

SERPENTINE JARRAHDAL, WA | CASE STUDY

Is your community ready for the future of work? To answer this question we need to explore the opportunities and challenges in your local community, how the local job market stacks up and the predicted changes in employment in the next 15 years.

Understanding the skills required to succeed and preparing the next generation for the future of work has never been more important. It's time to get ready – visit www.thefutureofwork.net.au to access the *Future of Work* online toolkit and join the conversation.

33%

of current jobs are predicted to be **at risk** from digital disruption in the future



Manufacturing and construction make up the industries with the largest proportion of at risk jobs in Serpentine Jarrahdale, while industries like retail trade, healthcare and social assistance have a high proportion of jobs least likely to be at risk.

Future of Work Scorecard

Learning Ready

Educational outcomes are just below the national average in Serpentine Jarrahdale in terms of secondary literacy, numeracy scores and adult learning.



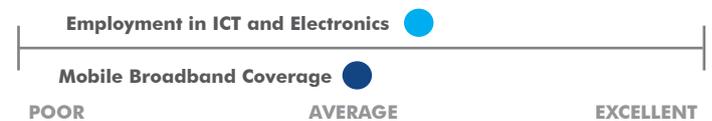
Innovation Ready

Serpentine Jarrahdale is one of the top performing regional areas for measures of innovation, with strong measures in both business entries and skills mix.



Digital Ready

Serpentine Jarrahdale sits close to average for both employment in Information and Communications Technology (ICT) and electronics and mobile broadband coverage. Improving this measure could be an opportunity to increase the competitiveness of the area overall.



Jobs at Risk

Serpentine Jarrahdale is likely to see many changes in its future job market over the next 15 years, with a proportion of at risk jobs (33 per cent) close to the national average.



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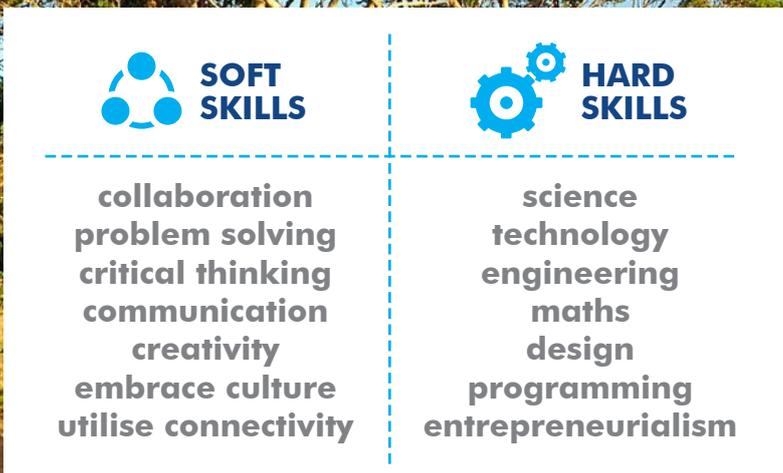
The future of work in Serpentine Jarrahdale

Serpentine Jarrahdale is a Connected Lifestyle Area www.regionalaustralia.org.au/home/the-future-of-work/ located approximately 45kms from the Perth CBD. It is one of the fastest growing local governments in Western Australia, driven by high quality of life and close proximity to the state's capital.

Due to its location, Serpentine Jarrahdale has a large commuter population. Residents enjoy access to a wide variety of jobs, many in surrounding areas.

To make the most of the career opportunities within and outside the local area, kids in Serpentine Jarrahdale will need a diverse range of skills including hard specialised knowledge and soft personal skills.

However, there is limited access to educational facilities in Serpentine Jarrahdale. Many local kids travel to the surrounding towns and cities to complete their education. The challenge for parents and the local community is to identify opportunities outside of formal education where their kids can build the skills they will need to flourish in the future workforce.



Upskilling the Next Generation

Like many regional areas, educational outcomes in Serpentine Jarrahdale are below the national average. This starts in early childhood and increases as kids get older.

The one exception to this trend is technical qualifications, where Serpentine Jarrahdale sits above the national average. We know trade skills will be hugely important for the future of work, so this is a real advantage for the local community.

Part of the reason for poorer educational outcomes may be the limited number of education providers in the local area. Serpentine Jarrahdale's growing population may lead to an increase in providers in the longer term. In the short term, parents may need to look for resources outside of formal education to help their kids develop the skills they will need in the future workforce.

Research is showing that kids will need a mix of both hard specialised knowledge and soft personal skills such as critical thinking, communication and collaboration. Hard specialised knowledge in the fields of Science, Technology, Engineering and Maths, as well as Entrepreneurship, Art and Design will also be critical. Minecraft and Made with Code are examples of learning resources that kids can use outside of school to build both their soft and hard skills.



In Focus: Minecraft

Minecraft is a game where kids create and play in fictional worlds made up of three-dimensional blocks. It can be played on computer, console, smartphone or tablet.

In 2015, researchers from Queensland University of Technology (QUT) encouraged teachers to use Minecraft to help teach maths, design, art and geography. Professor Dezuanni said the game is not violent and teaches teamwork and resilience, “it’s best to think of it as a sort of digital Lego.” The game’s multi-player options are an opportunity for kids to learn to play collaboratively as they team up to build their own worlds and defend their cities.

Minecraft has been recognised internationally for its ability to teach and build a range of skills. The game has been made available to every post-primary school in Northern Ireland, for example, and in 2013 the Viktor Rydberg School in Stockholm introduced Minecraft lessons for 13-year-old students into its curriculum.

There are a multitude of resources online to help parents navigate the world of Minecraft. If you are looking for new ways to engage your kids in subjects ranging from maths to design, or want to help them develop their communication and team work skills, games like Minecraft could be the ideal starting point.

The Future of Work

With 33 per cent of jobs at risk from digital disruption in the coming years, the future jobs in Serpentine Jarrahdale are likely to be significantly different.

Low skill jobs based on routine tasks are the most at risk of disruption from technological change. On the other side, jobs based on high level technical knowledge, or on strong interpersonal contact, or involving individualised care activities, are the least likely to be at risk. The strongest future employment growth areas place more reliance on the right mix of technical and personal (hard and soft) skills.

Serpentine Jarrahdale’s occupation projections suggest that the region is expected to see more growth in higher skilled occupations. If Serpentine Jarrahdale follows national trends it could see 142 new positions within professional occupations and 69 new managers across several industries in the next five years.

The completion of the **nbn**[™] network rollout in future will likely affect the availability of these jobs. Access to digital infrastructure, however, is just the first step. We need to make sure that kids are ready to take advantage of it.

Good career outcomes will rely on young people having the necessary skills to match the needs of the labour market and make the most of flexible working arrangements.



In Focus: Made With Code - Google

Only one in four Information Technology (IT) graduates and fewer than one in ten engineering graduates are women. The Australian Government is currently directing significant resources to encourage females to pursue science, technology, engineering and maths (STEM) related careers.

'Made with Code' was built as a resource to help parents fuel the interest of their daughters in computer coding and STEM. This Google resource hosts a collection of activities and resources targeted at young women, these include creating graphic interchange formats (GIFs), designing 'emoji' and mixing music. It also hosts a collection of videos about different women who code professionally to inspire young girls and identify the incredible variety of jobs that coders can have.

Although 'Made with Code' focuses specifically on STEM related industries, coding skills will be an asset for a much wider range of jobs in the future. This resource is a fun and interactive way for girls to become interested in coding and to start to build some basic hard skills.

Looking Ahead

Only 10 per cent of a kid's time is spent at school. Although limited educational facilities could present a challenge for Serpentine Jarrahdale, there are opportunities for parents and the local community to look outside of formalised education to expose their kids to new ideas and build their skills.

Importantly, we should also look for opportunities to expose kids to different jobs and career pathways. Building ambition can be a huge motivator for kids to learn new skills and make the most of their education. As a commuter town, the people in Serpentine Jarrahdale have access to a variety of different occupations and skill sets. Parents and educators can leverage this asset to help their kids to understand some of the different types of careers that are available to them and the skills they will need.

Is Serpentine Jarrahdale ready?

As Serpentine Jarrahdale prepares for the future of work, there are a few important questions for parents, educators and the local community to consider:

- Are they aware of the variety of jobs and career pathways available to them?
- How can parents use the internet to expose kids to new opportunities and skills required?
- What opportunities outside of the classroom are available for kids to learn?
- Are there clear pathways from education and training to work for young workers?

To find out more about tools and resources to help your kids develop the right mix of skills, visit the Future of Work Toolkit at www.thefutureofwork.net.au.

For more information on the Future of Work visit
www.regionalaustralia.org.au/home/the-future-of-work/

