ANIMATION UK

We need to talk about skills

A skills analysis of the UK Animation industry
November 2018

Foreword

Kate O'Connor. Executive Chair. Animation UK

In terms of quality, inventiveness, technique and humour, UK animation is world class. Our successes and our characters have become part of the national heritage, entertaining and educating generations of young people in the UK and internationally. The animation sector has huge cultural impact and it also has the potential to have significant economic impact.

The recent BFI report on the Value of the Screen Industries highlighted the impact that the Tax Relief has had on the sector. Since 2013 there has been growth in film and TV animated content production in the UK. However, there is also significant evidence that the last few tumultuous years in the UK are having a detrimental impact. Animation production requires long term development and production investment, requiring animation companies to spend, sometimes years to put together funding packages. Combined with the last decade of reducing investment in UK originated first runs by the broadcasters, and a lack of funding sources for short form and development, this means that many productions have to resort to co-productions and a loss of IP rights in the process. This is a loss in terms of production value but also the potential for significant downstream revenues.

Animation UK has been set up to tackle these issues. And we are.

Working closely with Government and the BFI and a wide range of other partners we are committed to seeing new investment to support our Animation sector. The recently announced Young Audiences Fund, the BFI consultation on a new Shorts Development Fund and an imminent relook at the UK Animation Tax breaks in comparison with our competitors are a just a few of the areas we are addressing.

And central to all of these issues, aligned with our ambitions for real and sustainable growth, is the need to tackle what many are referring to as a skills crisis. Again, we know that animation skills are highly rated by the creative industries and throughout the economy generally. But the combination of a well evidenced decline in creative and art-based education in schools; new and as yet, untested Apprenticeship models, changes in further and higher education funding, a projected negative impact of Brexit related migration policies and lack of any coordinated investment in professional development is leading to a skills erosion.

This report, produced by Animation UK and funded by the Animation Skills levy, collects together all current data on skills and employment in the Animation sector. It draws on national data sources, up-to date employer surveys conducted by the UK Screen Alliance and a wide-reaching survey carried out by Animation UK. It highlights the fact that Animation is continually underserved by national data sources. It shows that our workforce continues to draw from up to 30% EU and international artists and creative talent, this is both a positive as well as being necessary as Animation companies recruit heavily from Animation Schools outside the UK. The report also illustrates the many skills gaps and shortages now emerging as brakes to growth.

We cannot let this situation continue. And we won't.

Animation UK will continue to work with the sector, the skills partners including ScreenSkills, the BFI and the NextGen Skills Academy to tackle these issues. In particular, Animation UK will now focus its efforts on creating a positive dialogue and partnership between the industry and education to ensure that our skilled young talent pipeline directly feeds into and supports the Animation sector in the UK and we out a halt to the skills drain.

- Kate O'Connor. Executive Chair. Animation UK

About Animation UK and the UK Screen Alliance

Animation UK is part of the UK Screen Alliance, the trade body which represents Visual Effects (VFX), TV & Film Studios, Post Production and Animation in the UK. It is the membership organisation for over 80 leading employers in this sector and its primary purpose is advocacy for its member companies and the wider screen industries.

UK Screen Alliance was formed in 2016, when two long-established organisations, the UK Screen Association, (founded in 2003) and Animation UK (founded in 2008) joined together to pursue mutually agreed goals on behalf of their members. The UK Screen Association members come from a lateral layer of service providers to the film, TV and commercials sectors; whereas the Animation UK membership consists of an industry vertical comprising independent entertainment companies specialising in production, distribution, development, financing and brand development of childrens' and family properties. These two constituencies intersect across many common interests, particularly those of workforce, migration & visas, skills development and talent pipeline from schools through college and university into jobs and apprenticeships and of continuing professional development.

Contact details

Kate O'Connor
Animation UK - part of the UK Screen Alliance
18 Soho Square
London
W1D 3QL
020 7734 6060

kate@ukscreenalliance.co.uk

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INTODUCTION

Background and Objectives

This report has been commissioned by Animation UK to provide a skills analysis of the UK based animation sector workforce. It draws on both a piece of primary research undertaken in November 2017 by Animation UK and the Children's Media Conference (CMC) and a variety of other secondary sources.

Many of the sources include data collected over a three-year period using different methodologies and different sample sizes. The data sources are therefore used to add granularity to national data sources and have correlated findings.

The objectives for the primary research itself and the wider content of this report are therefore:

- To review existing data sources to identify what intelligence can be gathered about the size, shape and characteristics of the UK's animation workforce.
- To establish the skills shortages and gaps impacting on the current UK animation industry.
- To forecast any future skills needs and the factors that might impact on industry growth.
- To gauge industry views on training and education provision.

Approach and Methodology

The key primary research and focus of this report is an online survey undertaken in November 2017 by Animation UK and the CMC. The survey was designed by Animation UK and then distributed by CMC in advance of their Manimation conference. The short survey comprised 15 questions about working in the industry and any related skills issues.

In total, the survey was distributed to over 1,000 individuals representing animation companies and freelancers active in the industry. A total of 87 individuals completed the survey[1], which equates to a response rate of approximately 9%. The majority of

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1 A further 99 individuals responded to the first two demographic questions but then opted not to complete the remainder of the survey, hence these responses are not included in the analysis provided in this report.

respondents were small or micro businesses and the geographical base was representative of companies across the UK. A profile of survey respondents is set out in Annex 1.

Another source included in this report is a survey conducted by Olsberg SPI in summer 2017 as part of a wider research exercise to capture the value of the screen sectors. A total of 53 animation companies responded to the survey, which included 4 questions covering each of: the size of the workforce; the nationality of the workforce; skills gaps; and skills shortages.

More current sources include UK Screen Alliance workforce survey[2], which collates employment data from its member companies on an annual basis. In 2018, 28 companies participated, representing a workforce of 5,395, for the first time the survey also included animation as well as post production and VFX companies. Eleven animation companies responded, representing a head count of 1008 people.

Finally, the most recent BFI report on the value of the Screen Industries[3] was published in October 2018. This included not only the estimated value of the animation sector, as related to tax relief and production in 2016, but also the number of full times jobs created as a result of the productions within scope.

Other key sources drawn on include:

- Work Foundation (2017) Skills Audit of the UK Film and Screen Industries
- Creative Industries Council (2017) Migration and Skills Survey
- UK Screen Alliance in partnership with Animation UK (2017), Evidence to the Migration Advisory Committee on the Impact of Brexit on the Visual Effects and Animation Industries
- ONS Employer Skills Survey
- ONS Labour Force Survey
- ONS Annual Population Survey

2 UK Screen Alliance Workforce Survey – July 2018

3 Screen Business: A report Commissioned by the BFI from Olsberg.SPI with Nordicity. October 2018.

EXECUTIVE OVERVIEW

Workforce Size

1. Identifying the size of the animation sector workforce via National Statistics is challenging due to the classification system applied to such surveys, leaving animation as one small part of a much larger group of sectors, all with their own characteristics. Any intelligence at this level is therefore limited in terms of how informative it is for the animation sector alone.

2. The most recent animation workforce specific estimate dates back to 2015 when it was estimated that 7,750 individuals were working in the sector, around half of whom are freelance[4], it is likely however that there have been significant changes since this date.

   The 2018 BFI /Olsberg SPI report estimates that the Animation Tax Reliefs-supported the generation of 1,490 direct FTEs in 2016, rising to 2,700 FTEs with the addition of indirect and induced impacts.

3. None of the existing specific skills research includes the wider deployment and employment of animation roles within other related sectors such as Games, VFX or wider creative sectors, however recent NESTA [5]research based on an analysis of 412 million job adverts cites Animation at the number one digital skill required.

4. A conservative estimate of the animation workforce size is therefore in excess of 10,000.

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4 Creative Skillset Employment Census (2015)

5 NESTA: The Future of skills and employment in 2030 and updated analysis. July. 2018.

Workforce Profile

5. Analysing various sources it is estimated that between seven and eight in ten (70% to 79%) of the animation workforce originates from the UK, with 19%-30% originating from the EU (including the Republic of Ireland).6 Just 7% of the cross-economy UK workforce was born in an EU country (excluding the UK)7, showing how much the sector relies on talent from outside the UK.

6. In common with other creative sectors the animation sector must address diversity across all characteristics with a workforce comprising 60% men and only 9% BAME. 8

Recruitment

7. Recruitment methods are very much typical of the creative industries, with word of mouth/recommendations being the most used source of recruitment (54% rating it as their most used source of recruitment). Websites (32% giving it the highest rating) and social media sites (18%) were the next most popular9.

Skills Gaps and Shortages

8. The animation industry is experiencing a high proportion of skills shortages (66% of survey respondents have hard to recruit roles), particularly when compared to the wider UK economy (8% of employers experienced hard to fill vacancies10). Evidence suggests that particular problem areas could be storyboard artists, 2d and 3d animators, business development/ commercial roles and producers.

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6 *A survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017)*

7 *Labour Force Survey Oct-Dec 2017*

8 UK Screen Alliance workforce survey July 2018

9 Animation UK/CMC Animation Skills Survey 2017

10 *UKCES, Employer Skills Survey 2015*

9. Around a third of the animation industry have a skills gap in their current workforce or freelance pool (31% of survey respondents have such a skills gap) again higher than the wider UK economy (14% of employers experienced a skills gap11). Whilst a survey carried out for Animation UK by Olsberg SPI as part of a wider research project in 2017 suggests the rate could be even higher (51% specifying a skills gap). Evidence suggests that a key issue in the industry is the expectation for animators to work across a range of software depending on the project, which at present can be found lacking. Story boarding and production management are other areas in which a skills gap exists for some employers.

10. Shortages and labour mobility linked to Brexit is also an issue for the animation industry, with 34% experiencing an impact. One common issue faced is that attracting EU staff and students has become a problem, resulting in fewer applications from EU talent. Given a high proportion of existing staff are from the EU it is also becoming difficult to retain these staff. One underlying problem being that Visas are now expensive and difficult to get hence causing skills/recruitment issues.

11. The impact of animation skills on the wider creative sector and on creative sectors has not been estimated. But its value has been highlighted by NESTA in an analysis of employer demand for digital skills which looked at 41 million job adverts and found that digital skills used in non-routine tasks, problem-solving and the production of digital outputs are commonly required in future-proof jobs. The most promising digital skills for the future workforce was cited as Animation.12

Training & Education Provision

12. A range of barriers are impacting on growth and related skills needs within the animation industry. The single most common barrier (mentioned by 14% of respondents) relates to finances, whether that is general constraints or specifically a lack of funding or need for development capital. The availability of key technical/production skills, the impact of tax credits on budgets, and the unwillingness of EU companies to employ from the UK posing a threat to co-production work are also cited.

13. Training is commonplace in the animation industry with 61% of employers stating that someone at their workplace has received training within the last

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11 *UKCES, Employer Skills Survey 2015*

12NESTA: The Future of skills and employment in 2030 and updated analysis. July. 2018.

5 years. The most common type of training received is in a variety of design software, with Toon Boom and CelAction the most common. Management training and project management software such as G Suite or Shotgun are also common subjects of training.

14. A reasonable degree of support was given to various forms of training provision, with CPD/Stepping Up/Career Progression Training, entry level apprenticeships and entry level traineeships all receiving a similar level of support from the animation industry. This is usually company/studio driven and funded independently.

    Note: a separate review of the Animation Skills Levy is due to be carried out by ScreenSkills. In addition to their review of the impact of the Apprenticeship Levy and identification of key animation apprenticeship standards.

15. There are evidently a number of national and international educational institutions that the animation industry holds in high regard, although many studios highlight the difference in quality of the European Animation Schools and their current recruitment of students who combine sharp and current animation. skills with creative talent and direct industry experience.

EMPLOYMENT

Workforce size

Identifying the size of the animation sector workforce via National Statistics is challenging due to the classification system applied to such surveys. When cutting survey data by Standard Industrial Classification (SIC) codes animation companies or individuals working within the sector are masked by the wider film and TV production industry (all categorised within SIC 59.11 - motion picture, video and television programme production activities). It is unfortunately not possible to disaggregate any data for the animation sector alone. The Business Register and Employment Survey (BRES) 2016 estimates that 60,000 individuals are employed in the wider motion picture, video and television programme production industry, but the animation workforce will comprise just a fraction of this figure. Any intelligence gained from such surveys (when cut by SIC codes) will therefore only provide insight into the wider production sectors and not the animation industry alone.

Table 3.1: SOC codes relevant to the animation industry workforce

SOC code	Job description	Example animation occupations	W/f size[13]
3411 Artist	Artists create artistic works using appropriate techniques, materials and media; design artwork and illustrations; and restore damaged pieces of art.	Animator in visual effects and 2D/3D computer animation for the film, television or video games sectors.	48,000
3416 Arts officers, producers and directors	Arts officers, producers and directors assume creative, financial and organisational responsibilities in the production and direction of television and radio programmes, films, stage presentations, content for other media, and the promotion and exhibition of other creative activities.	2D/3D supervisor, producer, production manager, production coordinator.	97,000
3421 Graphic designers	Graphic designers use illustrative, visual and multimedia techniques to convey a message for information, entertainment, advertising, promotion or publicity purposes, and create special visual effects and animations for computer games, film, interactive and other media.	Compositing artist, matte painter, modeller, stereo artist, texture artist	104,000

13 *ONS, Labour Force Survey Quarterly Average Apr-Jun 2017*

Standard Occupational Classification (SOC) codes can also be used to cut survey data. Table 3.1 provides a summary of the three codes that are relevant to the animation industry workforce comprising a description of the jobs contained within each relevant SOC, which animation specific occupations are included and the relative workforce size. The information collected shows that these three occupational groups (which at 4-digit level cannot be broken down further) cover a wide range of occupations and jobs, which are widely shared with other sectors as is apparent when considering the large workforce size estimates for each SOC grouping. As is the case with the SIC based data, using such data to draw any critical conclusion about the animation industry is difficult as the constituent sectors will vary greatly.

With the limitations of national data sources, industry derived data becomes critical and offers further insight into the makeup of the animation industry workforce. Creative Skillset's Employment Survey (2015) estimated that the UK animation industry employed 7,750 individuals (representing an increase from 4,600 in 2012). This source has the additional benefit of including the important freelance labour pool, which is to a greater or lesser extent excluded from official data sources.

An earlier report by Olsberg SPI (2015) estimated that in 2013 the animation sector supported 1,300 Full-Time Equivalents (FTEs) of direct employment, increasing to 4,700 FTEs of direct employment when the total economic contribution of the industry (including multiplier and spillover effects are taken into account).[14] This is broadly in line with the 2012 Creative Skillset Employment Census (as it predates the 2015 iteration).

The most recent BFi/Olsberg report[15] includes a review of the Job Creation Model as a result of analysing value attributed to the Animation Tax Relief (ATR). It estimates that the ATR supported the generation of 1,490 direct FTEs in 2016, rising to 2,700 FTEs with the addition of indirect and induced impacts. See Annex 2 for details.

A report by the Work Foundation in 2017, focussed on craft and technical skills within the UK film industry, extending to include adjacent screen industries (including animation) where there exists commonality of job roles and skill needs. Data specific to the animation industry is therefore not available from this report, though wider industry insights into skills issues are presented later in this report.[16]

14 *Olsberg-SPI (2015) Economic Contribution of the UK's Film, High-End TV, Video Game and Animation Programming Sectors*

15 Screen Business: A report Commissioned by the BFI from Olsberg.SPI with Nordicity. October 2018.

16 *Work Foundation (2017) A Skills Audit of the UK Film and Screen Industries – Report for the British Film Institute*

Contract type

Creative Skillset’s Employment Census (2015) estimated that 52% of the animation workforce is freelance, hence underlining the importance of including individuals employed on a freelance or short-term contract in workforce size estimates. As a Census of the industry this source is likely to provide a very good estimate of employment, however, it has now become somewhat out-dated and other industry derived evidence adds further insight.

In 2017 Olsberg SPI carried out a survey on behalf of the BFI to identify the value of the animation industry as a result of Animation Tax Relief. The survey also asked 52 employers in the animation industry about the composition of their workforce, which provides a more current perspective on the proportion of freelancers active in the workforce. Of the 2,086 individuals for which employers gave contract type information two-fifths (39%) were freelancers. Over half (53%) were full-time employees, 3% were part-time employees, 1% were apprentices and 4% were interns. It should be noted that this survey was not designed to be a Census of industry employment and did not seek to gather employment details on a specific day (hence some members of the workforce may have been double counted). It is nevertheless a robust response and is hence included as the most up to date indication of animation industry employment.

A Census of VFX companies (an industry with many similarities to the animation industry) carried out by UK Screen in 2017 presents a further interesting breakdown of the freelance workforce. The overall proportion of permanent employees (50%) is similar to the Olsberg SPI survey mentioned above, with just 3% of the sample working as freelancers on day-rates. Flexibility in the workforce is gained by the use of fixed term contracts, the majority of which were longer than six months (43%, with a further 4% holding fixed term contracts under 6 months in length).

Nationality

As outlined previously, National Statistics are grouped at a broad level, meaning that it is not possible to extract discrete data for the animation industry. However, DCMS statistics show that 6% of those working in 'Film, TV, video, radio and photography' are from the EU.[17] This overall figure will however be skewed by the sizeable photography workforce, most of whom are UK citizens. A subsequent analysis of the creative industry workforce carried out in 2017/18[18] 'piggybacks' the Department for Education's Employer Skills Survey, surveying additional creative industries employers in order to increase the sample base and provide data at a more granular level. This survey indicated a higher reliance on EU workers across the creative industries (18% of all creative industries employers employ at least one EU migrant), with an even greater reliance on EU workers within larger companies and those based in London.

There are however some industry derived sources which provide animation specific intelligence.

The survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017) asked animation employers to estimate what percentage of their workforce originated from various regions. Four-fifths (79%) of the workforce originated from the UK, with a further 2% from the Republic of Ireland and 17% from another EU country. Just 1% originated from another country in the European Economic Area (i.e. Iceland, Liechtenstein, Norway) and 5% from elsewhere in the world. As a comparison, 7% of the cross-economy UK workforce was born in an EU country (excluding the UK)[19] which demonstrates how important the EU is to the animation industry and how damaging the impact of Brexit could be on the industry.

The UK Screen workforce survey (2017 – a survey of the VFX workforce, nevertheless due to the similar nature of the workforce this will reflect, on the composition of the animation workforce also as just over 30% of the VFX sector workforce comprises animation related occupations) reported that an even higher proportion of the workforce are non-UK nationals. Three-fifths (60%) being UK nationals, 1% from the Republic of Ireland, 27% from another EU country, 1% from another country in the European Economic Area and 11% from elsewhere in the world. The largest

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17 *UK Screen Alliance in partnership with Animation UK, Evidence to the Migration Advisory Committee on the Impact of Brexit on the Visual Effects and Animation Industries (October 2017)*

18 *Creative Industries Council, Migration and Skills Survey (2017)*

19 *Labour Force Survey Oct-Dec 2017*

individual country contingents being from France (5.8%), Italy (5.6%), Spain (4.6%) and Germany (2.5%).[20]

The UK Screen Workforce Survey of 2018 included animation companies for the first time. Although a small sample basis, eleven companies responded and based on an analysis of the 1008 employed by these companies 71% were from the UK, 20% from the EEA and 9% from the rest of the world (RotW).

Overall the nationality of the animation workforce, whilst dependent on the size and location of the company, is estimated at 20%-30% originating from the EEA. Any policy impacting on mobility of labour will have a significant impact on the skills levels for animation production.

in September 2018, the Migration Advisory Council (MAC) proposed in the report to government, extending Tier 2 Visas to EEA skilled migrant workers following Brexit[21]. MAC proposed that the existing Tier 2 minimum salary threshold of £30,000 should be also be applied to EEA skilled migrant workers. The Home Office are set to publish a White Paper in Autumn 2018 leading to an Immigration Bill in 2019.

UK Screen Alliance estimates that 7% of the combined VFX and animation workforce currently working in the UK are from the EEA and are remunerated below £30,000 and therefore these roles would be ineligible for visas once the Free Movement of Labour ends. This research indicates that Junior Animators will be the worst effected grade across the VFX and animation sectors.

There is no suggestion from the UK Government that EEA citizens currently living and working in the UK will need to obtain Tier 2 Visas in order to remain in the UK. They will be able to apply for "settled" or "pre-settled" status at a relatively minimal cost. However, in a project-based industry there is significant churn of the workforce and employers have until now been able to draw from a pool of talent from across mainland Europe without visa restrictions. The Tier 2 minimum salary threshold will severely limit this option in future. Employers will also find the cost of Tier 2 visas with its associated Immigration Skills Charge and the overhead of managing a Tier 2 sponsorship licence very costly and onerous.

In a very short time, the restricted access to international skilled workers will become a major problem, exacerbating skills shortages. Roles that are currently not experiencing shortages will start to become difficult to recruit into.

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20 *UK Screen Alliance in partnership with Animation UK, Evidence to the Migration Advisory Committee on the Impact of Brexit on the Visual Effects and Animation Industries (Oct017)*

21 *Migration Advisory Committee – EEA migration in the UK: Final report – Sept 2018 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741926/Final_EEA_report.PDF*

Demographics

National data sources such as the Annual Population Survey or Labour Force Survey could potentially provide a wealth of demographic information, however the problems with disaggregating data for the animation industry by SIC or SOC code means that this provides limited insight as far as the animation industry itself is concerned. As a 'best-fit' comparison to some of the animation specific data from earlier years (presented below), various demographic data for SIC 59.11 (motion picture, video and television programme production activities) has been extracted from the Annual Population Survey.

Table 3.2: Demographic profile of the motion picture, video and television programme production industry

	%
Female	31
Age 35+	54
BAME	7
Disabled	8

Source: Annual Population Survey (April 17 – March 18)

Creative Skillset's Employment Census (2015) estimated that 30% of the animation workforce are women, decreasing slightly to 28% amongst those at a strategic management or executive team level. These figures vary enormously by sector (e.g. in broadcast television 50% of the workforce are women) and hence show why one overall figure for the creative industries, or a significant sub-set of it, would not provide insight into the animation workforce.

Creative Skillset's Employment Census (2015) also estimated that just 3% of the animation workforce is BAME, which remains similar (4%) at a strategic management or executive team level. As with the proportion of women this is lower than some other creative sectors (e.g. broadcast television is 9%), again showing that industry-wide averages will be of limited use.

The UK Screen Alliance Survey of 2018 identified a 60/40% gender representation of the workforce (the highest % being men) and that 94% of the workforce were white and 9% BAME.

To find any animation specific data for other demographic variables we have to travel further back in time to Creative Skillset's Workforce Survey (2014) when it was reported that 43% of the animation workforce were aged 35+ and 3% of workers considered themselves to be disabled.

The Work Foundation (2017) reported that the lack of workforce diversity is viewed as the biggest challenge facing the film and screen industry (including the animation industry). Ethnic minorities, women and particularly, those with caring responsibilities, those with disabilities and people from less advantaged backgrounds were seen to face the biggest challenges in entering and progressing in the industry.[22]

Location of workforce

As with demographic data, there is a lack of animation specific data available for analysis from national or sector specific sources alike. Data drawn from the Annual Population Survey for SIC 59.11 (motion picture, video and television programme production activities) is presented in table 3.3 and shows that a significant proportion of the production industry is London and South East based.

Table 3.3: Location of the motion picture, video and television programme production industry

	%
East Midlands	2
East of England	6
London	38
North East	1
North West	6
Northern Ireland	*
Scotland	7
South East	18
South West	9
Wales	3
West Midlands	3
Yorkshire & the Humber	5

Source: Annual Population Survey (April 17 – March 18)

Respondents to the Animation UK/CMC Animation Skills survey were asked where they are based and table 3.4 shows the profile of those who participated. It should be noted that this survey is not necessarily representative of the animation industry as a whole, but is presented nevertheless as a reference point. It indicates however

22 *Work Foundation (2017) A Skills Audit of the UK Film and Screen Industries – Report for the British Film Institute*

that the animation industry is more geographically spread than the wider production industry.

The largest proportion of respondents are located in the North West (30%) and London (29%). A further 10% are located in the South West, with the remainder distributed between the other English regions and also Northern Ireland, Scotland and Wales. A small number of respondents (4%) are based outside of the UK, though are active within the UK animation workforce.

Table 3.4: Location of animation survey respondents

Location	%
East Midlands	2
East of England	4
London	29
North East	1
North West	30
Northern Ireland	2
Scotland	4
South East	6
South West	10
Wales	5
West Midlands	1
Yorkshire & the Humber	2
Rest of the world	4

Base: All respondents (83)
NB: 4 respondents chose not to answer this question

RECRUITMENT, SKILLS GAPS AND SHORTAGES

Recruitment

The results of the Animation UK/CMC Animation Skills survey show that animation companies vary greatly in size, from freelancers or sole traders to some very large companies. Table 4.1 summarises this variety by showing the number of full time PAYE employees at the company the respondent works in (self-employed individuals or sole traders would fall into the 1-5 category). A total of 37% of respondents work within companies with 1-5 employees, with a similar proportion (36%) at the other end of the scale, having 50 or more employees. The remaining respondents were split relatively equally between the various medium sized company bands.

Table 4.1: Size of company

Number of full time PAYE employees at company	
1-5	37%
5-10	6%
10-25	11%
25-50	10%
50+	36%

Base: All respondents (81)
NB: 6 respondents chose not to answer this question

An accurate profile of the animation industry company base is hard to produce due to the limitations of official data sources i.e. not discretely categorising the animation industry. Data sourced from the Inter-Departmental Business Register (IDBR) for 2017 shows that the 'motion picture production activities' industry is overwhelmingly made up of micro enterprises (93% have 0-4 employees) and less than 0.5% have 50 or more. This profile is mirrored in the 'television programme production activities' industry where 92% of enterprises have 0-4 employees and 1% have 50 or more. Whilst a high proportion of the workforce might be employed in a small number of very large employers, the majority of businesses are in fact very small in size.

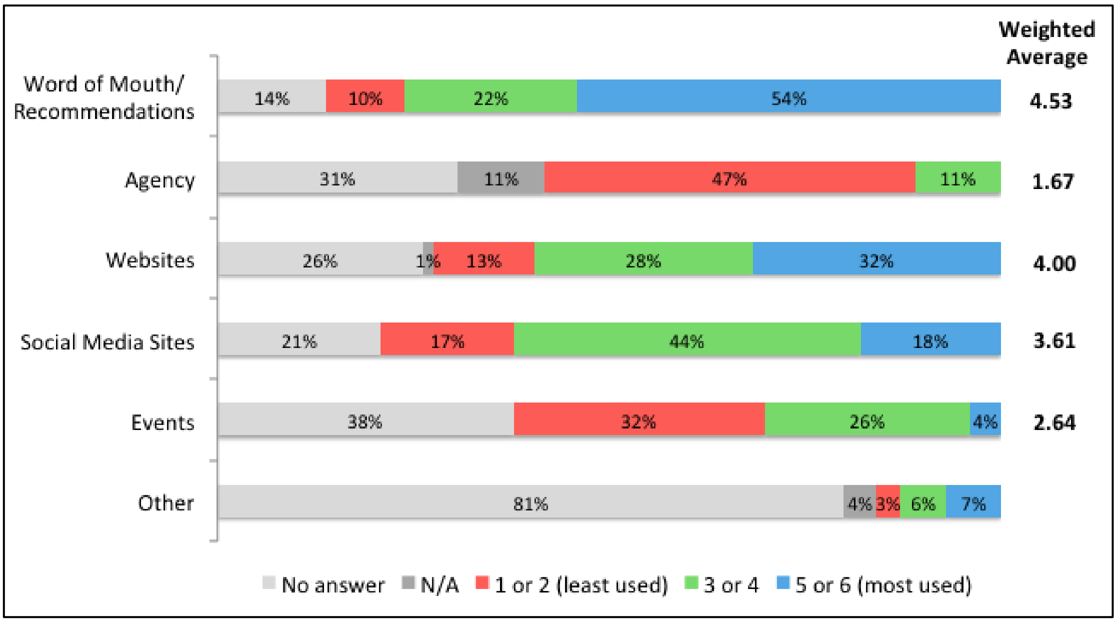
This variation in company size has an obvious bearing on favoured recruitment methods. Respondents were asked to think about how they currently recruit their team and to rank a series of sources, with 6 being the most used and 1 being the least used. Chart 4.1 shows the results, which also includes the proportion of respondents who didn't give a rating to that particular source ('no answer' in the chart) or recorded that that particular source was not applicable to them. The proportion of no answer/not applicable responses varies significantly and hence these have been excluded from the calculation of an overall weighted average score.

Unsurprisingly, the informal recruitment method of 'word of mouth/ recommendations' has the highest average with a score of 4.53 (driven by a high proportion - 54% - ranking it as most used with a score of 5 or 6). Just 14% did not give a ranking to this source. Websites are also a popular source of team recruitment (an average score of 4.00), though a smaller proportion rated them as most used with a 5 or 6. A higher proportion (26%) of respondents did not rank this source though.

Social media sites are the next most popular source of recruitment, followed by events and finally agencies. Nearly half of those giving a ranking said that it was a least used source (rating it a 1 or 2). A high proportion of respondents also indicated that agencies are not a relevant source of recruitment for them.

The only 'other' response mentioned on more than one occasion was using existing contacts.

Chart 4.1: Favoured recruitment method for team

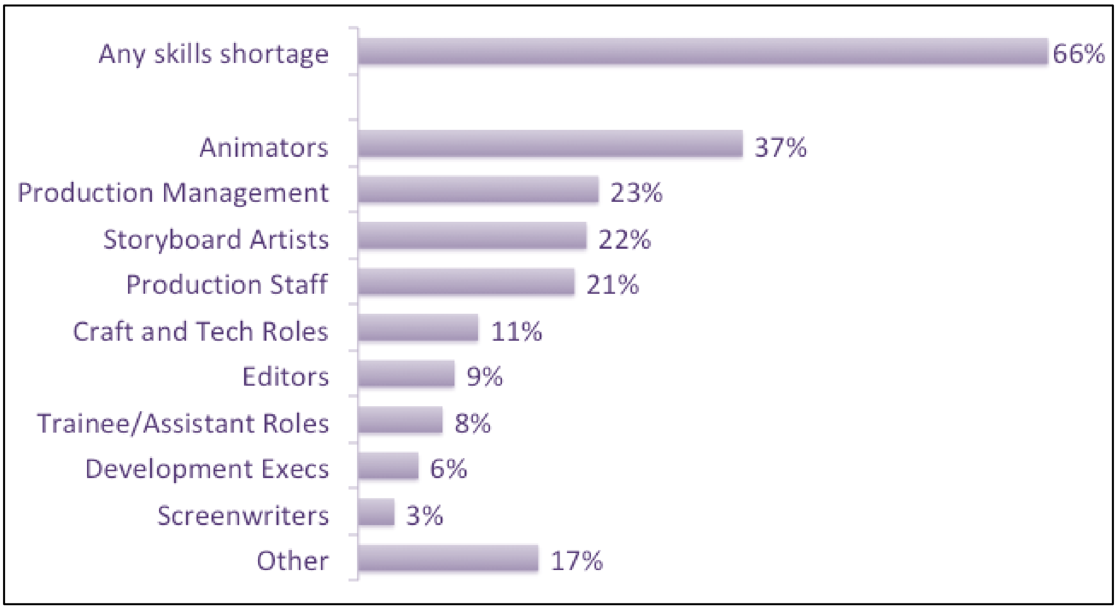


Base: All respondents (72)
NB: 15 respondents chose not to answer this question
An average has not been calculated for 'other' due to the high proportion of 'no answer'.

Skills shortages

Two-thirds (66%) of respondents said that they are currently experiencing skills shortages i.e. hard to recruit roles. The specific areas in which these exist are shown in chart 4.2. Animators proved to be the most common problem area (mentioned by 37%), followed by production management (23%), storyboard artists (22%) and production staff (21%).

Chart 4.2 Skills shortage areas



Base: All respondents (87)

A survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017) asked animation employers whether they were currently experiencing skills shortages i.e. problems recruiting either employees or freelancers to key job roles in their company. Three-quarters (74%) gave at least one job role in which they were experiencing skills shortages, which is extremely high compared to the wider economy (in 2015 just 8% of establishments in England, Scotland and Wales experienced hard to fill vacancies, decreasing to 5% of employers in film, TV, radio & photography[23]).

Employers could specify up to five skills shortage areas, with the 39 employers acknowledging that a skills shortage exists within the animation industry mentioning a total of 115 issues between them. Table 4.2 lists the responses mentioned by three or more employers. The most frequent response was 'storyboard artist' mentioned by 11 employers, followed by '2d animators' (mentioned by 10), 'business development/commercial roles' (9), 'producers/creative producers' (8) and '3d animators' (7).[24]

Table 4.2: Skills shortages in existing workforce/freelance pool

Skills gap	Number
Storyboard artists	11
2D animators	10
Business development/Commercial	8
Producers/Creative Producers	8
3D animators	7
Animators (unspecified)	6
Character animators	5
Motion designers	5
Production management	5
Riggers	5
Editors	4
Compositors	3
Directors	3
Finance roles	3
Lead/Senior animators	3
Stop motion/frame animators	3

A number of animation relevant occupations remain on the Shortage Occupation List (SOL), acknowledging the importance of being able to employ talent from outside of the UK in the following areas. Not all were mentioned in this survey but nevertheless it is important to bear them all in mind when considering skills shortage areas:

23 *UKCES, Employer Skills Survey 2015*

24 *A survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017)*

Animation related roles in visual effects and 2D/3D computer animation for film, television, or video games industries

- 2D supervisor
- 3D supervisor
- Computer graphics supervisor
- Producer
- Production manager
- Technical director
- Visual effects supervisor
- Compositing artist
- Matte painter
- Modeller
- Rigger
- Stereo artist
- Texture artist

Despite the film and screen industries wide focus, the Work Foundation (2017) Skills Audit of the UK Film and Screen Industries reported a number of skills shortages with clear relevance to the animation industry and the findings reported in this section. For example, the ability of new entrants to use new technologies (ranging from 3D Modelling to VFX software skills) was raised as an important issue. Specific skills shortage roles were also highlighted including 3D model makers, concept artists and editors.

Skills gaps

Respondents were also asked whether any skills gaps (e.g. specific software skills or techniques missing from the workforce) exist in their current workforce or freelance pool. Approaching a third (31%) specified such a skills gap in their workforce, which again represents a high proportion compared to the wider economy (in 2015 14% of establishments in England, Scotland and Wales experienced a skills gap, decreasing to 4% of employers in film, TV, radio & photography[25]).

Chart 4.3 shows the most frequently mentioned subjects/areas in which skills gaps exist. One in ten (9%) referenced some type of software skills, though most did not give a specific name, just that having the appropriate software skills was a problem within their company. The sheer range of software and the expectation for

25 *UKCES, Employer Skills Survey 2015*

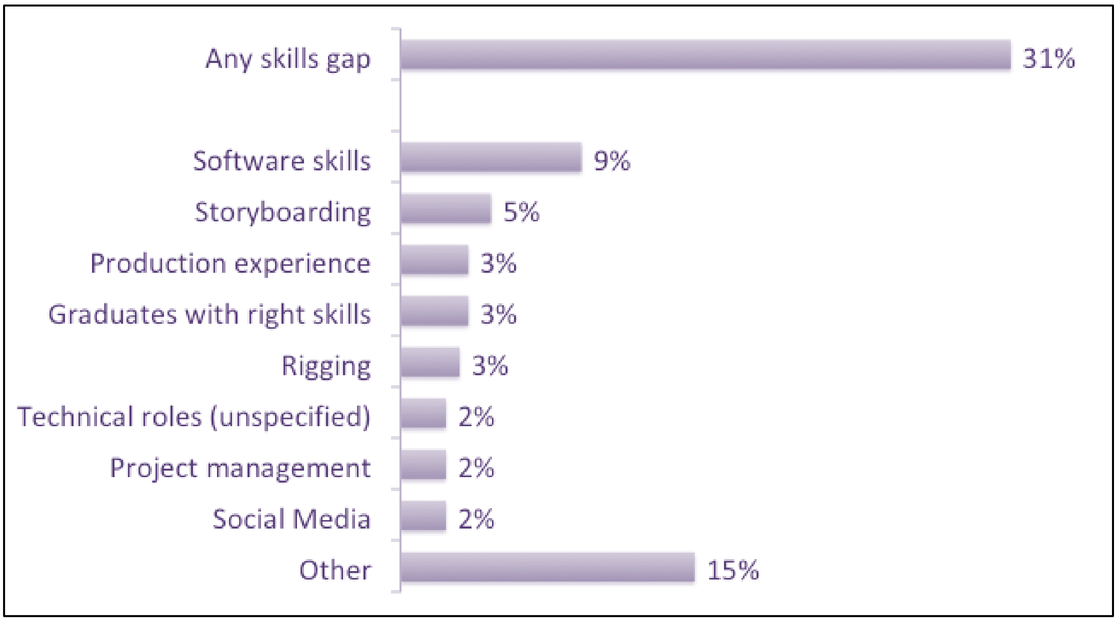
animators to work across multiple programmes is described in this quote direct from the research:

> *"We need more access to CelAction in colleges & universities. We need free short-courses for animators who are already in the industry to bridge between different software, disciplines & mediums (e.g. CelAction to Maya, Stop motion to CelAction, Maya to Stop motion, Animator to Rigger) ...because we have very transferable skills."*

-

Storyboarding was the next most frequent skills gap (mentioned by 5% of all respondents), followed by production experience, graduates having the right skills (commonly related to being up to speed with the appropriate software) and rigging (all mentioned by 3%). A wide range of other skills gaps were also mentioned, but only by one or two respondents in each case.

Chart 4.3 Skills gaps in current workforce/freelance pool



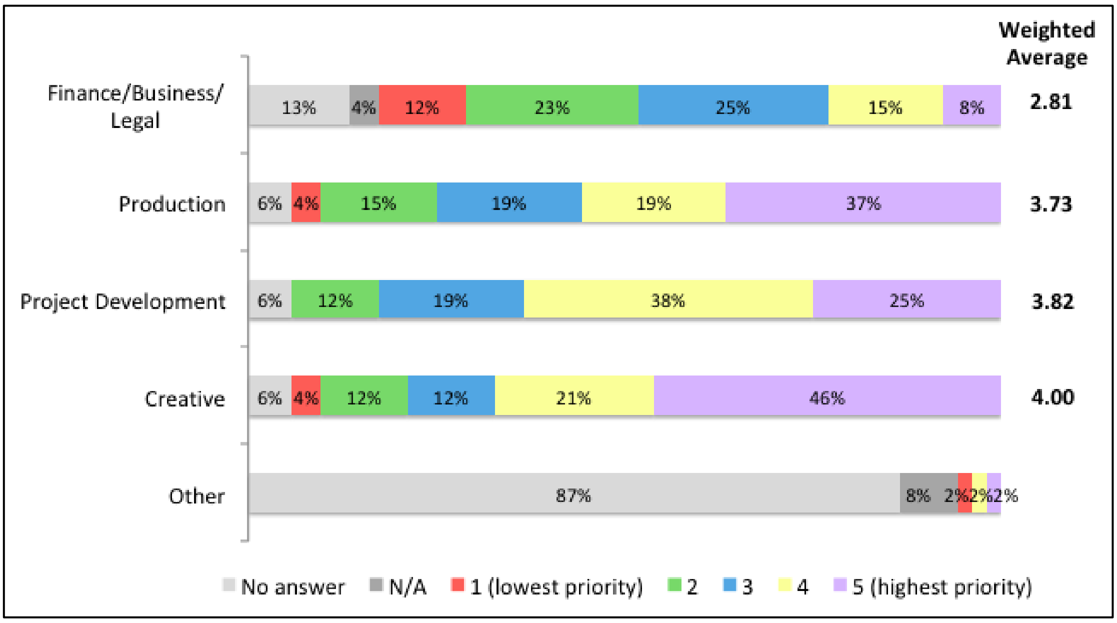
Base: All respondents (87)

Respondents were also asked to think about which areas of training are most critical to them, ranking a series of areas with 5 being the highest priority and 1 being the lowest priority. Chart 4.4 shows the results, which also includes the proportion of respondents who didn't give a rating to that particular answer ('no answer' in the chart) or in a minority of cases recorded that that particular area was not applicable to them. No answer/not applicable responses have been excluded from the calculation of an overall weighted average score.

'Creative' training would appear to be the biggest priority for the animation industry, with the highest average score of 4.00 (driven by 46% giving it the highest priority score of 5, with very few ranking it as a low priority).

Training related to project development is the next highest priority (an average score of 3.82), closely followed by production related training (3.73). Training related to finance, business or legal skills was less of a priority with an average score of 2.81.

Chart 4.4 Training priorities



Base: All respondents (52)
NB: 35 respondents chose not to answer this question
An average has not been calculated for 'other' due to the high proportion of 'no answer'.

A survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017) also asked animation employers whether they have any specific skills gaps within their existing workforce or the freelance pool available to them. Half (51%) specified at least one area in which a skills gap existed.

Employers could specify more than one skills gap, with some employers providing details for three separate issues. The 27 employers acknowledging that a skills gap exists within their workforce or freelance pool mentioned a total of 62 skills gaps between them. Table 4.3 lists the responses mentioned by more than one employer. As was the case with skills shortages (table 4.2), the most frequent response was 'storyboard artist' mentioned by seven employers, followed by 'production management skills' which was mentioned by six. Both of these issues were also highlighted in the Animation UK survey focused on in this report (see chart 4.3), however 'software skills' (the most commonly reported skills gap in that survey) was only mentioned by two employers here (see table 4.3).[26]

Table 4.3: Skills gaps in existing workforce/freelance pool

Skills gap	Number
Storyboard artist	7
Production management	6
2d animators	4
Editing	4
Senior roles	4
3d animators	3
Drawing skills	3
Finance	3
Business development	2
CGI skills	2
Motion graphics	2
Software skills	2
Story telling skills	2

Impact of Brexit

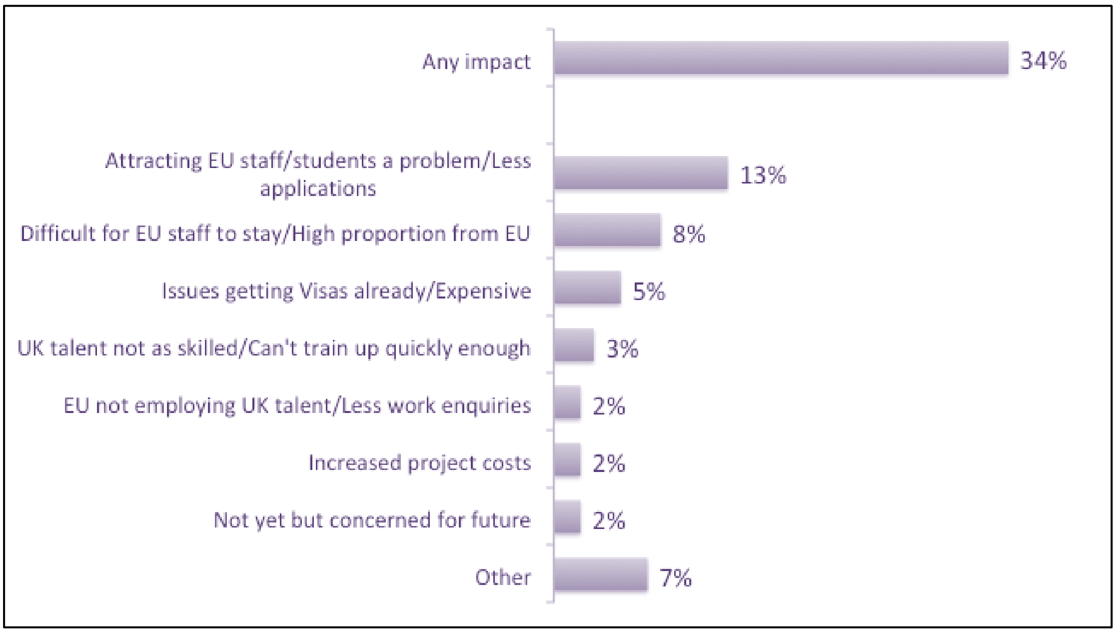
Respondents to the survey were also asked about the impact of Brexit, specifically whether it was causing any shortages or impacting on the mobility of labour. As shown in chart 4.5, a third (34%) said that they had experienced other shortages or issues related to Brexit. The most common issue faced is that attracting EU staff and students has become a problem, resulting in fewer applications from EU talent (mentioned by 13%). A further 8% raised the issue that a high proportion of their staff are from the EU and that it was becoming difficult for them to stay at the company, with 5% pointing out that Visas are now expensive and difficult to get hence causing skills/recruitment issues. Other issues raised by a minority of respondents include that UK talent is not as skilled and they can't train quickly enough (3%) and that project costs are increasing (2%).

26 *A survey carried out for Animation UK by Olsberg SPI as part of a wider research project (2017)*

This quote direct from the research summarises the feeling held by some respondents.

> *"As an EU member worker currently employed in UK industry, I find the insecurity of my work and the uncertainty of the industry as a result of Brexit isn't conducive to keeping experienced EU/international workers in the industry. People who not only fulfil senior positions that couldn't be filled by someone from the UK, but who also up-skill UK and international staff within the workplace. It's vital that this industry maintains its diversity of workers to remain attractive as a creative and competitive place to work. There appears to be very little clarity as to how this will be done as Brexit evolves, as the number of businesses and staff moving out of the country increases, coupled with the reduction of access to key EU funding (e.g. Media) that has supported the industry here for so long."*

Chart 4.5 Impact of Brexit



Base: All respondents (87)

The Migration and Skills Survey carried out by the Creative Industries Council[27] reports that creative industries employers as a whole 29% thought that their EU migrant workers had specific skills or talents that they had not been able to get from UK workers, hence meaning that if these workers become unavailable following Brexit there will be a lowering of the quality of the workforce.

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27 *Creative Industries Council, Migration and Skills Survey (2017)*

FORECASTING

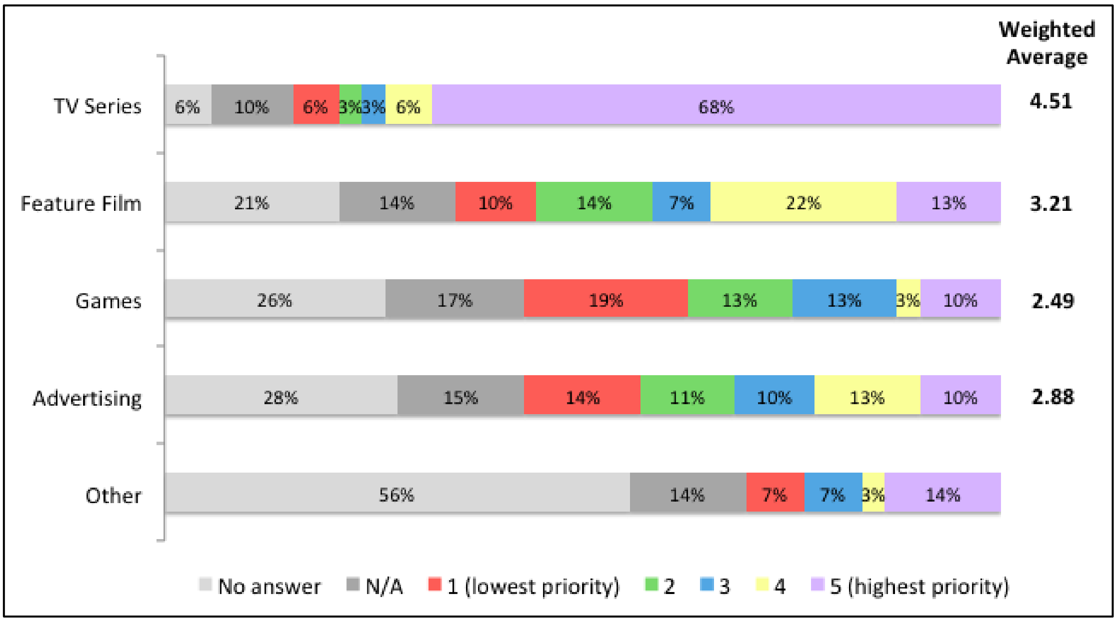
Future projects

Respondents were asked to rank likely future priorities for work projects, with 5 being the highest priority and 1 being the lowest priority. Chart 5.1 shows the results, which also includes the proportion of respondents who didn't give a rating to that particular answer ('no answer' in the chart) or recorded that that particular source was not applicable to them. The proportion of no answer/not applicable responses varies significantly and hence these have been excluded from the calculation of an overall weighted average score.

TV series are the most likely to feature in future work, with the highest average score of 4.51 (in fact 68% rated it is a 5 – the highest priority). Just 6% did not give a ranking and a further 10% said it wasn't applicable to them.

Other types of work received much higher levels of 'no answer' or 'not applicable' responses. Feature film is the next highest priority (an average score of 3.21), with 35% prioritising this type of work high on their list as a 4 or 5. Advertising (2.88) and Games (2.49) are lower on the priority list.

Chart 5.1: Priorities for future projects



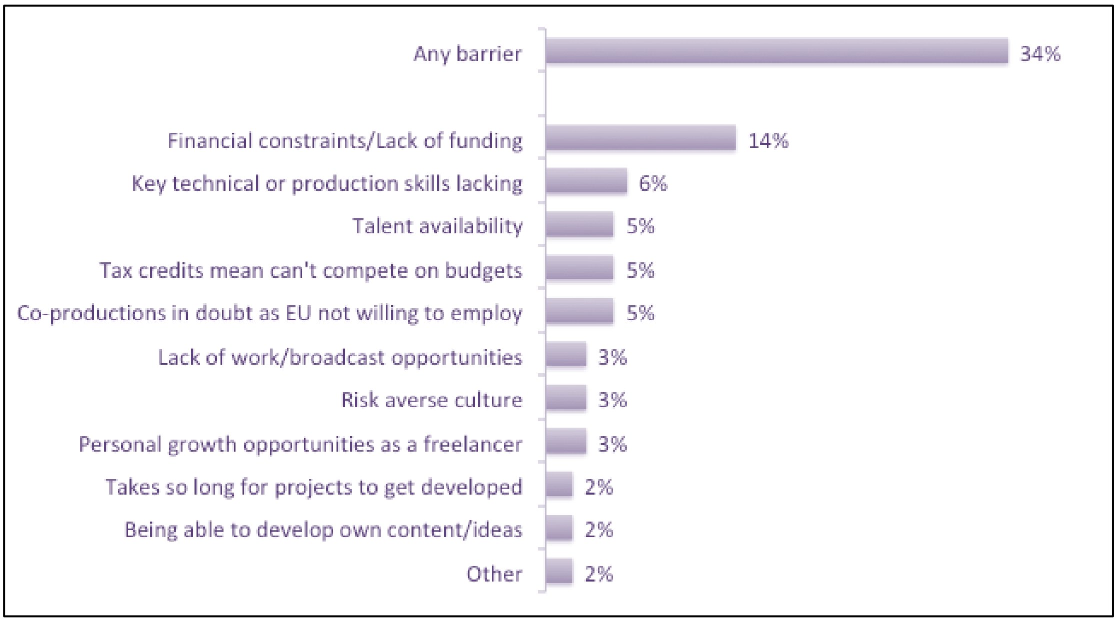
Base: All respondents (72)
NB: 15 respondents chose not to answer this question
An average has not been calculated for 'other' due to the high proportion of 'no answer'.

Barriers to growth

To add further insight into future skills needs within the animation industry, respondents were asked to record any key blocks to their plans for growth. One third (34%) of respondents described such a block and the most common responses are shown in chart 5.2.

The single most common barrier (mentioned by 14% of respondents) relates to finances, whether that is general constraints or specifically a lack of funding or need for development capital. Other specific barriers were not mentioned in great volume, but those mentioned most frequently are: the lack of key technical or production skills (6%); the availability of talent (5%); the impact of tax credits meaning that they can't compete on budgets (5%); and Brexit impacting on work due to the unwillingness of EU companies to employ from the UK and the threat to co-production work (5%).

Chart 5.2: Barriers to growth plans



Base: All respondents (87)

EMPLOYER VIEWS ON TRAINING AND EDUCATION PROVISION

Training received

Three-fifths (61%) of individuals reported that someone at their workplace, whether themselves or a colleague, has received training within the last 5 years. As shown in table 6.1 the larger the employer, the more likely employees are to have received training during this period.

Table 6.1: Whether anyone at workplace has received training within the last 5 years

	Total	1-5 employees	5-50 employees	50+ employees
Yes	61%	37%	73%	86%
No	39%	63%	27%	14%
Base	87	30	22	29

The subject of the training received was varied (see table 6.2), with individuals frequently specifying more than one subject area. A quarter (26%) mentioned receiving training in a wide variety of design software. The most common being Toon Boom (mentioned by 9% of those receiving training in the past 5 years) and CelAction (4%), with others either having received training in a different software or not providing the name of the software. Management training (19%) and project management software such as G Suite or Shotgun (9%) were also common subjects of training.

Table 6.2: Subject of training received

Subject	
Any design software (inc. Toon Boom/CelAction)	26%
Management Training	19%
G Suite/Shotgun/other project software	9%
Toon Boom	9%
Health & Safety/First Aid	4%
CelAction	4%
Animated Women Achieve Program	4%
Other	19%
Not specified	13%

Base: All receiving training in last 5 years (53)

Whilst the question asked for specific subjects of training received, some respondents referred to the mode of delivery of the training, including 13% referencing online training or workshops, 9% general on-the-job training, 8% in-house training and 4% mentorships.

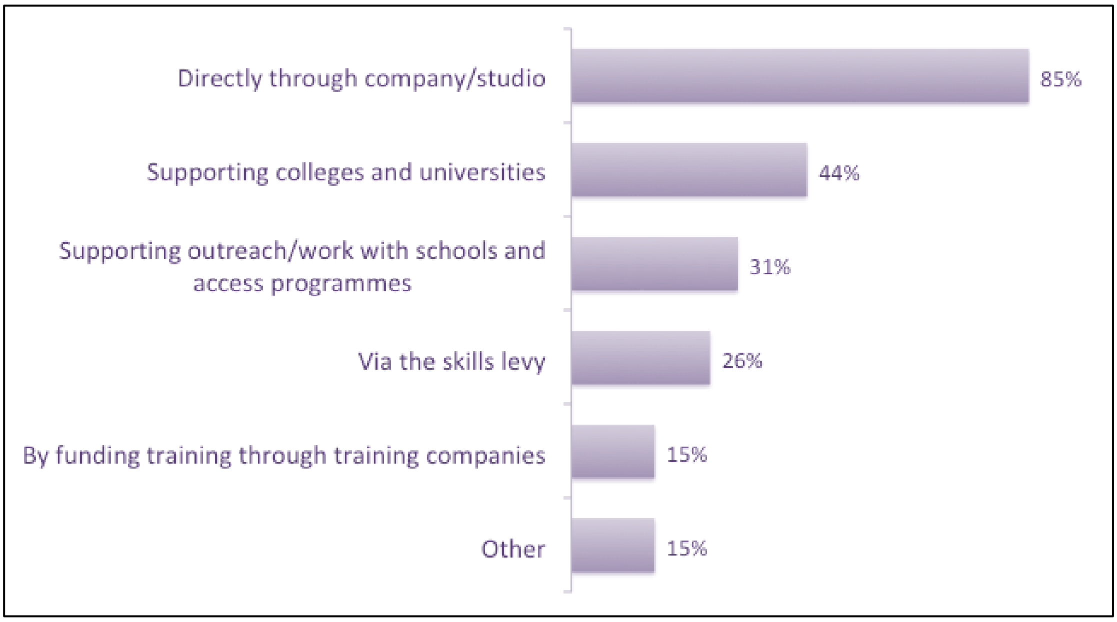
A further 9% mentioned that the training had been funded by Creative Skillset.

Training and development provision

In addition to whether they or colleagues had received any training, respondents were also asked how they/their company invests in training or development. A total of 45% of respondents selected at least one of the methods of investing listed in chart 6.1. It can be assumed that the remaining 55% do not invest, but the question may not be applicable to some freelancers/sole traders and hence results are presented as a proportion of all those completing the question i.e. investing in training or development.

The majority (85%) of those investing in training or development do so directly through their company/studio. Others do so through the education system, with 44% supporting colleges or universities and 31% supporting outreach/ work with schools and access programmes. Around a quarter (26%) contribute to the skills levy, therefore investing directly back into industry training or development. Just 15% fund training directly through a training company.

Chart 6.1: Investment in training or development



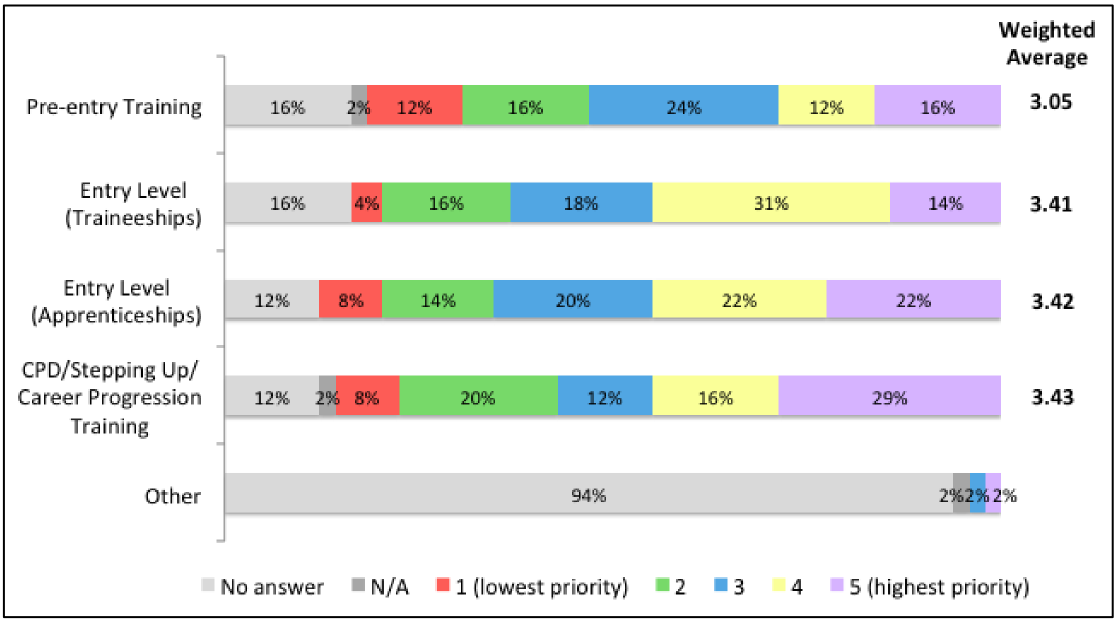
Base: All investing in training or development (39)

The UKCES Employer Skills Survey (2015) reports that 65% of employers across the economy provide any form of training, decreasing to 58% of employers in film, TV, radio & photography. This includes on the job training as well as any more formal off the job training.

Based on the various skills gaps and shortages within the industry, respondents were also asked to prioritise a series of training interventions, ranking them with 5 being the highest priority and 1 being the lowest priority. Chart 6.2 shows the results, which also includes the proportion of respondents who didn't give a rating for that particular intervention ('no answer' in the chart) or stated that it was not applicable to them.

Respondents prioritised five (including other, though only a small minority named and rated an additional type of provision) separate types of training intervention, and when comparing the weighted average scores there is only a small amount of variation in preference. The highest proportion of respondents (29%) gave the top priority rating of 5 to CPD/Stepping Up/Career Progression Training, though the fact that it also had a slightly higher proportion rating it as a low priority (a 1 or a 2) meant that the overall weighting (3.43) was on a par with other interventions. Entry level apprenticeships (3.42) and traineeships (3.41) received very similar levels of support and hence have similar weighted average scores. Only pre-entry training was, on average, given a lower priority score (3.05).

Chart 6.2: Training provision priorities



Base: All respondents (49)
NB: 38 respondents chose not to answer this question
An average has not been calculated for 'other' due to the high proportion of 'no answer'.

Education provision

All respondents were also asked whether they actively recruit talent from or are inspired by any national or international Universities, colleges, institutions or courses. In total 58% of respondents said that they did hold particular educational providers in high regard, though it should be noted that a reasonable proportion chose not to answer this question, perhaps due to their work status as a freelancer or sole trader.

Table 6.3: Whether actively recruit from or are inspired by any educational providers

	%
Yes	58
No	42

Base: All respondents (48)
NB: 39 respondents chose not to answer this question

Those responding yes (28 individuals) then named the specific providers that they hold in such high regard. A large range of institutions were named, but Bournemouth University and Gobelins (in France) were the most common both being named six times. The only other institutions named by more than one respondent were NFTS and Supinfocom (each getting three mentions), and Kingston University, Teeside University, Royal college of Art and The Animation Workshop, Denmark (all getting two mentions).

The inclusion of several international institutions is interesting, especially combined with a number of comments direct from the research which highlight their experiences of some graduates from UK based institutions:

"Universities in the UK generally (but not always) do not teach or produce students with relevant animation skills or techniques to enter at an industry standard. More focus on animation principles and less on a full movie solely produced by an individual student means they could concentrate on better learning. TV animation is a team-based field and specific skill areas are required to fulfill each task. More joint projects from universities creating better quality productions and government led apprenticeships to help people ascertain the jobs that they want."

ANNEX 1 – Sample Profile, Animation UK Skills Survey.

Survey respondents were asked to specify all of the key areas in which they work. As shown in Table A the vast majority of respondents (97%) said that a key area of their work is animation. Other common areas of work include TV (43%), production studios (38%), kids (31%), broadcast (29%), freelance work (23%) and feature films (21%).

Table A: Key areas of work

Area of work	%
Animation	97
TV	43
Production Studio	38
Kids	31
Broadcast	29
Freelancer	23
Feature Film	21
Pre-production Studio	17
Advertising	15
Education	11
Games Industry	11
VFX Studio	10
Content Distribution	7
Digital Marketing	6
Hobbyist	6
Higher Education	3
Not for Profit Organisation	3
Illustration	2
Legal	1
Other (please specify)	11

Base: All respondents (87)

ANNEX 2 - Olsberg Methodology for Job Creation Model

To estimate the direct economic impact of this production expenditure, the total value of UK spend was converted to FTEs, labour compensation and GVA, by applying economic ratios derived from data collected through a survey of UK animation studios and from the Job Creation Model.[28, 29]

The survey indicated that each million pounds of UK spend generates £575,000 in labour compensation. Data from this research also indicated that the median salary within the sector was £37,160 in 2016, which translated into a median FTE cost of £42,280.[30] This median FTE cost implied that each million pounds of production spending generated 13.5 direct FTEs.

Research for the Job Creation Model indicated that each million pounds of spending on animation production generates £0.68 million in direct GVA.[31]

Based on these ratios, it was calculated that animation programme production generated 1,260 direct FTEs, £53.1 million in direct labour compensation, and £63.0 million in direct GVA in 2016 (Table 1).

Table 1 Direct Economic Impact of Animation Programme Production, 2016

	Amount
UK spend (£m)	92.3
Employment (FTEs)	1,260
Labour compensation (£m)	53.1
GVA (£m)	63.0

Source: Olsberg•SPI/Nordicity estimates based on data from the BFI, Attentional, Ofcom, ABS and ASHE
Note: See Appendix 4, Section 14.1.4 for description of methodology

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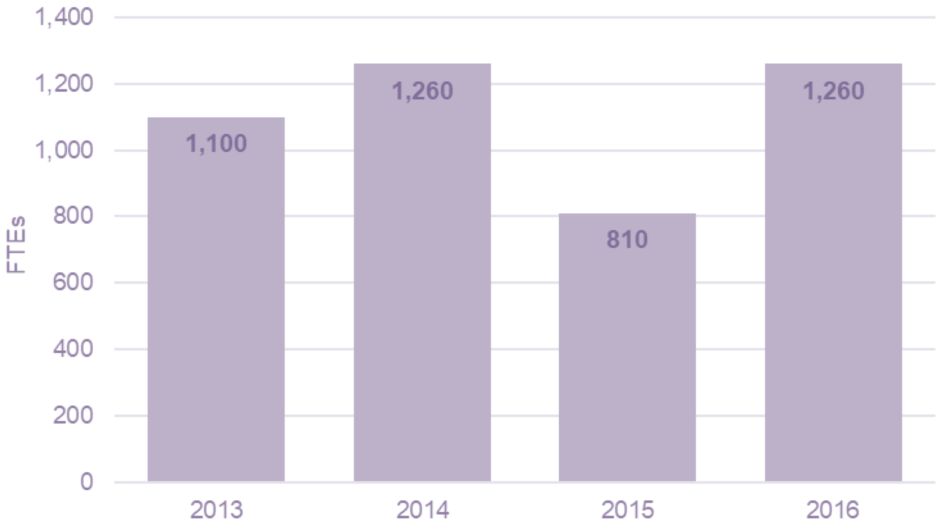
28 See appendix 4, section 14.1.4 for further information on this approach,

29 While the Job Creation Model did not cover animation programme production, some of the research and analysis of the VFX sector (which operates similar operating models) was applied to the animation programme production sector; further information on the Job Creation Model can be found in section 4.3.1

30 The median salary was multiplied by 1.138 to account for employers' NI costs

31 The estimate of operating surplus for VFX companies derived for the Job Creation Model was combined with the labour compensation ratio derived from the survey of animation studios to estimate the GVA ratio

Figure 1 Direct Employment Generated by Animation Programme Production, 2013-16 (FTEs)



Source: Nordicity/OlsbergSPI estimates based on data from the BFI, ABS and ASHE