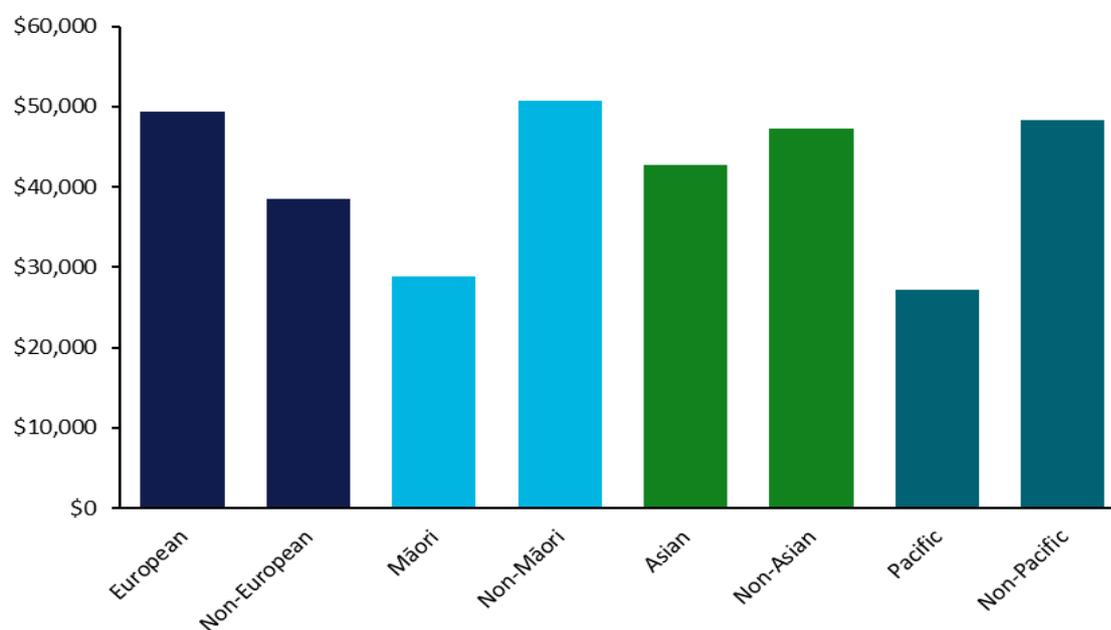
*Table 7:  
Count of people working in the screen sector broken down by ethnicity in the tax year ending March 2021*

<b>Ethnicity</b>	<b>Share (%)</b>
European	78.5
Māori	17.6
Pacific	7.4
Asian	11.0
MELAA <sup>11</sup>	3.7
Other	1.8

*Table 8:  
Count of people working in the screen sector broken down by worker type and ethnicity in the tax year ending March 2021*

	<b>Māori ethnicity or descent</b>	<b>Non-Māori ethnicity or descent</b>
Sole Trader	3,270	11,952
Waged and salaried Employee	972	5,883
Director/Shareholder/Partner	240	1,335

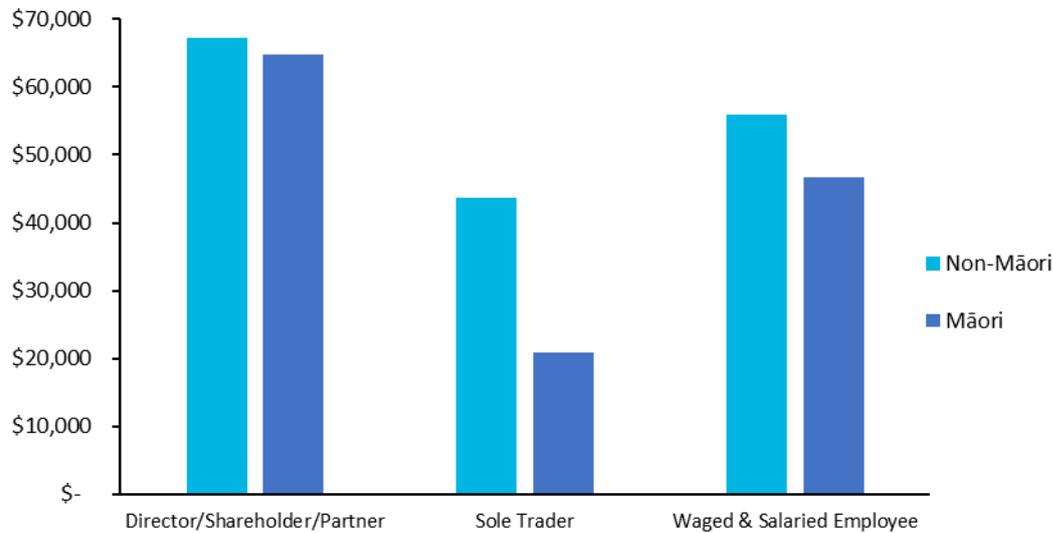
*Figure 11:  
Average earnings of people working in the screen sector broken down by ethnicity in the tax year ending March 2021*



<sup>11</sup> MELAA - Middle Eastern, Latin American, and African

Figure 12:

Average earnings of people working in the screen sector in 2021 broken down by worker type and ethnicity



## Highest qualification

In 2021, 34 per cent of the screen sector’s workforce had a bachelor’s degree, or level 7 equivalent, as their highest qualification (Figure 13). This proportion has remained stable between 2012 and 2021.

Screen sector workers with an overseas secondary school qualification as their highest qualification, had the highest average earnings in the tax year ending March 2021 of \$79,800 (Figure 14). However, the average earnings of this group has been volatile over the last 10 years.

Screen sector workers with either a Post-graduate and Honours Degree, or a Master’s Degree, have had the highest percentage increase in average earnings at about 60 per cent between 2012 and 2021.

Figure 13:

Count of people working in the screen sector broken down by highest qualification in the tax year ending March 2021

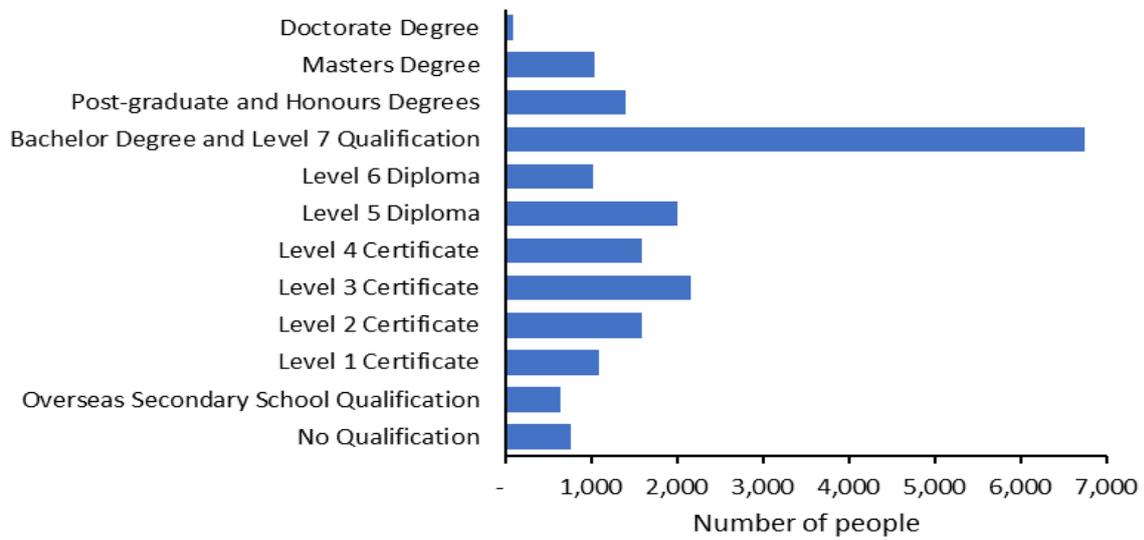
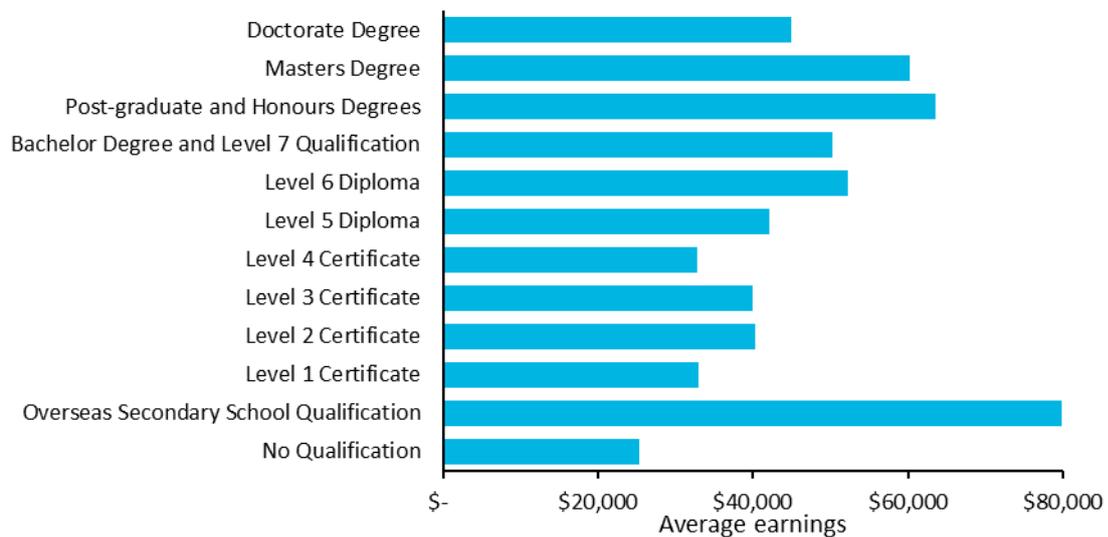


Figure 14:

Average earnings of people working in the screen sector broken down by highest qualification in the tax year ending March 2021



## Visa status

In 2021, 23 per cent of the screen sector’s workforce had immigrated to Aotearoa New Zealand (on visas, including Permanent Resident visas). Between 2012 and 2021, the number of immigrants working in the screen sector increased by 1,707, or 44 per cent (Table 9).

In the tax year ending March 2021, on average, migrants in the screen sector workforce earned around \$19,000 more than non-migrants, with migrants having average earnings of \$61,552 which compares with \$42,337 for non-migrants (Figure 15).

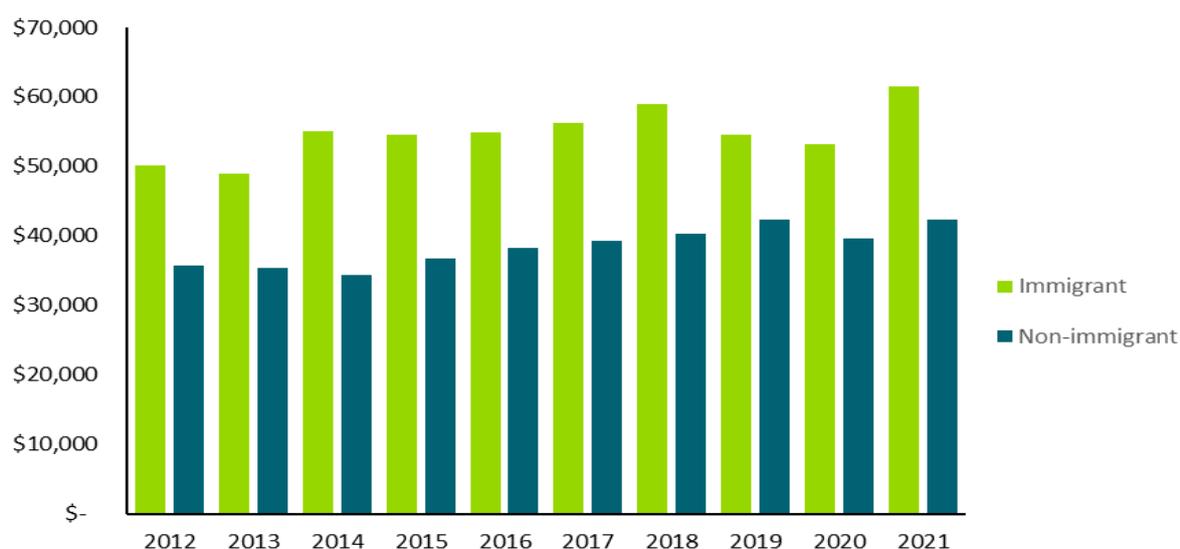
Table 9:

Count of screen sector workers who have immigrated to New Zealand broken down by year of employment<sup>12</sup>

Year	Count
2012	3,879
2013	4,056
2014	3,705
2015	3,774
2016	4,368
2017	4,692
2018	4,779
2019	5,442
2020	5,949
2021	5,586

Figure 15:

Average earnings of screen sector workers broken down by visa status in tax years ending March 2021



<sup>12</sup> This visualisation captures any person in New Zealand on a visa (including a Permanent Resident visa) that works in the screen sector during each tax year.

## Financial performance

### Revenue

Between 2012 and 2021 total annual revenue for firms in the screen sector remained relatively stable at about \$3.5 billion, with slight declines in 2020 and 2021 (Table 10).

Screen sector revenue is mostly concentrated within firms with large workforces. In the tax year ending March 2021, 66 per cent of industry revenue (or \$2.1 billion) is attributable to screen sector firms engaging 50 or more workers (Figure 16).

While screen sector firms with larger workforces are on average generating greater revenue, the average revenue of firms with smaller workforces has been increasing, while that of larger firms has been decreasing (Figure 16).

*Table 10:*

*Revenue of screen sector firms broken down by year*

Year	Screen Sector Revenue (millions)
2012	\$3,631
2013	\$3,643
2014	\$3,470
2015	\$3,684
2016	\$3,556
2017	\$3,582
2018	\$3,537
2019	\$3,529
2020	\$3,361
2021	\$3,262

Figure 16:

Revenue of screen sector firms broken down by year and firm size (based on number of workers)

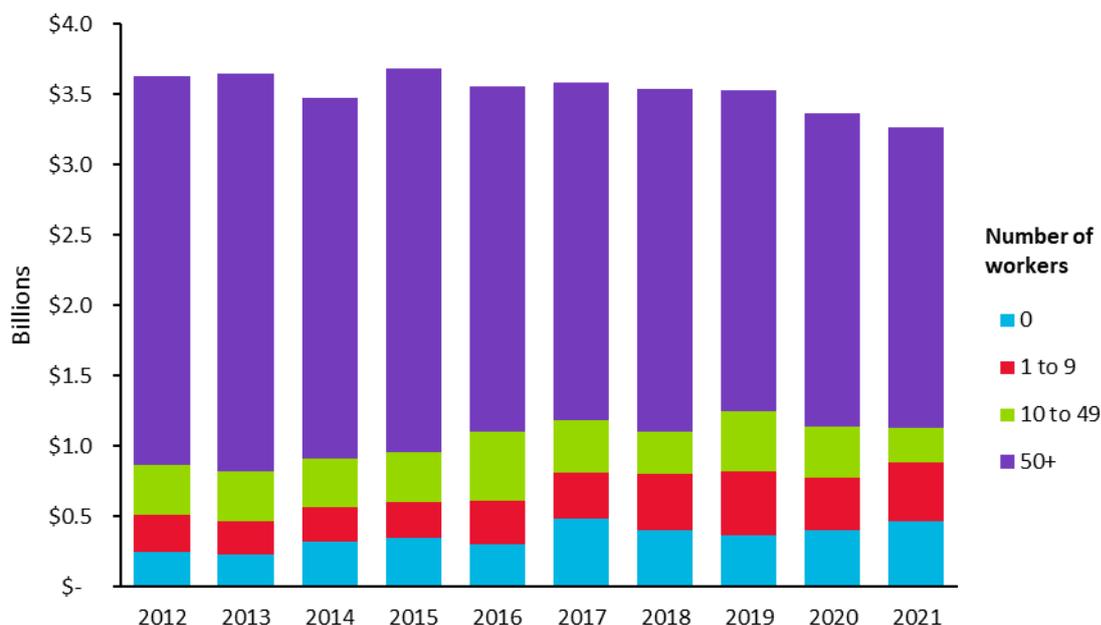


Table 11:

Average revenue of screen sector firms broken down by firm size (based on number of all workers in the tax year ending March 2021).

Firm size (workers)	Average firm revenue
0	\$169,292
1 to 9	\$197,486
10 to 49	\$1,094,782
50+	\$24,576,931

## Expenditure

Between 2012 and 2021 total annual screen sector expenditure remained relatively stable, at around \$2 billion (Table 12)<sup>13</sup>.

In 2021, most screen sector expenditure came from the larger firms (those with 50 or more workers) and which accounted for 73 per cent of the sectors' total expenditure (Figure 17).

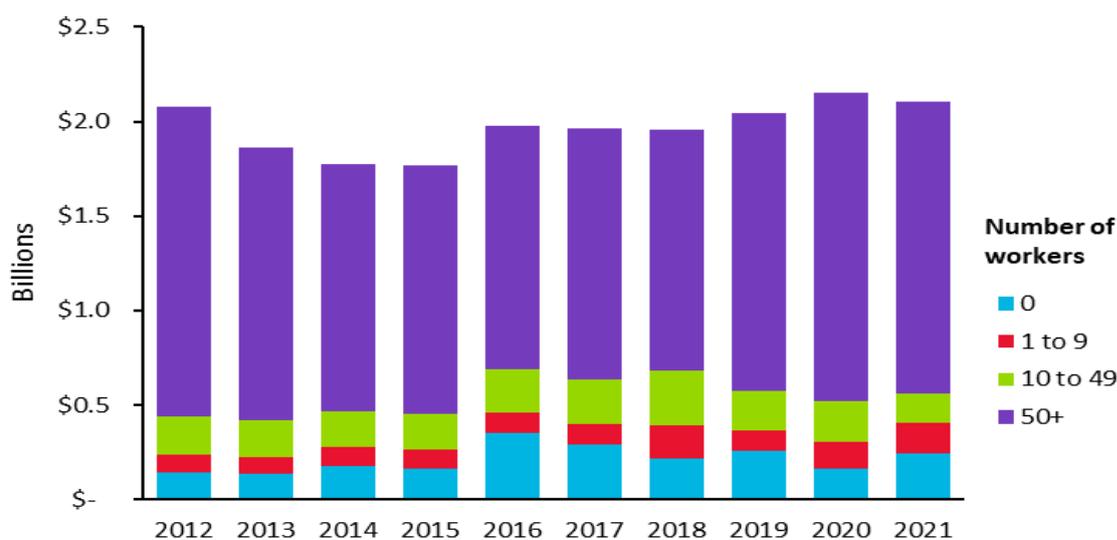
In the tax year ending March 2021, 54 per cent of screen sector firms' expenditure was attributable to firms operating in the Production sub-sector. This was followed by the Broadcasting sub-sector at 23 per cent, the Post-production sub-sector at 17 per cent, and the Exhibition and Broadcasting sub-sectors at four per cent and two per cent respectively.

<sup>13</sup> Expenditure is the total purchases and expenses of firms (GST inclusive). This does not include expenses paid to persons not GST registered such as Waged and salaried employees.

Table 12:  
Expenditure of screen sector firms broken down by year

Year	Screen Sector Expenditure (millions)
2012	\$2,080
2013	\$1,859
2014	\$1,778
2015	\$1,765
2016	\$1,975
2017	\$1,962
2018	\$1,956
2019	\$2,046
2020	\$2,153
2021	\$2,102

Figure 17:  
Expenditure of screen sector firms broken down by year and firm size (based on number of workers)



## Regions

In 2021 the Auckland region was home to the largest number of screen sector firms in Aotearoa New Zealand, with 2,394 firms. This was followed by the Wellington region with 1,698 firms. Together, they comprise 83 per cent of all screen sector firms operating in Aotearoa New Zealand, (Figure 18)<sup>14</sup>.

In accord with regional firm counts, the Auckland region also had the highest number of people working in the screen sector in Aotearoa New Zealand with approximately 13,473 people in the year

<sup>14</sup> Region data was not available for about five per cent of firms.

ending March 2021. This was followed by the Wellington region with approximately 4,425 people. Together, they account for 74 per cent of the screen sector workforce.

Auckland’s screen sector workforce is concentrated within firms operating within the Production sub-sector, which accounts for 64 per cent of the region’s screen sector workforce. Wellington’s screen sector workforce is concentrated within two sub-sectors, with firms within the Post-production and Production sub-sectors accounting for 45 per cent and 44 per cent of Wellington’s screen sector workforce respectively (Figure 19).

Wellington region has the highest average earnings for the screen sector workforce of \$73,600 in Aotearoa New Zealand in the year ending 2021; this can mostly be explained by the high proportion of firms in the Post-production sub-sector based in Wellington. Workers in the Tasman region had the second highest average earnings of \$48,600. Screen sector workers in the Auckland region earned \$44,900 on average, reflecting a broader range of sub-sectors firms and job types in Auckland (Figure 20)<sup>15</sup>.

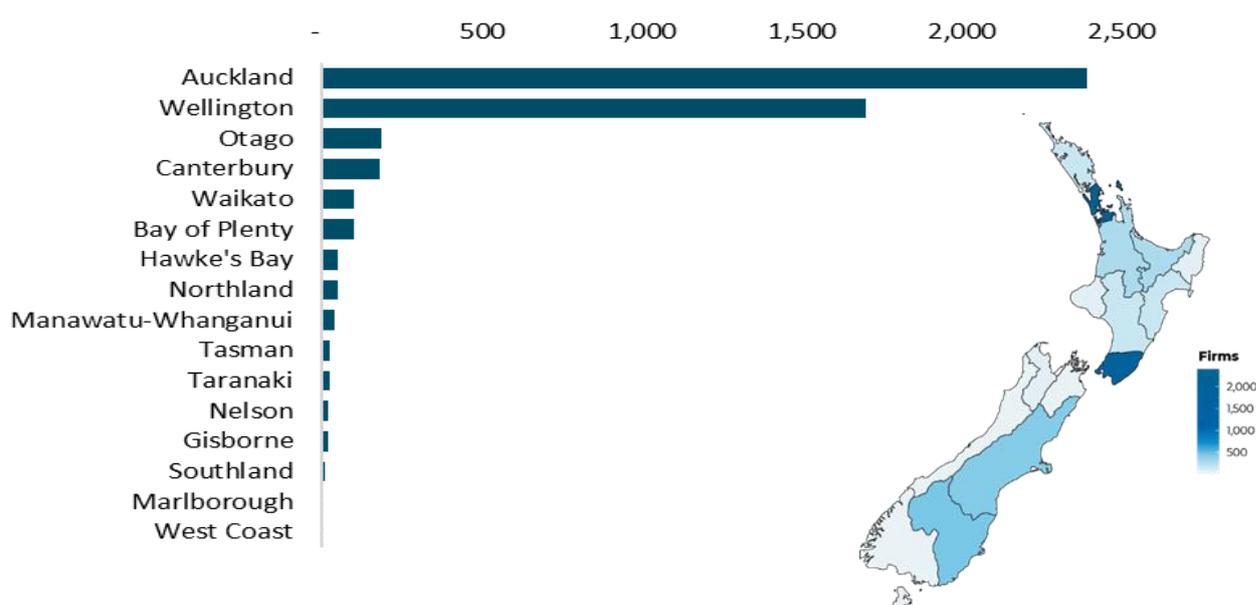
## Revenue

Firms within the Auckland region accounted for over half the total screen sector revenue for Aotearoa New Zealand in the tax year ending March 2021. The Auckland region generated a total revenue of \$1.8 billion in 2021, 58 per cent of the sector’s total. This was followed by the Wellington region with 37 per cent of the total revenue at \$1.2 billion (Figure 21)<sup>16</sup>.

Screen sector firms in the Auckland region had the highest average revenue in the country at \$765 thousand in the 2021 tax year. This was 10 per cent higher than the region with the second highest average firm revenue – Wellington, which had an average revenue of \$699 thousand.

Figure 18:

Count of screen sector firms in the tax year ending March 2021 broken down by region



<sup>15</sup> For the workforce, regional council is assigned based on where the worker lives rather than where the employer is located.

<sup>16</sup> Regional council data was not available for two per cent of total sector revenue.

Figure 19:

Regional shares of people working in the screen sector broken down by sub-sector in the tax year ending March 2021.

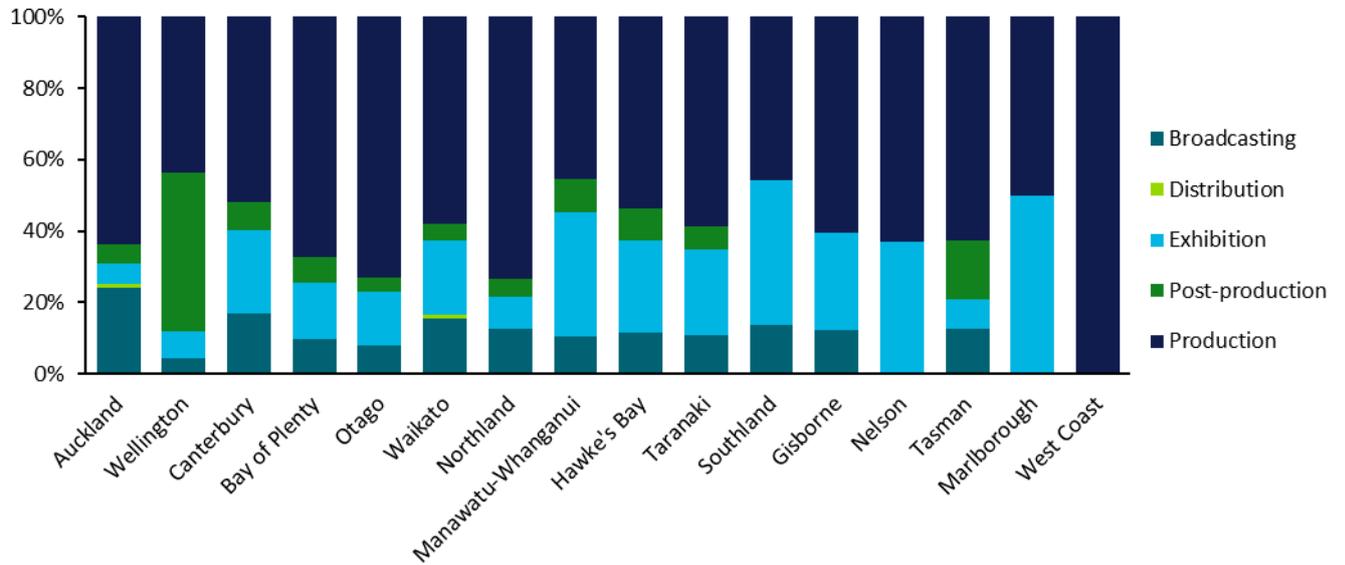


Figure 20:

Average earnings of people working in the screen sector broken down by regional council in the tax year ending March 2021

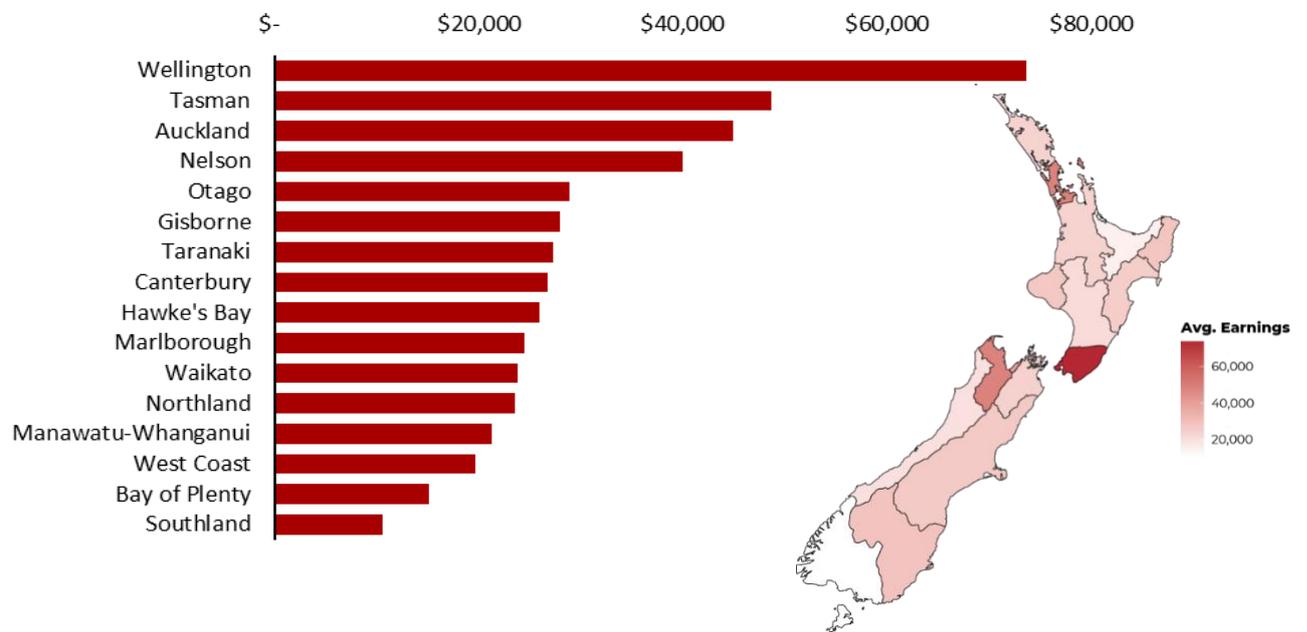


Figure 21:

Total revenue of screen sector firms in the tax year ending March 2021 broken down by region

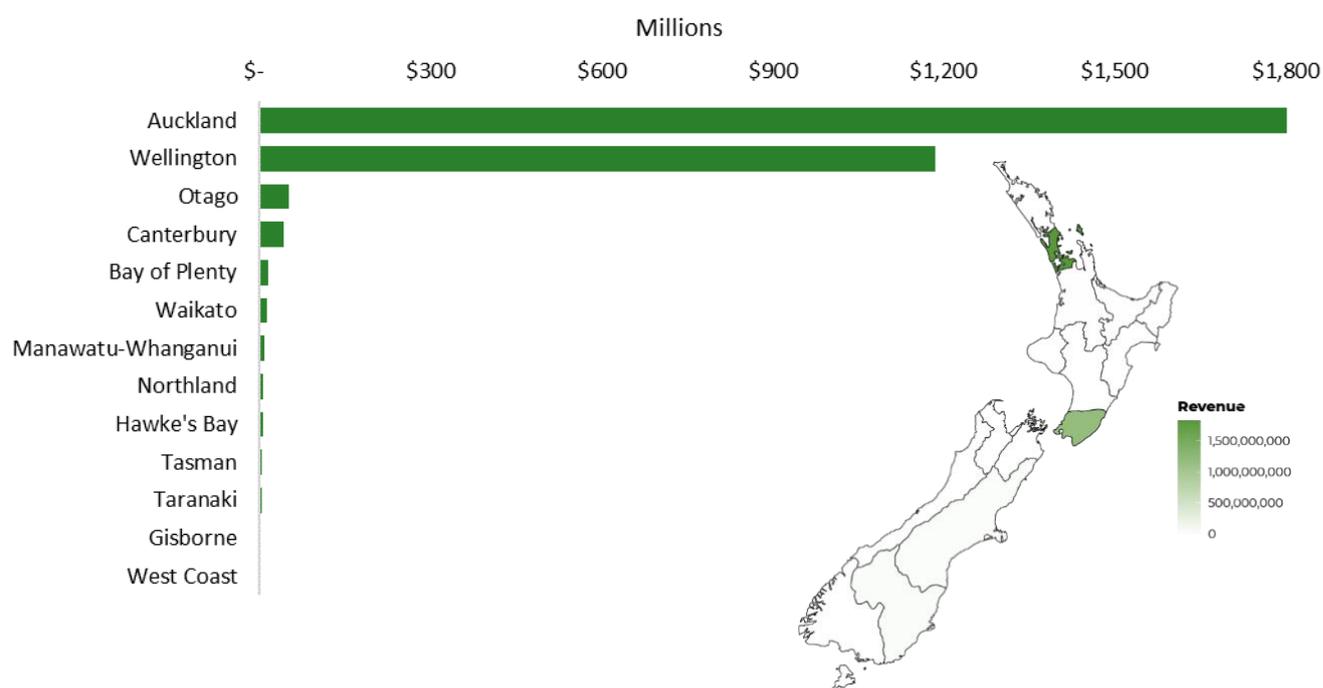


Table 13:

Average revenue of screen sector firms in the tax year ending March 2021 broken down by region<sup>17</sup>

Region	Average revenue
Northland	\$136,554
Auckland	\$765,441
Waikato	\$115,692
Bay of Plenty	\$155,248
Gisborne	\$112,676
Hawke's Bay	\$120,490
Taranaki	\$134,882
Manawatu-Whanganui	\$198,384
Wellington	\$698,689
Tasman	\$142,178
Canterbury	\$228,133
West Coast	\$117,397
Otago	\$280,301

<sup>17</sup> Data for Southland, Nelson, and Marlborough has been suppressed due to low firm counts.

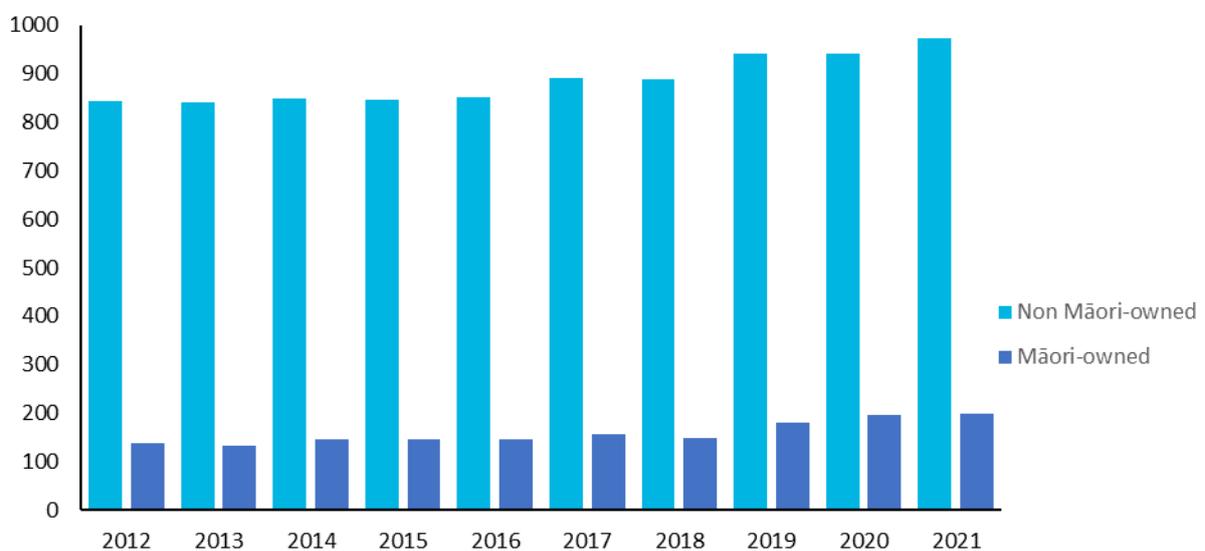
## Māori-owned firms<sup>18</sup>

Data on the ethnicity of firm owners is only available for about 23 per cent of screen sector firms. For firms where owner ethnicity is known, between 2012 and 2021 the number of Māori-owned screen sector firms increased from 138, or (14 per cent), to 198 (17 per cent) (Figure 22).

Between 2012 and 2021 revenue from Māori-owned firms increased from \$43 million to \$71 million, up 64 per cent. Māori-owned firms had an average revenue of \$314,000 in 2012, this increased to \$359,000 in 2021, while non-Māori-owned firms had an average revenue of \$581,000 in 2012 which decreased to \$372,000 in 2021 (Figure 23).

Figure 22:

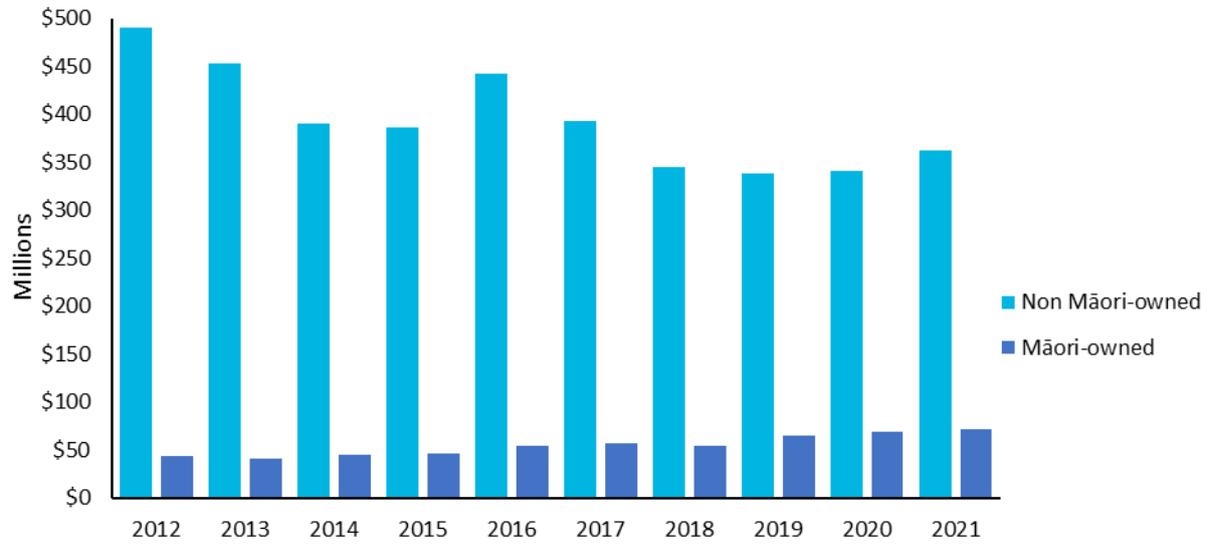
Count of screen sector firms broken down by year and ownership (where ownership data is available)



<sup>18</sup> Māori-owned businesses are defined as businesses where 50 per cent or more of shareholder wages are being paid to individuals of Māori ethnicity or descent. Because of limitations of the data source currently available this differs from the definition used by Stats NZ: A Māori business is a business that is owned by a person or people who have Māori whakapapa, and a representative of that business identifies the business as Māori.

Figure 23:

Total revenue of screen sector firms broken down by year and ownership (where ownership data is available)



# Appendix A: History and methodology

## History

Recognising the value and importance of screen sector reporting, and the multi-year gap in reporting, MBIE began work in 2020 on a new approach to providing key data and insights on the sector. This internal project sought to cover a similar range of topics as the previous survey, drawing on available data from Stats NZ sources (Linked Employer-Employee Database (LEED), Census, and Business Demography Statistics). In December 2021, MBIE published *Economic Trends in the New Zealand Screen Sector*.

This report focussed on firms and employment, these being the most recent datasets from available sources in the timeframes. The report was shared with some screen sector stakeholders for feedback during development and elements identified as useful to include in future reports were:

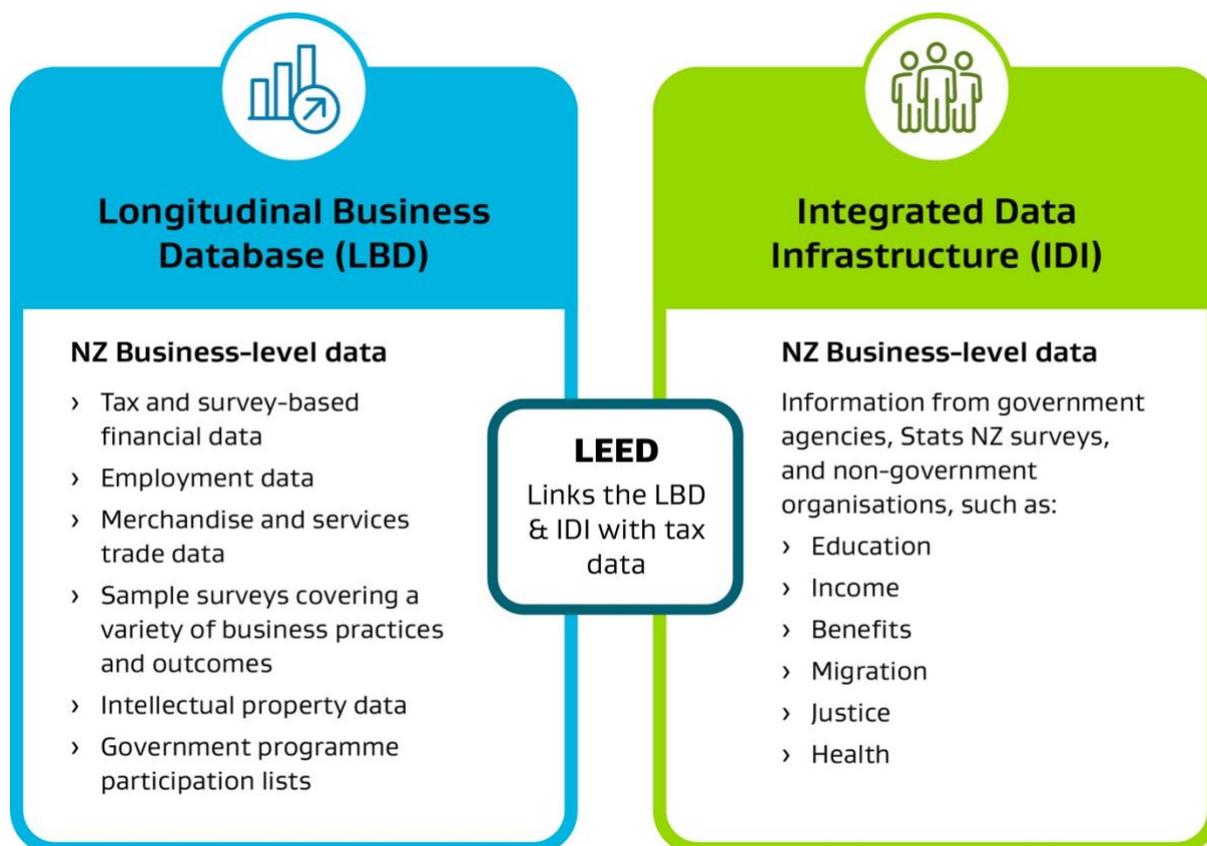
- financial data
- detailed wage data
- information on the ethnicity of employees and contractors

A key lesson learned in the development of the 2021 report was that making use of the LBD and IDI is likely to be the best way to source most of the data required for future screen sector reports. This will ensure that there is consistency between data sources and will also allow flexibility to expand the content of the report/measures in the future.

## Methodology

This work is building on the first edition of the *Economic Trends in the New Zealand Screen Sector* report incorporating stakeholder feedback on inclusions to the report and lessons learned about the most comprehensive data sources available.

This report utilises Stats NZ's Longitudinal Business Database (LBD) which is a research database holding de-identified microdata about businesses in Aotearoa New Zealand. The data is sourced from a range of survey and administrative data sources. Alongside this, the Stats NZ Integrated Data Infrastructure (IDI) was used to produce insights on the screen sector's workforce. The IDI is a large research database holding de-identified microdata about people and households. As shown below, the IDI and the LBD are linked through Linked Employer-Employee Data (LEED). This means firms are linked to individuals Inland Revenue (IRD) tax data.



Screen Sector firms were identified from the Business Register enterprise dataset which was filtered to include only live enterprises that were valid as of March 2021, and where the enterprise ANZSIC code was consistent with the screen sector industry as defined in the 2021 report.

Financial tax data for screen sector firms was sourced from the LBD.

Sole traders, employees and owner workforce statistics including income, were identified through Inland Revenue data where people in tax data are linked through the LEED dataset to screen sector firms. Additionally, people working in the screen sector were identified using the Business Industry Classification (BIC) code where they have self-identified as being a part of the screen sector workforce.

Demographic information such as age, gender, ethnicity, regional council, educational qualifications, and immigration status were defined using personal detail data from the IDI based off the 2018 Census as well as a range of administrative datasets from the Ministry of Education, the Department of Internal Affairs etc.

Māori-owned firms were defined as firms where 50 per cent or more of shareholder wages were paid to Directors, Shareholders or Partners of Māori ethnicity or descent.

## Appendix B: Definitions

### Screen Sector definition

In line with previous reporting under the Stats NZ Screen Industry Survey, this report defines the screen sector as the combination of production, distribution and exhibition of motion pictures and video productions. To ensure consistency with the definition used by MBIE in the first edition of the *Economic Trends in the New Zealand Screen Sector*, we created a screen sector indicator in the Integrated Data Infrastructure (IDI).

This screen sector indicator was built using the list of screen sector Australia and New Zealand Standard Industry Classification (ANZSIC) codes that MBIE provided. ANZSIC codes provide a basis for the standardised collection, analysis and dissemination of economic data on an industry basis for Australia and New Zealand. Using ANZSIC codes results in improved consistency of definition and comparability of industry statistics. However, this method has its weaknesses; it cannot identify firms involved in gaming, and some firms we might consider screen firms are listed as software firms. Identifying firms not covered by accurate ANZSIC codes in administrative data is challenging. The screen sector indicator is built using the six ANZSIC06 codes traditionally seen as the which are then grouped into screen sub-sectors of the screen sector:

- Production: J5511 - Motion picture and video production. This class consists of units mainly engaged in producing motion pictures, videos and television programs or commercials. These productions are recorded and stored on a variety of analogue or digital visual media such as film, video tape or DVD.
- Post-production: J5514 - Post-production services and other motion picture and video activities. This class consists of units mainly engaged in providing post-production services and other motion picture and video activities, including specialised motion picture or video post-production services such as editing, film/tape transfers, titling, subtitling, credits, closed captioning and computer-produced graphics, animation and special effects, as well as developing and processing motion picture film.
- Distribution: J5512 - Motion picture and video distribution. This class consists of units mainly engaged in acquiring distribution rights and distributing motion pictures and videos. These products are distributed (through leasing and wholesale channels) to a range of exhibitors such as motion picture theatres and television stations using a variety of visual media.
- Exhibition: J5513 - Motion picture exhibition. This class consists of units mainly engaged in screening motion pictures using a variety of visual media. Included in this class are units screening productions at festivals and other similar events.
- Broadcasting: J5621 - Free-to-air television broadcasting. This class consists of units mainly engaged in free-to-air television broadcasting of visual content, in the form of electronic images together with sound, through broadcasting studios and facilities. These units may also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs on a pre-determined schedule. Transmissions are made available without cost to the viewer. J5622 - Cable and other subscription broadcasting. This class consists of units mainly engaged in broadcasting television programs on a subscription or fee basis (such as subscription cable or satellite television broadcasting) to viewers.

## Workforce definition

We have defined 'workforce' as people in Aotearoa New Zealand who are engaged in the labour force. They are recorded in the Inland Revenue (IR) derived dataset comprised of all records in the Employer Monthly Schedule (EMS) plus additional income records from the IR3, IR4S and IR20 tax forms as receiving income from one of the following income source types:

- Wages and salaries.
- Total shareholder salary.
- Company director/shareholder receiving pay as you earn (PAYE) deducted income
- Company director/shareholder receiving withholding tax (WHT) deducted income
- Partner receiving PAYE deducted income
- Partner receiving withholding tax deducted income
- Sole trader income
- Sole trader receiving PAYE deducted income
- Sole trader receiving withholding tax deducted income

This definition of the workforce excludes people whose sole source of income is from benefits, claims or rental income.

## Worker type definition

### Directors, Shareholder and Partners (i.e. owners)

Directors, Shareholders and Partners are defined as people with tax filings as one of the following:

- C00 - Director/shareholder income from the IR4S
- C01 - Company director/shareholder receiving PAYE deducted income
- C02 - Company director/shareholder receiving withholding tax deducted income
- P00 - Partnership income from the IR20
- P01 - Partner receiving PAYE deducted income
- P02 - Partner receiving withholding tax deducted income.

Note: "Directors, Shareholders and Partners" are generic descriptions for the purposes of tax filings; they do not indicate alignment to particular roles in the screen sector such as director of a film.

### Sole Traders (i.e. self-employed)

Sole traders are defined using derived data tables (based on EMS data and IR3, IR4s and IR20 tax filings) in the IDI that examine payee-payer relationship data to identify self-employment income.

Sole traders are identified from income tax data where the income source codes are as follows:

- S00 - Sole trader income
- S01 - Sole trader receiving PAYE deducted income
- S02 - Sole trader receiving withholding tax deducted income.

Sole traders where the sole source of income is rental income (identified as income source code S03) are excluded from this report.

### **Waged and salaried Employees (i.e. employees)**

Waged and salaried employees are defined using derived data tables (based on EMS data and IR3, IR4s and IR20 tax filings) in the IDI that examine payee-payer relationship data to identify those still with an income source code of 'W&S' after that examination.

### **Firm definition**

Firms are defined as any business or service entities operating in Aotearoa New Zealand listed in the Statistical Business Register.

### **Firms with ownership data**

Firms with ownership are defined as a firm with shareholder wages being paid to directors, partners or shareholders that are identified in the IDI or through the 2018 Census.

Shareholder wages are calculated from income tax data where the income source codes are as followed:

- C00 - Director/shareholder income from the IR4S
- C01 - Company director/shareholder receiving PAYE deducted income
- C02 - Company director/shareholder receiving withholding tax deducted income
- P00 - Partnership income from the IR20
- P01 - Partner receiving PAYE deducted income
- P02 - Partner receiving withholding tax deducted income

### **Māori-owned firms**

Māori-owned firms are defined as a firm *with ownership data* where at least 50 per cent of shareholder wages are being paid to shareholders, directors or partners that are identified as being Māori through ethnicity data in the IDI or as being of Māori descent through the 2018 Census. Because of limitations of the data currently available this definition differs from the definition used by Stats NZ: A Māori business is a business that is owned by a person or people who have Māori whakapapa, and a representative of that business identifies the business as Māori.



**Te Kāwanatanga o Aotearoa**  
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DDI 10327