



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
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Economic Trends in the New Zealand Screen Sector

Firms & Employment

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Screen Sector Key Insights

Firm characteristics

- The number of firms has increased at an annual average rate of 8.3 per cent between 2015 and 2020. The vast majority of these are sole traders or contractors.
- The number of firms with multiple employees has not changed much since 2010. However, the current data does not yet reflect the impact of COVID-19.
- The New Zealand screen sector is structured increasingly around temporary working arrangements and project-based contracts, similar to common practices within the gig economy.

Employment and Skills

- It is estimated that around 13,900 people are working in the screen sector; either self-employed or as waged and salaried employees.
- The number of employees who earn a set wage or salary in the sector peaked in 2009 and has been declining ever since. The Employment Relations (Film Production Work) Amendment Act was introduced in 2010.¹
- Most new employees in the screen sector are contractors or self-employed, working mainly in the post-production sub-sector in Wellington.
- The number of individuals employed in the screen sector in Auckland has remained roughly stable since 2010.
- Employment rates in the production sub-sector in Wellington peaked in 2012 and have remained static for almost the past decade.

Contextualising the New Zealand Screen Sector

Screen has been recognised as a growing sector with potential to contribute to New Zealand's GDP, employment and economic diversification. As an internationally oriented high-value sector, screen can attract international investment and highly skilled workers, create jobs, and provide spill over benefits including reputational and tourism benefits.

In October 2019, Wellington was named a UNESCO (United Nations Educational, Scientific and Cultural Organization) City of Film as part of the Creative Cities Network.² This illustrates Wellington and New Zealand's growing international reputation for screen production.

Driven by new technologies, increased globalisation and other factors, the screen sector is rapidly changing. Key shifts include changing consumption and distribution patterns and trends, a shift away from feature films towards television series, the rise of streaming services and the decline of cinematic releases due to the COVID-19 pandemic. Digital technologies are also enabling businesses involved in screen production to engage in other areas, such as interactive entertainment (i.e. gaming).

¹ The Employment Relations (Film Production Work) Amendment Act 2010, commonly referred to as the 'Hobbit law', means film production workers are independent contractors, unless they are party to a written employment agreement that states they are employees. See:

<https://www.mbie.govt.nz/business-and-employment/employment-and-skills/employment-legislation-reviews/workplace-relations-in-the-screen-sector/background/>

² <https://unesco.org.nz/wellington-becomes-a-unesco-city-of-film/>

Based on weightless exports, the screen sector is not constrained by natural resources and supply chain disruptions to the extent other sectors are.³ It does, however, rely on a highly mobile labour force, and is underpinned globally by financial incentives. In New Zealand, the key financial incentive is the New Zealand Screen Production Grant. These factors differentiate the screen sector from other sectors.

Background and purpose of this report

The dual purpose of this report is:

1. to fill the three-year information gap left by the discontinued Stats NZ Screen Industry Survey; and
2. to explore alternatives for reporting screen sector data.

MBIE presents this report both as a data stocktake, and as the base from which to explore longer-term options and modes of delivery with and for the screen sector and screen agencies.

This report is the product of research initiated in late 2020 by MBIE. Until 2018, Stats New Zealand had collected and reported on economic outcomes, including employment data, and tracked the geographical distribution of screen industry activity through the annual Screen Industry Survey and related reports. It discontinued this survey in 2018⁴, creating a reporting gap for economic and employment information about the screen industry.

Although some industry voices had critiqued the paper-based survey's compliance burden, and issues with results derived from the sample-based methodology existed, there were strong calls for a replacement. The Screen Industry Survey reports were viewed as particularly important for regional film offices (RFOs). Moreover, the Aotearoa New Zealand Screen Strategy 2030⁵, produced by industry in 2020, called for the reinstatement of a survey to evaluate the sector's performance and progress.

This report is a first step in improving data on the economic contribution of the New Zealand screen sector. It will inform further work by MBIE in relation to the development of improved monitoring and evaluation of the government's investment in the sector. In this report we have taken account of data needs identified by:

- Policy teams in MBIE;
- Stakeholders at a cross-government workshop held in 2019;
- Targeted sector stakeholder engagement with funding entities and RFOs, and;
- The screen industry's 2030 strategy.

For government, having access to quality data is essential to measure the impact of policy interventions. This includes the sizable investments it makes through the New Zealand Screen Production Grant⁶, which seeks to grow local edge, generate intellectual property that benefits New Zealand, and support a more sustainable industry over time. Lack of data also impedes monitoring of the sector's growth and maturation, limits understanding of the sector's

³ This is not to say, however, that the screen sector does not have a carbon footprint. Although this report is limited to economic aspects, future research on the screen sector should investigate the environmental and social impacts.

⁴ <https://www.stats.govt.nz/news/four-surveys-to-end>

⁵ <https://screensectorstrategy.nz/>

⁶ Prior to COVID-19, production activity was forecast to total \$790 million in 2019/20, with an associated NZSPG spend of \$172 million.

contribution to the economy and outcomes for individual workers and reduces the ability to design and implement robust policy initiatives in relation to the sector.

The current reporting gap presents an opportunity for an improved approach to data collection and insights. The starting point for this research was to extend the previous Screen Industry Survey dataset through indirect collection of this information via government administrative datasets (rather than directly sourcing information from survey respondents, as the previous survey did).⁷ Key questions from the previous survey and other engagement formed the basis of a draft in-scope dataset for a replacement reporting framework (see appendix). We do not expect this current dataset to be exhaustive, nor to necessarily yet meet the minimum needs of government and sector stakeholders. The purpose of this project is to inform further work on the development of improved monitoring of the sector.

Focus and structure of the report

This report analyses the economic activities within the screen sector, with a particular focus on two key sub-sectors: production and post-production.⁸ Initially, it covers two domains:

1. Characteristics of New Zealand screen firms
2. Screen employment and skills.

Subsequent data releases will cover additional aspects of the screen sector, particularly financial performance.

Defining the screen sector

The industry defines screen as *“narratives or creative content created, told and consumed through screen platforms”*, and screen production as *“the process of telling the world stories through the use of various creative media that can be consumed through film, game, interactive media, animation, VFX, sound and other storytelling processes and mediums used for the creation of compelling moving image and associated content.”*⁹

These parameters make the sector difficult to define in administrative data. There are no ANZSIC06¹⁰ codes that can identify firms undergoing these specific activities. For practical purposes, this report follows on from the definition employed by the Stats NZ Screen Industry Survey, defining the screen industry as the combination of production, distribution and exhibition of motion pictures and video productions. Our current definition captures data from

⁷ By administrative data, we mean data routinely collected by government agencies for purposes of record keeping and registrations (e.g. from Inland Revenue and ACC), and available to MBIE in an anonymised way via Stats NZ’s custom data requests, Integrated Data Infrastructure (IDI) or Longitudinal Business Database (LBD).

⁸ Based on the ANZSIC06 classifications, production here refers to activities involved in producing motion pictures, videos and television programs or commercials. While closely related to production, post-production refers to specialised 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.

⁹ This sector definition is provided by Screen Wellington.

¹⁰ [Australia and New Zealand Standard Industrial Classification \(ANZSIC06\)](#) was jointly developed by the Australian Bureau of Statistics and Statistics New Zealand in order to make it easier to compare industry statistics between the two countries and with the rest of the world. The current edition is arranged into 19 broad industry divisions and 96 industry subdivisions.

specific firm categories, which are then aggregated into screen sub-sectors. These are based on six ANZSIC06 codes (please see appendix for full definitions):

- **Production:** *J5511 Motion picture and video production.*
- **Post-production:** *J5514 Post-production services and other motion picture and video activities.*
- **Distribution:** *J5512 Motion picture and video distribution.*
- **Exhibition** *J5513 Motion picture exhibition.*
- **Broadcasting** *J5621 Free-to-air television broadcasting and J5622 Cable and other subscription broadcasting.*

We note this definition of the screen sector in this report excludes the gaming industry, for which no ANZSIC06 code exists to identify businesses. In addition, some post-production companies, which self-identify as software companies in the ANZSIC06 codes are not included in this data set.

If screen firms are in fact identifying as software or gaming firms, then this method may underrepresent the size and growth of the sector. Further research is needed to quantify the scope of this issue.

Data sources and methodology

Beyond the limitations of definition, the screen sector exhibits some unique characteristics that pose challenges for the gathering of data. For example, the high proportion of self-employed individuals within the sector mean that traditional measures of employment may be misleading. Further, screen firms may be project-based and exist for less than 6 months; firms of this nature are not always recorded accurately in firm performance data sources such as the Annual Enterprise Survey.

Therefore, this report draws on the below data sources:

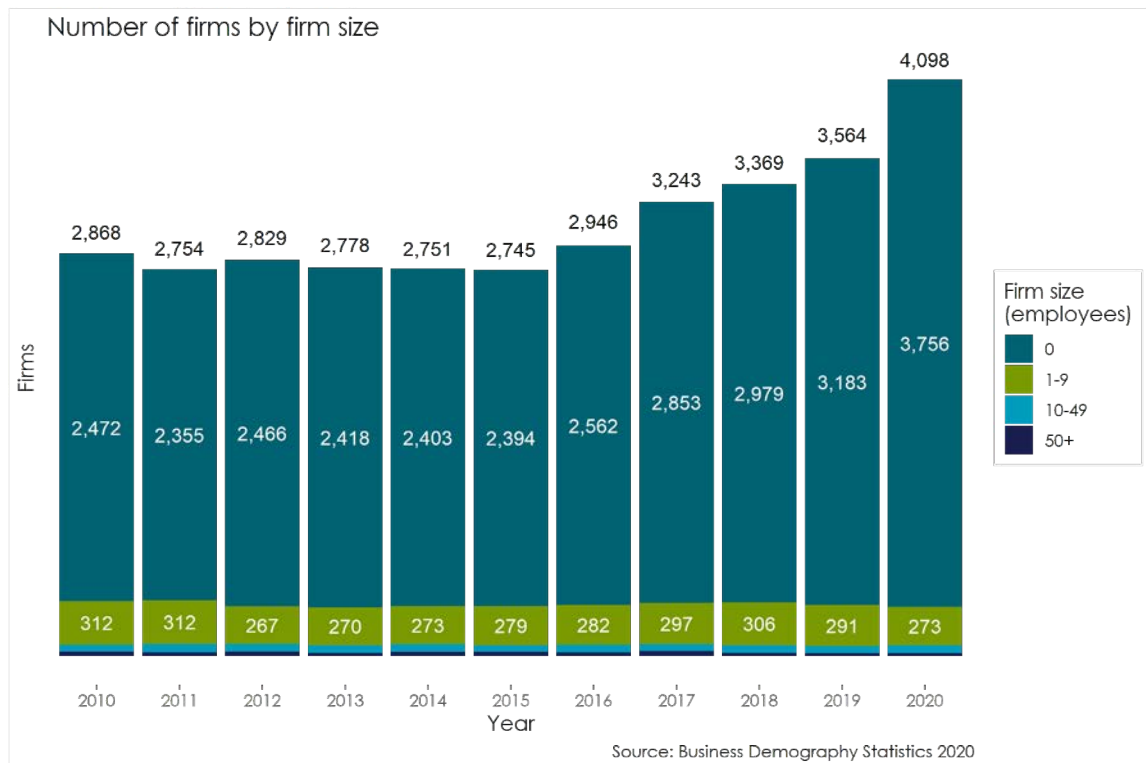
- The Linked Employer-Employee Database (LEED) Annual Release 2019 (incl. self-employed)
- Census 2018
- Business Demography Statistics (BDS) 2020

These sources were chosen as their coverage and quality is appropriate for the screen sector.

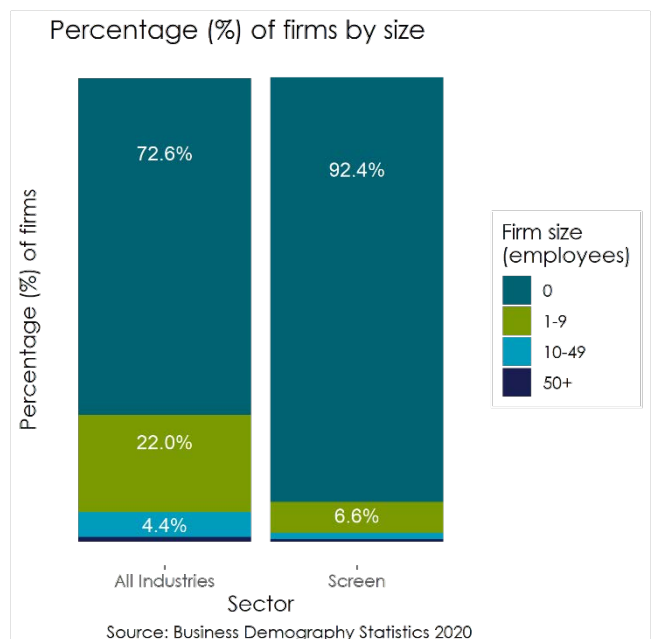
Section 1: Characteristics of New Zealand screen firms

How many firms make up the screen sector, and what is the size distribution of screen firms?

As of 2020, there are 4,098 firms in the screen sector. The average annual growth in firms has been 8.3 per cent since 2015 – much higher than the national average of 1.9 per cent over the same period. However, the data below shows this growth has been almost entirely driven by an increase in firms of zero employees – primarily sole traders or contractors.

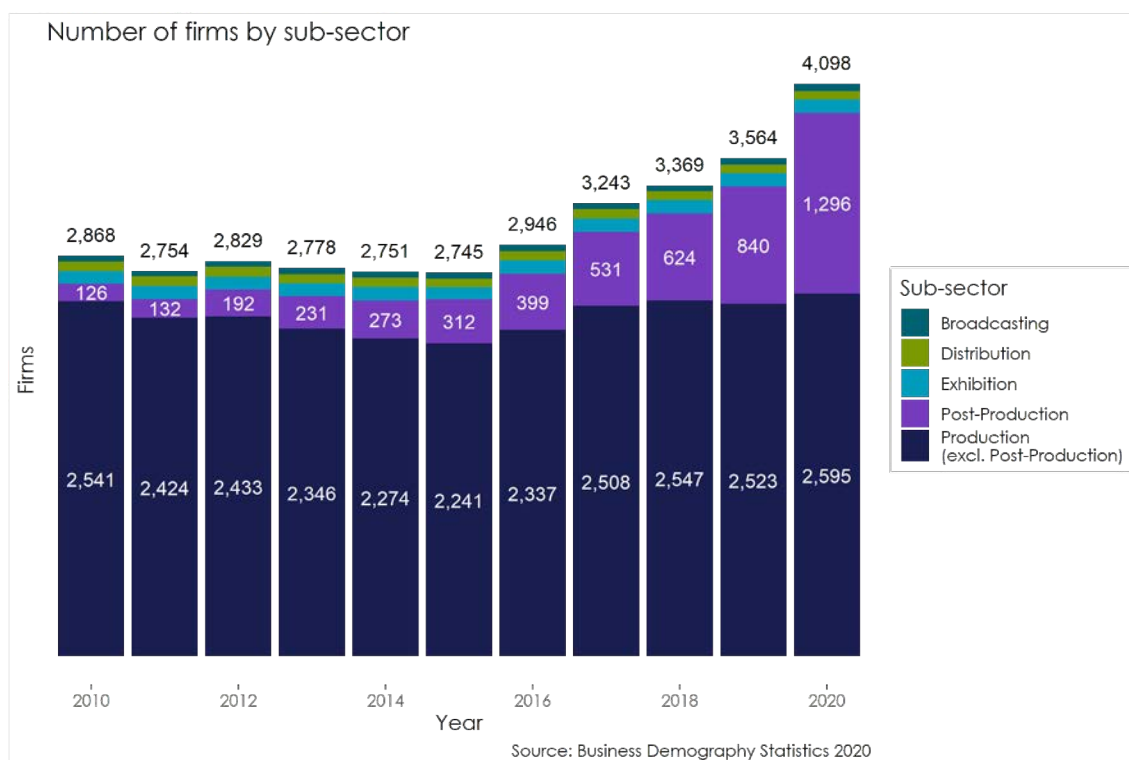


- Of the 4,098 screen sector firms, 3,756 are self-employed contractors. Some of these may have previously been employed in the sector, but the number of contractors is growing faster than the rate of employees leaving the sector.
- The number of firms with employees has not changed significantly over the last ten years.
- The screen sector has significantly more sole traders (92.4 per cent) than the national average (72.6 per cent).



What is the distribution of screen firms across sub-sectors?

Most screen firms are in production or post-production, reflecting that the majority of screen's sole traders are working in this space. LEED employment data shows that 92 per cent of the screen sector's self-employed work in these sectors (these are not all captured by Business Demography Statistics). There are further details on self-employed in the employment section below.

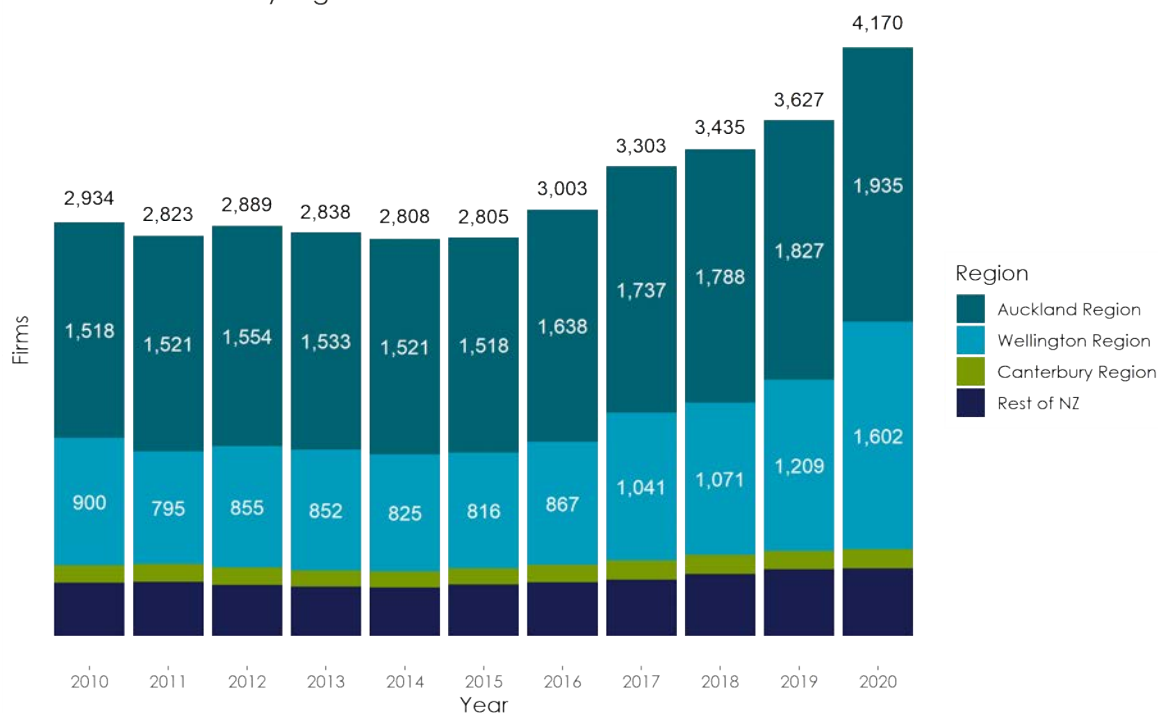


- The sector's recent growth is almost entirely driven by growth in the post-production sector. The number of post-production firms has grown by 33 per cent on average each year since 2015 – the number of production firms has only grown by 3 per cent on average each year over the same period.
- Many of the new post-production firms are in fact sole traders or contractors, likely working for other firms. It is possible this partly reflects a shift in employment structure. Some of these sole traders may have previously been included as employees of production firms, rather than acting as firms in post-production. However, overall employment numbers (including waged & salaried employees and the self-employed) have been increasing, so a shift in employment structure does not explain all firm growth.

What is the regional distribution of screen firms?

Most firms (85.2 per cent) are located in Auckland and Wellington, and the number of screen firms has been growing the fastest in Wellington.

Number of firms by region

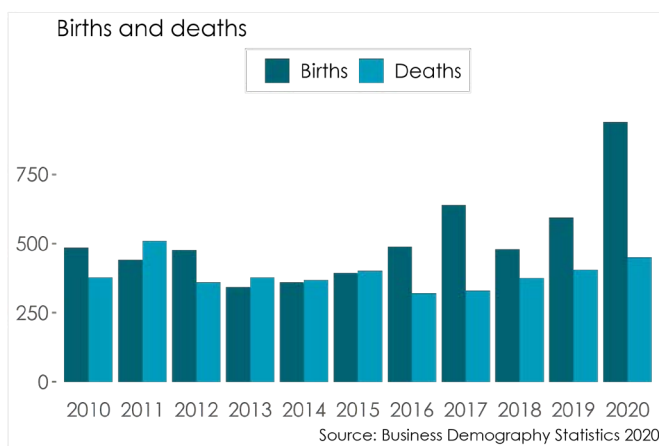


Source: Business Demography Statistics 2020

- In the past five years, the number of Wellington screen firms has nearly doubled, increasing at an average rate of 14 per cent annually since 2015. The number of screen firms in Auckland has only grown at an average rate of 5 per cent over the same period.
- Most new screen firms are sole traders in Wellington's post-production sub-sector.
- Note that firms can have branches in multiple regions, so the above numbers do not match the firm counts in other charts.

What is the birth and death rate of screen firms?

- In 2020 (year ending February), 450 screen firms ceased to operate, but 903 more were born onto the Business Register.
- The sharp increase in the number of firms around 2015 was driven by both an increase in the rate of new firm births, and also a decline in the rate of firm deaths.

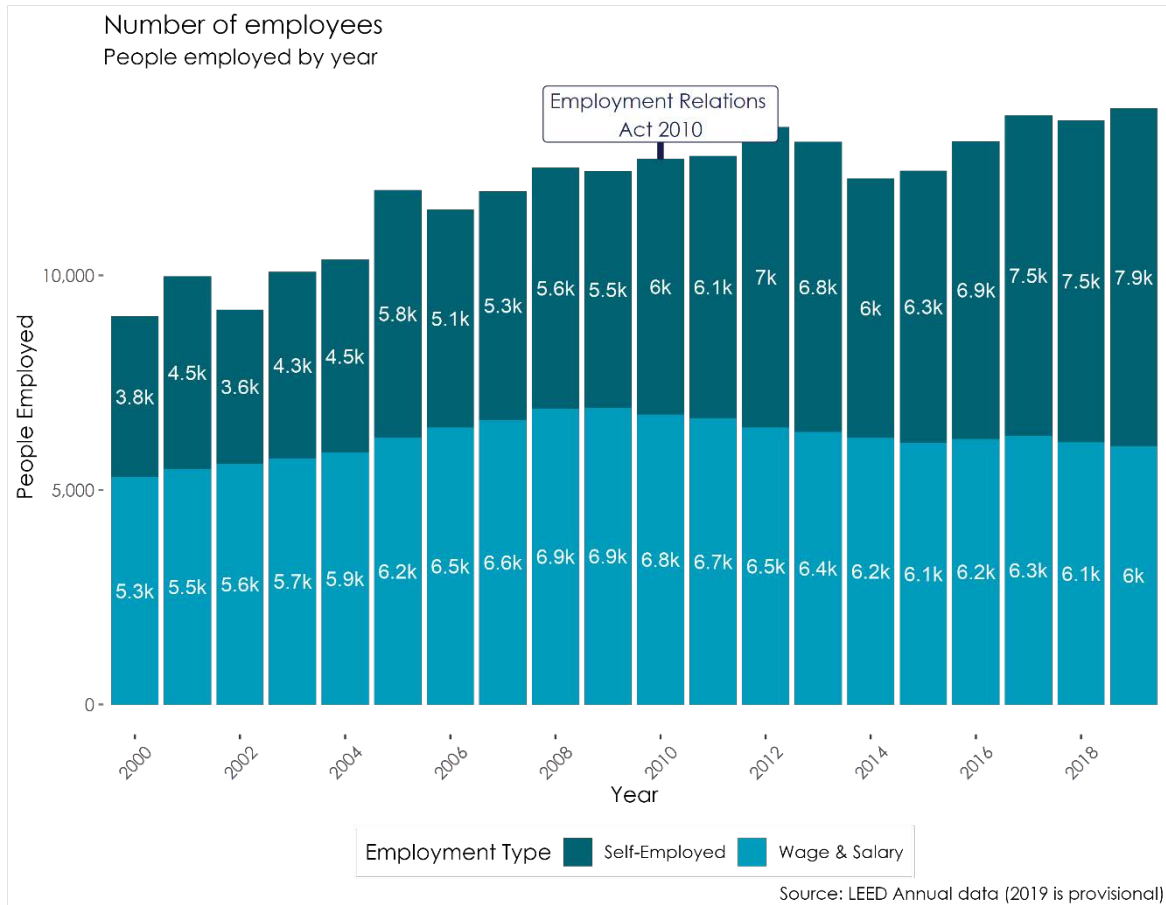


Source: Business Demography Statistics 2020

Section 2: Screen employment and skills

How many people are employed in the screen sector?

Around 13,900 people are working in the screen sector; either self-employed or as waged and salaried employees.¹¹ The LEED data used cannot distinguish between full-time and part-time status of employment.



- The number of waged and salaried employees in the screen sector peaked in 2009 and has been on a slow and steady decline ever since. However, the increasing number of self-employed has supported employment growth in the screen sector.
- The Employment Relations (Film Production Work) Amendment Act 2010 was introduced in 2010.
- Many of these workers may have multiple jobs in the sector (and possibly other sectors as well), according to previous Screen Industry Survey releases.¹²

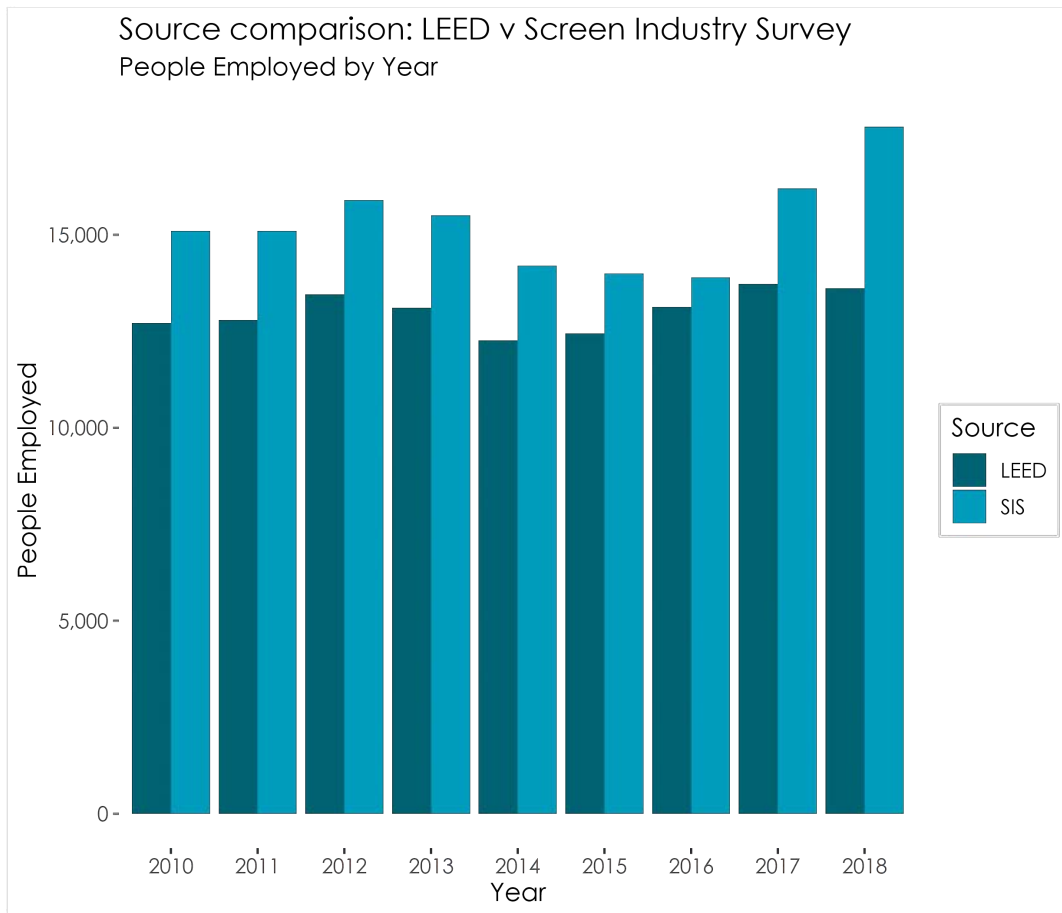
¹¹ The LEED cannot always distinguish the self-employed from the 'traditionally' employed with perfect accuracy so some caution needs to be used when interpreting these numbers.

<https://www.stats.govt.nz/methods/leed-annual-technical-notes>

¹² For instance, the latest Screen Industry Survey showed that the screen industry employed 16,200 people for a total of 29,700 jobs in 2017. <https://www.stats.govt.nz/information-releases/screen-industry-201718>

Comparison of LEED to Screen Industry Survey (SIS) data

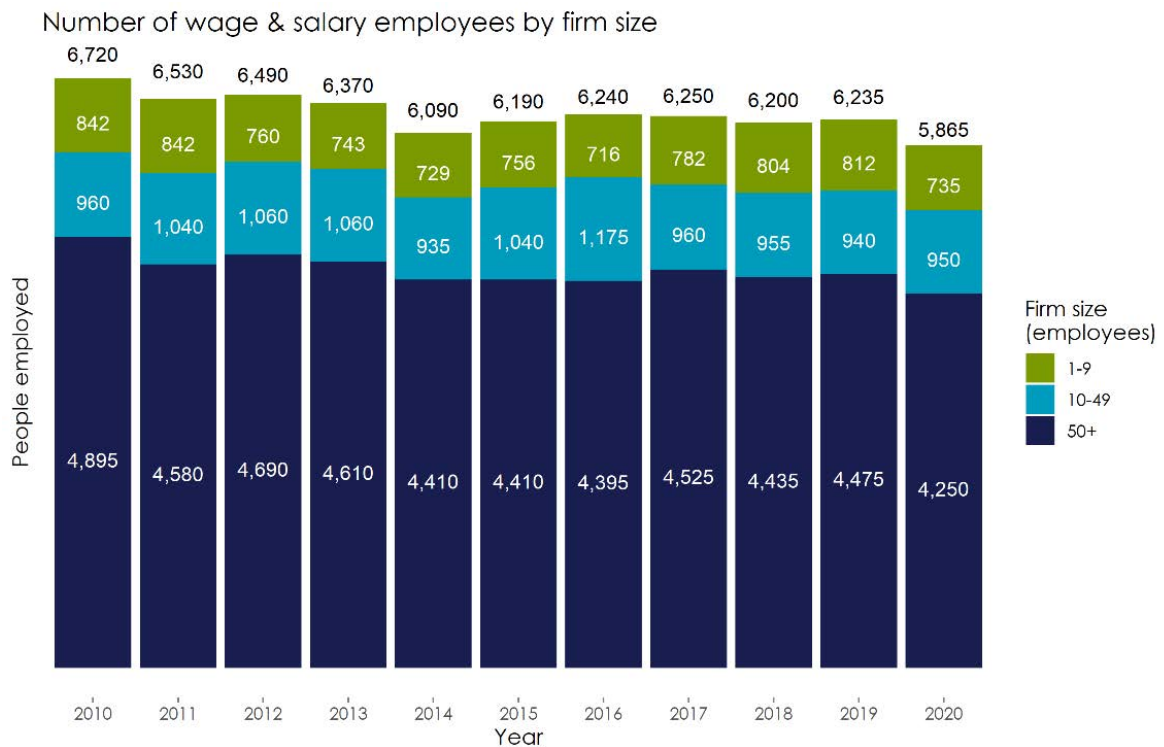
The administrative LEED employment data does not quite match historical values reported by Stats NZ's Screen Industry Survey. This difference is due to the Screen Industry Survey using a slightly broader definition for the screen sector and calculating employment values from the weighted results of respondent firms. The LEED instead uses tax data related to all firms in the target population, so no weighting has been used.



What is the distribution of employment across firm sizes?

Most (72.5 per cent) employees earning wages or salaries are employed by firms with more than 50 employees. These larger firms have been taking on fewer salaried employees, while the number employed by small or medium firms has remained more stable over time. One potential explanation may be that the larger firms are now hiring contractors instead.

Because we cannot identify which firms a self-employed individual is completing contracts for (if any), self-employed individuals are excluded from the below chart.¹³

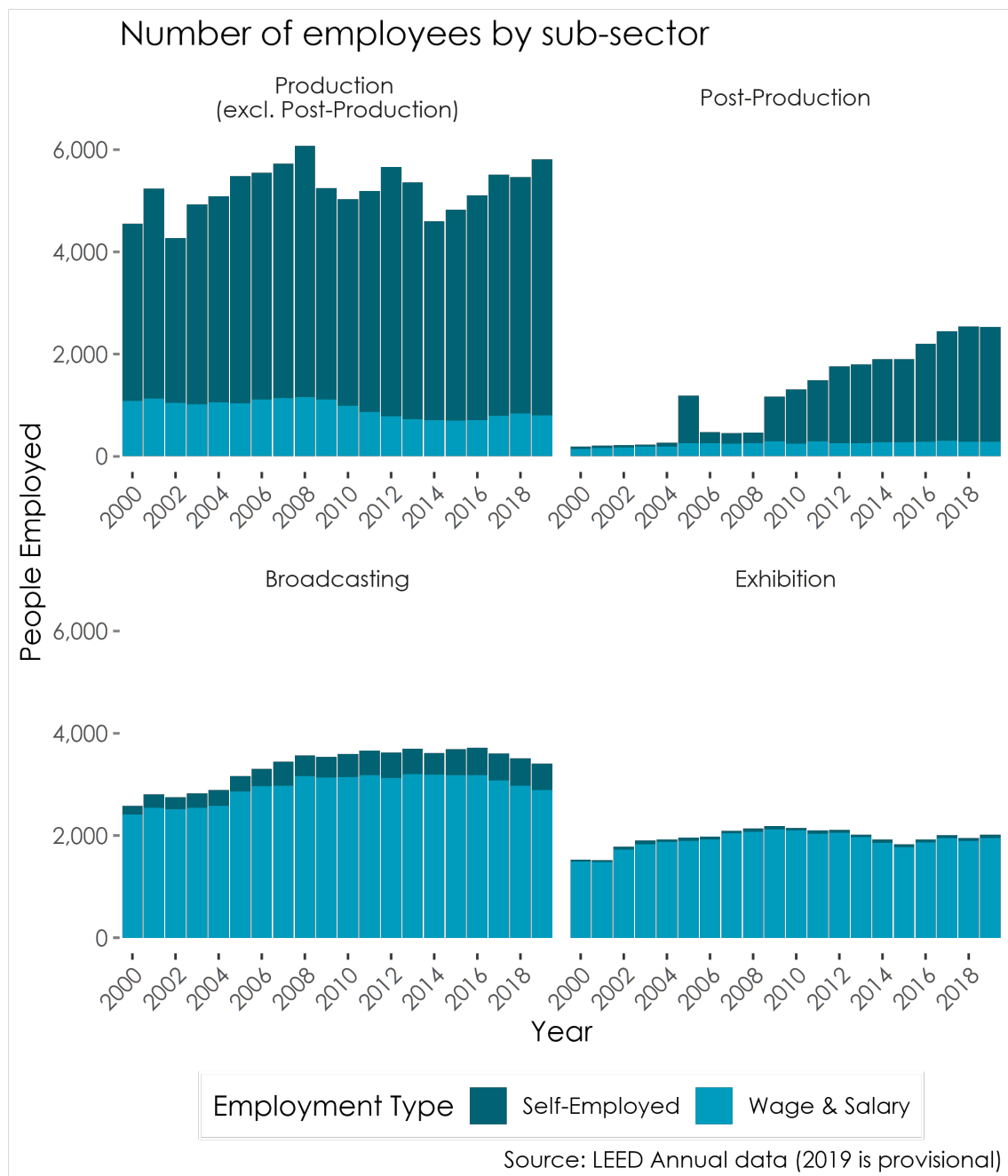


¹³ Business Demography Statistics (BDS) do not capture the self-employed. The reported number of employees will differ from the LEED data as BDS measures employment at a point in time in February, while the LEED counts employment for the year to March, and also captures the self-employed.

What is the distribution of employment across sub-sectors?

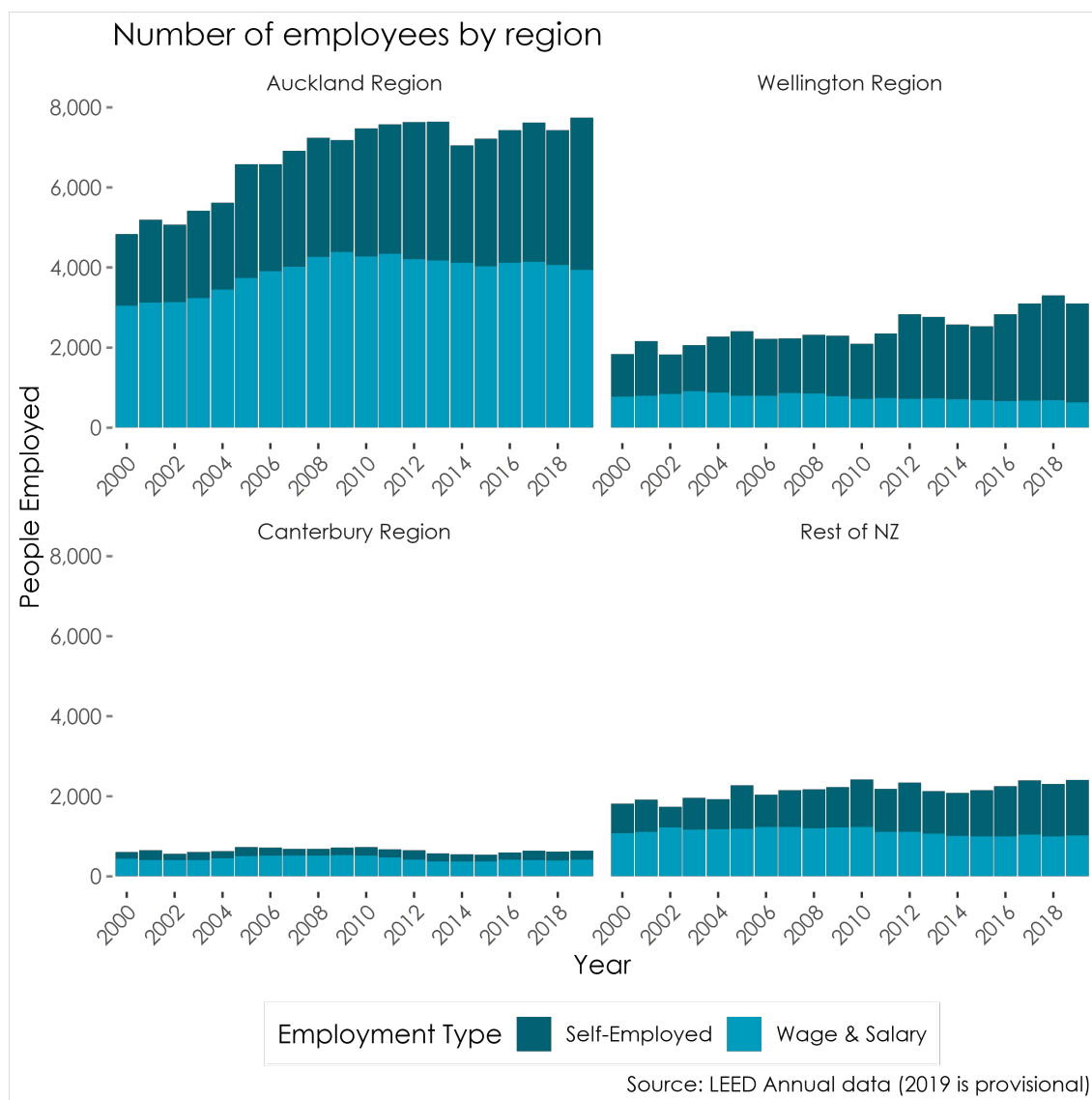
Most people employed in the production and post-production sub-sectors are self-employed. Many self-employed individuals began working in post-production around 2010. It is possible some of these left waged and salaried jobs in production to do this work, but MBIE cannot currently identify individual employee flows between sub-sectors.

There are very few workers recorded in distribution even in the early 2000s. It is possible that popular film distribution stores active during this time were recorded under retail industry codes not captured here.



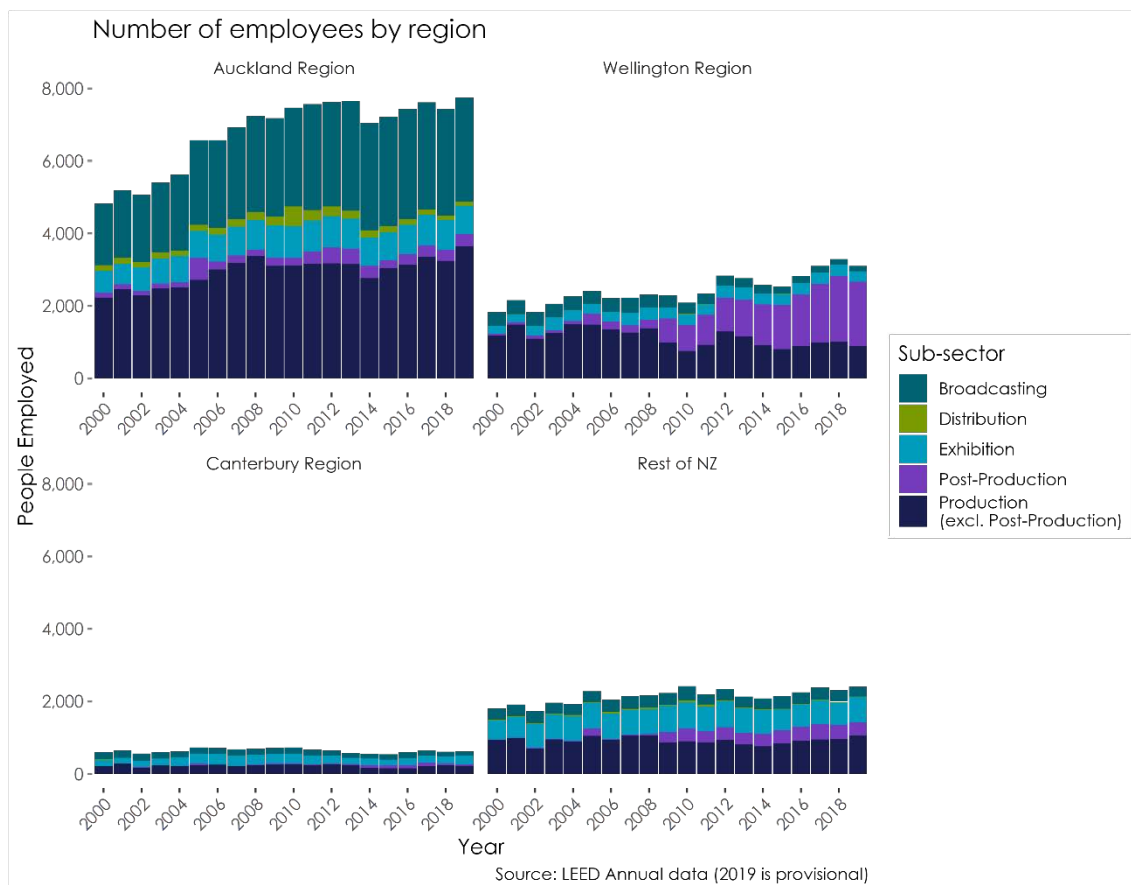
What is the regional distribution of screen employment?

The LEED provides geographic information of employer and employee locations, and with this we can identify the regional distribution of screen firms. 78.1 per cent of all screen employment is in Auckland (55.8 per cent) or Wellington (22.3 per cent).



- Most waged and salaried workers are in Auckland (65.6 per cent), and most of these (63.4 per cent) are in the broadcasting sub-sector.
- Auckland and Wellington have similar numbers of firms, but Auckland has more waged and salaried employees than Wellington. Most of Wellington's firms are sole traders, while Auckland has several firms with high employee counts.
- There are some waged and salaried workers spread across the rest of the country, and most of these (65.4 per cent) are in exhibition roles.
- Note that waged and salaried workers are counted by the location of their employer. This means waged remote workers may be counted in, for example, Wellington, even if they are commuting or working remotely elsewhere.

- There is no such issue for self-employed workers, who are counted by the location of their residence. This means that remote workers across the country may be self-employed and working on contracts for larger firms located in urban centres.

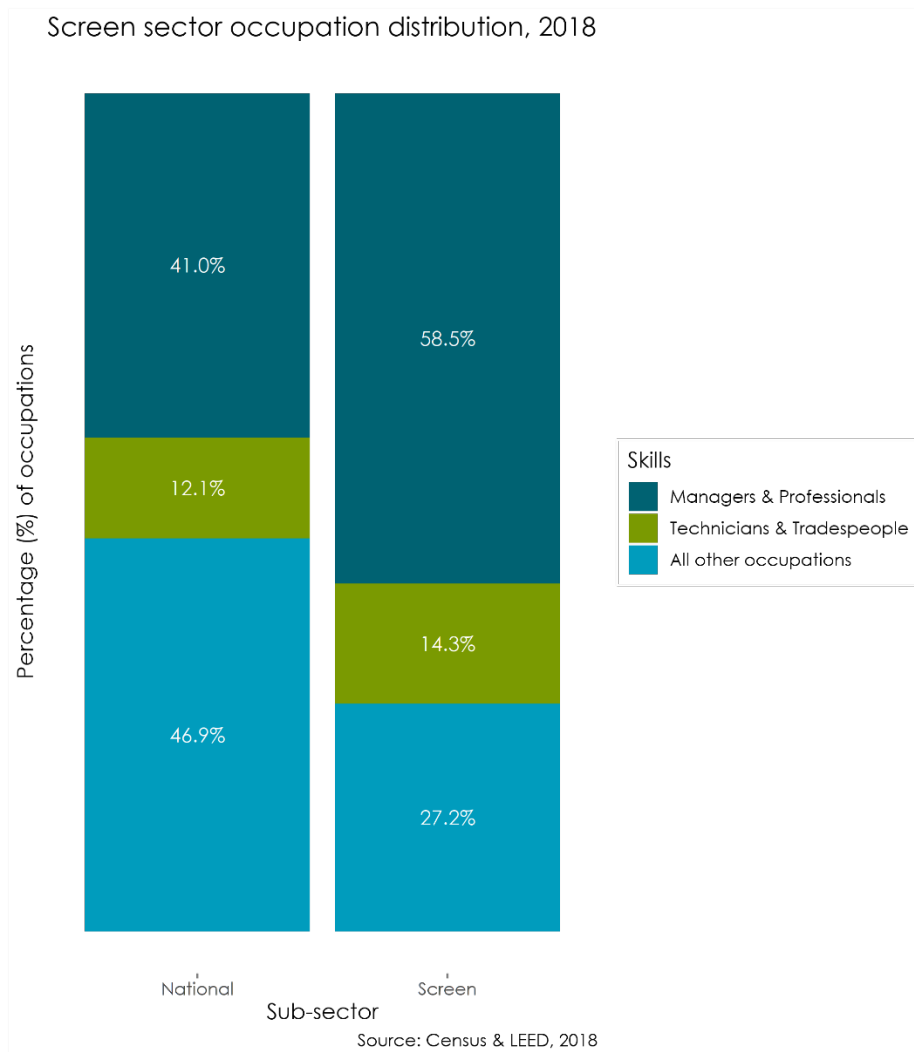


- In 2019, almost all broadcasting work appears to have been done in Auckland (84.0 per cent), and 87.1 per cent of these Auckland broadcasting employees were earning wages and salaries.
- There has been significant growth in post-production work in Wellington, which now houses 70.3 per cent of the workers in this sub-sector.
- Excluding post-production, the number of film production workers in Wellington peaked in 2012. This may reflect a shift in the industry, or simply in how firms have elected to self-classify (and therefore how employees are classified).
- Most distribution work appears to be taking place in Auckland. This number peaked in 2010, but the sub-sector is not a large employer in any case.

What is the composition of the screen workforce?

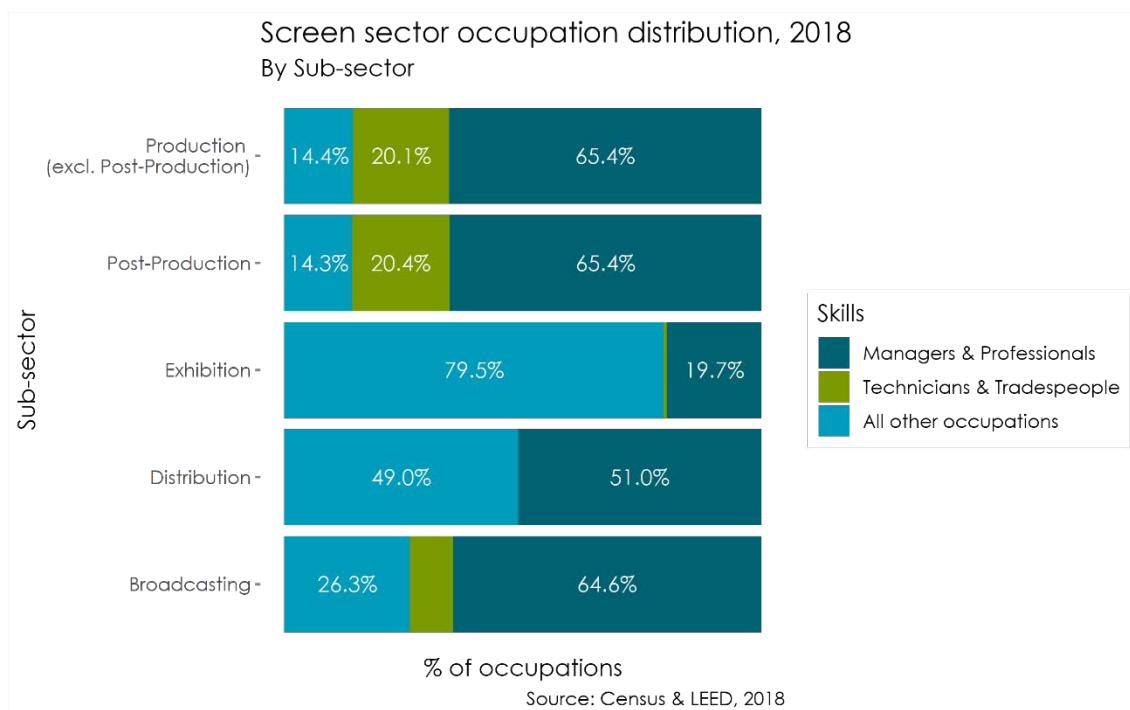
Using census data regarding occupations in the screen sector, we can compare the broad occupational groups to the national average. These categories use ANZSCO (Australian and New Zealand Standard Classification of Occupations) Major Groups for a high-level understanding of the occupational makeup of the sector.

Using census and LEED data, we are able to include information on the self-employed.



The Screen sector workforce employs significantly more managers and professionals (58.5 per cent) than the national average (41.0 per cent). It also employs slightly more technicians and tradespeople (14.3 per cent).

This data can be further broken down by sub-sector, showing the different occupation structures of different areas.



- Production, post-production and broadcasting are all employers of many professionals or managers, at approximately 65 per cent of workers in each sub-sector.
- Production and post-production are also significant employers of technicians and trades workers – approximately 20 per cent of workers are in these occupations.
- The exhibition sub-sector exhibits a different pattern, as it employs a significant number (79.5 per cent) of ushers, ticket collectors, and similar roles.

What is the distribution of wages and incomes?

Wage and income data is derived from the tax data of individuals employed or self-employed within the screen sector, using the LEED annual dataset.



- Contractors earn much more than wage and salary earners in the production, post-production and exhibition sub-sector. Most waged and salaried workers in this group are in service roles within the exhibition sector, such as ushers, ticket collectors, or baristas.
- The opposite story is true in the broadcasting sector, which offers more stable work through wages and salaries. Average earnings in this sector topped \$80,000 in 2019.
- Average income for contractors and self-employed in the overall screen sector was \$72,685 in 2019. This is somewhat higher than the national mean income for waged and salaried workers, which was \$60,476¹⁴ in 2019. It is possible that contractors/self-employed in the screen sector have high hourly earnings, but are not working full-time for the entire year, due to the project-based nature of work.

¹⁴ Stats NZ Labour Market Statistics (Income).

Appendices

Appendix 1: Data Indicators and Sources

Indicator	Source	Status
<i>Firms</i>		
How many firms make up the screen sector?	Business Demography Statistics	Collected
What is the size distribution of screen firms?	Business Demography Statistics	Collected
What is the regional distribution of screen firms?	Business Demography Statistics	Collected
What is the distribution of screen firms across sub-sectors (e.g. production, post-production)?	Business Demography Statistics	Collected
What is the distribution of screen firms across revenue bands?	-	Gap
How many Māori-owned firms are in the screen sector?	-	Gap
What is the survival rate of the screen firms?	-	Gap
<i>Employment</i>		
How many people are employed in the screen sector?	Linked Employee-Employer Data	Collected
How many people are self-employed in the screen sector?	Linked Employee-Employer Data	Collected
What are the average wages across the sector?	Linked Employee-Employer Data	Collected
What is the distribution of employment across regions?	Linked Employee-Employer Data	Collected
What is the distribution of employment across sub-sectors?	Linked Employee-Employer Data	Collected
What is the distribution of incomes?	-	Gap
What are the wages of contractors?	Linked Employee-Employer Data	Collected
How many contracts do contractors hold?	-	Gap
What skills are hardest to recruit in the screen sector?	-	Gap
What skills are most needed in the screen sector?	-	Gap
What are the occupations across the screen sector?	Census 2018	Collected
What qualifications do employees in the screen sector hold?	-	Gap
What skills and roles in the screen sector are filled through immigration?	-	Gap
What are the demographics of screen employees (age, gender, and ethnicity)?	-	Gap
<i>Performance</i>		
What is the screen sector's revenue?	-	Gap
What is the screen sector's expenditure?	-	Gap
What is the screen sector's debt?	-	Gap
What is the screen sector's profit?	-	Gap
What is the value of screen exports and imports?	-	Gap
How many screen companies are exporting?	-	Gap
What is the screen sector's labour productivity?	-	Gap
What is the value added by the screen sector?	-	Gap
How many screen firms are investing in research and development?	-	Gap
How much do screen firms spend on research and development?	-	Gap

Appendix 2: ANZSIC06 Codes

Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06, or simply 'ANZSIC') codes are used to identify firms belonging to the screen sector. 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. This report currently makes use of firms identified under the below ANZSIC06 codes:

- **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.