

**Industry Workforce Priorities**  
**Industry: Printing**

**Industry Coverage:** Printing and Printing Support Services

**Industry Overview:** The print, packaging, visual communications and media technology industries are in a state of transition and change. Emerging print technologies and global industry trends have created a rapidly changing environment with more people consuming media through digital platforms rather than traditional print methods<sup>1</sup>. As some of the traditional industry areas are seeing a decline in revenue and employment, businesses are becoming more innovative in the way they operate and deliver services. Many diversify product offerings, moving into areas such as communications, logistics, multi-channel marketing, advertising, digital design, and 3D print.<sup>2</sup>

Challenges lie ahead in maintaining workforce capacity, with much of the industry characterised by a static and ageing workforce required to adapt to change. This is placing an acute need to diversify the current workforce and attract younger people into training and employment in what is an exciting industry. Critical to this is promotion and positive visibility of industry to grow understanding that print will remain an important communication vehicle in a digital economy particularly for advertising, education and entertainment. As parts of the sector are contracting, growing or transforming, effort is needed to change negative public perception of the industry and show the way it serves all parts of the economy including federal, state and local government, financial services, retailing, distribution, travel and tourism and manufacturing.<sup>3</sup>

**Current and Future Labour Market Conditions:**

- Nationally, the printing industry has declined over the past five years, as consumers have increasingly sought information through online platforms rather than printed materials. IBISWorld anticipates revenue to decline at an annualised 2.3% over the five years through 2021-22, to \$6.7 billion.<sup>4</sup>
- However, the paper, printing, publishing and graphic communications industry is one of the largest manufacturing sectors in Australia. The industry employs over 110,000 people in some 5,800 businesses with the value of production over \$32 billion.<sup>5</sup>
- Western Australia has 12 per cent of printing and graphic arts sector employment, with greatest clustering of employment in New South Wales and Victoria, followed by Western Australia, Queensland and South Australia.<sup>6</sup>
- Western Australia's proportion of Vocational Education and Training (VET) enrolments sits at 11 per cent. National 2015 figures show large decreases in enrolments in Certificate III in Print Manufacturing and Certificate III in Printing, resulting in an overall 23 per cent drop in the number of students enrolled in the Printing and Graphic Arts Training Package qualification compared to enrolments in 2014.
- These alarming figures may reflect public sentiment and their despondency with industry as a viable career option. Shifting demands from print to digital channels, declining revenues in advertising, terminations of local publications, mergers within industry, business closures and subsequent job losses give a stilted portrayal of the industry.
- It is important to provide a balanced representation of industry to attract talent, highlighting growth sectors and employment prospects and earnings. Reportedly, these are higher than average for graduates: 91 per cent are employed within 6 months of course completion, compared to 78% across the VET sector, earning an average of \$62,300 annually, compared to \$56,000 for all VET graduates.<sup>7</sup>
- Despite a decline in the number of magazines being published due to user demand from print to digital and falling advertising revenue, there are a number of indie magazines which have found niche markets and are able to succeed due to their smaller overheads and circulation<sup>8</sup>.
- Emerging studies such as those evaluating benefits of printed materials compared to digital print<sup>9</sup> and retention limitations for students using digital technology as a study tool<sup>10</sup>, may provide insight which could influence people's preferences and, in turn, some areas of print into the future.

**Industry Development Issues:**

- Changing technology continues shaping the printing and graphic arts industry which is both a challenge and an opportunity. Heavily reliant upon printing hardware and software, companies are adopting emerging technologies and customising products and services. They have had to transition and increase revenue streams through competitor acquisitions and diversification into integrated services.<sup>11</sup>
- Technological disruption has also provided openings for new products and innovation within the industry. As certain areas of print decline (offset) and others grow (inkjet and digital, packaging, signage) the world of print is characterised by novel forms: on demand printing, large format printing, vinyl wrap printing, glass and metal printing, digital packaging applications, display boards and materials, radio frequency identification (RFID) embedded printed products and localised custom web printing.<sup>12</sup>
- Demand for some printing services such as packaging materials and cartons has grown over the past five years and have remained in high demand from downstream manufacturers, as they cannot be easily substituted with digital alternatives.
- Increased retail activity has boosted demand for labels and signs, helping offset declines in other service segments. Demand for catalogue printing services has also risen over the past five years.<sup>13</sup>
- Another emerging technology is 3D printing. Over the past year, 3D printing has seen exponential growth in the Australian market with examples of innovative projects including the University of Newcastle's use of technology in the solar energy sector.<sup>14</sup>
- However, although some organisations within the print sector have adopted 3D technology into their business offerings, industry is divided in its view and implementation of 3D print, with many seeing this belonging within manufacturing rather than the print industry.
- WA employers report fluctuations in the Australian dollar influence the competitiveness of local businesses, with large jobs being outsourced to Singapore and Malaysia. Coupled with the onerous requirements and cost of maintaining ISO (International Organization for Standardization) certifications, it can become unprofitable to pursue large tenders.
- Similarly, hikes in prices issued by Australia Post are having a detrimental impact on competitiveness, resulting in contracts becoming untenable even for sizeable local businesses, an issue which needs to be addressed to support a sustainable future for the industry.
- Over the past decade, advances in printing technology have also created significant opportunities across the industry for improved energy efficiency, environmental performance and emissions reductions. However, in order to unlock these opportunities, training programs, research and development, and funding for the uptake of energy efficient technologies by printing businesses are needed<sup>15</sup>.

**Workforce Challenges and Issues:**

- A decline in traditional processes, broadening business offerings and technological changes are continuing to alter the roles in which people work. Many employers are requiring their employees to be multi-skilled across a range of equipment and emerging technologies.
- With a prevalence of small businesses, many of which have struggled to realise a profit growth over the past decade, inhibiting their ability to invest in recruitment and professional development of staff, resources need to be directed at training and employer support to ensure workers have the right mix of new and traditional skills.<sup>16</sup>
- Similarly, ICP Printing and Graphic Arts Training Package graduates need adaptability and flexibility so they can respond well to change, embrace new technologies and adapt to changing roles and workplaces.<sup>17</sup>
- The development of a multi-disciplinary workforce with transferrable skills throughout the course or their career requires bringing soft skills (adaptability, creative thinking, problem solving, leadership, teamwork, mentoring and communication) to technical expertise. This will enable them to capitalise on technical change and address skill gaps as the sector adapts.<sup>18</sup>
- Changes to the ICP training package now provide greater flexibility in the packaging rules to align with industry requirements. However, although current industry needs appear to be met by two interstate providers, without a local RTO or student funding for interstate travel,

vocational delivery is limited to company specific on-site training.

- Victoria has responded to industry calls for broadly skilled workers by re-introducing off-site print apprenticeship classes. This will enable students enrolled in Certificate III in Printing to learn fundamentals of print away from their workplace and to experience different types of print processes. This model caters particularly well for small to medium size printers who have been constrained by limited options in training, with the provider delivering a comprehensive training program that will give students transferrable skills.<sup>19</sup>
- The sector in WA is challenged to diversify its workforce by attracting young people and females into training and employment. This is thought to be attributed to the reputation and perception of poor employment prospects, a lack of awareness of pathways and breadth of occupations available in the industry.
- Effort is needed to change the negative public perception of the printing and graphic arts sector to attract talent. Changing community perception, actively lobbying to schools and career advisors, and clearly defining job opportunities and pathways is crucial to make the industry attractive to students. Part of this reputational issue is a lack of awareness of what printers actually do, the life cycle for product output and the sector's broader service offerings. Communication and strong relationships between industry and schools are key.
- The funding of the Future Print Apprenticeship pilot program, a model of best practice through its successful mentoring, retention and completion of print apprentices has ceased. Future Print has made a number of recommendations to continue the good work started by the pilot such as establishing a national training centre to support the promotion of industry workforce development skills acquisition to cover industry training<sup>20</sup>.
- A number of WA employers have reported a dedicated effort to modify working hours and shift arrangements to be more family friendly to attract women, particularly working mothers.

#### **Current Training Council Areas of Focus:**

Increase the workforce capacity of the print sector in WA by:

- exploring industry appetite for the establishment of a school-based apprenticeship as a way to attract more young people in to the industry;
- investigating ways in which to provide improved sector communication on available training opportunities, career pathways and job opportunities to shift negative public perception of the printing industry;
- encouraging practices to include greater employee diversity and engagement (women, people with disabilities) by highlighting current best practice within industry;
- continuing to support the Printing Industries Craftsmanship Awards (Workforce Development Award) and explore ways to optimise participation; and
- providing industry representation on the Printing and Graphic Arts Industry Reference Committee through FutureNow CEO's membership on the Committee.

<sup>1</sup> IBISWorld, Industry Report C1611 Printing in Australia September 2016

<sup>2</sup> Print21.com.au, Innovation key to survival: PIAA survey 18 January 2017. Accessed from: <http://print21.com.au/innovation-key-to-survival-piaa-survey/127295>

<sup>3</sup> Printing Industries Association of Australia, An exciting and vibrant industry. Accessed 23 January 2017 from: <https://www.piaa.org.au/the-industry/an-exciting-industry.html>

<sup>4</sup> IBISWorld, Industry Report C1611 Printing in Australia September 2016

<sup>5</sup> Future Print website, accessed 23 January 2016 from [http://www.futureprint.org.au/careers\\_start.aspx](http://www.futureprint.org.au/careers_start.aspx)

<sup>6</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>7</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>8</sup> ABC News, Australian indie magazine thriving as big publication struggle. 12 August 2016. Accessed from: <http://www.abc.net.au/news/2016-08-12/australian-indie-magazines-thriving/7723598?pfmredir=sm>

<sup>9</sup> [The Conversation, Children prefer to read books on paper rather than screens 10 March 2017](#)

<sup>10</sup> [Print21.com.au, Latest News Limitations in the digital classroom 14 July 2016](#)

<sup>11</sup> IBISWorld, Industry Insight March 2017 Fine print: Printing companies are being forced to diversify and consolidate

<sup>12</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>13</sup> IBISWorld, Industry Report C1611 Printing in Australia September 2016

<sup>14</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>15</sup> [Printing Industries Association of Australia. Priorities for Print. A blueprint to help the Australia Printing Industry navigate towards a sustainable future 2014.](#)

<sup>16</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

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<sup>17</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>18</sup> PwC Skills for Australia, Industry Skills Forecast and Proposed Schedule of Work Printing and Graphic Arts Version 2.0. 24 April 2017

<sup>19</sup> ProPrint, Off-site print apprenticeships back in Vic. 4 May 2017. Accessed from: [http://www.proprint.com.au/News/391065.off-site-print-apprenticeships-back-in-vic.aspx?eid=16&edate=20170504&utm\\_source=20170504&utm\\_medium=newsletter&utm\\_campaign=daily\\_newsletter\\_&nl=daily](http://www.proprint.com.au/News/391065.off-site-print-apprenticeships-back-in-vic.aspx?eid=16&edate=20170504&utm_source=20170504&utm_medium=newsletter&utm_campaign=daily_newsletter_&nl=daily)

<sup>20</sup> Print 21.com.au, Alarming fall in printing apprentices. 14 September 2016. Accessed from: <http://print21.com.au/alarming-fall-in-printing-apprentices/116631>