SKILLS GAP STUDY FOR THE MEDIA & ENTERTAINMENT SECTOR

Feb 2014

Media & Entertainment Skills Council (MESC)

Important Information:

This study has been conducted under the aegis of the Media & Entertainment Skills Council (MESC). The main objectives of the study are:

- To assess the demand for workforce across different segments/ sub-sectors of the Media & Entertainment (M&E) industry
- To understand the key drivers of growth for each segment, and the corresponding change in demand for workforce over time
- To compare the demand for workforce with the supply of aspirants – and comment on any quantitative skill gaps that require attention
- To identify qualitative skill gaps and other areas of improvement – in order to help develop a more trained and better skilled workforce over time

The M&E sector is vast and comprises of multiple segments (e.g. Film, TV, Radio etc.) – each with a distinct value chain and varying workforce dynamics. Analyzing employment demand for each segment is challenging on account of the following:

- There is no comprehensive data base of employees in the sector. While membership data is available for certain unions and associations – it does not provide an accurate view on demand in a given year
- It is difficult to assess employment in a sector like film, which is project based. The workforce is characterized by freelancers, engagement on multiple projects at a time and periods of no work
- Headcount and workforce-related information is confidential in nature, and some employers prefer to keep this data outside the public domain

This exercise is a first of its kind and relies on an estimation framework to determine demand for each segment. Details of the framework are provided at the start of each chapter and in the methodology note. We welcome feedback from industry and other stakeholders, to help improve and refine this study.

Please send us your comments and questions at: mesc@ficci.com

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Executive Summary

MEDIA & ENTERTAINMENT SKILLS GAP STUDY

INDUSTRY REVENUE

The Indian Media and Entertainment Industry is estimated to be more than INR 905 billion in revenue, and is expected to grow at a CAGR of 16% to reach INR 1,640 billion by 2017[1].

Industry Size (INR Billion)	2013	2014	2015	2016	2017	CAGR
Film	122.4	138.3	153.6	171.7	193.3	12%
Television	419.9	501.4	607.4	725.0	847.6	19%
Print	241.1	261.4	285.6	311.2	340.2	9%
Radio	14.0	15.4	18.7	22.7	27.4	18%
Animation	40.5	46.8	54.3	63.1	73.4	16%
Gaming	20.1	23.8	30.9	36.2	42.1	20%
Digital	28.3	37.1	48.9	65.1	87.2	32%
OOH	19.3	21.1	23	25	27.3	9%
Total	**905.6**	**1,045.3**	**1,222.4**	**1,420**	**1,638.5**	**16%**

GROWTH TRENDS

Key themes that are expected to drive the 16% annual growth in the Media & Entertainment sector, and which would likely have an impact on employment and skill development, are provided below:

1. **Digitization of Television Distribution**

    - The government has mandated roll-out of digital addressable systems (DAS) across the country by 31st December 2014[2]. Analogue transmission, which accounted for a majority of Cable & Satellite homes, can carry only 80-100 channels. With the DAS roll-out, this will give way to digital platforms like DTH, IPTV and digital cable with much higher capacity (anywhere from 250 to 1,000+ channels).

    - Digitization is expected to significantly de-risk the business model for broadcasters enabling them to invest in new genres including high-definition content. ~500 new channels are expected to be launched over the next 5 years, leading to a huge demand for workforce in the television sector (across job-roles in content production, channel operations, sales & marketing etc.).

[1] FICCI-KPMG Indian Media and Entertainment Industry Report 2013
[2] TRAI Notifications and pursuant Regulation on Digital Addressable Systems (DAS), 2012

2. Digitization of Film Exhibition

- Digital screens make up for more than 75% of all the film exhibition screens in the country today. This is expected to increase to 100% in the next 2 years[3], enabling wider distribution of content. The "multiplex" model for films is likely to lead to an increase in the number of films, diversification of film genres as well as investments in 3D film production. This will lead to rising demand for skilled workforce to meet these requirements.

3. Auction of Phase III Radio Licenses

- An estimated 807 new stations are expected to be auctioned across 283 cities in the country. This is more than 2.5x the existing number of private FM stations in the country. This would lead to a huge demand for people across all job-roles (e.g. content production, sales & marketing, audio engineering, broadcast operations etc.) in order for new stations to commence operations.

4. Demand for Regional Content

- With the consumer demand in metropolitan cities reaching near-saturation, advertisers are increasingly focusing on regional markets to drive demand for their products/services. Print, TV broadcasters, radio and film companies are now placing greater emphasis on creating quality regional content to attract audiences and channel these advertising spends. There is growing demand for workforce with regional content production skills to meet these requirements.

5. Growth in Digital Content

- There has been an exponential rise in the number of broadband and mobile/smart phone users in the country that are now accessing content online – including 29 million broadband internet connections and 139 million mobile internet connections in 2013[4]. Companies are responding to this trend by creating innovative content that can be distributed and monetized across platforms. This will require the sector workforce to upgrade skills, including an understanding of new platforms, how to measure digital audiences and relevant technology/ programming skills.

WORKFORCE DEMAND AND SUPPLY

Background

One of the key objectives of this study was to estimate the current workforce across different occupational profiles in the Media & Entertainment sector, as well as the expected growth/ incremental workforce demand. Needless to say, this is a complex and difficult task.

First, there are no available databases that accurately document employment in this sector. Second, given the geographical spread and relatively fragmented nature of the industry – there are no comprehensive listings of all employers/ companies operating in the sector. Finally, a lot of work in the sector is undertaken on a project basis/ through freelancers – especially in film and TV content production, which generate a significant proportion of employment in the sector.

[3] FICCI-KPMG Indian Media and Entertainment Industry Report 2013
[4] "Driving Growth in New Media", study by ASSOCHAM and Yes Bank, May 2013

The figures in this report are estimated based on primary research and interaction with over 50 companies spanning diverse sub-sectors like film, television, print, radio, animation, gaming, advertising, OOH and digital content creation. While some of these companies employ a large workforce (e.g. TV channels and newspaper publications), others (e.g. prominent film producers and animation companies) scale up rapidly on a project basis. Inputs collected from these companies were validated and checked against available industry reports.

It is also important to mention that since this skills gap study is closely related to NOS development for the Media & Entertainment industry – emphasis was given to roles important for content creation and other occupations relevant for skills development. The list of occupation covered for each sub-sector is provided in the relevant chapters. For exclusions, please refer to the Methodology Note.

Workforce Demand

The total current employment in the Media & Entertainment Industry is estimated at ~4.6 lakh[5], and is projected to grow at a CAGR of 13% to 7.5 lakh by 2017[6].

Workforce Size	2013	2014	2015	2016	2017	CAGR
Film	160,800	179,300	199,900	222,900	248,600	**12%**
Television	144,600	170,600	201,300	237,600	280,400	**18%**
Print	62,800	65,700	68,600	71,700	74,900	**5%**
Radio	23,000	26,400	27,600	28,800	30,000	**7%**
Animation	22,100	24,200	26,600	29,200	32,000	**10%**
Gaming	17,300	18,700	22,100	23,400	25,300	**10%**
Digital	8,100	10,600	14,100	18,600	24,500	**32%**
OOH	7,600	8,200	8,800	9,400	10,100	**7%**
Advertising	15,600	17,200	18,900	20,800	23,000	**10%**
Total	**461,900**	**520,900**	**587,900**	**662,400**	**748,800**	**13%**

This growth is primarily driven by the Television sub-sector, which is expected to grow at a CAGR of 18% over the 5 year period, on the back of cable digitization and launch of new channels. These trends are expected to add close to 1.35 lakh people across various job roles.

The film sector, with an expected growth of 12% over the 5 year period, is also expected to fuel workforce demand by ~88,000 employees. Demand from other sub-sectors is expected to be approximately 63,000 additional employees by 2017.

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[5] This number corresponds to the demand for time/ man years of effort/ Full Time Equivalent/ FTE. Thus the current demand is 4.6 lakh man years of effort/ FTE across different roles. Due to freelance work in the sector (and that all individuals may not work all 12 months of the year) – the corresponding number of individuals in the sector is likely to be higher

[6] All totals have been rounded off to the nearest hundred

Workforce Supply

While the demand for workforce is on the rise, there has been no shortage in the number of people seeking to be employed in the sector (i.e. quantity of supply). However, most aspiring candidates come with no formal training and/ or through generic graduate courses. As a result, the sector is characterized by a sizeable shortage of trained professionals that possess the relevant skills for jobs within each sub-sector.

Due to the lack of a standardized knowledge infrastructure and practical training courses, employees in several occupations end up learning technical/ role-specific skills on the job. This leads to time and budget overruns at the employer end, and in one form or another, these organizations end up bearing the cost of training.

As part of this study, a survey of more than 40 institutions providing media education across the country was also conducted. They highlighted several concerns in attracting the right talent to their institutes. Some of the reasons highlighted by them are as follows:

- Education and training has not become a norm in the industry. In certain cases, training is not valued and fresh candidates are hired and trained on the job. In other cases, companies/ employers continue to hire entry-level professionals from graduate schools/ colleges – and do not generally visit specialized institutes for placements
- Further, even after completing a course in media, job placements are not guaranteed. As a result, students are not incentivized to pursue a course
- Students do not have much clarity on the spectrum of jobs available and their career paths
- Salaries across the media industry are low – as compared with other industries. As such, the quality of candidates is also not up to the mark
- It is a challenge to identify and attract students that are naturally talented for creative courses such as film-making, script-writing, production, acting, animation, journalism etc.
- A number of smaller institutes that are not well-equipped to provide students with industry-relevant skills have mushroomed in the country. As a result, the overall perception of education imparted by media schools gets diluted

These qualitative skill gaps have been highlighted by all the key employers in the Industry. Individual chapters of the report aim to draw attention to these gaps at a sub-sector and occupational level, and correspondingly the need for better training and skill development programmes for various roles.

1. Film

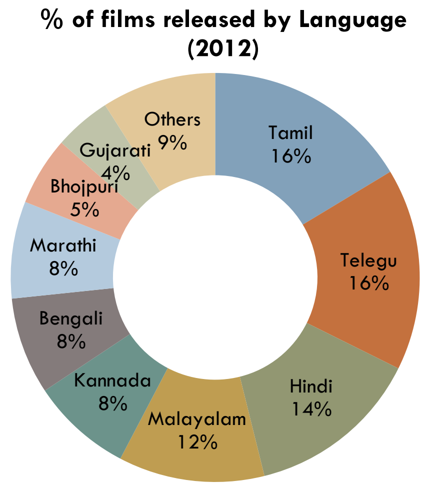
1.1 SECTOR REVENUE

The size of the Film Industry is estimated at INR 122 billion in 2013 and is expected to grow at a CAGR of 12% to reach INR 193 billon by 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Film	122.4	138.3	153.6	171.7	193.3	12%

According to the Central Board of Film Certification, there were ~1,600 movies released last year (2012) across 35 major languages.

Of these, 9 languages (Tamil, Telegu, Hindi, Malyalam, Kannada, Bengali, Marathi, Bhojpuri and Gujarati) contributed to >90% of the movies released. The film industries for these languages (typically based in the respective state capitals) would correspondingly account for a large proportion of the workforce demand in the film sub-sector.



1.2 TRENDS AND DEVELOPMENTS

Some of the recent industry trends are given below:

- ~80-90% of films are distributed digitally in India today[7]. This has led to an increase in reach whereby a movie can be now released with ~1,000–1,500 prints as against ~400–500 prints earlier. This increased revenue potential has led to large budget films that appeal to a much larger audience, and are far more resource intensive to produce

- Revenue from non-theatrical sources such as pre-selling satellite and home-video rights is expected to increase at a CAGR of 16% from INR 15.5 billion in 2013 to INR 28.2 billion by 2017[8]. This will reduce the dependence of movies on theatrical performance, thereby de-risking film production to some extent

[7] FICCI-KPMG Indian Media and Entertainment Industry Report 2013
[8] FICCI-KPMG Indian Media and Entertainment Industry Report 2013

- With the increase in 3G connections across the country, revenue from emerging streams such as mobile and online rights is expected to increase going forward. This will enable fuller exploitation of content across multiple platforms

- Due to rising production costs, production houses have adopted a portfolio approach by producing films with varied budgets (small, medium and large) within different genres. Small budget movies (costing between INR 5-7 crore) constituted ~95% of films produced last year. There has also been increased experimentation with new concepts and genres in the small budget category

- International film studios are increasingly collaborating with Indian film production houses. This trend is expected to encourage the adoption of international best practices, processes and cost control measures into Indian film production

- Although the segment is still small, use of high-end post production techniques has increased in Indian cinema. A number of movies are being converted from 2D to 3D formats to meet the growing demand for 3D films in India. VFX is being used in several big budget Indian movies such as Krrish, Ra-one Robot and Vishwaroopam. Old black and white films are being released and re-distributed in colour.

- Increase in investments in regional films and penetration of cinema screens into regional markets in Tier II and Tier III towns is leading to the growth of regional cinema. The growth is primarily driven by Marathi, Gujarati, Punjabi, Bhojpuri and Bengali cinema

1.3 LIST OF OCCUPATIONS

The key stages in the film value chain include production (creation of content), distribution and exhibition (including theatrical, home video and other modes). For the purpose of this study and from the perspective of skill development, the focus is the film production part of the value chain. The key occupations/ job clusters covered are as follows:

Pre-production	Production	Post-production
	Acting / Voice-overs	
	Camera/ Videography	
	Costume	
	Dance	
Direction		
	Grip	
	Hair & Make-up	
	Lighting	

Pre-production	Production	Post-production
	Music	
	Photography (Stills)	
	Physical Effects	
Production		
Screen/Script writing		
Set Crafts (Production Design/ Set Design/ Set Workers)		
	Sound Effects / Audio Engineers & Technicians	
		VFX/ Post Production

1.4 WORKFORCE DEMAND (QUANTITATIVE)

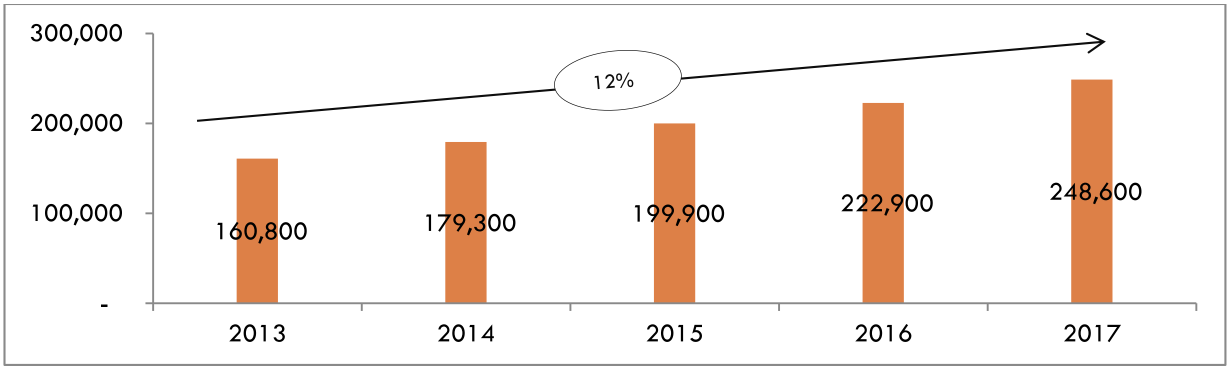
An estimated 160,800 people (Full Time Equivalent or FTE) are required by the film industry to produce ~1600 films in a year. This corresponds to a crew of 100-150 people (FTE) per film. Since the workforce in the film industry works on a per-project basis, the actual number of people employed by the film industry may be higher, and utilization per person may be lower (i.e. each individual working less than 1 FTE).

The scale and workforce requirement can vary significantly from film to film – with some films requiring a crew of up to 1,000 people on certain days (e.g. crowd scenes, dance sequences, action sequences, large scale visual effects etc.) The estimates and analysis in this chapter are based on discussions with film production companies, eminent freelancers, study of crew lists for films across different budgets and observation of the film production process.

It is also important to note that since production skill sets for film and television are similar, there is significant overlap and several occupations are best viewed as a combined resource pool for both segments.

Resource requirements for the film sector alone are expected to grow at a CAGR of 12% to reach ~250,000 people by 2017.

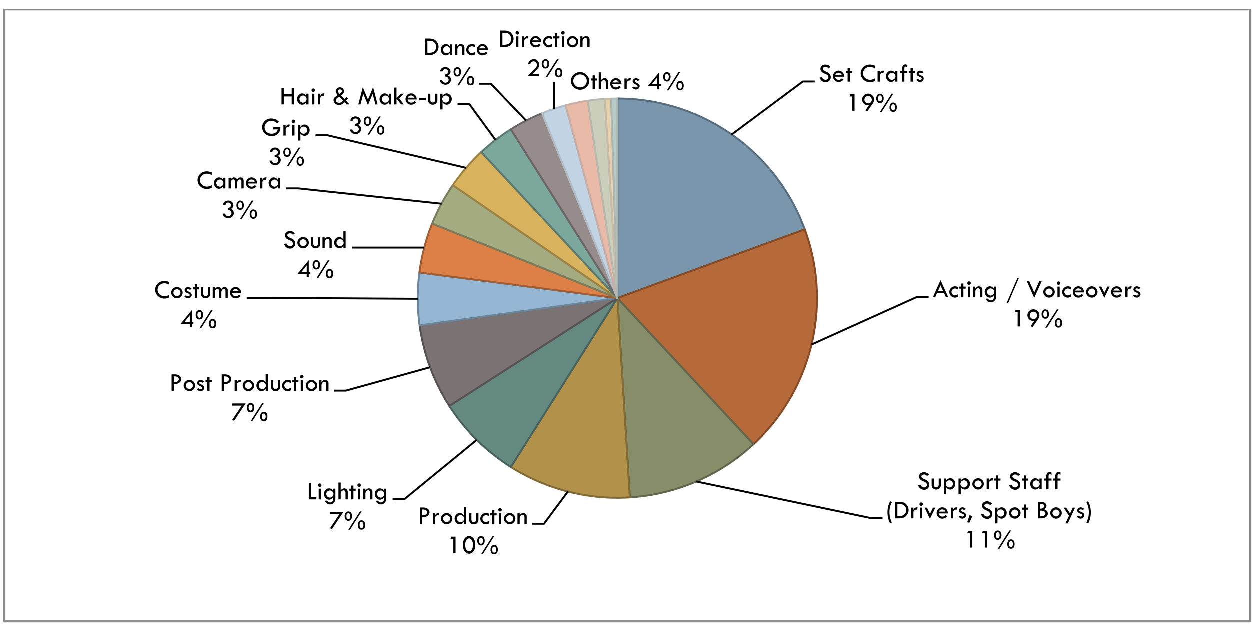
The estimated employment in the Film Industry over a five year period is given below:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
18,500	20,600	23,000	25,700

Demand for workforce across different job-roles – 2013:



Other occupations include Physical Effects, Music, Screen/Script-writing and Still Photography

1.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Producers	- Limited planning/ pre-production skills – Indian films typically take more time in production than in pre-production, whereas in more advanced industries like Hollywood pre-production time is nearly 3 times the actual production time - Understanding of key production concepts and visualizing the production process (e.g. conducting location *recces*, seeking shooting permissions from local governments etc.) - Knowledge of planning and budgeting software
Director	- Understanding of key production concepts and visualizing the filming process - Ensuring continuity in shoots
Acting/ Voice-overs	- Formal understanding of filming concepts - Familiarity with various acting styles, techniques and genres - Knowledge of set etiquette
Post-production	- Ability to discern/ separate relevant footage from footage that is not required - Limited upgrading of skills/ technological changes/ new techniques - Lack of reward/ recognition for high quality talent that is trained on the latest equipment and techniques
Screen/Script writing	- Understanding of screen-writing concepts and writing styles - Writing for different genres/ movie budgets and being able to script in a style that facilitates realization of the concept
Stage-hands (Light men, spot-boys, assistants)	- Knowledge of health and safety requirements - Knowledge of how to operate technical equipment - Knowledge of set etiquette - Low productivity

Some of the reasons for skill-gaps highlighted by the industry are:

- A large proportion of the workforce is not formally trained. Especially in the film industry, people learn on the job and as a result skill sets are not standardized. Instead they tend to be personality-oriented and people tend to work with/ trust cast and crew that they have worked with before

- Even among those who are recruited from media schools, the quality of candidates and their technical skills are often not up to the mark. Often they have theoretical/ conceptual knowledge but lack practical training and an understanding of how to apply these concepts to their work

- Wages and employment for stage-hands are governed by trade unions that do not have any minimum certification or criteria required for enrollment. As such, the quality of workforce is not standardized and output is low

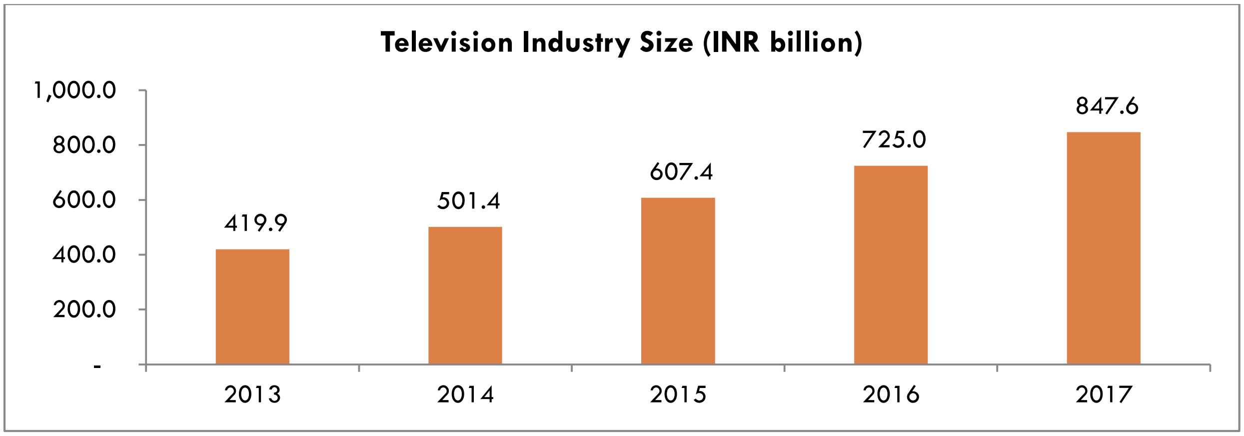
- In some cases, employees are not trained to use the latest equipment. Also, due to budget constraints, the quality of equipment being used by the industry is usually not as per international standards. This further reduces the quantum and quality of output per person

- In other cases, while the industry in India has access to the latest equipment and is on par with developed markets like the US and UK – either resources do not know how to utilize the equipment correctly or there is no reward/ recognition mechanism to help trained resources grow faster

2. Television

2.1 SECTOR REVENUE

Television is the largest sub-sector within Media & Entertainment in terms of revenue. The size of the Television Industry is estimated at INR 420 billion in 2013 and is expected to grow at a CAGR of 19% to reach ~INR 850 billion by 2017.



The television industry currently comprises >600 television channels across the following genres/ categories:

Type of channel	Sub-type	Estimated number of channels (2013), including Doordarshan
News Channels	National News Channels	~20
	Regional/ Local News Channels	~160
General Entertainment Channels (GECs)	National GECs	~10
	Regional GECs	~150
Niche Channels (where content is produced in India)	Lifestyle, Religion, Food, Education, Kids etc.	~90
Channels with Packaged Content (where content is sourced and no original production takes place)	Music, Movies, English Entertainment Channels	~250
Sports Channels		~20
Total		**650-700**

Among the genres listed above, News Channels largely maintain an in-house workforce, as well as a network of freelance journalists called stringers. Channels in other genres maintain a small proportion of their workforce in-house, consisting largely of Programming, Sales and Support teams.

Entertainment and niche genres outsource content production to a number of programming studios (production houses) that hire freelancers on a per project basis. For sports, people are hired for domestic tournaments to capture the event for broadcasters. Often, a large part of the production crew for sports events comprises international production staff (e.g. camerapersons, producers, commentators etc.)

2.2 TRENDS AND DEVELOPMENTS

The Indian Television industry currently has about 141 million subscribers[9], a large part of which receives signals through analogue cable networks. Due to legacy issues with last mile visibility, the industry has traditionally been advertiser dependent. This in turn has limited broadcasters from launching new channels (especially subscription driven models or content for markets/ audiences with low advertising potential) and experimenting with new content genres.

In 2012, the government mandated complete digitization of cable networks by 2014[10]. With digital distribution, subscription revenues are expected to grow – led by an increase in average revenues per user (ARPU), standardization of cable rentals, rise in second TV homes and subscription based HD services.

As a result of this rise in revenue/profitability and increase in channel carrying capacity, ~500 new channels are expected to be set up over the next 5 years. Broadcasters are expected to invest in quality content, experiment with new content genres and develop offerings catering to new target audiences.

Some of the other recent industry trends include:

- Greater penetration of channels into regional and international markets. This has led to a need for content localization i.e. customization /dubbing of content into regional languages
- Introduction of High Definition (HD) programming has led to a need for content to be shot in HD as well as conversion of standard definition (SD) content to HD
- Intense competition in the general entertainment space has led to greater investments in content acquisition/production. This has led to a demand for skilled professionals who can script, produce and project manage new/original programming
- Monetizing TV content over online and mobile platforms

2.3 LIST OF OCCUPATIONS

The key stages in the television value chain include production (creation of content for various genres), television broadcasting and distribution (comprising terrestrial, analog cable, digital cable, DTH and IPTV

[9] FICCI-KPMG Indian Media and Entertainment Industry Report 2013
[10] http://digitalindiamib.com/faq.html

services). For the purpose of this study and from the perspective of skill development, the focus is the content production and broadcasting parts of the value chain (i.e. TV channel operations). The key occupations/ job clusters covered are as follows:

<table>
<tr><th>Pre-production</th><th>Production</th><th>Post-production</th><th>Broadcasting</th></tr>
<tr><td></td><td>Acting/Voice-overs</td><td></td><td></td></tr>
<tr><td></td><td>Anchoring/Commentary</td><td></td><td></td></tr>
<tr><td></td><td>Art & Design</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>Broadcast Operations</td></tr>
<tr><td></td><td>Camera</td><td></td><td></td></tr>
<tr><td colspan="4">Channel Operations/Programming</td></tr>
<tr><td>Costume</td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Copy Writing/ Copy Desk/ Features Writing</td><td></td><td></td></tr>
<tr><td colspan="3">Direction</td><td></td></tr>
<tr><td></td><td>Field Journalism</td><td></td><td></td></tr>
<tr><td></td><td>Grip</td><td></td><td></td></tr>
<tr><td></td><td>Hair & Make-up</td><td></td><td></td></tr>
<tr><td></td><td>Lighting</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>Media Management</td></tr>
<tr><td></td><td>Photography (Stills)</td><td></td><td></td></tr>
<tr><td colspan="3">Production</td><td></td></tr>
<tr><td>Screen/Scriptwriting</td><td></td><td></td><td></td></tr>
<tr><td>Set Crafts</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Sound</td><td></td><td></td></tr>
<tr><td></td><td></td><td>Post Production</td><td></td></tr>
</table>

In addition to the above, our analysis of the television sub-sector also covers job roles at a company level such as Ad Sales, Marketing and Support Functions (Finance, HR, Legal, Travel, IT, Admin etc.)

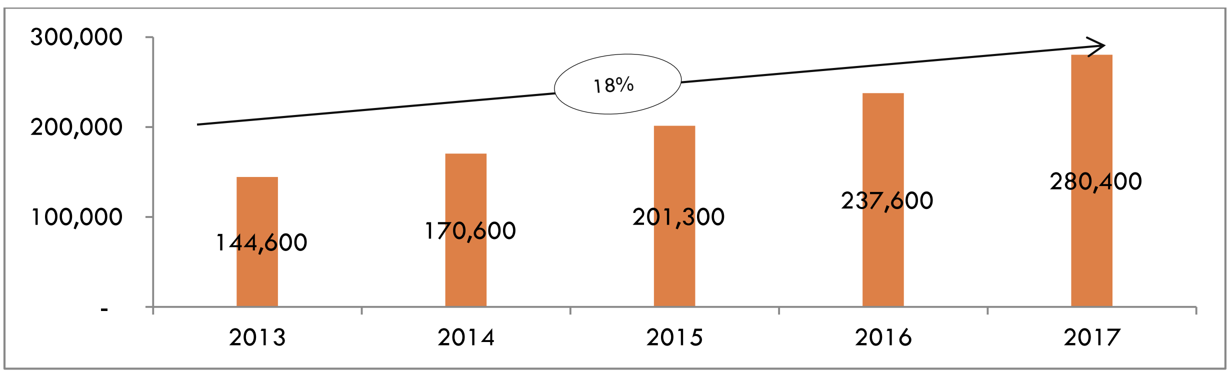
2.4 WORKFORCE DEMAND (QUANTITATIVE)

The workforce demand for Television is currently estimated at approximately 145,000 people (Full Time Equivalent or FTE). This number includes the in-house workforce employed by broadcasters (~650 channels) as well as the workforce required to produce fresh programming which is generally outsourced to production houses. Work contracted to production houses is typically project based and follows a utilization pattern similar to the film sector (i.e. an individual may work less than 1 FTE).

It is also important to note that since production skill sets for film and television are similar, there is significant overlap and several occupations are best viewed as a combined resource pool for both segments.

The demand for the television segment is expected to grow by 18% y-o-y to reach ~280,000 people by 2017. The growth in employment is primarily attributed to the digitization of television distribution and expected increase in the number of channels.

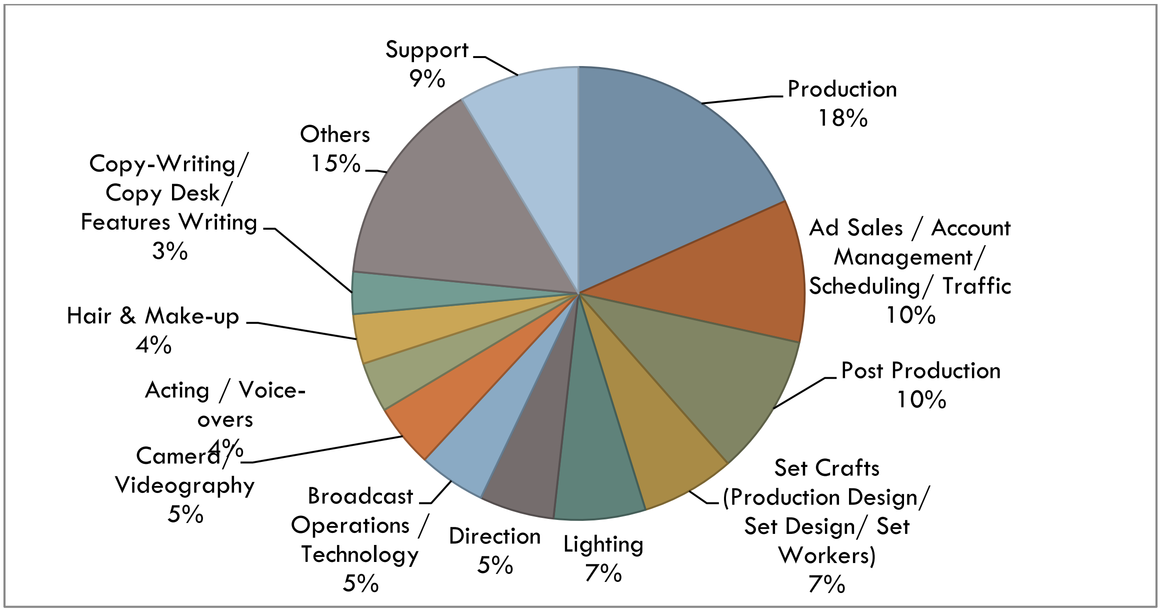
The estimated employment in the television industry (including the channels operated by Doordarshan) over a five year period is given below:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
26,000	30,700	36,300	42,800

Demand for workforce across different job-roles – 2013:



*Other occupations include Sound, Marketing, Channel Ops, Field Journalism, Art & Design, Media Management, Anchoring, Costume, Script writing and Grip

2.5 SKILL GAPS (QUALITATIVE)

Overall the industry indicated that there was a shortage of standardized courses and training programs – especially in technical roles such as camera persons, camera attendants, sound recordists, sound assistants, system engineers and other engineering profiles. Skill gaps for specific job-roles/occupations where training gaps are felt (and corresponding areas of improvement) are provided below:

Role	Skill-Gap
Management/ Executive Roles	- Knowledge of the production process and technical concepts - Awareness of IP laws - Conceptualization skills and the ability to deliver path-breaking/differentiated content
Production	- Lack of formal training in content production, which often leads to inadequate research, planning and conceptualization - Knowledge of production workflow and processes - Ability to balance creativity and costs - Knowledge of contractual terms and agreements

Role	Skill-Gap
	- Negotiation skills in order to effectively manage vendor relationships - Managing the production process in a manner that post-production requirements are catered to - Regional content production skills - Production skills for online and mobile platforms
Post-Production	- Knowledge of post production concepts and techniques, limited specialization - Ability to discern/ separate relevant footage from footage that is not required - Limited upgrading of skills/ technological changes/ new techniques - Ability to work independently without supervision - Language and comprehension skills
Script-writers	- Understanding of screen-writing concepts and writing styles - Writing for regional productions - Writing for genres such as humor, sitcoms, satire etc. - In case of factual programming (e.g. documentary style shows), writers must add to the script, rather than narrate - Language skills
Directors	- Regional content production
Camera	- Formal knowledge of video capture concepts and camera techniques, limited specialization - Language skills
Set Crafts	- Knowledge of set etiquette - Low productivity/ quality of output
Costume	- Understanding of design and fashion concepts, e.g. costume design for period dramas - Practical experience with what fabrics, styles work best for

Role	Skill-Gap
	filming - Ability to conceptualize; originality and creativity
Stage-hands (Light men, spot-boys, assistants)	- Technical training, how to operate equipment - Softer aspects – Confidence and assertiveness - Knowledge of health and safety guidelines - Knowledge of set etiquette - Low productivity
Journalists	- Ability to use technology effectively i.e. Skype, mobile, hand-held cameras etc. - Copy-writing for multiple platforms – TV, online and mobile - How to operate editing software and cut packages for broadcast media - Soft-skills - Language and public speaking skills
Broadcast Operations	- Training and familiarity with different broadcast/play out software and systems - Limited upgrading of skills/ new techniques
Media Management/ Archival	- Lack of automation and use of technology - Knowledge of file naming conventions and meta-tagging skills

The issues/reasons for the skill-gaps highlighted by the industry are:

- Traditionally high quality content has not been produced by broadcasters on a large scale, mostly because they have not been able to monetize it effectively. Until the size and economics make the business of producing content viable, television will be considered as a stepping stone for films and will not attract the best talent. The extent of differences between feature film and television content were highlighted by several industry stakeholders – and the economics/ business dynamics led to different sensibilities and capabilities in the two sectors. As a result, skill gaps are felt across professions – including writing, directing, cinematography, editing etc.

- The growth trajectory of the industry has created an environment characterized by price pressure/ undercutting and limited scope for high quality service providers (e.g. technology and equipment vendors). This has a cascading effect on the quality and standards expected from the workforce

- Original content production is limited in India. This is primarily due to a dearth in educational institutions offering programs on creative writing and ideation. Also, concepts are often replicated because IP laws are not very stringent in India

- Most of the institutes do not have media degrees/specializations for media. Thus a large part of the sales force is either from generic MBA courses and/ or from related sectors like FMCG

- In the absence of a published industry workforce database, establishing the authenticity of resumes (Profiles, Certifications, projects worked on etc.) is a challenge. As such, production companies hire freelancers within their own network of people worked with in the past. Fresh talent constitutes less than 5% of total hiring

- A large proportion of the workforce does not have formal training and are trained on the job

- Funds for exploring new creative concepts (whether in production or design) are not available and there is limited emphasis on quality. For e.g. bids for set-design generally go to the lowest bidder

- Wages and employment for stage-hands and other trades are governed by unions that do not have any minimum certification or criteria required for enrollment. As such, the quality of workforce is not standardized and output is low. The sector is also characterized by a lack of transparency on wages, because in several cases contracts are with an individual who in turn brings their own team of 15-20 people. Non-standardized remuneration also leads to frequent altercations and legal disputes

- Given the lack of professionalism, manpower agencies have not entered this space. (A good contrast is the housekeeping and facilities management sector – where casual/ contract services comprising basic trained manpower are available through a third party.)

- Infrastructure available for production (e.g. sound stages) and post-production is of low quality. Many of these facilities lack basic amenities and protection for the producers' intellectual property (IP)

- Roles are not standardized across the industry e.g. an Executive Producer at a small Television channel would work on a very different scale and perform a very different role when compared to an Executive Producer for a big budget Film

- Processes are not standardized

- There is a general lack of professionalism among several sections of the workforce

3. Print

3.1 SECTOR REVENUE

The size of the Print Industry is estimated at INR 241 billion in 2013, and the sector is expected to grow at a CAGR of 9% to reach INR 340 billon by 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Print	241.1	261.4	285.6	311.2	340.2	9%

The print industry consists of 339 publications:

- 151 daily newspapers, with over 800 editions[11]
- 188 weekly, fortnightly, monthly, bi-monthly and quarterly magazines[12]

3.2 TRENDS AND DEVELOPMENTS

Key industry trends include:

- Regional language publications have been growing at a rate of ~10% p.a. on the back of the launch of several local editions. English language publications have been growing at a slower pace of 3.6% and are now facing competition from digital publications and news "apps" for smart phones
- Print publications are imbibing a culture of cost-control within their organizations and are automating key processes such as ad scheduling, CRM, planning, budgeting etc.
- Readership of magazines has been flat, primarily due to a decline in the readership of general interest magazines. However, readership for niche/ special interest magazines is growing

[11] Indian Readership Survey (IRS), 2012
[12] Indian Readership Survey (IRS), 2012

3.3 LIST OF OCCUPATIONS

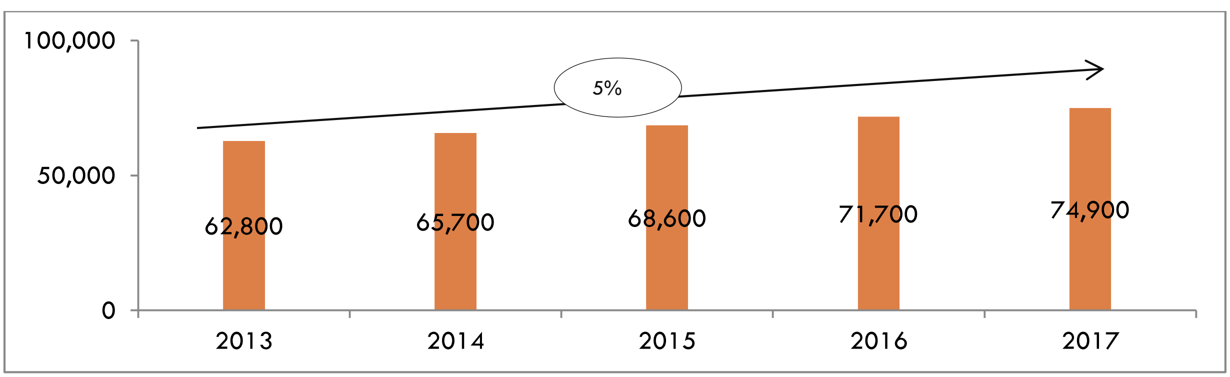
The key stages in the print value chain include creation of content, printing press operations and distribution/ circulation of newspapers and magazines. For the purpose of this study and from the perspective of skill development, the focus is the content production part of the value chain. The key occupations/ job clusters covered are as follows:

Content Gathering	Editing & Pagination
	Art & Design
Field Journalism/Reporting	
	Copy-writing/ Desk-writing/ Features Writing
Still Photography	

In addition to the above, our analysis of the print sub-sector also covers job roles at a company level such as Ad Sales, Marketing and Support Functions (Finance, HR, Legal, Travel, IT, Admin etc.)

3.4 WORKFORCE DEMAND (QUANTITATIVE)

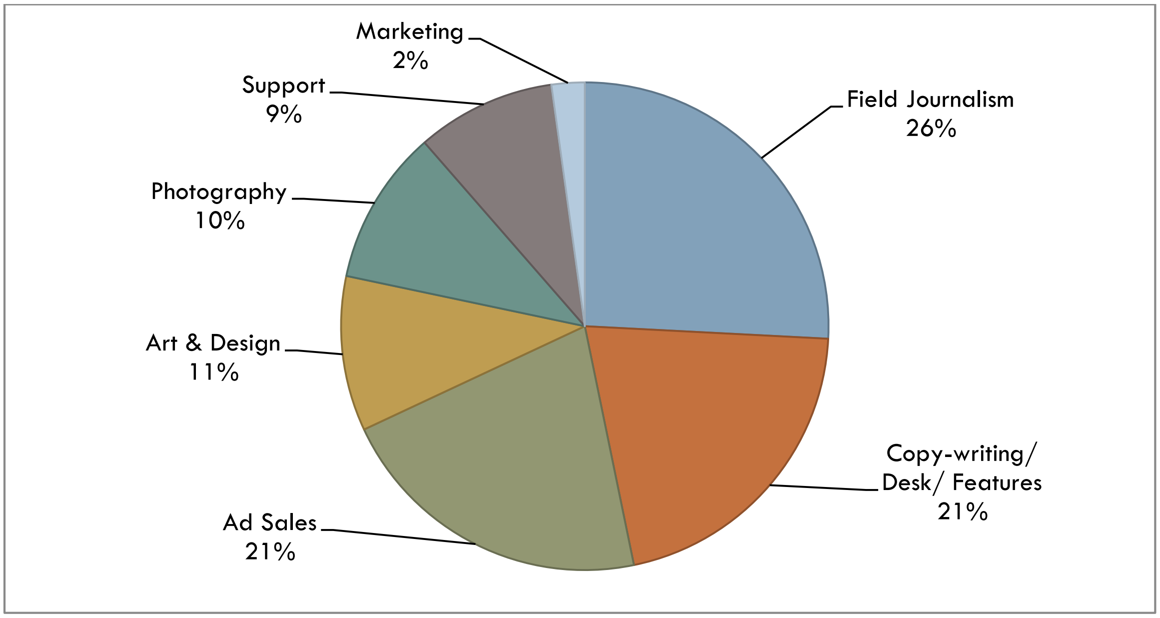
Approximately 63,000 people work in the print industry in the content gathering and editing/ pagination roles. Production (i.e. printing press operations) and circulation and distribution staff would form an equally large, if not greater employment pool. The estimated employment in the print industry (for relevant job roles) over a five year period is given below:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
2,900	2,900	3,100	3,200

Demand for workforce across different job-roles – 2013:



3.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Ad Sales	- Overall understanding of the media industry and specifically, the print segment - Knowledge of measurement tools and data analytics tools, for example using IRS, Adex etc. - Negotiation skills - Creative thinking and conceptualization skills, developing and marketing strong 'brands' - Lack of integration between the front-end and back-end sales teams
Copy Writing/ Copy Desk/ Features Writing	- Limited practical training - Writing for specific genres e.g. business news, war/ conflict coverage, investigative journalism

Role	Skill-Gap
	- Presentation of content in a manner that is aligned to the publication and its target audience
Photographers (Stills)	- Creative and conceptualization skills - Knowledge of imaging software such as Adobe Photoshop, Lightroom, Corel etc. - Given the nature of this profession, there are several talented photographers who are willing to work as freelancers, but there is a shortage of people who would want to join in as full-time employees

Issues/reasons highlighted by the industry

- Slow rate of growth in the print industry deters sales people from entering the sector and specializing in print. Most of the talent prefers working for broadcast media.
- Most of the institutes do not have media degrees/specializations for media. Thus a large part of the sales force is either from generic MBA courses and/ or from related sectors like FMCG
- Knowledge imparted from educational institutes is largely theoretical. Ideally, the curriculum should include a sizeable practical component e.g. case studies and projects that are corrected by senior journalists from the industry
- Photographers and other creative individuals value flexibility – which is not available in a corporate job. Hence, it is difficult to find people to work full-time with an organization
- A structured career path needs to be laid out for all employees (including freelancers), in order for them to value the profession, seek relevant training and experience long term growth

4. Radio

4.1 SECTOR REVENUE

The size of the Radio Industry is estimated at INR 14 billion in 2013 and is expected to grow at a CAGR of 18% to reach INR 27.4 billon by 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Radio	14.0	15.4	18.7	22.7	27.4	18%

The radio industry is currently comprised of:

- 248 private FM stations across 86 cities
- 376 radio stations operated by All-India-Radio (AIR)

Radio companies can be broadly classified into the following 4 categories:

- National players i.e. Players with presence in greater than 30 cities e.g. Big FM, Radio Mirchi etc.
- Metro-focused i.e. Players with presence in the key metropolitan cities of the country e.g. Fever FM, Radio One etc.
- Regional players i.e. Players present in regional clusters across the country e.g. My FM, Radio Mantra etc.
- Standalone channels i.e. Players with presence in 1-5 markets e.g. Hit 95 FM, Radio Choklate etc.

4.2 TRENDS AND DEVELOPMENTS

The FM radio industry in India is on the brink of a phenomenal change with the union cabinet clearing the policy guidelines for auction of Phase III FM licenses in the country. Phase III auctions are expected to add 807 stations across 283 cities taking the total number of FM radio stations to 1052 across 302 cities in the country[13].

Some of the other recent industry trends include:

- Growing acceptance of radio as a medium and an increase in the number of advertisers
- Improvement in inventory utilization and increase in advertisement rates for select stations
- Addition of new sources of revenue including activations, events, internet radio etc.

[13] Policy Guidelines for FM Phase III, dated 25th July, 2011

- Change in regulations including amendments to the Copyright Act, set-up of self regulation mechanisms by AROI and spectrum and royalty fee waiver for Community Radio operators

4.3 LIST OF OCCUPATIONS

The key stages in the radio value chain include production/ content creation and broadcasting. For the purpose of this study and from the perspective of skill development, both these aspects of content production and broadcasting are covered. The key occupations/ job clusters covered are as follows:

<table>
<tr><th>Content Production</th><th>Broadcasting</th></tr>
<tr><td></td><td>Broadcast Operations / Technology</td></tr>
<tr><td colspan="2">Channel Operations/ Programming</td></tr>
<tr><td>Copy-writing</td><td></td></tr>
<tr><td colspan="2">Production</td></tr>
<tr><td></td><td>Radio Jockeying/ Presenting/ Anchoring</td></tr>
<tr><td></td><td>Sound Effects / Audio Engineers & Technicians</td></tr>
</table>

In addition to the above, our analysis of the radio sub-sector also covers job roles at a company level such as such as Ad Sales, Marketing and Support Functions (Finance, HR, IT, Admin etc.)

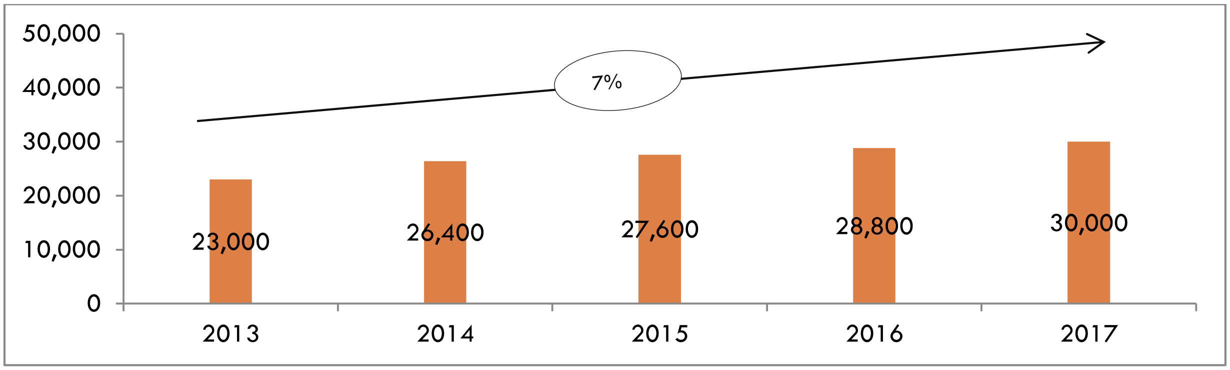
4.4 WORKFORCE DEMAND (QUANTITATIVE)

An estimated 23,000 people are currently employed in the Radio Industry, including ~17,800 employees of All India Radio[14]. This number is expected to grow by 7% y-o-y to reach 30,000 people by 2017. The growth in employment is attributed to the Phase III auction of licenses of radio frequencies, which is expected to generate significant employment across the country.

Since, the industry will require a huge workforce to "operationalize" the new stations, it is expected that there will be a demand-supply mismatch in the initial years. This would mean that new stations commence operations on a staggered basis over the next 4-5 years, and not all at once.

[14] "Over 8000 posts to be filled in All India Radio", www.radioandmusic.com, published June 2012

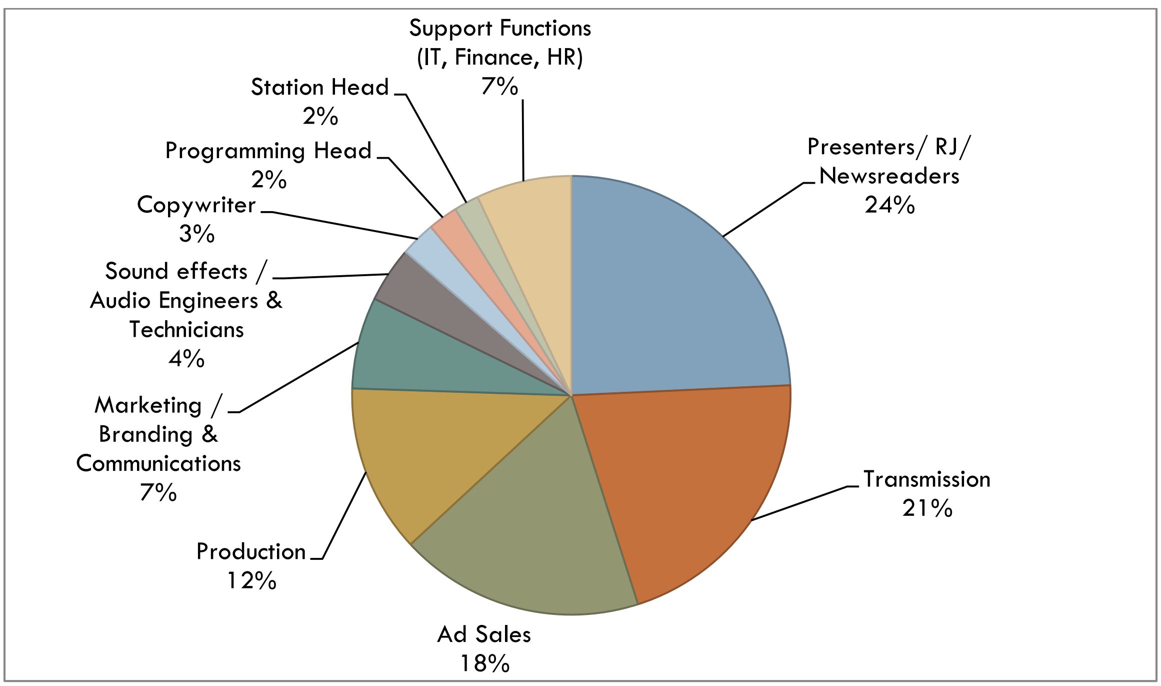
Assuming that Phase III licenses are successfully auctioned in 2013/ early 2014, the estimated employment in the radio industry (including employment by All-India-Radio) over a five year period is given below:[15]:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
3,400	1,200	1,200	1,200

Demand for workforce across different job-roles – 2013:



[15] In the event that Phase III auctions do not take place, workforce growth is expected to be negligible in the private FM sector

4.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Radio Presenters/ Radio Jockeys	- Language and diction skills - Awareness of local news and developments - Creativity and spontaneity
Producers	- Creative thinking while conceptualizing programs - Awareness of local news and developments - Good sense of music and how to schedule playlists - Progressive outlook
Sound Engineers	- Matching the required quality of sound
Copywriters	- Creative writing for radio programs
Technology	- Managing radio transmitters and IT (large networks typically outsource this function to specialist technology service providers, and the skill gap is usually felt by smaller stations that retain the function in-house)

The industry believes that the skill gaps are largely due to a dearth in educational institutes offering programs for Radio – leading to limited sources for recruitment. As a result, the industry needs to hire graduates and train them in-house or rely on alternative sources of hiring e.g. walk-in-interviews, theatre etc. This issue is only expected to escalate once the Phase III licenses are auctioned across India. In addition, with the launch of new stations in 283 cities across the country, there is expected to be a huge demand for people proficient in regional languages for which regional dialect and diction training may also be required.

Currently, the industry relies on on-the-job training to compensate for the lack of training courses. External trainers from abroad are also commissioned to train people on creative thinking skills and show conceptualization. Trainers are often hired to train sound engineers and technicians. Resources are also trained in-house on handling radio transmission equipment and software.

5. Animation

5.1 SECTOR REVENUE

The size of the Animation Industry is estimated at INR 40 billion in 2013 and is expected to grow at a CAGR of 16% to reach INR 73 billon in 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Animation	40.5	46.8	54.3	63.1	73.4	16%

The animation industry is comprised of animation services' companies and production houses creating content across the following categories:

- Feature films
- Television series
- Advertisements

The major animation techniques used include:

- 2D Animation
- 3D Animation
- Stop Motion

Animation services companies take up low-end production and post-production work outsourced from studios abroad and domestic companies in India. These companies make up for ~60% of the industry's revenues[16].

5.2 TRENDS AND DEVELOPMENTS

Recent trends in the Animation sector, which are likely to influence the demand for talent, are provided below:

- Indian Animation companies are now moving up the value chain and are creating more original content. Many studios have developed intellectual property (IP) and entered into co-production agreements with international studios. This has led to an increase in demand for talent required to produce high quality content
- The genre of children's television programming has seen several new channel launches. These channels are commissioning fresh animation content from production houses leading to an increase demand for original content development in India

[16] FICCI-KPMG Indian Media and Entertainment Industry Report 2013

- With several new television channels being launched post digitization, the advertising inventory is expected to increase – leading to a growth in the number of advertisements/ TV commercials produced annually. Since animation is an important component of television advertisements, this trend is expected to have a positive impact for the sector as well

5.2 LIST OF OCCUPATIONS

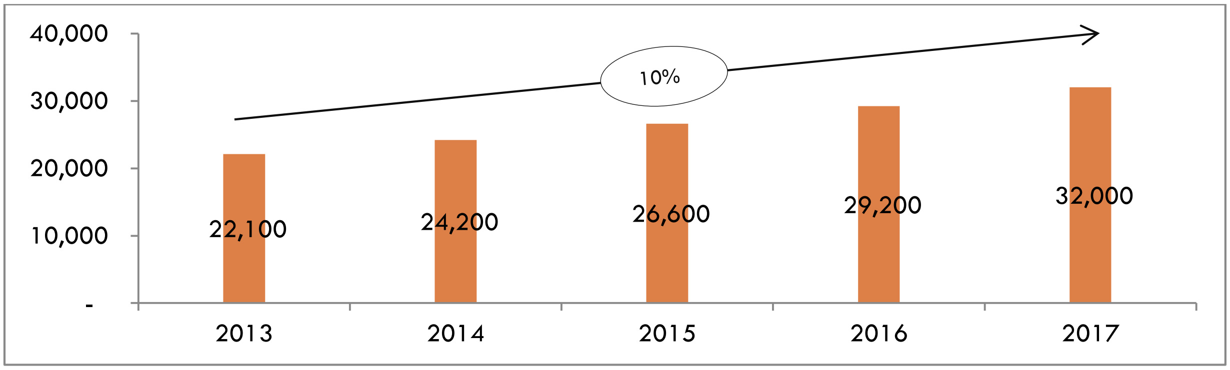
The key stages in the animation value chain include creation of animated content. For the purpose of this study and from the perspective of skill development, we have covered occupations that are part of the pre-production, production and post-production processes. The key occupations/ job clusters covered are:

<table>
<tr><th>Pre-production</th><th>Production</th><th>Post-production</th></tr>
<tr><td></td><td>Animation</td><td></td></tr>
<tr><td></td><td>Asset Creation (Rigging, Modeling and Texturing)</td><td></td></tr>
<tr><td colspan="2">Art & Design</td><td></td></tr>
<tr><td colspan="3">Direction</td></tr>
<tr><td></td><td>Lighting</td><td></td></tr>
<tr><td colspan="2"></td><td>Music</td></tr>
<tr><td colspan="3">Production</td></tr>
<tr><td colspan="2"></td><td>Post Production</td></tr>
<tr><td></td><td colspan="2">Quality Assurance (QA)</td></tr>
<tr><td>Screen/Script writing</td><td colspan="2"></td></tr>
<tr><td colspan="2">Sound</td><td></td></tr>
</table>

In addition to the above, our analysis of the animation sub-sector also covers job roles at a company level such as such as Marketing and Support Functions (Finance, HR, Legal, IT, Admin etc.)

5.4 WORKFORCE DEMAND (QUANTIATIVE)

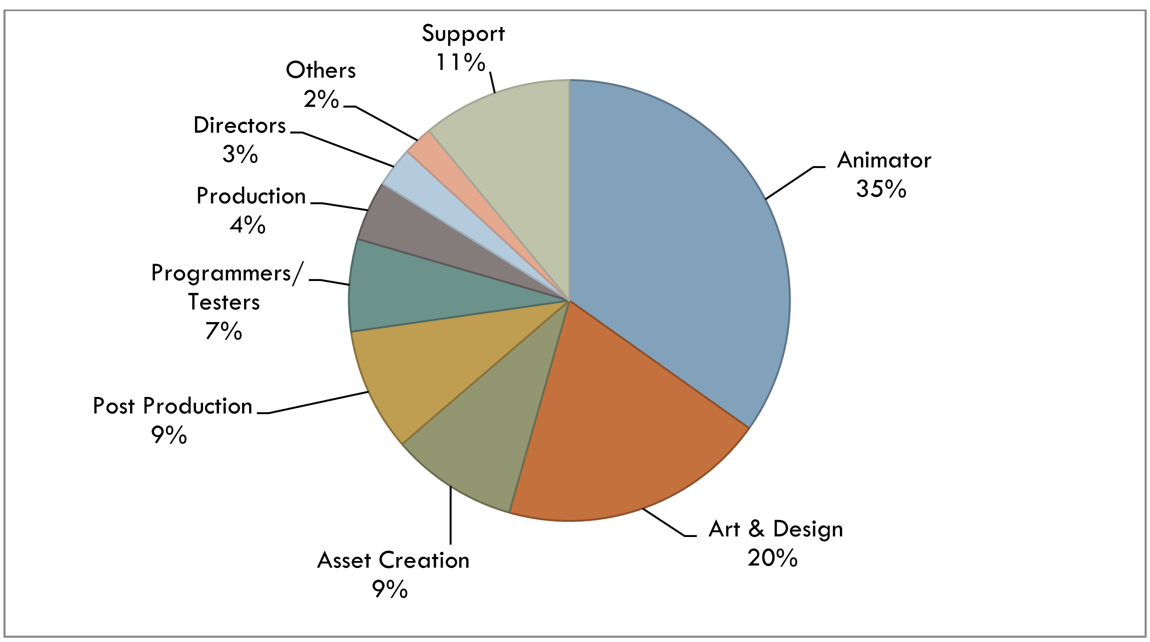
The current employment in the animation industry is ~22,000 individuals[17], comprising both permanent employment at studios and freelancers. The total employment over a five year period is given below.



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
2,100	2,400	2,600	2,800

Demand for workforce across different job-roles – 2013:



Other occupations include Music, Sound and Script Writing

[17] In 2008, NASSCOM estimated workforce size in the animation sector at 15,000. Growth rate based on industry discussions

5.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Animators	- Traditional hand drawing/ sketching skills - Particle animation/ Dynamics - Eliciting performance from characters – accurately animating facial expressions and emotions
Art & Design	- Conceptual design skills, ability to create original characters/ objects - Knowledge of drawing and human anatomy - Understanding of spatial aspects, architecture and geography - Communication skills
Direction	- Pitching stories and production concepts to financiers - Screening production concepts for viability - Effectively planning timelines and workflow
Lighting	- Lighting skills that strengthen and add to the stylized look of different types of content
Modelers	- Understanding of physics and human anatomy
Post-production	- Effective understanding of principles of Rotoscopy/ fundamentals of depth - Compositing skills to accurately depict the style of content
Script-writing	- Writing scripts that are conducive to animation - Understanding of concepts/ themes that appeal to children

The issues/reasons for the skill-gaps highlighted by the industry are:

- According to employers within the industry, candidates must possess natural talent and/ or training in the fine arts to be successful animators e.g. artists, sculptors etc. However, most educational institutions do not require students to possess a background in art. Without the basic skills, students are often trained in operating animation software, but lack the design/ conceptualization skills to succeed
- Curriculum for most institutions is outdated and needs to be updated to reflect latest developments
- Salary levels in animation are low. As such the best talent does not come to the animation sector and the quality of output is low

6. Gaming

6.1 SECTOR REVENUE

The size of the Gaming Industry is estimated at INR 20 billion in 2013 and is expected to grow at a CAGR of 20% to reach INR 42 billon in 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Gaming	20.1	23.8	30.9	36.2	42.1	20%

The gaming industry consists of ~170 companies producing gaming products and providing services for the following platforms:

- Online
- Mobile
- PC
- Console

6.2 TRENDS AND DEVELOPMENTS

The following trends have been witnessed in the gaming sector:

- Mobile gaming users in India are expected to grow at a CAGR of 44% from 15 million in 2012 to 65 million in 2016. This growth is primarily attributed to the growth in 3G connections in the country which are expected to grow from ~4.3 million connections in 201218 to ~8 million connections by 2016.
- An estimated 77% of internet users in India play games on an internet connected device[19]. As a result the growth in internet broadband users in India is also expected to drive the demand for internet gaming in the country
- Companies are moving towards original game development and publishing, for example several mobile games are now being published through the Android and IOS app stores. This has led to a growth in services like app analytics, ROI measurement, performance tracking etc.
- Gaming companies are collaborating with DTH companies such as Tata Sky, Reliance BIG TV etc. to provide games as a part of their value added service (VAS) packs. With mandatory digitization and the growth of digital cable services, this opportunity is expected to grow even further

[18] India Telecommunications Report – Q2 2012 – Business Monitor International
[19] "Consumer Insights Snapshot: Digital Games", Ovum, April 2013

6.2 LIST OF OCCUPATIONS

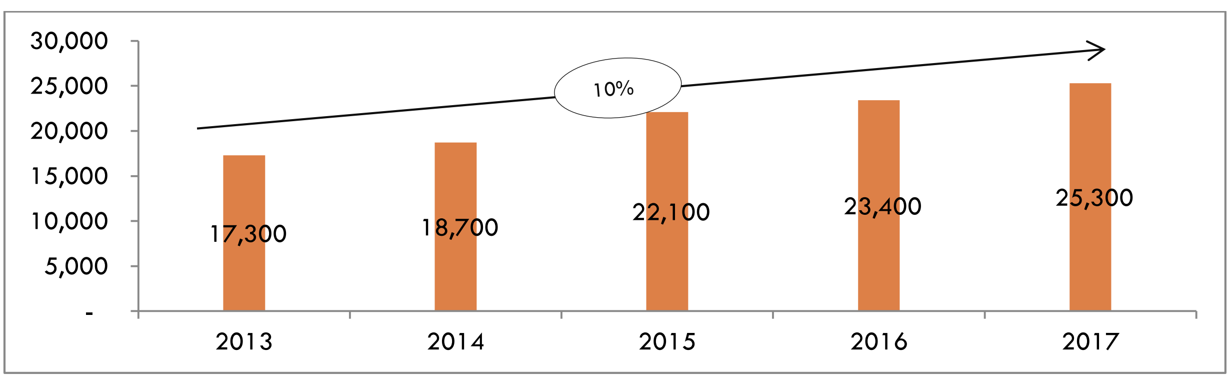
The key stages in the gaming value chain include game creation, publishing and distribution. For the purpose of this study and from the perspective of skill development, we have covered occupations that are part of the game creation process (pre-production, production and post-production). The key occupations/ job clusters covered are as follows:

Pre-production	Production	Post-production
	Animation	
Art & Design		
	Asset Creation	
Game Design		
	Game Development	
Production		
	Programmers/Testers	

In addition to the above, our analysis of the gaming sub-sector also covers job roles at a company level such as Marketing and Support Functions (Finance, HR, Legal, IT, Admin etc.)

6.4 WORKFORCE DEMAND (QUANTITATIVE)

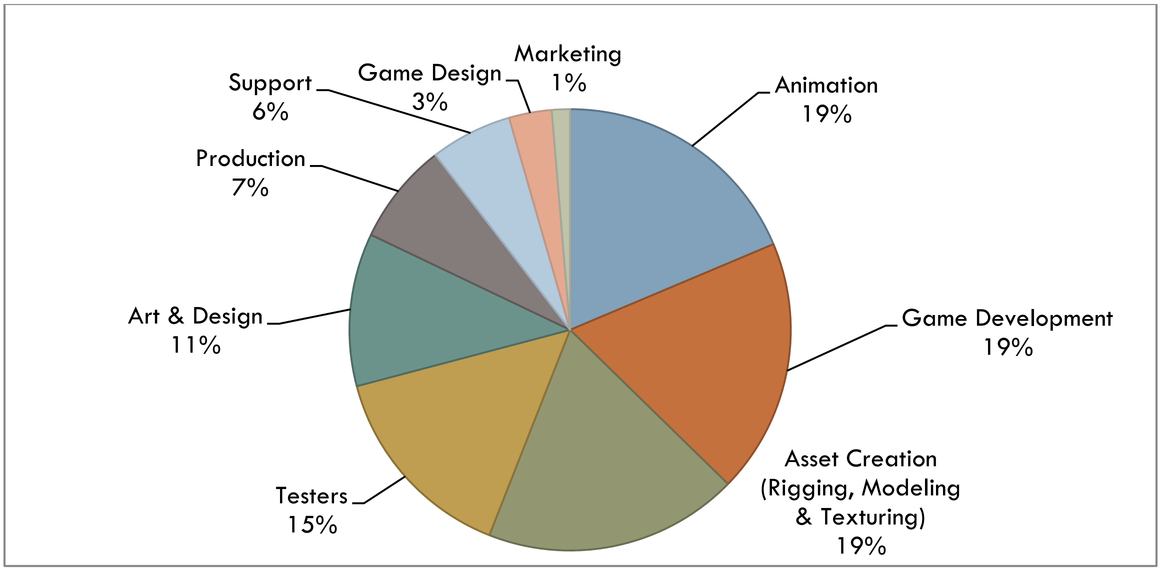
The estimated employment in the gaming industry over a five year period is given below:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
1,400	3,400	1,300	1,900

Demand for workforce across different job-roles – 2013:



6.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Game Designers	- Formal education in game concept design - Designing multiple levels of a game - Scientific and logical thought process - Cross-functional understanding (i.e. how the game will move through the production process and implications of a particular design on the workflow) - There is shortage of User Interface (UI) experts in India – this skill-set is typically sourced from abroad
Game Development	- Formal education in game development
Art & Design	- Formal training in game art - Designing for a particular platform – mobile, online, console or PC
Production	- End-to-end understanding of game development – from conceptualization, determining the market potential, game

Role	Skill-Gap
	production, development and sales - Data analytics – e.g. no. of players, payments, monthly users, customer retention, trends etc. – to identify areas of improvement/ new business opportunities
Programmers/Testers	- Lack of specialization in coding/ testing for games - Often the generic programming skills are also not up to the mark

The issues/reasons for the skill-gaps highlighted by the industry are:

- Gaming is not perceived as a serious profession by parents. As a result, gaming is taken up as a "non-conventional" education stream. This is both due to a lack of awareness and a dearth in well-recognized training programs
- So far, companies have addressed this gap by hiring people who are passionate about gaming, and then grooming/training them in-house on aspects such as game development and game design. However, attrition rate is high and companies need to constantly identify and train resources

7. Digital

7.1 SECTOR REVENUE

The size of the digital advertising industry is estimated at INR 20 billion in 2013 and is expected to grow at a CAGR of 20% to reach INR 42 billion in 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Digital	28.3	37.1	48.9	65.1	87.2	32%

The overall digital industry comprises of the entire gamut of technology companies e.g. international players like Google, Facebook, MSN, Yahoo, Monster.com as well as domestic players like Rediff and Info Edge.

For the scope of this report, the focus is on digital businesses of existing media companies e.g. Times Internet (Bennett, Colemen and Co.), Web 18 (Network 18), MMI Online (Dainik Jagran), NDTV Convergence (NDTV Limited), Firefly e-ventures (Hindustan Times) etc.

7.2 TRENDS AND DEVELOPMENTS

The following key trends characterize the rapid growth of the digital media segment in India:

- As a result of an increase in broadband penetration and availability of faster internet speeds, India is now one of the fastest growing online markets – with a growth of 41% in unique visitors between 2011 and 2012[20]. In terms of penetration, India's online community comprises of ~124 million internet users.

- Consumption of news on mobile/online platforms has seen a growth of 54% between 2011 and 2012 (from 32.6 million to 50.2 million unique visitors)[21]. International audiences make up for a substantial category of visitors (between 20-50% of the total number[22]) on news websites, especially for regional publications.

- Entertainment content as a category has also seen a substantial growth of 37% between 2011 and 2012 (from 40.6 million visitors to 55.8 million visitors[23]) with Bollywood music and movies content commanding a substantial portion of this growth. Users consuming online videos have grown by over 37% - with 52% of videos coming from the entertainment genre[24].

- Consumption patterns are thus witnessing a major shift. Media companies that generate and own content are in a unique position to leverage this trend to their advantage. Most media companies

[20] The Rise of India's Digital Consumer – Aug 2012, Comscore
[21] The Rise of India's Digital Consumer – Aug 2012, Comscore
[22] The Rise of India's Digital Consumer – Aug 2012, Comscore
[23] The Rise of India's Digital Consumer – Aug 2012, Comscore
[24] The Rise of India's Digital Consumer – Aug 2012, Comscore

have started their own digital/new media verticals and are moving towards the digital future with revenues forming a small but growing portion of their overall top lines.

7.3 LIST OF OCCUPATIONS

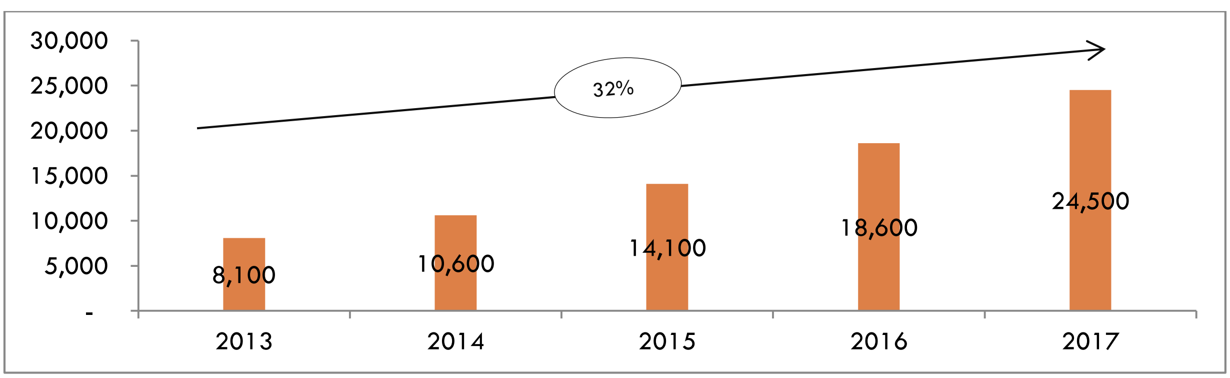
The key activities undertaken my digital media companies include creation of content and publishing it to the online platform. Delivery and storage of content is typically handled by specialized technology service providers. For the purpose of this study and from the perspective of skill development, we have covered occupations that are part of the content creation process. The key occupations/ job clusters covered are as follows:

Content Gathering & Production	Publishing
Desk Editing/ Features Writing/ Content Creation	
	Information Technology (IT)

In addition to the above, our analysis of the digital media sub-sector also covers job roles at a company level such as Ad Sales, Marketing and Support Functions (Finance, HR, Admin etc.)

7.4 WORKFORCE DEMAND (QUANTITATIVE)

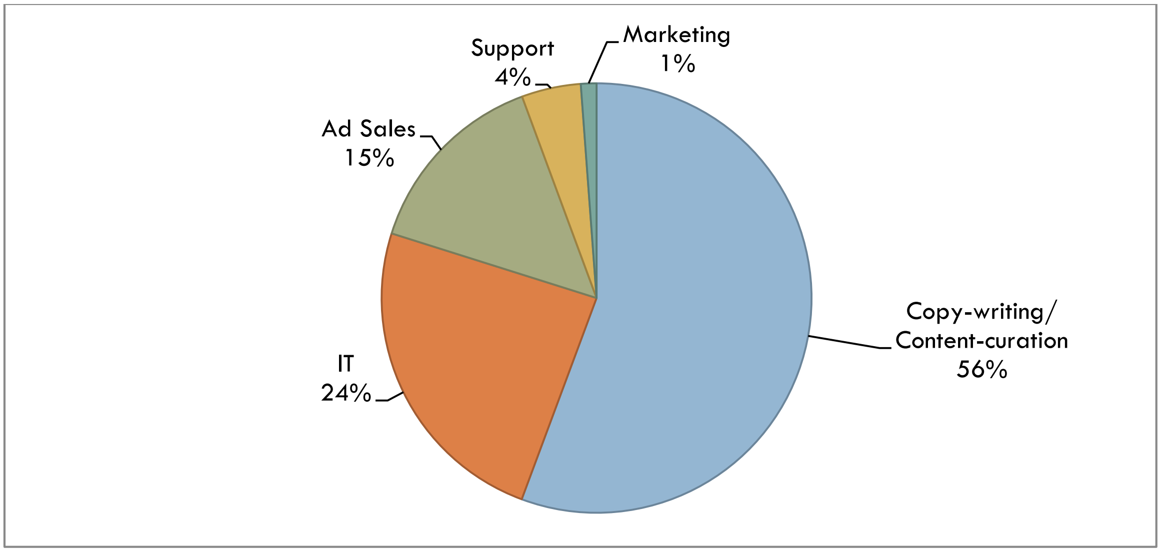
The overall employment in the digital industry is currently estimated at ~45,000-50,000 people. The total estimated employment in digital media companies over a five year period is given below:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
2,500	3,500	4,500	5,900

Demand for workforce across different job-roles – 2013:



7.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Ad Sales	- Understanding of digital content/ products - Effectively communicating the value/ return to the advertiser
Copy-writing/ Features Writing/ Content Curation	- Ability to create content to suit multiple platforms - Knowledge of current events/ occurrences and how to leverage them effectively to create content
Information Technology (IT)	- Writing basic programming code for certain tasks - Data analytics - Digital product development (e.g. apps, polls, trackers etc.)

8. Out-of-home (OOH)

8.1 SECTOR REVENUE

The size of the Out-of-home Industry is estimated at INR 20 billion in 2013 and is expected to grow at a CAGR of 20% to reach INR 42 billion in 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
OOH	20.1	23.8	30.9	36.2	42.1	20%

The Indian OOH sector comprises integrated/ turnkey service providers as well as OOH companies that are focused largely on media buying and design:

- Integrated/ Turnkey Service Providers have a wide service portfolio including media buying, manufacturing and implementation and audit such as TDI International, Jagran Engage, Selvel Advertising
- Specialized service providers focus on a few key services e.g.
    - Media buying, creative and audit – Times Innovative Media, Laqshya OOH etc.
    - Media buying, creative and implementation – India Outdoor etc.
    - Manufacturing and implementation – Landmark OOH etc.

Out-of-home assets largely comprise of the following:

- Bill-boards
- Airport/transit
- Street furniture

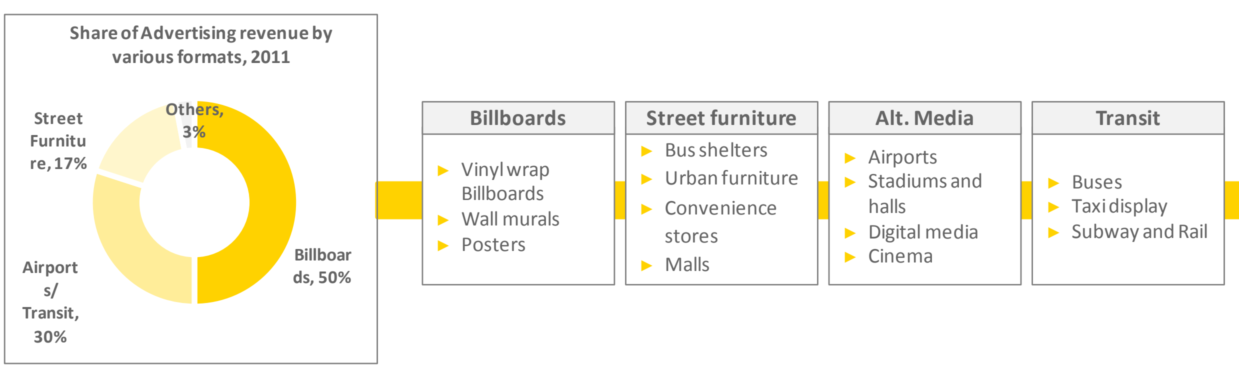


Illustration: Key types of assets in the OOH industry

8.2 TRENDS AND DEVELOPMENTS

Some of the recent industry trends are given below:

- Increase in government spending on infrastructure and transit is expected to lead to a growth in OOH advertising in Tier II/ III Towns and regional markets. Regional advertising is an attractive option for advertisers since per person spends are lower vis-à-vis consumption/ purchasing power potential. As In response, OOH companies are providing regional bouquets to become relevant to marketers

- Digitization of cable networks – MSOs and DTH companies will increase spends to improve public awareness, explain the benefits of digitization and retain market share

- With a large number of new station launches pursuant to Radio Phase III, advertisement expenses are expected to grow at 20% p.a. OOH would be a key media vehicle to promote these launches

- The concept of OOH has evolved from a simple billboard to include urban furniture, transport, bus shelters and innovative formats. A significant amount of technological innovation is taking place in the sector in terms of asset types. Emerging forms of OOH assets include digital signage, transit advertising and in-mall displays. Several new formats are being used to improve engagement and time spent such as contextual adverts, multi-sensory adverts, phones that talk to adverts, "dance for your discount", advanced HD Vending Machines etc[25].

- Measurability in the sector is expected to improve going forward. The standard operating procedures defined by the Indian Outdoor Advertising Association (IOAA), has been a recent step in addressing stakeholder needs around the transparency, effectiveness, ROI and audience quality

- Increased clutter in ATL advertising would prompt advertisers to increase BTL spends. Growth of BTL will need to be supported by small, but many, doses of OOH advertising – providing a high volume, low value opportunity for OOH companies and agencies

- Irrational bidding for OOH tenders will cease (as witnessed by several failed tenders, and tenders which have gone to re-bid). More realistic bids will improve profitability and growth of the sector

8.3 LIST OF OCCUPATIONS

The key activities undertaken by OOH advertising companies include – acquiring OOH assets; construction, mounting and maintenance; sales and site valuation; site audit, invoicing and accounting; and media buying/channeling client spends.

For the purpose of this study and from the perspective of skill development, the construction, mounting and maintenance of OOH assets on site has been excluded. The key occupations/ job clusters covered are as follows:

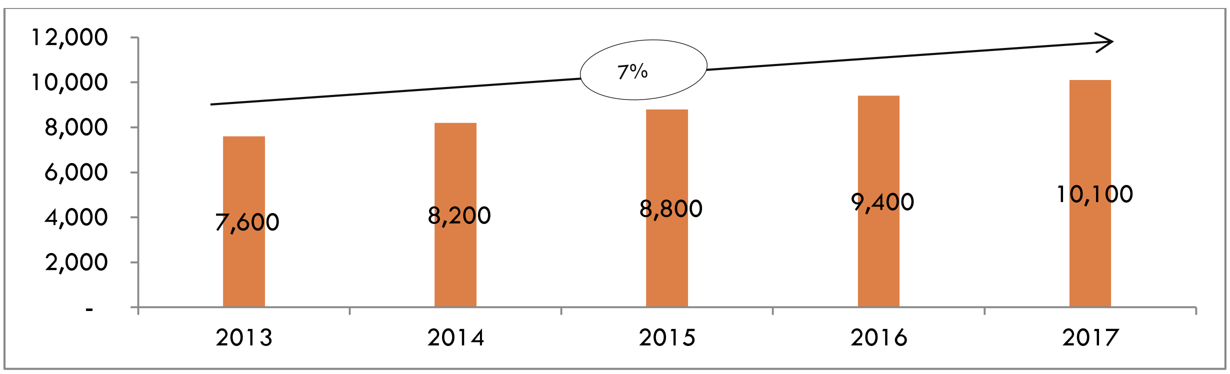
[25] Industry research, interviews with key players

Media Buying	Campaign Design	Site/ Media Audit
Media Buying		
Site Acquisition		
	Art & Design	
		Site Operations

In addition to the above, our analysis of the OOH advertising sub-sector also covers job roles at a company level such as Ad Sales, Marketing and Support (Finance, HR, Legal, etc.)

8.4 WORKFORCE DEMAND (QUANTITATIVE)

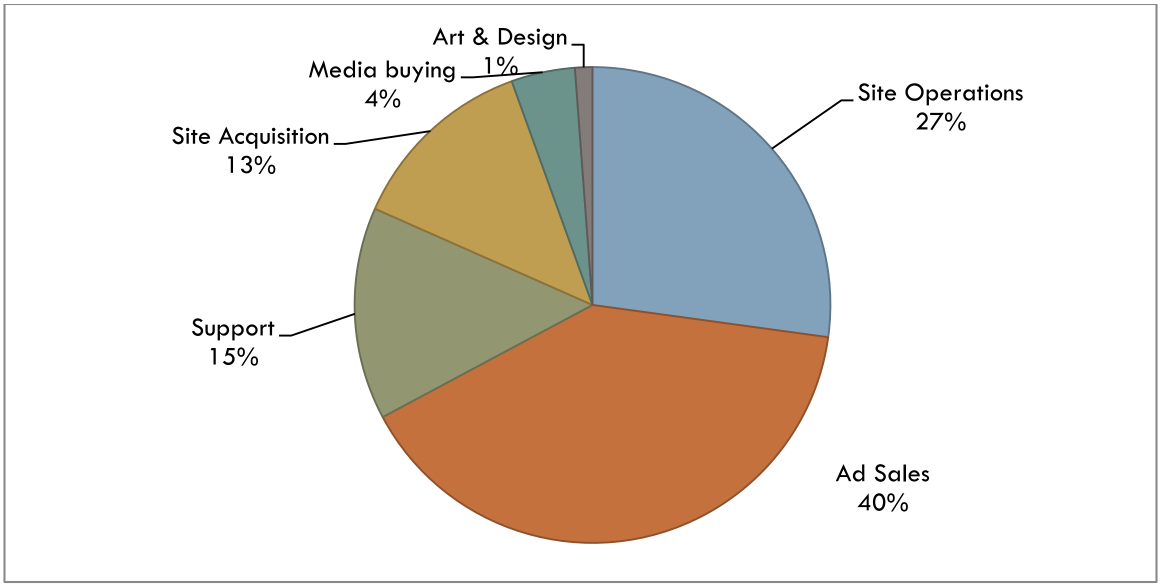
The total estimated employment of OOH advertising companies is estimated at ~14,000 people. Contract labour hired for the construction, mounting/dis-mounting and maintenance of OOH assets constitutes ~50% of total workforce employed. Excluding this number (in the roles mentioned above) total employment is ~7,600 people, and expected to grow to ~10,000 people over a five year period:



The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
600	600	600	700

Demand for workforce across different job-roles – 2013:



8.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Art & Design	- Designing for digital screens
Sales	- Techniques to sell digital OOH
Site acquisition	- Identifying the placement of assets - Determining the value of assets – in the absence of a clearly defined metric/ model for pricing

In addition to the above, industry players were also of the view that since OOH is an emerging industry – the overall awareness of industry norms and trends. Given the nascent stage and small size of the industry – there are no specialized courses offered for OOH advertising.

9. Advertising

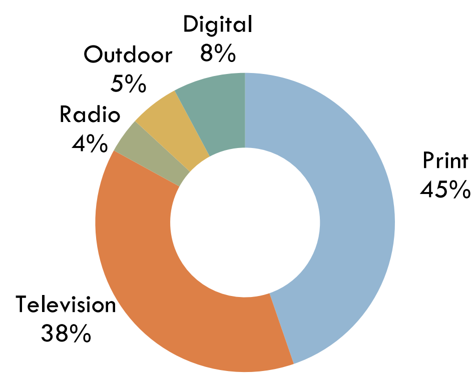
9.1 SECTOR REVENUE

The size of the Advertising Industry is estimated at INR 362 billion in 2013 and is expected to grow at a CAGR of 20% to reach INR 42 billon in 2017.

Size in INR Billion	2013	2014	2015	2016	2017	CAGR
Advertising	362	409	471	542	630	15%
- **TV**	138.6	156.6	180.1	207.2	240.3	15%
- **Print**	162.0	179.0	200.0	222.0	248.0	11%
- **Radio**	14	15.4	18.7	22.7	27.4	18%
- **OOH**	19.3	21.1	23	25	27.3	9%
- **Digital**	28.3	37.1	48.9	65.1	87.2	32%

Advertising covers the following media platforms/ mediums

- Television
- Print
- Radio
- OOH
- Digital



Advertising companies comprise the following[26]:

- Creative agencies that develop campaigns for clients, undertake creative and ad-production for print media/ brochures etc. and service advertising clients (account planning and account management)
- Media agencies which undertake media planning and buying on behalf of advertisers
- Content production houses that produce TV commercials/ advertisements

[26] Digital advertising and OOH advertising have been covered as separate sections of this report

9.2 TRENDS AND DEVELOPMENTS

Some of the recent industry trends are given below:

- TRAI has imposed an advertisement cap of 10 + 2 minutes (10 minutes for advertisers and 2 minutes for channel promos) for the broadcasting industry. This would compel advertisers to explore innovative advertising techniques and increase spends on other mediums, including digital. Media and creative agencies will also need to innovate their own offerings to cater to the new advertising landscape
- Digital advertising is expected to grow at a rate of 32% year-on-year – the fastest among all advertising platforms/ mediums. Agencies will need to develop new capabilities in order to assist their clients with navigating the digital opportunity
- With media consumption fragmented across multiple platforms and devices, there is a growing need for data analytics that can help advertisers and agencies with standardized measures of ROI/ reach

9.3 LIST OF OCCUPATIONS

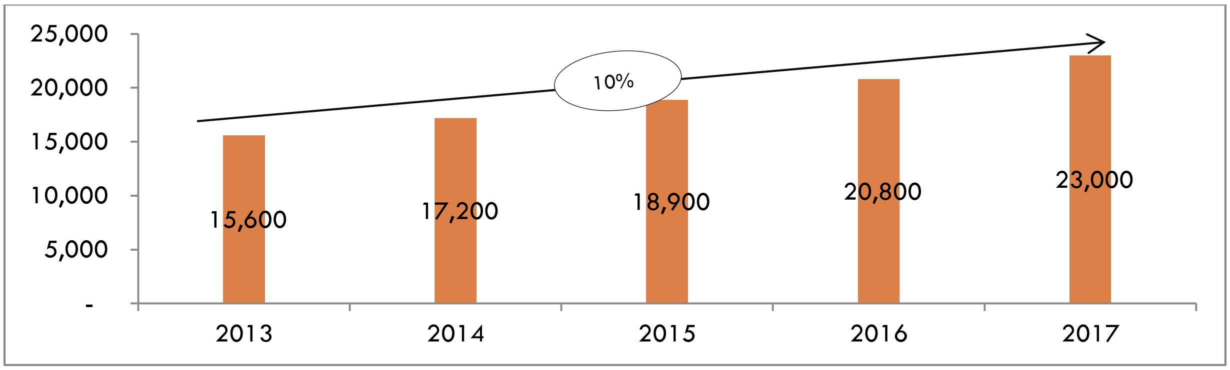
Media Planning	Media Buying	Account Management	Creative	Production
Media Planning				
	Media Buying			
		Account Managers		
		Account Planners		
			Art & Design	
			Copywriter	
				Acting / Voice-overs
				Hair & Make-up
				Lighting
				Production
				Post Production
				Script writing
				Set Crafts

In addition to the above, our analysis of the advertising sub-sector also covers job roles at a company such as Marketing and Support (Finance, HR, Legal, IT, Admin etc.)

9.4 WORKFORCE DEMAND (QUANTITATIVE)

An estimated 15,500 individuals works in the advertising sector. Around 60%-70% of this employment would comprise advertising agencies as well as media planning and buying houses (both core as well as support staff)[27]. The balance 30%-40% would comprise production crews for Television commercials (these resources are typically freelancers and are employed on a project basis)[28].

The total estimated employment in the advertising industry over a five year period is given below:



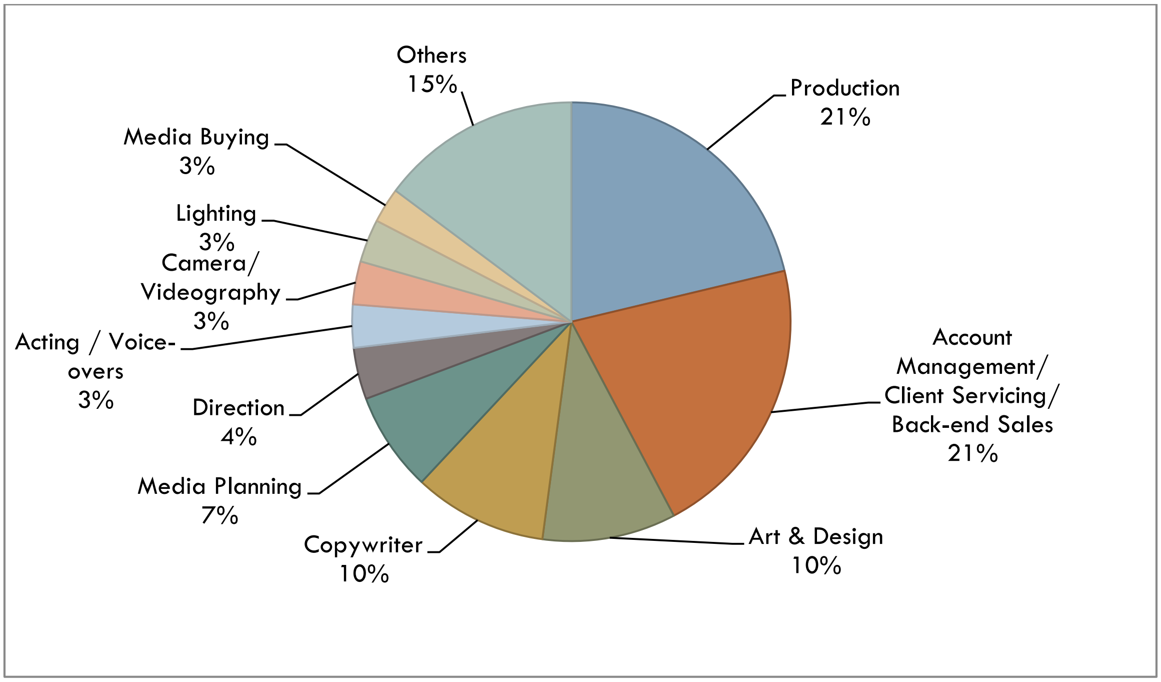
The expected y-o-y addition/ incremental demand is provided below:

2014	2015	2016	2017
1,600	1,700	1,900	2,200

[27] The above estimates are based on discussions with industry experts and key agencies. The total number of agencies used for the analysis is based on publicly available sources and membership details of the Advertising Agencies Association India (AAAI), http://www.aaaindia.org/Detail.aspx?parentid=7&menuid=14

[28] This estimate comprises number of man years of effort. Since the workforce is employed on a per-project basis, the actual number of people employed may be higher, and the utilization per person may be lower

Demand for workforce across different job-roles – 2013:



**Other occupations include Set Crafts, Hair & Make-up, Sound, Post Production, Costume and Support Functions staff (e.g. Finance, IT, HR, Admin etc.)*

9.5 SKILL GAPS (QUALITATIVE)

Job-roles/occupations where there is a dearth of trained manpower (and corresponding areas of improvement) as highlighted by the industry:

Role	Skill-Gap
Media buying	- Negotiation skills – to get the right price for ad-inventory - Numeracy, data management and analytical skills - Lack of specialization by sub-sector (i.e. TV, print etc.), especially for digital media
Media planning	- Research skills - Data analytics - Preparation and presentation of accurate plans and forecasts
Account Management	- Preparing client briefs and delivering presentations - In-depth knowledge of clients and their industry

According to the industry, skill-gaps in advertising are largely due to the following reasons:

- Lack of formal training and understanding of different media. There are very few specialized courses – for example Mudra Institute of Communications, Ahmedabad (MICA) that offer specialized post graduate courses. Most people enter the industry straight after graduation and thus their skills are developed on-the-job

- Salaries in the advertising industry are low – as compared with other sub-sectors within the media industry (e.g. broadcast media). Thus several candidates prefer to take on ad sales roles at media houses

- Attrition levels are very high

Skill-gaps for roles other than those mentioned above, are specific to advertising production – and are similar to those observed in the Television content production industry. Often, TV commercials are produced by the same production houses that undertake Television programming, and they too rely on a pool of freelance professionals that are contracted on a project-by-project basis

Methodology Note

COVERAGE

The report covers the following sub-sectors within Media and Entertainment

- Film
- Television
- Print
- Animation
- Gaming
- Digital
- OOH
- Advertising

APPROACH

Step 1: Identifying the list of occupations to be covered for the skill-gap study

In order to identify the list of occupations for the Media and Entertainment industry, a value-chain/ activity-based approach was adopted:

- The starting point was mapping the value chain for each sub-sector. Segments whose core focus lies outside of content production or roles that are not relevant from a skills development perspective were excluded from the analysis.

  e.g. In Film, the functions Distribution and Exhibition are functions that do not specifically relate to content production, hence were excluded from the analysis

- Occupations/ unique roles across each step in the value-chain were identified:

  e.g. Illustrative occupations in Film along the value chain

<table>
<tr><th>Pre-production</th><th>Production</th><th>Post-production</th></tr>
<tr><td></td><td>Acting / Voice-overs</td><td></td></tr>
<tr><td></td><td>Camera/ Videography</td><td></td></tr>
<tr><td></td><td>Costume</td><td></td></tr>
<tr><td></td><td>Dance</td><td></td></tr>
<tr><td colspan="3">Direction</td></tr>
<tr><td></td><td>Grip</td><td></td></tr>
<tr><td></td><td>Hair & Make-up</td><td></td></tr>
<tr><td></td><td>Lighting</td><td></td></tr>
<tr><td></td><td>Music</td><td></td></tr>
<tr><td></td><td>Photography(Stills)</td><td></td></tr>
<tr><td colspan="3">Production</td></tr>
<tr><td>Screen/Script writing</td><td></td><td></td></tr>
<tr><td colspan="2">Set Crafts (Production Design/ Set Design/ Set Workers)</td><td></td></tr>
<tr><td></td><td colspan="2">Sound Effects / Audio Engineers & Technicians</td></tr>
<tr><td></td><td></td><td>Post Production</td></tr>
</table>

- Common occupations/ roles across sub-sectors were identified and grouped accordingly e.g. Camera roles are prevalent in all audio visual production (film, TV and advertising)

	Film	TV	Print	Radio	Animation	Gaming	Advertising
Camera	√	√					√

- Based on a comprehensive value chain analysis of all sub-sectors, 40 unique occupations across the 9 sub-sectors. (Please refer to Annexure for the list of occupations covered)

Step 2: Identifying the sample set for gathering inputs

- A sample of 50 media and entertainment companies across the 9 sub-sectors was identified to reach out to for the study. The sample size for each sub-sector was based on the following factors:
    - Industry size
    - Extent of fragmentation
    - Number of sub-sectors
    - Complexity
- A list of 40 educational institutions offering media courses was also identified to gather supply-side inputs for the study

Step 3: Gathering inputs for the skill-gap study

- The companies/institutions identified in the sample set were approached/ contacted and the background and objectives of the exercise were communicated to them
- Quantitative and qualitative inputs for the study were gathered through a combination of face-to-face interviews, conference calls and survey questionnaires. The following line of questioning/ inputs were sought from different stakeholders:

Companies/ employers:

- Industry growth drivers and challenges
- Number of people required for production/business activities
- Hiring practices/ job-roles that are hard to fill or where there is a talent gap
- Job readiness of workforce/ skill-gaps observed on-the-job/ areas of training

Institutions:

- Courses offered, intake per course, occupations covered
- Growth in the number of applications received
- Key issues/challenges during admissions and placements
- Relevance of course curriculum to industry needs

Step 4: Collating inputs and preparing the skill-gap report

Exclusions

The exclusions within this report can be classified within the following three heads:

1. Sub-sectors excluded
2. Sub-sector segments excluded
3. Exclusions along the value chain

1. Sub-sectors excluded:

The report does not cover the following sub-sectors that are sometimes classified under Media and Entertainment:

- Events and activations
- Theme parks

2. Sub-sector segments excluded:

The following segments have been excluded from the sub-sectors listed below:

Print:

- Book Publishing

Radio:

- Community Radio
- Internet Radio

Animation:

- Animation Education

Advertising

- Social Media
- Email
- Search

3. Exclusions along the value chain:

The sub-segments marked in grey are excluded, since their core focus rests outside of content production and the corresponding job roles/ occupations may not be relevant from a skills development perspective.

Film

Television

Print

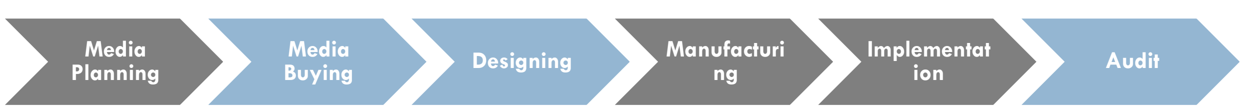
Radio

Animation

Gaming

Digital

Out-of-home



Advertising

Appendix

Media and Entertainment Occupations and Applicability to Various Sub-Sectors (version dated Feb 2014)

#	Occupation	Film	Televisio	Print	Animatio	Gamin	Radio	Digital	OOH	Advertisi
1	Acting / Voice-overs	✓	✓		✓					✓
2	Ad Sales/ Account Management/ Scheduling/ Traffic		✓	✓			✓	✓	✓	✓
3	Anchoring/ Presentation/ Commentating/ Radio Jockeying		✓				✓			
4	Animator				✓	✓				
5	Art & Design - Animation & Gaming				✓	✓				
6	Art & Design - Print, Advertising & OOH (Graphic Design)			✓					✓	✓
7	Asset Creation				✓	✓				
8	Broadcast Operations		✓				✓			
9	Camera	✓	✓							✓
10	Channel Operations/ Programming		✓				✓			
11	Costume	✓	✓							✓
12	Dance	✓								
13	Direction	✓	✓		✓					✓
14	Editing	✓	✓		✓					✓
15	Game Design					✓				
16	Game Development					✓				
17	Grip	✓	✓							✓
18	Hair & Make-up	✓	✓							✓
19	Journalism		✓	✓			✓	✓		
20	Lighting	✓	✓							✓
21	Marketing	✓	✓	✓	✓	✓	✓	✓	✓	✓
22	Media Buying								✓	✓
23	Media Management/ Archival	✓	✓		✓	✓	✓	✓		
24	Media Planning									✓
25	Music	✓	✓		✓	✓	✓			✓
26	Photography	✓	✓	✓						✓
27	Physical Effects	✓	✓							✓
28	Production	✓	✓		✓	✓	✓			✓
29	Programmers/Testers				✓	✓				
30	Screen/Script writing	✓	✓		✓					✓
31	Set Crafts - Film, TV & Advertising	✓	✓							✓
32	Site Acquisition								✓	
33	Site Operations								✓	
34	Sound	✓	✓		✓	✓	✓			✓
35	VFX and DI	✓	✓		✓					✓
	Support									
36	Commercial/ Procurement	✓	✓	✓	✓	✓	✓	✓	✓	✓
37	Finance (Accounting)	✓	✓	✓	✓	✓	✓	✓	✓	✓
38	Human Resources (HR)	✓	✓	✓	✓	✓	✓	✓	✓	✓
39	Information Technology (IT)	✓	✓	✓	✓	✓	✓	✓	✓	✓
40	Legal (inc. IP Management)	✓	✓	✓	✓	✓	✓	✓	✓	✓
41	Travel/Stay	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Total Occupations/ Job Clusters	25	29	11	20	17	16	10	12	27