

KNOWLEDGE AND LEARNING

CREATE HIGHLY EDUCATED AND SKILLED COMMUNITIES THAT MEET THE REGION'S FUTURE WORKFORCE REQUIREMENTS



A well-educated, trained and skilled Mid West population is fundamental to its social and economic development. Quality education and training are key drivers of economic growth, a higher standard of living and a socially cohesive community.

The region has a range of quality education, training and tertiary institutions that offer diverse secondary and post high schooling options. Nevertheless, the Mid West faces a number of education and training challenges and further investment is critical for regional growth and development.

Low education outcomes impact on the future life options of the region's young people and correlates with poor childhood development and health and wellbeing outcomes generally. They are also unlikely to result in a highly skilled workforce of the future.

A growing body of work confirms the importance of pre-compulsory learning and early education, which is acknowledged in the Blueprint.

This chapter identifies the Blueprint's key Knowledge and Learning focus and priorities.



Education and Training

Workforce Development

Research and Innovation





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MID WEST SCHOOLS



Additional education and training information is presented in the Blueprint's social profile section from page 25.

Given the limited availability of data for private schools, the majority of the Blueprint findings relate to the public school system. Gaining a better understanding of private school outcomes is needed to complete the regional education profile.

EDUCATION REFORM

A well-educated, trained and skilled Mid West population is fundamental to the development of the region. Effective and quality education and training are key drivers of economic growth, a higher standard of living and a socially cohesive community.

Low education outcomes impact on the future life options of the region's young people and correlates with poor childhood development and health and wellbeing outcomes generally. They are also unlikely to result in a highly skilled workforce of the future.

Growing interest has been expressed by education and training providers in working collaboratively to optimise regional education outcomes and promote a more seamless transition at all levels of the education pathway.

OPPORTUNITY: To foster stronger relationships between all relevant stakeholders including community, education and training providers.

PRE COMPULSORY LEARNING AND DEVELOPMENT

There is significant evidence that a child's early years (age 0-4) are critical to lifelong learning, as they lay the foundations for future development.

There is an interwoven and cumulative period of developmental vulnerability and potential in early childhood, emphasising the importance of family involvement in pre compulsory learning and development.

Where children grow up, and the families they grow up in, create their experiences before school. Early childhood experiences affect brain development, with positive experiences important for optimal development and negative experiences capable of damaging a child's social, emotional, physical and intellectual capabilities. Pre compulsory learning and development is therefore critical to a student's educational pathway.

Price Waterhouse Coopers (2014)^[1] attempted to quantify the 'hidden value of childhood education and care' and concluded the following:

- children receiving quality early childhood education and care (that either meets or exceeds National Quality Standards), would generate up to \$10.3 billion in cumulative benefits to GDP by 2050;
- engaging children from families in the lowest income brackets who presently receive no formal early childhood education and care would boost Australia's GDP a further \$13.3 billion by 2050; and
- reforms that reduce the net cost of childcare by five per cent would increase female participation in the workforce and generate a \$6 billion lift to national GDP by 2050.

A National Quality Framework has been introduced to ensure quality education and care services (kindergarten and pre-primary), with all primary schools to adopt the Framework by 2016.

As indicated in the Blueprint's Social Profile, 31% of the region's young children were considered developmentally vulnerable in one or more Australian Early Development Census (AEDC) domain, compared to 23% of WA children and 22% nationally. Some Mid West zones have 65% of children considered developmentally vulnerable in one or more domain.

The Australian Research Alliance for Children and Youth's "The Nest" initiative has been established as a collaborative effort to reduce the percentage of children identified as developmentally vulnerable (AEDC).

A number of early learning and parenting centres are being established to improve access to a range of early learning, school readiness, parenting, child and maternal health and wellbeing programs and services that support families with young children. Parental and community involvement is important to the success of such centres, with evidence supporting their collocation with schools. Sixteen (16) new Child and Parent Centres to be operational in WA by 2016, one of which will be in Geraldton (Rangeway).

The Bidi Bidi Early Childhood and Parenting Centre has operated in Mount Magnet for several years as an independent entity and the Perenjori Early Childhood Centre commences operations in late 2014.

A Mid West Regional Children's Service Plan is being developed by Child Australia to develop strategies and inform investments in the region's Early Childhood Education and Care (ECEC) service sector.

CHALLENGE: Ongoing and expanded investment is needed to support facilities and programs that deliver successful early education and parenting outcomes across the region.

PRIMARY AND SECONDARY EDUCATION

The Mid West has a range of public, private, independent, remote and specialist schools. In 2013 the Mid West had 50 schools with almost 11,000 enrolments from kindergarten to year 12. Maintaining choice in public and private education at all levels is important for many Mid West families.

As indicated in the Blueprint's Social Profile on page 25:

- severe absenteeism in the Mid West (9%) is significantly higher than the WA average (3.6%);
- NAPLAN results for Mid West public schools also confirm that Mid West students (years 3, 5, 7 and 9) are up to twice as likely not to meet National Minimum Standard (NMS) levels across all categories (numeracy, reading and writing);
- Mid West NAPLAN results reflect two statewide characteristics:
 1. NAPLAN results for Aboriginal students are markedly lower than those of non-Aboriginal students; and
 2. the further students live from a major / regional centre, the lower their results tend to be than results of students from that major / regional centre.
- 37.8% of the region's adult population (15-64) has completed year 12, compared to 38.7% in regional Australia, 50.9% in WA and 52% nationally;
- 17% of Mid West Aboriginal residents completed year 12; compared to 38% of non-Aboriginal residents;
- in 2013, 86.9% of year 12 students in Mid West public schools attained year 12 or equivalent qualifications, only slightly below the national target of 90%. Of the 328 year 12 public school students, only 64 applied for an ATAR in pursuit of tertiary entrance after year 12. Of those 64 students, 40 (62.5%) achieved an ATAR of 55+, with only six (9%) achieving an ATAR of 75+;
- 86% of year 12 students are based in the Batavia Coast, with particularly low numbers in the Murchison; and
- retention of year 8 students through to year 12 has improved from 51% in 2004 to 69% in 2013, with retention of Aboriginal students improving from 18% to 54% during the same period.

The region has a number of district high schools in locations with lower populations, often in more remote inland areas. Many families in these areas send their children away to boarding schools, reducing student numbers in local schools. This naturally reduces the diversity and range of subjects taught and can result in reduced teacher quality, disadvantaging the reduced cohort of students in their senior years. This creates a challenging environment for education service providers seeking to provide equitable education. The NAPLAN statistics of schools in more remote areas is indicative of this challenge.

CHALLENGE: Build strong viable schools with a hub and spoke model that combines boarding away from home and transport options to ensure sustainable student populations at all district high schools.

Factors including isolation, disengagement from schooling and limited local education pathways have resulted in a group of students who need to be reengaged with education. This will require innovative approaches to schooling that re-motivates student and family.

CHALLENGE: To build strong, viable and seamless primary to secondary education opportunities that meet the needs of every Mid West student.

¹ Putting a value on Early Childhood Education and Care in Australia (2014). Price Waterhouse Coopers



A focus of the Department of Education (DoE) is to increasingly support public schools to mould their service delivery to reflect their local context and better address individual student needs. Through various policy changes, such as the Independent Public Schools (IPS) initiative, there is increased capacity for WA schools to innovate and implement flexible education, learning and teaching models.

CHALLENGE: The region's educational attainment rates are poor across most primary and secondary education cohorts.

Recent policy changes will see year 7 students being based at secondary schools from 2015. The impact of student increases on resources at secondary campuses will need to be closely monitored and managed. The loss of year 7 students from existing primary schools will also have an impact on those schools and may in some cases result in population losses in communities that don't offer secondary schooling. Student movements / relocations at earlier ages may also place additional pressures on the limited existing regional boarding facilities.

If the Mid West Regional Blueprint's higher growth scenarios are realised there will be strong population increases in many Mid West communities. This would create pressures on existing schools throughout the region requiring further investment.

The majority of the region's year 11 and 12 students are based in Geraldton at the Geraldton Secondary College (GSC), Nagle Catholic College (NCC) and in smaller numbers Geraldton Grammar School (GGS) and Strathalbyn Christian College (SCC). The standard of upper secondary education in Geraldton is therefore very important regionally, as is the availability of boarding facilities.

John Willcock College (JWC) has approximately 600 students (year 8-9). GSC has around 800 students (year 10-12) with capacity for up 2,000 students. NCC has around 1,200 enrolments (year 7-12), GGS 700 and SCC 500.

Challenges facing public secondary education in Geraldton include:

- the additional transition point from year 9 to year 10 (between JWC and GSC) while students are in 'vulnerable' teenage years;
- challenges resourcing two campuses, which dilutes resource provision; and
- the location of JWC away from the CBD where other education support opportunities are available.

A range of models are available for DoE to address these challenges, including bringing the two campuses together into one 'super campus' or reverting to having two separate year 7-12 campuses, perhaps with their own specialty focus areas that offer choice. Regardless of the model selected, strong regional population growth will necessitate further capital investment in secondary schools at some point in the future.

Monitoring and replicating success from other regional schools will help deliver higher quality outcomes in new and expanded education facilities.

CHALLENGE: Continued planning and investment in priority education infrastructure is necessary to meet future regional education, training and workforce development needs throughout the Mid West.

HIGHER EDUCATION AND TRAINING

The region's higher education and training institutions provide an excellent platform on which to enhance higher education and training outcomes for regional students.

There are a variety of agencies and institutions in the Mid West that support the delivery of higher education, research and tertiary attainment. These include the Durack Institute of Technology, Geraldton Universities Centre (GUC), WA Centre for Rural Health (WACRH) and Rural Clinical School (RCS), Geraldton. Significant recent investment has taken place in the sector, providing the Mid West with state of the art higher education and training facilities and infrastructure.

Anecdotally, the region's poor primary and secondary attainment outcomes are translating into some students entering the higher education and training arena with lower than optimal literacy, language, numeracy and analytical abilities. This can divert the focus of providers away from delivery of higher education and training outcomes.

Structural and policy changes have seen significant recent growth in the Vocational Education and Training (VET) sector, including VET in Schools, which make it an integral part of the articulated pathway between secondary and tertiary education.

Recent curriculum policy changes suggest even greater numbers of secondary students will transition through VET, calling for greater synergies and collaboration between sectors to create a more seamless education pathway.

The region's relatively poor early childhood, primary and secondary education outcomes appear to extend into subpar tertiary attainment. While the percentage of Mid West residents with Certificate level (23.3%) and Diploma / Advanced Diploma (6.5%) qualifications closely reflect the regional Australia measures, the percentage with Bachelor and higher level degrees is significantly lower. Bachelor Degree attainment of Mid West residents (7.6%) is half the national rate (15%) and lower than regional Australia (9.5%). Post Graduate attainment (1%) is half that of regional Australia (2%) and one quarter of the national average (4%).

CHALLENGE: Despite having excellent higher education and training providers the region's tertiary attainment rates are well below the broader norms.

OPPORTUNITY: To leverage off the region's state of the art higher learning providers to improve higher education and training outcomes.



Durack Institute of Technology - manual arts studies



Durack Institute of Technology - hospitality studies



112 EDUCATION AND TRAINING *CONT'D*

TECHNOLOGY AND VIRTUAL LEARNING

Advances in technology offers educators dynamic virtual alternatives that can improve education delivery and inspire and assist students through customised learning programs. The use of technology creates opportunities for more equitable outcomes for students throughout the region, most importantly in its remote areas.

The uptake and utilisation of technology to support education delivery and outcomes varies significantly across the region. Some providers are extremely proactive in this space while others have not fully engaged with technology and e-learning platforms, noting that not all parts of the region have access to appropriate telecommunications infrastructure or Internet services.

CHALLENGE: The potential of technology and virtual learning is not being fully utilised to optimise education delivery throughout the region.

OPPORTUNITY: To utilise technology and virtual learning platforms to link education and training delivery with a range of innovative Mid West projects in areas such things as radio-astronomy, renewable energy and remote services.



Batavia Coast Maritime Institute simulators

ABORIGINAL EDUCATION

The delivery of quality Aboriginal education is an important regional issue. Aboriginal people represent around 12% of the region's population but more than 20% of the students in Mid West primary and secondary schools. Some remote schools support Aboriginal students almost exclusively.

Aboriginal attainment levels in the region are significantly lower than non Aboriginal students, with very low year 12 enrolments in the Murchison subregion (around 36% of the applicable Aboriginal population).

Approximately 17% of Durack's 6,500+ students are Aboriginal, with around 40% enrolled in Certificate IV and Diploma courses. Durack also undertakes specialised training in a number of Murchison communities with high Aboriginal populations, with its new Wiluna Campus an important development for servicing the subregion.

A range of scholarships and targeted support services are offered for Aboriginal students are offered by a variety of educational institutions.

The transition of disengaged young Aboriginal people back into education and training, and from training to employment and lifelong learning requires particular focus. A key challenge for the education sector is improving the rate at which Aboriginal students progress through compulsory education and transition to higher qualifications, university and employment, as a pathway to an economic opportunity and success.

CHALLENGE: Attendance, attainment and retention levels of Aboriginal students are low in comparison with non-Aboriginal students in the Mid West.

Management and leadership excellence for Aboriginal professionals

In late 2013 ten Aboriginal people from a variety of professional backgrounds completed the Diploma of Management at Durack. The qualification had been delivered for a number of years but this was the first time it had been tailored for the needs of local Aboriginal professionals. The program recognised the existing skills of participants, many of whom had worked in professions such as education, health, legal services and local government for a number of years. This well regarded qualification provides opportunity for participants to advance their careers or take on further higher level study. The success of the program has led to it being offered again.



Durack Institute of Technology Aboriginal student of the year



BUILDING A DYNAMIC EDUCATION WORKFORCE

Approximately 9% of the region’s workforce is in the education and training sector. Quality teachers and leaders in education are fundamental to the enhancement of education, health and life outcomes for students.

A significant proportion of teachers in remote communities are recent graduates who have often had little or no experience living / working remotely or teaching students from an Aboriginal background. Challenges with the recruitment and retention of teachers, lecturers and trainers is experienced across the region in all education and training sectors, particularly in skill shortage or skill priority areas.

A large proportion of Durack and GUC graduates seek employment in the region, proving that a model which encourages regional connection can be a key process to improve attraction of professional staff. Increasing the numbers of graduates that work in the region’s hinterland may be an area of further development.

CHALLENGE: Regional and remote schools face particular challenges with teacher recruitment and retention, which can significantly impede the standard of education received by students.



Geraldton Universities Centre teaching graduates

EDUCATIONAL ASPIRATIONS

The Future Directions for the role of the State in Higher Education (p35) revealed that regional higher education differs from metropolitan areas in a number of ways, including that:

- higher education participation rates are lower in regional areas;
- regional secondary-school completers are much less likely to plan to undertake higher education;
- potential students face greater disincentives to study because of costs and distance to campuses; and
- students are more likely to be enrolled in enabling courses and less likely to be enrolled in research doctorates or masters by coursework.

This supports anecdotal findings that suggest regional and remote students often either have lower educational aspirations and awareness of educational opportunities than their urban counterparts, or are less able to identify and pursue a pathway for attaining their aspirations.

This is seen as being a factor of location issues, quality of schooling received, access to higher education facilities and travel and cost constraints to undertake higher education. It is also argued that regional students often have lower inclination for higher status careers and higher paid positions and place greater emphasis on staying close to home and being near their families.

A range of initiatives is in place to enhance regional student aspirations for higher education. These typically focus on systems approaches, mentoring, pathway identification, family support and exposure to new opportunities.

CHALLENGE: To enhance Mid West student aspirations and awareness of educational pathways.



Geraldton Foreshore

GOAL: Equitable and accessible world class education and training is available to all Mid West residents



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2050 OUTCOMES Regional Aspirations 	CHALLENGES / OPPORTUNITIES	STRATEGIES	TERM
EDUCATION REFORM The Mid West has a modern and high performing education system for all phases of the education lifecycle. Educational attainment rates equal or are higher than State and National Averages. 	To foster stronger relationships between all relevant stakeholders including community, education and training providers.	Gain a full and accurate understanding of the region's educational profile, including the variances between public and private education and community or subregional differences. With lead agency support establish a Mid West Education Alliance to target opportunities to further prepare its young people for a dynamic future.	 
PRE COMPULSORY LEARNING AND DEVELOPMENT Diverse and effective early learning programs improve the region's AEDC results and provide an excellent platform for primary education entry. abc	Ongoing and expanded investment is needed to support facilities and programs that deliver successful early education and parenting outcomes across the region.	Support investment in early childhood education and parenting facilities across the region, including long term funding for the existing centres, as well as long term monitoring of their impacts. Support the implementation of the Mid West Regional Children's Service Plan and actions to address quality provision of Early Childhood Education and Care services and improvement of Mid West AEDC results.	 
PRIMARY AND SECONDARY EDUCATION A seamless primary and secondary education system with NAPLAN, year 12 completion and ATAR rates at or above WA levels. 	Build strong viable schools with a hub and spoke model that combines boarding away from home and transport options to ensure sustainable student populations at all district high schools. To build strong, viable and seamless primary to secondary education opportunities that meet the needs of every Mid West student. The region's educational attainment rates are poor across most primary and secondary education cohorts. Continued planning and investment in priority education infrastructure is necessary to meet future regional education, training and workforce development needs throughout the Mid West.	Through the Mid West Education Alliance, develop and trial innovative and transformational learning models in the Mid West. Support investment in infrastructure and human capital in secondary schools in Geraldton and regional centres to improve secondary education outcomes for the region.	 
HIGHER EDUCATION AND TRAINING The region's higher education and training facilities cater to a significant proportion of the region's tertiary qualification needs as well as facilitating education export opportunities.. 	Despite having excellent higher education and training providers the region's tertiary attainment rates are well below the broader norms. To leverage off the region's state of the art higher learning providers to improve higher education and training outcomes.	Support further collaboration and integration of regional school, VET and university pathways to deliver more effective and seamless transition into tertiary education for Mid West students. Support continued enhancements of the region's tertiary institutions and their facilities to cater for growing student numbers.	 
TECHNOLOGY / VIRTUAL LEARNING Optimal education and training delivery across the region is achieved through technology, overcoming remoteness. 	The potential of technology and virtual learning is not being fully utilised to optimise education delivery throughout the region. To utilise technology and virtual learning platforms to link education and training delivery with a range of innovative Mid West projects in areas such things as radio-astronomy, renewable energy and remote services.	Advocate for the expedient rollout of ICT infrastructure to facilitate improved education and training outcomes at all levels, particularly in hinterland communities.	



2050 OUTCOMES
Regional Aspirations



CHALLENGES / OPPORTUNITIES

STRATEGIES

TERM

ABORIGINAL EDUCATION

Education indicators parallel the region's non Aboriginal population.



Attendance, attainment and retention levels of Aboriginal students are low in comparison with non-Aboriginal students in the Mid West.

Work with stakeholders to provide tailored and relevant education and support services for Aboriginal students and their families.



Engage Aboriginal people to determine and help deliver solutions to the region's Aboriginal education challenges.



EDUCATION WORKFORCE

The Mid West is a region of choice for high quality teachers and lecture staff.



Regional and remote schools face particular challenges with teacher recruitment and retention, which can significantly impede the standard of education received by students.

Investigate the potential for a centre of regional and remote education and learning excellence in the Mid West involving student (teacher) placements in remote schools as part of their training.



Attract and retain high quality teaching staff by providing appropriate incentives and by working closely with communities to develop a highly supportive environment, particularly in remote communities.



Promote the DoE rollout of leadership and teacher attraction and retention projects, particularly in remote communities.



Provide pathways to teaching careers for Aboriginal people from regional and remote communities.



EDUCATIONAL ASPIRATIONS

Mid West students have educational aspirations equal to those in the metropolitan area.



To enhance Mid West student aspirations and awareness of educational pathways.

Enhance Mid West student aspirations by promoting initiatives that support them to pursue training and higher education, as well as awareness of subject choices, pathways and opportunities.



Geraldton Universities Centre graduation



116 WORKFORCE DEVELOPMENT

WORKFORCE DEVELOPMENT PLAN

In WA, the Department of Training and Workforce Development (DTWD) is lead agency for the State's workforce planning and development agenda. In collaboration with government, industry and community stakeholders, DTWD has developed a suite of plans and resources that articulate the State's vision and commitment to building a skilled workforce to meet WA's future needs. These plans and resources include:

- the Western Australian workforce planning and development model;
- Skilling WA – A workforce development plan for WA (second edition);
- industry workforce development plans;
- regional workforce development plans;
- State Training Plan;
- Training together – Working together, an Aboriginal workforce development strategy;
- Workplace essentials; and
- Skilled migration.

Within this context, a number of regional workforce development plans are underway. With stakeholders through the Mid West Workforce Development Alliance, DTWD is developing a Mid West Workforce Development Plan. This plan will outline key local challenges to workforce development and provide strategies at the local and State level to address them. These strategies will be aligned to the strategic goals of Skilling WA:

- workforce participation;
- attraction and retention of a skilled workforce;
- a flexible and innovative education and training system;
- targeted skilled migration; and
- planning and coordination between government, industry and community stakeholders.

The Plan will also be closely aligned to, and fully support, the long term focus of this Blueprint. The growth envisaged in each Blueprint pillar will need a training and workforce development response. The Mid West Workforce Development Alliance will work closely with the Commission as Blueprint 'game changing' projects are developed, to ensure the Mid West's workforce can best support the vision for the region's future.

MID WEST WORKFORCE PROFILE

The region's diverse employment mix reflects its broad economic base, with no dominant employment sector (typical of some regional areas).

All 19 major industry sectors are represented in the Mid West, although construction; retail trade; health care; agriculture, forestry and fishing; education and training represent almost half (47%) of Mid West jobs.^[1]

Despite being the region's largest contributor to its GRP, mining provides only 8% of jobs in the Mid West. It is expected that a large proportion of jobs in construction, manufacturing and logistics directly support the region's key primary industry sectors, in particular mining.

¹ ABS Census 2nd release 2012.

The three Mid West subregions have very different employment profiles. One third of jobs in the North Midlands are in agriculture, forestry and fishing (33%), with a similar proportion of people in the Murchison employed in mining (35%). The Batavia Coast is more diverse with one third of jobs spread relatively equally across retail trade (12%), construction (11%) and health care and social assistance (10%).

More detail regarding the region's workforce profile is provided from page 35.



Cooperative Bulk Handling (CBH) trainees

LABOUR FORCE PARTICIPATION

According to the 2011 Census, 59% of adults in the Mid West (15 years+) in the Mid West were employed. The labour force participation rate (those aged 15+ in the workforce or looking for work) was 62%, slightly below the State participation rate of around 64%.

Historically, the region has enjoyed relatively low unemployment rates, but there has been an upward trend from 2012. The December 2013 estimated rate of 6.3% was the region's highest in a decade. Unemployment in all three subregions has trended upwards, with the Murchison's estimated rate up significantly at just under 15%. NB due to small population size, employment estimates in some areas can be volatile

CHALLENGE: Ensuring an ongoing supply of skilled labour to support regional growth and development.

BUILDING THE REGION'S FUTURE WORKFORCE

Vocational Education and Training (VET), including Apprenticeships and Traineeships, is critical to supporting workforce development in the region. These programs, as well as school based Apprenticeships and Traineeships, provide significant opportunities for youth engagement, which will be critical in servicing future economic growth.

Training delivery

DTWD's VET Enrolment Data Collection indicates that in 2013 there were almost 4,000 students enrolled in VET courses in the Mid West region, predominantly studying Certificate III and II level qualifications.

Males dominate the Certificate I, II and III enrolments, while female VET students dominate Certificate IV and diploma level enrolments. This is possibly reflected by male students engaging in trades traditionally offered at Certificate III level.

Apprenticeships and traineeships

As at 31 December 2013, there were 988 apprentices and trainees 'in training' in the Mid West, representing a 13% decrease from 2012.^[2] The decline was predominantly in traineeships. The majority of apprentices and trainees living in the Mid West and 'in training' were males (74%; 26% females).

Of the apprentices and trainees, only fourteen were school based with all but one of these undertaking training in Certificate II.

The top four trade related industries were building and construction (160 students); automotive (123); metals, manufacturing and services (111); and electrical (101).



Durack Institute of Technology Nursing students

² Department of Workforce Training and Development. TRS data, 2014



Youth engagement

The Mid West has a higher than State average proportion of youth population, with 27.9% (15,008) of the population aged 0–19 compared to 26.3% of WA. While this presents challenges for the region, it also provides opportunity for workforce development programs to service future economic growth.

Consistent with other WA regional areas, the Mid West had a lower than State average year 12 attainment rate. Senior school retention is an identified challenge for the region and an increase in retention will likely contribute to workforce participation and regional skills development.

Labour force participation of youth (15–19 years) (53.5%) was slightly higher than the State (52.8%), but the unemployment rate was notably lower at 12.1% (compared to 13.5% for WA).

Conversely, the participation rate for the broader youth cohort of 15–24 years (62.8%) was lower than the State's rate (64.5%). Both the Mid West and WA had a 10% unemployment rate for the cohort based on place of usual residence.

Retail, construction and hospitality industry sectors are dominant sectors in terms of youth employment.

CHALLENGE: To ensure local residents are provided with every opportunity to secure Mid West jobs first.

FIFO / DIDO WORKFORCES

Almost three quarters (74%) of people working in the Mid West region but living elsewhere were employed in the mining (51%), construction (13%) and manufacturing (10%) industries.¹¹ Mid West residents occupy a large percentage of jobs in these three sectors with high external workforces.

Several communities are actively engaged in the process of attracting new residents through innovative local programs. In the Mid West only 53% of the 2,769 mining jobs were occupied by people from outside the region. Similarly, 83% of construction jobs and 75% of manufacturing jobs were occupied by Mid West usual residents. Therefore, a challenge for the region will be to attract a larger share of the higher income positions, of which a larger proportion is typically sourced from outside the region.

OPPORTUNITY: Given its relative housing affordability, other lifestyle advantages and transport networks, Geraldton is well placed to become a FIFO / DIDO base for the resources sector. Various hinterland communities are also possible locations for permanent FIFO / DIDO bases due to proximity to key employment drivers.

CHALLENGE: The resources sector offers significant employment and servicing opportunities but local skills availability can result in higher FIFO / DIDO levels.

¹¹ Remplan 2014. Work in the Mid West region and live elsewhere

ABORIGINAL EMPLOYMENT

Approximately 17% of Aboriginal people aged 15+ in the Mid West are employed full time, compared to 42% of non-Aboriginal people.

Aboriginal employment strategies must provide sustainable career development pathways to enable continued career progression and professional development for our Aboriginal workforce.

CHALLENGE: Mid West Aboriginal people are under represented in terms of labour market participation compared to non Aboriginal people.



Batavia Coast Maritime Institute student, at Indian Ocean Fresh Australia



Geraldton Universities Centre engineering students



Durack graduating student address

GOAL: A dynamic and skilled workforce that matches regional economic growth and development



118 WORKFORCE DEVELOPMENT *CONT'D*

2050 OUTCOMES Regional Aspirations

CHALLENGES / OPPORTUNITIES

STRATEGIES

TERM

LABOUR FORCE PARTICIPATION

A planned and coordinated approach to workforce development across the region results in labour force participation at or above the WA rate.



Ensuring an ongoing supply of skilled labour to support regional growth and development.

Support the Mid West Workforce Development Alliance to drive the region's workforce development agenda and ensure the region has an appropriately skilled workforce to meet current and future needs.



BUILDING THE REGION'S FUTURE WORKFORCE

The majority of the Mid West region's labour requirements are sourced locally.



To ensure local residents are provided with every opportunity to secure Mid West jobs first.

Support the development of a 'choose Mid West first' campaign to encourage the regional business community to consider hiring locally as a first option.



Provide a welcoming and attractive regional environment to attract and retain workers to the region (in preference to FIFO / DIDO).



Actively promote the region's attributes prospective new residents via a coordinated marketing campaign.



FIFO / DIDO WORKFORCES

Convert 70% of the region's temporary workers to permanent residents living within the region.



Given its relative housing affordability, other lifestyle advantages and transport networks, Geraldton is well placed to become a FIFO / DIDO base for the resources sector. Various hinterland communities are also possible locations for FIFO / DIDO permanent bases due to proximity to key employment drivers.

Work with local governments to provide highly liveable communities with quality amenity, services and facilities to service a growing proportion of the regional workforce.



The resources sector offers significant employment and servicing opportunities but local skills availability can result in higher FIFO / DIDO levels.

Investigate models and investments required to expand the Mid West's role as a FIFO / DIDO hub for the State's resource sector operations.



Develop MOUs between resource sector proponents and local communities around the provision of local training and employment, housing and broader community benefits.



Work with resources sector to maximise workforce relocation opportunities in the Mid West.



ABORIGINAL EMPLOYMENT

Aboriginal employment and participation rates reflect the broader regional population.



Mid West Aboriginal people are under represented in terms of labour market participation compared to non Aboriginal people.

Target Aboriginal employment programs in industries with growth opportunities.



Promote employment and career development opportunities for Aboriginal people in the public sector.



Support the Mid West Aboriginal Workforce Development Centre and MAOA to broker local employment opportunities with Mid West businesses, government and major project proponents.



Advocate for Aboriginal employment strategies that provide sustainable 'career development pathways' for continued career progression and professional development rather than consistent turnover through short term employment programs.





KNOWLEDGE ECONOMY

Education services and the higher education sector are major components in the dynamics of a knowledge economy. Global demand for higher education has accelerated and the sector is becoming increasingly global and competitive as a tradeable service with the Asian economies making it a top priority area for development.

In seeking to build new export and services industries to grow and diversify to the region's economy, the Mid West aims to build a knowledge economy through innovation for economic growth.

RESEARCH AND INNOVATION ACTIVITY

'SMART Mid West' is an MWDC policy. It involves a holistic approach to the development and integration of education, training and research institutions within the Mid West, together with the technology, processes and infrastructure through which they operate, and the transfer and assimilation of this learning across industry and community. SMART Mid West involves:

- further developing the region's human capacity
- encouraging innovation and creativity across all sectors to:
 - o value add and diversify;
 - o identify and pursue new opportunities;
 - o establish new enterprises; and
 - o remain internationally competitive.
- encouraging entrepreneurship;
- developing collaborative advantage through clusters;
- embracing research and development and education / training;
- supporting business retention and expansion; and
- using our natural assets wisely - for now and future generations.



Square Kilometre Array antenna

Leveraging off this policy the region has made strong progress as an innovation hub, with a range of institutions and initiatives driving its innovation agenda. Some of these are indicated in Table 18:

Institutions / collaborators	Innovation categories / projects
<ul style="list-style-type: none"> • Commonwealth Scientific and Industrial Research Organisation • Australian Square Kilometre Array Pathfinder (ASKAP) • International Square Kilometre Array (SKA) • Murchison Radio-astronomy Observatory (MRO) • Murchison Radio-Astronomy Support Facility • Murchison Wide field Array (MWA) • WA Space Centre • Durack Institute of Technology • Batavia Coast Maritime Institute • Separation Point Marine Precinct and Abrolhos Island Research Institute • Geraldton Universities Centre • Rural Clinical School • Geraldton Regional Community Education Centre • Department of Agriculture and Food • Department of Fisheries • Western Australia Centre for Rural Health • Australian Defence Satellite • Northern Agricultural Catchments Council 	<ul style="list-style-type: none"> • Radio astronomy • Renewable and remote energy solutions (solar, wind, geothermal and biomass) • Research, development and extension to strengthen international competitiveness, add value to, and diversify the region's economic base • Science, technology and telecommunications • Regional and remote community servicing (eg education, training and health etc) • Educational aspirations • Natural environment and biodiversity • Climate change impacts • Micro business development and social entrepreneurship • Geraldton Health, Education and Training precinct

Table 18. Mid West innovation institutions and initiatives

OPPORTUNITY: To drive further innovation and entrepreneurship in the pursuit of a sustainable future and increasing international competitiveness within an ever increasing global environment.

REGIONAL INNOVATION AND RESEARCH

The SMART Mid West agenda and range of advanced projects will enable the region to continue to attract world class expertise across a range of fields. The Mid West is well placed to agglomerate future WA regional innovation activities for research and development, and continue to attract and develop new expertise and advance the region's knowledge economy.

Areas of possible further investment, based on existing projects and regional advantages, include:

- radio astronomy and space research;
- biodiversity;
- water use and efficiency;
- renewable energy;
- agriculture;
- hydroponics;
- aquaculture; and
- regional health and education.

Such efforts can also create indirect benefits for the region by stimulating innovation and associated learnings in other sectors within the region, such as mainstay primary industries.

OPPORTUNITY: With its SMART Mid West strategy and variety of related projects there is a unique opportunity to pursue an innovation and research agenda to grow the region's international competitiveness, value add to our predominantly primary commodity base and further diversify the economy.

OPPORTUNITY: Innovation and research and development will assist Mid West producers retain and grow their competitive advantage.

The best place on earth to observe the universe

With Southern Africa, Australia will co host the International SKA Stage1. Australia's SKA1 involves two components:

- SKA1-low, a low-frequency aperture array comprising some 250,000 dipole antennae; and
- SKA1-survey, a mid-frequency array of 96x12m diameter dish antennae equipped with phased-array feeds.

These two components will build on precursor instruments including the 36 dish ASKAP and the MWA, both of which are operational. This exciting project will be based in the MRO whose exceptional radio quietness will ensure it continues to develop as a pre-eminent site, world-wide, for radio astronomy. The SKA has already brought the NBN to Geraldton and a potential link to the Pawsey supercomputer in Perth, advancing the region towards its SMART Mid West aspiration.



120 RESEARCH AND INNOVATION

GOAL: Investment in innovation and knowledge management supports growth and productivity in all economic and social sectors of the region

2050 OUTCOMES

Regional Aspirations

CHALLENGES / OPPORTUNITIES

STRATEGIES

TERM

SMART MID WEST

The region's SMART Mid West agenda drives further collaboration and innovation across the region to create further economic growth and diversity.



To drive further innovation and entrepreneurship in the pursuit of a sustainable future and increasing international competitiveness within an ever increasing global environment.

Establish a support network for innovators to provide advocacy and leadership, training and mentoring.



REGIONAL INNOVATION AND RESEARCH

The Mid West is globally renowned in a diverse range of regional innovation and research initiatives.



With its SMART Mid West strategy and variety of related projects there is a unique opportunity to pursue an innovation and research agenda to grow the region's international competitiveness, value add to our predominantly primary commodity base and further diversify the economy.

Encourage further regional innovation by identifying and supporting new research and development initiatives in key fields, that support sustainable regional development outcomes.



Innovation and research and development will assist Mid West producers retain and grow their competitive advantage.

Investigate opportunities to establish a research and development centre in the Mid West, focussed on areas of current and potential regional advantage.



Greenough River Solar Farm, Walkaway