

Enabling Early Childhood Education & Childcare in Rural Areas

FINAL REPORT

Regional Development Victoria for the Loddon Mallee RDA Committee, Loddon
Campaspe Regional Partnership and Mallee Regional Partnership

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Executive summary

About this report

Improving access to childcare is a topical policy issue spurred by recent research describing the many areas of Australia that are suffering in childcare ‘deserts’. A problem with the existing policy response to this issue is an assumption that one suite of solutions will solve the issues impacting childcare availability for all communities.

Rural communities are differentiated from more populous areas by the smaller numbers of people seeking childcare. Failure of these communities to meet a critical mass of demand makes running childcare less profitable. Consequently, it is difficult to attract commercial operators to provide childcare in these communities. This ‘thin market’ problem is a common issue in rural areas.

On some occasions Local Government Authorities (“LGAs”) have stepped in to address this market failure, but this has come at a cost. Delivering childcare involves paying to subsidise the service and take on business risk. Rural shires also have a smaller capacity to meet this additional cost compared to populous municipalities as they have a smaller rate base.

While this report and its cost benefit analysis only encompass the Gannawarra, Buloke and Loddon Shires, the findings are certainly relevant across all ‘small rural towns’, as defined by the Modified Monash Model (2019). A map visualising these small rural towns, as per the Modified Monash Model, is provided in Appendix A.

Problems faced and benefits envisaged

The rural areas of Loddon Mallee are underserved by early childhood education & childcare (ECEC) services. This reflects the significant problems in operating a rural ECEC service viably, stemming from:

- Additional difficulties in attracting and retaining early childhood educators in rural areas compared to urban areas
- Inflexibilities in the disjointed regulatory and funding systems for Childcare (Commonwealth) and Kindergarten (State), and
- Population dispersal in rural areas and elevated rates of socio-economic disadvantage.

If these problems can be effectively addressed, significant benefits will be generated in terms of improved:

- Resilience, educational and social development of rural children
- Long term viability for rural service providers
- Gender equity, workforce participation and sustainability of rural communities.

Government policy support

These envisaged benefits are prioritised by the newly elected Albanese Government. The *ALP National Platform* (2021) aims to:

Deliver affordable, quality childcare and before and after school care, and will consider changes to tax, superannuation, work and industry arrangements to support this.

Further Commonwealth policy support is provided in the *National Workforce Strategy (2022-27)* and the *National Children’s Education & Care Workforce Strategy (2021)*.

The Andrews Government prioritises the envisaged benefits in the Department of Education & Training’s *Strategic Plan 2021-2025* and its *Gender Equality Action Plan 2022-2025*, along with the *Regional Economic Development Strategies* developed by the Department of Jobs, Precincts & Regions for the Loddon Campaspe and Mallee region’s respectively.

Direct local government policy support is provided in each of the *Community Plan’s* developed by the Buloke, Gannawarra and Loddon Shires.

Proposed interventions

The proposed interventions to overcome the problems faced in the rural areas of Loddon Mallee are grouped under four banners:

- Incentivise rural staff accreditation and retention
- Provide medium term assurance of rural service availability & reliability
- Harmonise regulation and funding streams across government, and
- Flexibly operate and price rural service delivery government.

The table below lists off each of the specific interventions, along with their respective funding sources and the anticipated cost of the interventions applied in the Buloke, Gannawarra and Loddon Shires over a 10 year period.

TABLE 1 SUMMARY OF PROPOSED COST OF INTERVENTIONS TO GOVERNMENT

Intervention	Funding source	10-year cost (\$million)	Present value cost (\$million)
Incentivise rural staff accreditation and retention			
A) Improve wages and conditions for rural educators*	Commonwealth	34.5	25.2
B) Financially incentivise rural staff accreditation & retention	Commonwealth	0.9	0.6
Provide medium term assurance of rural service availability & reliability			
C) Fund rural service leadership & administration	Commonwealth	0.5	0.4
Fund rural service facilities maintenance**	Councils/ Operators	0.3	0.2
D) Coordinate a ‘shared service’ model for collaborative service delivery*^	Councils/ Operators	0.3	0.3
E) Build confidence in the availability and reliability of rural services**	Councils/ Operators	Included in D	Included in D

Intervention	Funding source	10-year cost (\$million)	Present value cost (\$million)
Harmonise regulation and funding streams across government			
F) Pilot the flexible application of rural staffing and building regulations	NA	NA	NA
Flexibly operate and price rural service delivery government			
G) Improve the rate and flexibility of rural community access to CCS	Commonwealth	Inc. in A, B & C	
H) Facilitate rural access to Additional CCS for at-risk children	Commonwealth	1.3	0.9
I) Develop integrated early childhood facilities in priority rural locations [^]	State	9.0	9.0
Total incremental costs	Commonwealth	37.2	27.2
	State	9.0	9.0
	Councils/ Operators	0.6	0.5
	Total	46.8	36.7

Source: SGS Economics & Planning, 2022.

Notes:

This table represents the 10 year cost of the proposed interventions applied in the Buloke, Gannawarra and Loddon Shires. Applying the proposed interventions across all equivalent areas would result in proportionately higher costs.

*Intervention A) was calculated as the 25% increase in wages of existing childcare staff in the three shires, as well as the total wages paid to all new staff required to meet the increased take-up of childcare. This number of new staff was calculated in line with the ACQA educator to child ratios.

**Some rural councils are reluctant to step into the funding/ delivery of childcare services. These interventions do not suggest that councils actually run the services but play a coordination role where necessary.

[^]The costs associated with D) and I) are incurred in the first 2 years of investment.

The proposed interventions would require the Commonwealth to increase the Childcare Subsidy (CCS) by 9% in the rural areas of Buloke, Gannawarra and Loddon to:

- Improve wages, conditions, accreditation and retention rates of early childhood educators, and
- Fund core functions of rural ECEC services like leadership and administration.

The Commonwealth is also being asked to fund Additional CCS payments to disadvantaged families/ children at risk given the goal of maintaining disadvantaged child enrolment rates across the Loddon Mallee as overall enrolment numbers increase.

The Victorian Government is being asked to fund the development of 6 new childcare/ kindergarten facilities, preferably collocated with primary schools, in targeted rural locations.

Local governments and/ or childcare operators are being asked to fund the coordination of a 'shared services' model for collaborative ECEC service delivery, which will also:

- Implement a campaign to promote the increased availability reliably of ECEC services

- Pilot the flexible application of rural staffing and building regulations, where service quality and child health and safety be guaranteed, and
- Provide rural ECEC facilities maintenance services.

Cost benefit analysis

The cost benefit analysis of the proposed interventions assesses if net community welfare gains are generated by implementing the proposed interventions described above.

The cost benefit analysis has:

- Estimated unmet demand levels for ECEC services across Buloke, Gannawarra and Loddon Shires
- Costed the servicing of this unmet demand, based on existing service delivery costs in Gannawarra, and assuming an optimal delivery model of integrated ECEC centre-based services is offered, and
- Escalated existing service delivery costs to account for each of the specific interventions proposed.

These costs are then compared with the benefits of servicing unmet demand. These benefits are well backed with research evidence and include the improved:

- Education outcomes of rural children that attend ECEC services
- Workforce participation and earnings enjoyed by freed up carers of rural children
- Profits generated by rural business that employ the expanded rural workforce
- Reduced disadvantage for at risk rural children that participate in ECEC services.

The costs and benefits have been estimated over a 10 year period, commencing 2023, with future streams of costs and benefits being expressed in present day values using prescribed discount rates.

The summary results are tabulated below. They show that the benefits (\$70.1M) generated by the proposed interventions outweigh the costs (\$52.8M) generated a:

- Net Present Value (NPV) of \$17.3M and
- Benefit Cost Ratio (BCR) of 1.3.

The sensitivity analysis suggest that these results are relatively robust when changes are made to the underlying assumptions.

The cost benefit analysis shows that implementing the proposed interventions will increase economic welfare levels in the rural areas of the Loddon Mallee; meaning the proposed interventions are worthy investments for government.

TABLE 2 COST BENEFIT ANALYSIS RESULTS

	Total Value (\$million)	Present Value (\$million)
Commonwealth government costs	37.2	27.2
Victorian government costs	9.0	9.0
Local government/ Operator costs*	0.6	0.5
Rural ECEC user costs	22.2	16.2
Total incremental costs (\$million)	68.9	52.8
Rural child education benefits	6.1	4.5
Rural career income gains	63.5	46.3
Rural business profit gains	26.4	19.3
Rural reduced social disadvantage benefits	0.1	0.1
Total incremental benefits (\$million)	96.2	70.1
Net benefits (\$million)	27.3	17.3
Benefit Cost Ratio (BCR)	1.4	1.3

Source: SGS Economics & Planning, 2022.

Note: This table represents the costs and benefits when the interventions are applied in the Buloke, Gannawarra and Loddon Shires.

*Some rural councils are reluctant to step into the funding/ delivery of childcare services. These interventions do not suggest that councils actually run the services but play a coordination role where necessary.

1. Introduction

1.1 Project background

Consultation with a range of Loddon Mallee organisations has identified a priority need for early childhood education and childcare (ECEC) to enrich children’s development, be ready for school, address disadvantage, and to address critical regional workforce shortages by allowing parents to return to work.

Providing early years education in rural areas is highly problematic in a complex policy environment. Market failure has forced local governments to intervene and determine models of service delivery that can work in rural areas. For example, in 2021 Loddon Shire assessed three options but they all required advocacy to make changes to Victorian and Federal policy settings.

For several years, the Victorian Government has endorsed 15 hours of kindergarten per week for 4-year-olds. Recently, this commitment has been expanded to include 15 hours per week for 3-year-olds. While rural areas will certainly benefit from this policy support of kindergarten, childcare is not provided with the same level of support and is largely left to the market via private or non-profit providers.

The benefits of early years education and childcare and need for advocacy is clear. A range of interventions are needed to address the challenges and realise the regional benefits for the Loddon Mallee region. While this report is focused on improving childcare service delivery, it is impossible to disassociate childcare from kindergarten, particularly in rural areas. As such, this report examines the ECEC system holistically.

1.2 Project brief

SGS has interviewed and held workshops with key regional stakeholders in Loddon Mallee to:

- Outline the logic for making government interventions that will support early childhood education in rural areas
- Identify and develop discrete government intervention options
- Establish the preferred solution (suite of government intervention options), and
- Undertake a cost benefit analysis of implementing this preferred mix of intervention options.

1.3 Report structure

This report has been structured as follows:

Section 2 commences the case for change by providing a project context, and identifying and evidencing the problems experienced by rural areas in delivering early childhood education and childcare (ECEC) services.

Section 3 then describes the benefits that will be generated should these problems be effectively addressed, and how generating these benefits align with the stated policy priorities of Commonwealth, Victorian and local governments.

Section 4 develops the proposed interventions, enabling their rollout to be costed across the Gannawarra, Loddon and Buloke Shires, and potentially further afield.

Section 5 presents a high level cost benefit analysis of implementing these interventions, contrasting delivery costs with the social and economic benefits generated.

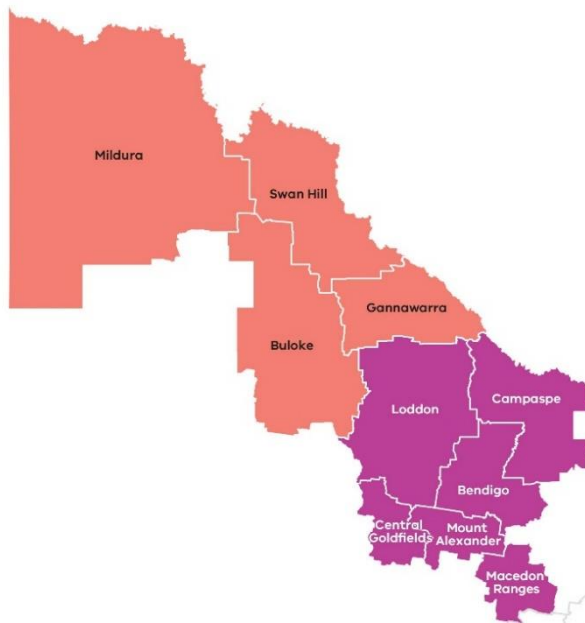
2. Case for change

This section commences the case for change by providing a project context and identifying and evidencing the problems experienced by rural areas in delivering ECEC services.

2.1 Context

Loddon Mallee (Loddon, Gannawarra & Buloke Shires)

FIGURE 1 LODDON MALLEE



The Loddon Mallee region is in the north-western corner of Victoria. It encompasses ten municipalities including the three central shires that form the focus of this report: Loddon, Gannawarra and Buloke Shires.

ABS (2017) census data show population in these shires has been stagnant or declining and is forecast to continue declining until 2036. This compares with the steady growth forecast in surrounding areas and regional Victoria more generally, except for Swan Hill (DJPR, 2022).

Moreover, while some rural areas have experienced record growth during the Covid-19 pandemic, the latest ABS (2021) estimates show unchanged trends in the Loddon, Gannawarra and Buloke Shires.

This ongoing decline has ramifications for the relevant rural communities, as the reducing population/workforce base will adversely impact their ability to provide necessary services and amenities; further threatening their ongoing sustainability as rural communities.

Indeed, the Services for Rural Liveability report¹:

- Confirmed the close relationship between service provision, liveability and population attraction and retention.
- Highlighted the prospect of further isolation of population and services if a minimum level of service provision is not maintained in smaller towns and rural areas.

¹ Urban Enterprise (2019), Services for Rural Liveability: Summary Report, report for Rural Councils Victoria.

The lack of population density in Loddon Mallee creates a ‘thin market’, which for the childcare sector has led to the market’s failure to provide demanded services. This issue of ‘thin markets’ is a common problem across Australia’s rural areas.

Early Childhood Education and Childcare (ECEC)

ECEC services operating across Victoria include:

1. Centre based care at an Early Learning Centre (ELC), including:
 - Long day care (provides all-day or part-time care for children from birth to school age)
 - Occasional care (short sessions)
2. 3- and 4-year-old kindergarten (*State-funded* programs are provided at ELCs or at standalone kindergartens)
3. Outside school hours care (before, after school and holiday care for children aged between 5-12)
4. Family day care (based in an educator’s home with a very small number of other children)
5. In-home care (nanny or au pair within a parent’s own home).

Family day care and in-home care are not considered in this business case, as they are considered to be residual elements of the system of ECEC services; less prone to effective coordination at a regional level.

The ECEC services offered across the Shires of Gannawarra, Loddon and Buloke include the following:

TABLE 3 ECEC SERVICES OFFERED ACROSS THE SHIRES OF GANNAWARRA, LODDON AND BULOKE

LGA	Provider	Service Name	Number of Approved Places
Buloke Shire Council	Young Mens Christian Association of Ballarat Inc	Charlton & District Kindergarten	34
		Birchip Early Learning Centre	50
		Wycheproof Preschool Play Centre	34
		Sea Lake Kindergarten	30
Gannawarra Shire Council	Gannawarra Shire Council	Cohuna & District Preschool Centre	30
		Leitchville Preschool Play Centre	33
		Koondrook Preschool	17
		Gannawarra Shire Children's Centre	133
Loddon Shire Council	Loddon Shire Council	Boort Preschool	26
		Inglewood Kindergarten	26
		Wedderburn Preschool	30

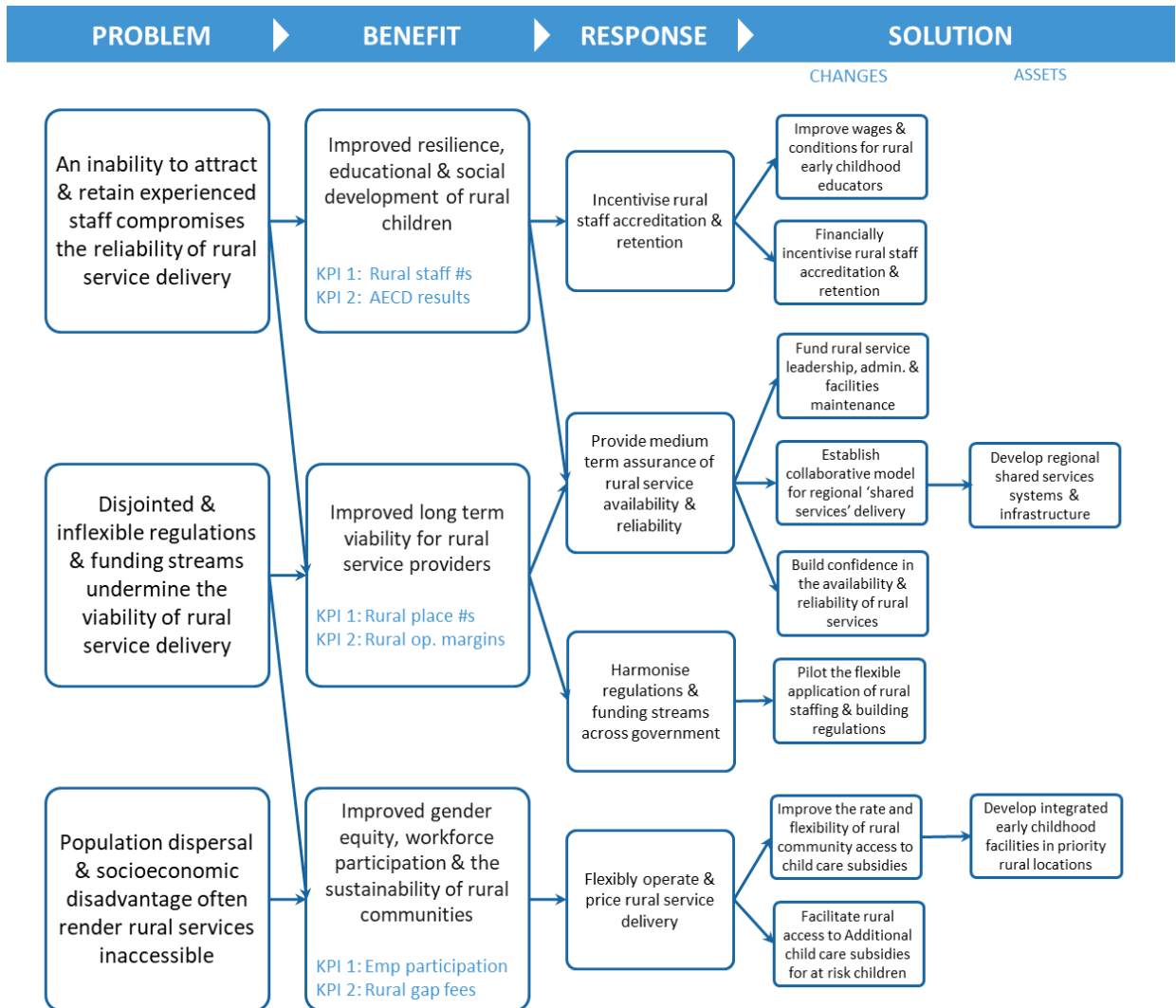
LGA	Provider	Service Name	Number of Approved Places
		Dingee Preschool	21
		Pyramid Hill Preschool	24

Source: ACEQUA Register (2022)

2.2 Investment logic map

The overall logic for the ECEC program is summarised in the investment logic map below.

FIGURE 2 LODDON MALLEE ECEC PROGRAM: INVESTMENT LOGIC MAP



Source: SGS Economics & Planning (2022)

The investment logic map identifies:

- The key problems faced for ECEC in Loddon Mallee
- The benefits that will be delivered if these problems are solved
- The strategic responses for solving these problems, and
- The components of the solution, in terms of non-asset changes and asset investment.

The investment logic map was developed with Loddon Mallee regional stakeholders representing local government (Loddon, Buloke and Gannawarra), the North Central Local Learning and Employment Network, a local ECEC provider and the Women’s Health Network.

2.3 Evidence of problems

An inability to attract & retain experienced staff compromises the reliability of rural service delivery

This issue stems from the low compensation received by early childhood educators, poor working conditions and the associated challenges of working in rural areas.

People employed in the ECEC sector are paid under two separate awards - the Children’s Services Award and the Educational Services Award. Table 4 compares the award rates for these workers, highlighting that those employed under the Educational Services Award are better paid than those under the Children’s Services Award.

TABLE 4 AWARD RATES APPLIED TO A FULL-TIME EMPLOYEE, 20 YEARS OR OLDER

	Entry Level			Highest Level		
	Level Description	Hourly Rate	Weekly Rate	Level Description	Hourly Rate	Weekly Rate
Children's Services Award [MA000120]	Support worker - Level 1.1 on commencement	\$20.80	\$790.30	Children's services employee - Director - Level 6.9 after 2 years	\$37.78	\$1,435.80
Educational Services (Teachers) Award [MA000077] ²	Level 1 Teachers – Preschools (kindergarten) and schools	\$30.78	\$1,169.64	Level 5 Teachers - long day care centres	\$44.29	\$1,683.02

Source: Fair Work (2022)

Even though there are differences in wages across the ECEC sector, Priestly (2018) concluded that:

² A university qualified early childhood educator working in childcare will come under the Children’s Services Award, despite being university qualified. Kindergarten/pre-school teachers with a university qualification will come under the Educational Services Award.

“Early childhood educators are some of the lowest paid people in Australia”.

Such a conclusion is supported by the Australian Bureau of Statistics’ (February 2022) most recent estimate of the full-time adult average weekly ordinary time earnings, i.e. \$1,748.40 per week. When compared to the tabulated data above, this figure is up to:

- 49% more than award rates for entry level ECEC workers, and
- 22% more than the award rates for the most highly paid ECEC workers.

Those who do choose a career in ECEC often commence their career with a Certificate III in education and care. If they upskill with a diploma, they automatically gain a wage increase. However, if they further upskill with a bachelor’s degree in education and care, there is no automatic wage increase prescribed in the award.

While bachelor qualified educators may attract high salaries in some circumstances, the United Workers Union (2021) found that:

- Educators who upskill are far more likely to leave the industry than their counterparts, and
- 74 per cent of surveyed educators intend to leave within three years.

The United Workers Union (2021) also asked those ECEC workers who planned to leave the industry their reasons. The most common three reasons cited were:

“Excessive workload and insufficient time to provide quality care”

“Low pay – I can’t afford to stay”

“Feeling undervalued”

Staff shortages have worsened substantially as a result of the COVID-19 pandemic. Two thirds of surveyed educators said that their centre is understaffed and “They often felt pressured to avoid taking leave”.

Similar findings have been published by Rogers (2022), who finds that childcare workers are overworked with long, exhausting hours and increasingly more administrative obligations or “paperwork”.

Together these factors lead to high workforce attrition in the sector. In fact, Australia-wide, attrition in ECEC has been above 30 per cent for over a decade (McDonald, Thorpe, & Irvine, 2018). This high attrition rate is inefficient from an operational perspective, often risking the reliability of rural service provision. Indeed some existing childcare centres in the Buloke and Loddon Shires are currently closed because they cannot attract and retain appropriate staff.

Attracting and retaining staff in ECEC is clearly difficult across Australia – and this difficulty is exacerbated in rural areas. The workforce constraints are inflamed in rural areas because there is inadequate infrastructure to support skilled migration to the regions (Federation University, 2021), and ECEC in rural areas is less, if at all, profitable.

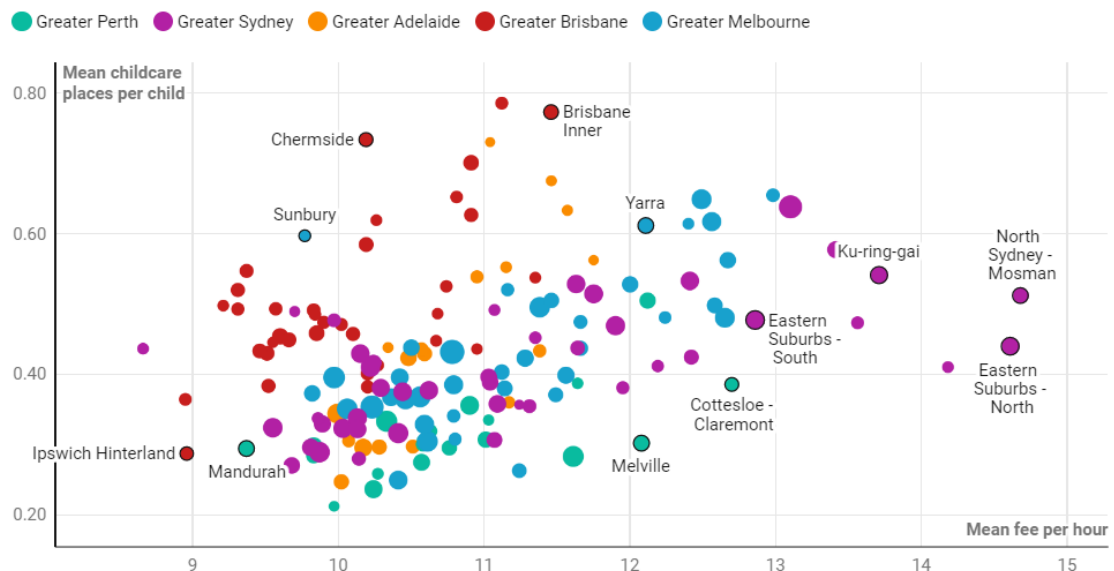
Urban centres with high population densities tend to have greater absolute demand for childcare. This strong demand allows for healthier fees and higher profitability, in turn attracting a greater number of early childhood educators. As a result, there is a positive relationship between the number of childcare places per child and the fees charged per hour (Figure 3 overleaf).

This relationship represents two problems; the first is that childcare favours the wealthy. There is greater supply of childcare at greater fees. As fees increase, financially disadvantaged parents must drop out of the market and inequality in accessibility of childcare is created. In addition, this relationship causes the distribution of childcare to favour urban centres.

Hurley, Matthews & Pennicuik (2022) showed that there tends to be ample childcare availability in urban centres at a range of medium to high fees, while rural areas with comparatively little demand experience lower supply at lower fees. These low fees do nothing to attract early childhood educators to remote and rural areas, and if anything, encourage them to move away into the urban centres.

Not only is the quantity of educators in rural areas affected by this, so too is the quality. Economies of scale and greater fees promote business development and investment, helping to build better workplaces and deliver better quality services, all the while supporting career progression for educators. In turn, high quality educators are attracted to urban centres, and rural areas are often left with few high-quality educators.

FIGURE 3 RELATIONSHIP BETWEEN FEE PER HOUR AND SUPPLY OF CHILDCARE (2021)



Source: Hurley, Matthews & Pennicuik (2022).

Disjointed & inflexible regulations & funding streams undermine the viability of service delivery

The Centre for Policy Development (2021) flags that the Australian ECEC system is:

“... difficult, expensive, and confusing for everyone to navigate... In fact, it’s misleading to call this collection of services a ‘system’ at all since the parts rarely connect well.”

This sentiment has been echoed by local stakeholders across the Loddon Mallee, who make it clear that the disjointed, inflexible regulations and funding streams for ECEC are hugely detrimental to viable service provision across the Loddon Mallee.

The *Education and Care Services National Regulations* specify a comprehensive list of regulations that must be followed by ECEC service providers. These regulations aim to ensure the fulfilment of the

National Quality Framework and include regulations on child density and safety, infrastructure design, educator qualifications and training. Notably, there are significant controls on:

- Educator to child ratios, which vary with the age of children and type of service (varying from 1 educator to every 4 to 15 children)
- Educator qualifications, with 50 per cent of educators included in the above ratios requiring, or be actively working towards, their diploma level education. All other educators included in the ratio must be Certificate III qualified.

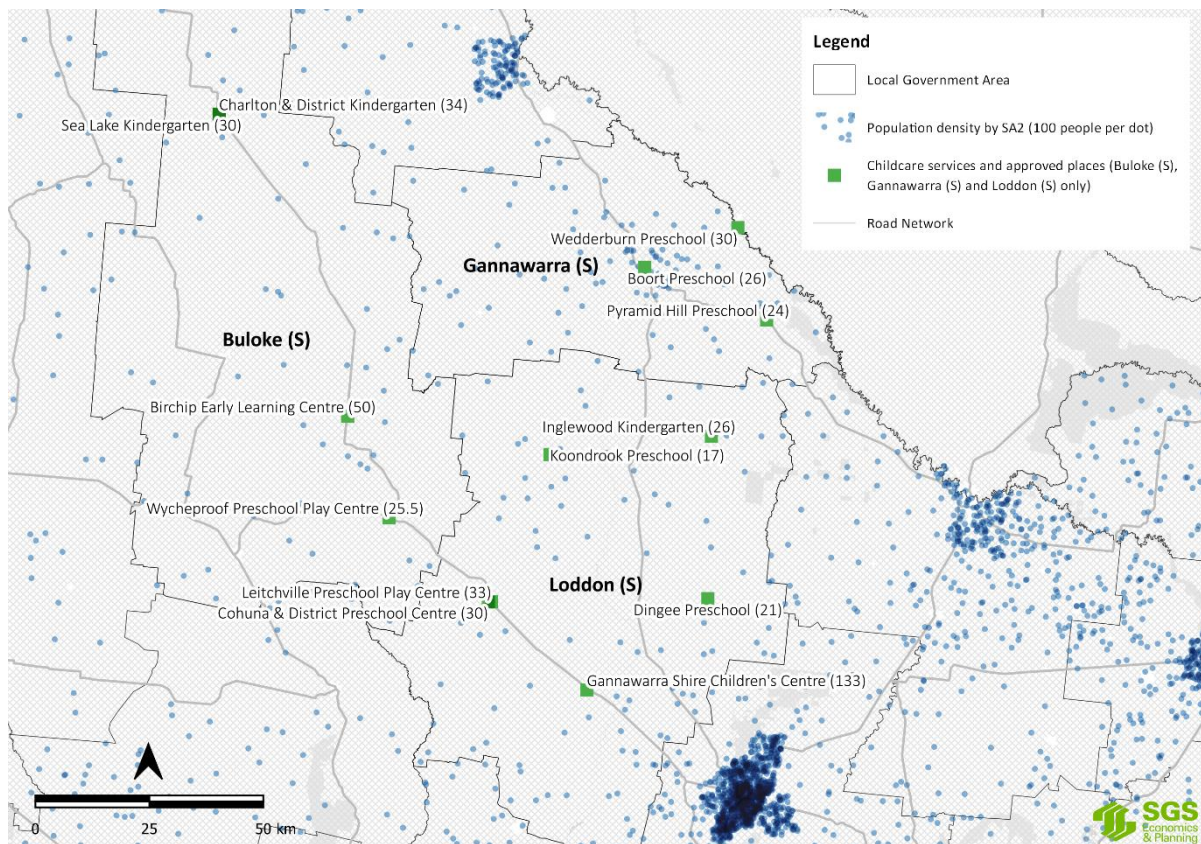
These stringent regulations aim to ensure quality service delivery. However, in rural areas where population densities are low, they present a major barrier to the viability of services.

In short, in rural areas:

- Demand for ECEC is spread across wide geographic areas (refer Figure 4), and
- Resourcing these services with appropriately qualified educators becomes highly problematic.

In a major urban area or regional city, if there was only demand for ECEC services for 2 or 3 days a week, childhood educators could attain full time employment by working in more than one centre that are relatively convenient to each other. Such a response is unavailable in rural areas, as the lengthy travel distances between centres are not worthwhile given the modest wages earned by ECEC educators (refer above section). Instead, ECEC educators are prone to dropping out of the labour market or relocating to regional centres with better work opportunities.

FIGURE 4 PROJECTED POPULATION (2021) OVERLAYED WITH REGISTERED ECEC SERVICES IN BULOKE, LODDON & GANNAWARRA



Source: VIF (2019) and ACECQA National Register (2022)

Note: Each blue dot represents 100 people (at SA2 level). Each orange dot shows a ECEC service and its number of approved places, sourced from the ACECQA National Register.

An ideal solution to these challenges is to co-locate childcare centres with kindergartens and primary schools. Co-location could:

- Enable the joint resourcing of infrastructure, classroom materials, and educators, with major benefits generated when early childhood educators can transition from long day care to kindergarten to afterschool care in the same location as demand requires
- Enable the sharing of educators across age groups and for relief during peak periods (e.g., drop of and pick up times), and
- Address the 'thin market' problem through such economies of scale.

However, the current regulations on child to educator ratios and educator qualifications pose major barriers to this.

Another challenge is that kindergarten teachers and early childhood educators come under different award rates, as outlined in the previous section. As a result, while kindergarten teachers are more than equipped with the skills and experience to provide childcare services in peak periods, they are deterred from filling childcare roles, given the effective pay cut.

Loddon Mallee stakeholders voiced concern that this variance in educator pay creates:

- Conflict between childcare workers and kindergarten teachers – with childcare workers feeling undervalued and kindergarten teachers unwilling to take on childcare roles, and
- Administrative burdens in relation to payroll when co-resourcing solutions might be available.

In an industry where almost 60 per cent of costs go towards wages (Richardson, 2022), flexibility and efficiency in human resources is crucial to viability. The existing regulatory framework prohibits this; meaning that in rural areas where dense catchments of demand do not exist, the market fails and communities miss out.

Another systematic issue relates to the flexibility enabled through service provider funding. To gain access to the Commonwealth Childcare Subsidy (CCS), the service provider must prove that they *'do not primarily provide a service other than childcare'*. This has significant consequences in rural areas and interferes with the operational flexibility and efficiency that can be generated through education and care precincts. For example, a childcare centre that operates as a preschool or kindergarten centre must provide childcare 48 weeks of the year, 15 hours per week to prove that no more than 50 per cent of their service operating hours are dedicated to non-childcare services. To do so would be extremely challenging for services in the Loddon Mallee given the resourcing challenges described above.

This has recently been experienced in the Loddon Mallee, where a service provider was recently required to increase their opening hours from 2 to 4 days per week. While the provider was eventually granted a waiver in meeting the CCS requirements due to its geography, clearly the system as it stands presents challenges.

Population dispersal & socioeconomic disadvantage often render rural service delivery inaccessible

Even if there were sufficient ECEC services across Loddon Mallee, the current funding arrangements leave parents/ careers significantly out of pocket. When this is combined with the widespread population dispersal and socioeconomic disadvantage in the Loddon Mallee, available services are often rendered inaccessible.

The CCS funds ECEC services on a per child basis, with the amount of subsidy available dependent on:

- Family income levels (subsidies graduating downwards as incomes increase)
- The category of ECEC services used (Centre Based Day Care, Outside School Hours Care, Family Day Care, In Home Care), and
- The hours of ECEC services used.

Essentially this means that the CCS does not include any geographic flexibility and ignores the spatial inequalities in accessing services.

Parents in rural areas are likely to face high travel costs when accessing ECEC services. The spatial dispersion of the population in rural areas limits public transport and carpooling opportunities, forcing ECEC user families to bear the full costs of private travel; sometimes over long distances.

A mother in Edenhope, Victoria, voiced her dilemma of choosing between leaving her job or continuing with the use of ECEC services. She explained:

"We have considered trying to get our kids into care, but the closest are 45 minutes to an hour away. It's more likely I will leave my job"

quoted in Lawrence, Darling & Lowe (2021)

Given that there are only 13 childcare services across 18,431 square kilometres in the Loddon, Buloke and Gannawarra Shires (refer Figure 4), these time and out of pocket cost problems are experienced widely. As a result, many families do not take up centre-based ECEC opportunities, preferring to either leave employment to care for their children full time or make their own, informal caring arrangements.

Even without taking travel costs into account, ECEC services is an expensive arrangement. The SDA (2021) estimated that Australian centre-based childcare costs an average of \$10.50 per hour (before CCS), representing half of the hourly rate payable for retail workers.

While the CCS can provide some funding relief, there is still a significant gap payable by families, Equity Economics (2021) identified that on average, wage-earners in Australia with two children aged 2 and 3 in full time care, spend 24 per cent of their earnings on childcare after CCS.

Beyond financial obstacles, applying for the CCS has been cited as confusing. In fact, the Centre for Policy Development (2021) found that 51 per cent of surveyed Australian parents disagreed with the statement “working out our eligibility for childcare subsidies or government benefits was straightforward”. Furthermore, 47 per cent of surveyed parents said they had to make significant financial sacrifices to afford ECEC.

There is an additional childcare subsidy available for families who are experiencing financial hardship or caring for a child who is vulnerable or at risk of harm, abuse or neglect. However, this payment can be difficult to access. A Loddon Mallee provider said:

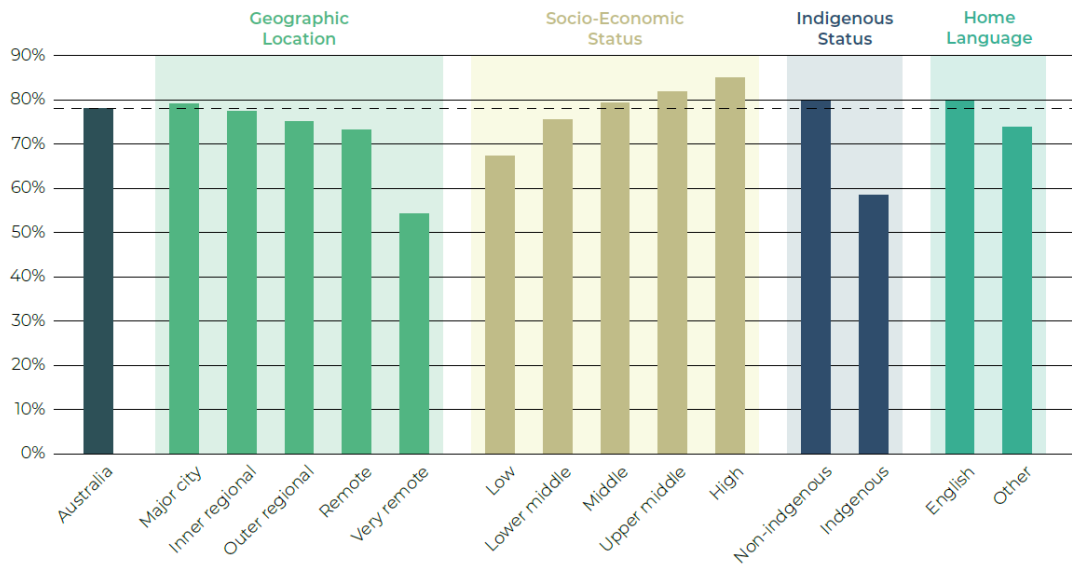
“Families usually do not know, or are unable to figure out, how they are eligible”.

At risk families often need experienced ECEC providers to help them navigate the system. While providers try their best to ensure every eligible family receives as much financial support as possible, the administrative burden becomes onerous.

Childcare is a geographic issue that unfairly impacts rural Australia. It is widely recognised that high quality childcare enhances the early development of children. In fact, the Centre for Policy Development (2021) found that, on average, in Australia, 1 in 5 children start school developmentally vulnerable; but for children who do not receive early childhood education, it is 2 in 5. Unfortunately, Childcare “Deserts” are disproportionately located in rural areas where there are higher proportions of children and families in lower income brackets or below the poverty line (Hurley, Matthews, & Pennicuik, 2022).

Figure 5 shows this relationship, illustrating the disproportionate number of children in regional and remote locations whose development is not on track in the first year of school (Centre for Policy Development, 2021).

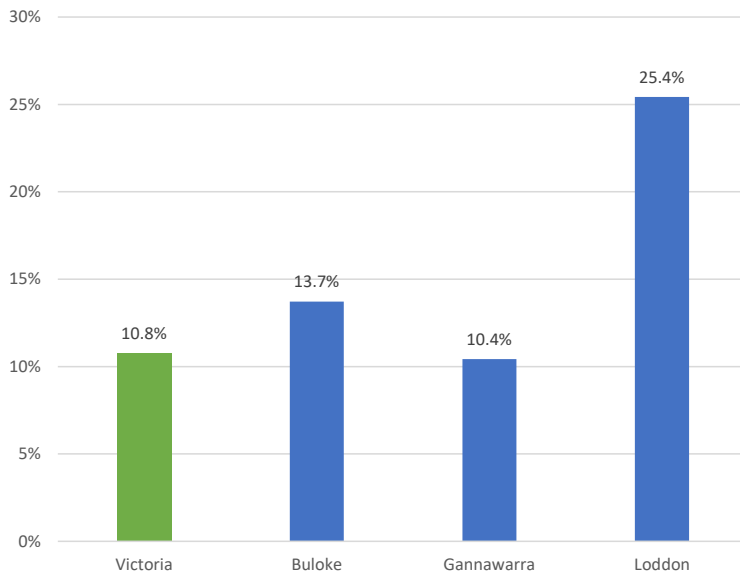
FIGURE 5 PROPORTION OF CHILDREN IN AUSTRALIA WHOSE DEVELOPMENT IS ON TRACK IN THE FIRST YEAR OF SCHOOL (2020)



Source: Centre for Policy Development, 2021.

The Loddon Mallee suffers from this inequality, and its 0 to 4 year old cohort has been identified as more vulnerable than in other Victorian communities due to the region’s vulnerability across income, health and wellbeing indicators.

FIGURE 6 PERCENTAGE OF FIRST YEAR STUDENTS CONSIDERED DEVELOPMENTALLY VULNERABLE 2021



Source: Australian Early Development Censuses (2021)

Note: Developmental vulnerability is measured by a child’s physical readiness for a school day as they enter their first year of full-time school.

3. Anticipated benefits

This section describes the benefits that will be generated should these problems, identified in the previous section, be effectively addressed, and how generating these benefits align with the stated policy priorities of Commonwealth, Victorian and local governments.

3.1 Improved resilience, educational & social development of rural children

Better ECEC accessibility in Loddon Mallee is likely to improve resilience, educational and social development of rural children. Children physically and socially develop at a fast pace – and their early years are crucial in shaping their learning abilities and resilience at school. There is evidence that attending ECEC in the year prior to starting school results in:

- Immediate socialisation benefits for children
- Increased likelihood of a successful transition into formal schooling, and
- Improved performance in standardised test results in the early years of primary school (Productivity Commission, 2015).

This is attributed to the good learning environment of quality ECEC services, as well as the planned activities designed to enhance the development of children, and the instruction and support provided by qualified early childhood educators. Children who attend quality ECEC services are therefore more likely to be healthy and happy in their early childhood.

While the pool of research into the long-term (adulthood) benefits of ECEC is somewhat limited, there is evidence to suggest that benefits extend beyond childhood and tend to lead to:

- Improved social and health outcomes
- Greater workforce participation, and
- Less crime (Centre for Policy Development, 2021).

This view is supported by international studies, including those relating to Norway's introduction of universal access to ECEC for 3- to 6-year-olds. The program (introduced in mid-1970s) resulted in an increased rate of high school completion and college attendance, ultimately strengthening the workforce. Notably, the benefits of education were mostly experienced by those children with less educated mothers (Havnes & Mogstad, 2011). As discussed earlier, ECEC tends to be less accessible to children in rural and low socio-economic areas. Critically, there is evidence to suggest that the benefits of ECEC are disproportionately large for children under these circumstances. As such, the expanded and improved delivery of ECEC services in the Loddon Mallee is likely to generate benefits exceeding those that would arise from urban area service improvement.

While the benefits of ECEC in the year prior to school are experienced across all children, the benefits of ECEC for children up to 3 years of age are less clearly defined. The exception to this rule is where the home environment offers very poor development opportunities or places the child at risk. In such circumstances, ECEC attendance generates clear benefits (Productivity Commission, 2015).

While the developmental benefits of ECEC vary with age and are perhaps not yet fully understood, there is agreement that the developmental benefits only materialise when the ECEC service quality is high. Therefore, ensuring early childhood educators are appropriately rewarded, incentivised to gain experience, and focussed on children’s development are key success factors.

3.2 Improved long term viability for rural service providers

While the self-perpetuating nature of the ECEC crisis in rural areas makes its challenges difficult to resolve, it also means that the benefits to intervention will naturally proliferate; and improve the long-term viability for rural service providers.

The proposed interventions (refer to Section 2) will support the delivery of high-quality ECEC services, creating trust in the reliability of rural service providers and, ultimately, set the services up for long term sustainability.

The Director of Community Wellbeing at the Loddon Shire Council has highlighted that:

- During a recent Victorian Government pilot program, the communities that had the “highest call for childcare” had the “lowest take up rate” of the pilot.
- This stemmed from the lack of trust in the childcare system, essentially meaning that parents in rural areas did not believe in the longevity of such programs, and did not want to risk losing their informal childcare arrangements by taking up the ECEC services being piloted.

Other stakeholders in the Loddon Mallee agreed wholeheartedly with this and blamed it on poor and short term interventions in the past.

Taking this into account, the proposed interventions strategically guarantee the delivery of ECEC services over the medium term (5 years) – enough time for a baby to regularly attend ECEC until school age, if desired by the parents. This will provide parents with a secure ECEC option and give them the confidence to return to work for a meaningful period.

For an industry with average profit margins across the nation of just 4.5 per cent, and far less in rural areas (Richardson, 2022), guaranteed service provision over the medium term will stabilise ECEC take up rates and, in doing so, improve operating viability. In turn, this will lead to:

- Easier attraction and retention of quality ECEC staff
- Further enhancing community trust in the ECEC system
- Enabling improved workforce participation (for both parents and early childhood educators), and ultimately
- Improved long term viability of rural ECEC service provision.

3.3 Improved gender equity, workforce participation & the sustainability of rural communities

Delivery of reliable and quality ECEC services will lift female workforce participation, improving gender equality and the sustainability of rural communities.

The Centre for Policy Development’s (2021) report on childcare revealed that almost 140,000 Australians who wanted paid employment cited “childcare” as the primary reason they couldn’t work. Of these 140,000 people, 90 per cent were women. This narrative is reflected in countless studies across the globe, with countries having greater availability of affordable childcare exhibiting higher maternal labour force participation rates. Unfortunately, Australian communities remain under-served, especially in rural areas; meaning that our world first place ranking in female educational attainment, is not matched with female workforce participation (Equity Economics, 2021).

Similar trends have been uncovered on a regional level too. Loddon Campaspe’s Gender Equity Report (2020) revealed that

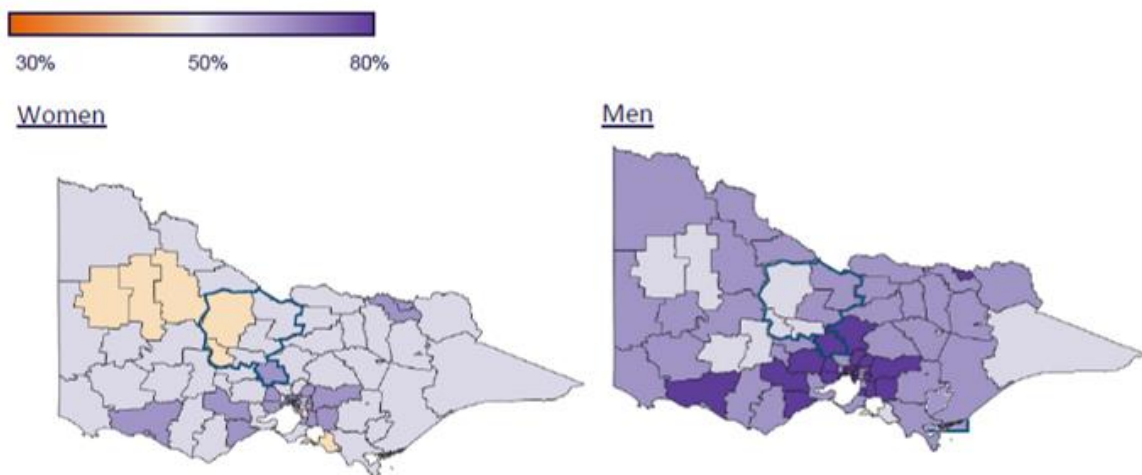
“Mothers across Loddon Campaspe are significantly less likely to participate in the labour force than women without children”.

And that

“Central Goldfields and Loddon are among the LGAs with the lowest income for women in Victoria”.

Figure 7 shows the stark contrast in participation rates between men and women across Victorian LGAs.

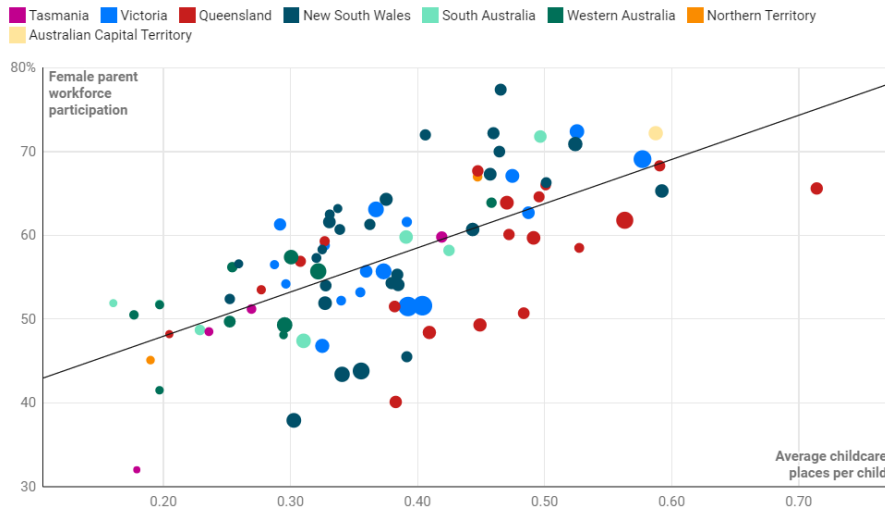
FIGURE 7 WORKFORCE PARTICIPATION RATES BY LGA (2016)



Source: Victorian State Government’s Department of Jobs, Precincts and Regions (2020)

This strong relationship between motherhood, childcare and workforce participation, which is seen on a regional (Figure 7), country-wide (Figure 8) and global scale, makes it clear that improving childcare accessibility in the Loddon Mallee will improve female workforce participation.

FIGURE 8 FEMALE WORKFORCE PARTICIPATION AND AVERAGE CHILDCARE PLACES PER CHILD (2021)



Source: Hurley, Matthews, & Pennicuik, 2022.

This will come with a myriad of flow-on benefits, including increased economic activity, greater female financial empowerment, and increased taxation income. In fact, some modelling suggests that:

- If the average Australian woman had similar workplace participation rates after having children as the average Swedish woman (with Sweden being an example of an exceptional childcare system),
- Then the Average Australian woman would earn an additional \$696,000 over her working life and retire with an additional \$180,000 in superannuation (Equity Economics, 2021).

3.4 Government policy alignment

This section identifies how the benefits identified investment logic map (Figure 2) align with the priorities of Commonwealth, Victorian and local government agencies.

Commonwealth government policies

The **Australian Labor Party National Platform** (2021) identifies the significance of investing in the early years for children, families and the economy. The document establishes Labor’s intentions to maintain the current universal access to preschool and kindergarten programs and support high quality training for early childhood educators, as well as improvements in wages and conditions.

The ALP (2021) states that it will:

Deliver affordable, quality childcare and before and after school care, and will consider changes to tax, superannuation, work and industry arrangements to support this.

As well as this, the ALP National Platform seeks a minimum guarantee of funding to be made available for services (including early childcare education). It also aims to challenge gender stereotypes in trades and occupations, by encouraging males and females to participate in a wide range of workforces without discrimination. The ALP National Platform claims that the issue of providing high quality, accessible and affordable early childhood education and care is of national importance.

The **National Workforce Strategy 2022-27** (Workforce Australia, 2022) aims to guide the development of Australia's workforce and economy through targeted action. One of its workforce policy priorities is to increase the workforce participation and economic security of women, Indigenous Australians and people with disability. To achieve this, it outlines a key principle to remove barriers and disincentives to work. This would result in an outcome where all Australians can participate and work to their full capacity in line with their aspirations and abilities. A measure of success is reducing the gap between men and women aged 15-64 below its current level (seven percentage points as at 2022) towards equal workforce participation.

To support this, the following actions are recommended:

- Identify and address geographical and regulatory barriers to improve participation and labour force mobility.
- Identify and action opportunities to increase workforce participation of under-represented, disadvantaged, and vulnerable groups of people, including women, people with disability, mature aged, youth indigenous Australians, migrants, and refugees.

The **National Children's Education and Care Workforce Strategy** (Australian Children's Education and Care Quality Authority, 2021) is a ten-year strategy that is intended as a roadmap for ongoing partnerships between governments, service providers, educators and teachers. It has six focus areas: professional recognition, data and evidence, qualifications and career pathways, attraction and retention, wellbeing, leadership and capability.

The strategy notes that some existing Australian Government initiatives include:

- Wage subsidies, including the Boosting Apprenticeship Commencements wage subsidy which provides additional support to employers who take on an apprentice completing a Certificate II or higher including in the children education and care sector.
- The Job-ready Graduates Package which provides university funding for prospective early childhood teachers.

Some of the key actions noted in this strategy include:

- Investigate options for improving workforce pay and conditions.
- Review and develop targeted programs to support studies and placements for specified groups of potential educators and teachers.
- Investigate options for improved wellbeing supports.
- Continue the ongoing focus on the quality of vocational education and training.

Victorian government policies

The Department of Education and Training (DET) and the Department of Jobs, Precincts and Regions (DJPR) have highlighted the need to invest in early childhood across a number of strategies.

The **Strategic Plan 2021-2025** (DET, 2021) envisions Victoria as a smarter, fairer and more prosperous place, where learning and development experiences are enhanced. It aims to increase workforce supply for early childhood education, while also maintaining teaching quality. The four-year strategy highlights three core objectives to achieve its vision:

- Raise standards of learning and development achieved by Victorians using education and training.
- Increase the number of Victorians actively participating in education and training.
- Increase the contribution education and training make to quality of life for all Victorians, particularly children and young people.

The key priorities asserted in the Strategic Plan are to ensure vulnerable children are engaged and supported and to roll-out the universally funded three-year-old kindergarten program. The State is investing nearly \$5 billion to fund this kindergarten program and is delivering 15 hours per week of funded three-year-old kindergarten in 21 local government areas. This policy builds upon the existing commitments from the State to deliver 15 hours per week of funded three-year-old kindergarten. In 2022, the program seeks to expand to the rest of Victoria and provide up to five hours per week of funded kindergarten.

By 2029, the State plans to invest \$1.68 billion in the construction of new and expanded kindergarten facilities which will be facilitated through the Building Blocks investment program. This program includes funding to support the development of kindergartens on school sites, as well as grants for new and existing providers. To ensure that the roll-out for the three-year-old kindergarten program is successful, the document outlines DET's plans to invest in scholarships for aspiring teachers, accelerated teacher education, employment incentives and professional development support.

The **Gender Equality Action Plan 2022-2025 (DET, 2022)** seeks to promote workplace gender equality in line with the requirements of the *Gender Equality Act 2020* [Vic]. The Action Plan outlines the Department's commitment to ensure a gender equitable, safe, inclusive and respectful workplace for all staff employed by the Department (including schools). The strategy has three focus areas:

- Promote equality in the composition of our workforce.
- Reduce the gender pay gap.
- Ensure a safe, inclusive and respectful workplace.

The **Loddon Campaspe Regional Economic Development Strategy** (DJPR, 2022) and the **Mallee Regional Economic Strategy** (DJPR, 2022) each set out the medium-to long-term strategic directions for driving economic growth and development across their relevant regions. The **Loddon Campaspe strategy** is relevant for the Loddon Shire and a key strategic direction is to:

Foster better links between education providers, industry, research, employers and students to develop career pathways and a workforce that meets the future needs of the region.

The Strategy identifies skill-matching as a key enabler of growth and development, and highlights the need for alignment across the jobs ecosystem to provide opportunities to match the demand for labour and skills. To address this issue, the strategy recommends that local, state and commonwealth partners collaborate to provide more enabling support, including developing childcare facilities in rural areas, potentially co-located with workplaces, to encourage more female participation in the workforce.

The **Mallee strategy** is relevant for the Gannawarra and Buloke Shires. A key strategic direction asserted in this document is to:

Ensure an accessible and suitably qualified workforce to unlock the growth potential.

To address this strategic direction, the Strategy outlines several opportunities including stimulating inward migration and improving economic inclusion. These can help to address barriers to labour mobility and participation in industries like childcare by using targeted recruitment campaigns and widespread communications of the need for workers across industries. There is also a key issue of the limited access to childcare in rural settings which critically affects the ability of women to enter the workforce. There are several strategies highlighted in this document to address labour shortages, including to:

- Improve the provision of childcare in rural settings.
- Address structural barriers to labour participation and mobility.

Local government policies

The issue of accessible and affordable early years and childcare provision is highlighted in each of the Shire’s community plans.

The **Loddon Community Vision** (2021) sets the long-term strategic direction for the Council in terms of the community’s aspirations and how the Council intends to achieve this. It envisions the creation of a community where everyone is welcome and has the opportunity to live, work and thrive. Childcare and health services are outlined as key priority areas, informing a strategic objective to deliver services and advocate for access to other services for the community.

Key principles within this objective are to:

- Support and advocate for services that provide every child with the opportunities to have the best start in life.
- Develop and implement a Municipal Early Years Plan and Youth Plan and advocate for options identified in the Childcare Feasibility Study.

The **Gannawarra Council Plan** (2021) also identifies poor access and inclusion to early years and health services as a key issue. It envisions a community that is proud, connected and inclusive and actively seeks opportunities to enhance lifestyle and liveability. The Strategy highlights working towards gender equality and preventing family violence as a key priority, with a specific focus on vulnerable children and young people.

A key strategic priority is to:

- Respond to community needs through innovative, commercially focused services including aged care and early childhood services.

The **Buloke Community Plan** (2021) is a long-term strategic plan that describes the community’s aspirations for the Shire. It envisions that by 2030 the Shire will be a healthy, socially connected, inclusive and accessible community with a prosperous economy offering services, amenities and activities that match its desired liveability.

A key strategy highlighted in this Plan is to:

- Advocate for the increased provision of childcare services and rural models of subsidised childcare.

Summary of policy alignment

The table below provides a summary of how the anticipated benefits align with government policies.

TABLE 5 SUMMARY OF POLICY ALIGNMENT

	Improved resilience, educational & social development of rural children	Improved long term viability for rural ECEC providers	Improved gender equality, workforce participation & sustainability of rural communities
Commonwealth policy			
▪ ALP National Platform	√	√	√
▪ National Workforce Strategy			√
▪ National Children’s Education & Care Workforce Strategy	√	√	
Victorian policy			
▪ DET Strategic Plan	√	√	
▪ DET Gender Equality Action Plan			√
▪ DJPR Regional Economic Development Strategies		√	√
Local policy			
▪ Loddon Community Vision	√	√	√
▪ Gannawarra Council Plan	√	√	√
▪ Buloke Community Plan	√	√	√

4. Proposed interventions

This section develops the proposed interventions that will collectively improve the effectiveness, viability and accessibility of ECEC services in the Loddon Mallee.

Note: While the description and costing of the proposed interventions have been developed for Buloke, Gannawarra and Loddon Shires, such interventions could be applied across small rural towns more generally.

4.1 Incentivise rural staff accreditation and retention

A) Improved wages and conditions for rural early childhood educators

As rural service providers have attested, the need to pay above the Children's Services Award wage to compete with other industries and urban centres. Otherwise rural service providers cannot attract and retain requisite staff to enable reliable service delivery.

Consultation with local providers indicates an increase of 20%-30% in wages is required so that trainees on a Level 1 band earn circa. \$27 per hour compared to around the minimum wage currently. This will ensure pay parity for early childhood educators similar to that of the ranges under the Educational Services (Teachers) Award.

Pay parity opens the door to encourage kindergarten and early learning teachers to work in childcare, increasing the availability of the rural workforce.

Improved wages across all bands will ensure a range of employees from trainees to experienced staff are attracted and retained in rural ECEC services; balancing workloads and improving service quality.

Sufficient labour in rural ECEC services will enable effective rostering, flexibility and relief cover enabling staff to take time to study, take leave and have rest days to avoid burnout, and be supported in their career progression.

The proposed intervention is a 25% increase in the hourly wage for employees working under the Children's Services Award in the Shires of Buloke, Gannawarra and Loddon.

Note:

- To fund improved wages and conditions, a commensurate increase in the rural rate of Child Care Subsidy from the Commonwealth is needed.
- To support improved wages and conditions, a regional shared services model between the three municipalities of Gannawarra, Buloke and Loddon will be developed. This will improve economies of scale and reduce the administrative burden of managing early learning centres, enabling early childhood educators to focus on educating and caring for rural children.

B) Financially incentivise rural staff accreditation and retention

Financial incentives are required to lift accreditation rates and retain accredited early childhood educators in rural areas. That is, in addition to improved wages and conditions described above.

Incentive schemes that have informed the intervention include:

- The Victorian Government's Kinder program, which provides a range of financial incentives (\$9,000 - \$50,000 dependent on qualifications; and regional relocation supplement of \$2,000 - \$6,000) to assist with course fees, study materials, related expenses, moving and paid study leave.
- A Western Australia example which provides state funding to regional councils towards subsidised accommodation, interstate travel, workshops, training initiatives and relocation packages (WA Communities, 2022).
- Employment loyalty bonuses used to promote staff retention.

The proposed intervention includes the following allowances for early childhood educators employed in the Shires of Buloke, Gannawarra and Loddon:

- \$5,000 for prospective early childhood educators to gain Certificate III qualifications while simultaneously working for rural ECEC service providers
- \$5,000 for existing early childhood educators who wish to upgrade to Diploma/ Degree qualifications
- \$5,000 loyalty/ retention payments for Degree qualified early childhood educators for each additional FTE year that they remain employed in ECEC services.

It is proposed that \$5,000 is allocated to each participating service centre annually to award to qualifying staff at their discretion.

4.2 Provide medium term assurance of rural service availability and reliability

C) Fund rural service leadership, administration and facilities maintenance

Regional stakeholders have identified that funding for ECEC services is provided on a per child basis. That is, Commonwealth and Victorian subsidies are directly related to the number of children catered for by each ECEC service provider. This means that the costs of ECEC service leadership and administration, and facilities maintenance remain unfunded; severely compromised the viability of rural; service providers.

Without appropriate leadership and administration, the quality of ECEC services will surely deteriorate over time, as insufficient attention will be paid to ECEC staff performance and development, education program development, community needs and enrolments, etc. Moreover, without appropriate facilities maintenance the physical environment in which ECEC services are delivered will be compromised over time.

The proposed intervention includes the following allowances for centralised ECEC costs across the Shires of Buloke, Gannawarra and Loddon:

- 1.0 FTE ECEC Children’s Services Manager (this person will manage service operations across the three shires)
- 0.5 FTE ECEC Education Leader (this person will manage the educational program of each service across the three shires)
- 1.5 FTE ECEC Enrolments Officer (these people will manage the enrolments for each service across the three shires)
- 1.0% of the value of capital improvements per annum to fund the maintenance of ECEC facilities.

D) Establish shared service model for collaborative ECEC service delivery

A regional shared services model will provide a range of benefits and will prevent burnout of individual centre managers who must currently navigate the complexities of dual regulatory and funding systems, while also delivering early childhood services directly to children.

The proposed partnership between the three local councils/ service operators will provide vital assistance across the region in relation to shared:

- Service leadership, planning, development and resourcing
- Staff knowledge and training
- Back-office functions (e.g. enrolments, administration and payroll)
- Facilities development and maintenance.

Rather than duplicating these shared services within each municipality, a centralised model will enable economies of scale (efficiency in resourcing) and scope (amalgamating roles to enable specialisation).

This is how major providers such as Goodstart, Jenny’s or YMCA operate successfully in the major urban areas in Loddon Mallee. However, given the private market’s failure in the rural areas, a local government coordinated approach is necessary.

The proposed intervention establishes a shared service model for collaborative ECEC service delivery across the shires of Buloke, Gannawarra and Loddon. It will be coordinated by the participating local councils, with the funds for recurrent operations provided by Interventions A), B) and C).

E) Build confidence in the availability and reliability of rural services

It will take time to rebuild the trust of rural communities in the reliability of rural ECEC service delivery.

Rural stakeholders have confirmed that a commitment to interventions A), B), C) and D) for at least five years will be required to remove any doubt about the ongoing availability and reliability of ECEC services providers in rural areas.

Nonetheless, significant community promotion of these commitments will also be needed to ensure parents feel safe to leave existing ad hoc arrangements and permanently take up local early learning services.

The proposed intervention includes all tiers of government making a medium-term commitment to supporting interventions A), B), C) and D) in the Shires of Buloke, Gannawarra and Loddon, as well as a local government funded campaign promoting this commitment in rural communities.

4.3 Harmonise regulation and funding streams across government

F) Pilot the flexible application of rural staffing and building regulations

While the National Quality Framework (NQF) regulations stipulate standards for education, children's health and safety, staffing and governance, these standards can be difficult to universally meet in rural areas. For instance, the ongoing staffing crisis has meant that 10% of all long day care centres across the country have needed a NQF waiver to continue operations (Thrive by Five, 2022).

While key health and safety regulations should remain non-negotiable, where evidence shows a regulation cannot be met due to extenuating circumstances or costs in the rural area – rural providers should be given the opportunity to pilot the flexible application of regulations. This may relate to

- Minimum annual operating periods
- Service consolidation
- Certain building or outdoor space requirements
- Educator-to-child ratios
- Initial staffing qualifications
- Lunch breaks
- Window of opportunity
- Administrative space or
- Collaborative partnerships and governance (DET, 2018).

Without this opportunity, rural providers remain constrained and forced to navigate the NQF to seek numerous waivers against the regulations that are based on urban area standards.

The proposed intervention enables ECEC service providers in Shires of Buloke, Gannawarra and Loddon to identify and pilot departures from the NQF regulations where they do not risk ECEC service quality or childhood health and safety.

4.4 Flexibly operate and price rural service delivery

G) Improve the rate and flexibility of rural community access to CCS

An increased rural Child Care Subsidy rate is needed to fund interventions A), B) and C) in the participating councils. This will simultaneously reduce the subsidy gap that rural families need to fund out of their own pockets to use ECEC services.

The required increase in CCS is calculated as the total incremental cost of interventions A), B) and C) split between the total number of existing users of CCS and the additional users of the CCS, assuming the same proportion of families require CCS even as the take-up rate of childcare increases.

The proposed intervention increases by 9% the CCS rate paid to families in Buloke, Gannawarra and Loddon Shires for a minimum of five years, enabling interventions A), B) and C) to be sustainably funded.

H) Facilitate rural access to Additional CCS for at-risk children

Consultation has identified the relevance of Additional CCS payments in rural areas of Loddon Mallee, i.e. where a higher proportion of eligible families are experiencing financial hardship or have children at risk when compared to urban areas.

It is vital that any change to rural service provision does not negatively impact disadvantaged families and, in turn, the rate of Additional CCS funded enrolments. Gap free services must remain a priority for vulnerable families in the Loddon Mallee's rural areas.

The proposed intervention ensures that the current rate of Additional CCS payments in the Loddon Mallee is maintained as ECEC service provision expands to meet unmet demand.

I) Develop integrated early childhood facilities in priority rural locations

Given existing levels of unmet demand for ECEC services in rural areas, the aforementioned interventions will lift the uptake of services, requiring new facilities for accommodating the expanding footprint of services in rural areas.

As has been highlighted in Section 1 by rural stakeholders, the ideal solution is often the co-location of childcare centres with kindergartens and primary schools. This enables the joint resourcing of infrastructure, classroom materials, and educators, with major benefits generated as early childhood educators can transition across age groups and between long day care, kindergarten to afterschool care as needed.

The proposed intervention is the capital funding of 6 integrated ECEC facilities in priority locations across the rural areas of Buloke, Gannawarra and Loddon Shires enabling unmet

demand levels to be effectively and efficiently serviced. The priority locations will be determined during the service planning phase of the roll out.

4.5 Summary of interventions

TABLE 6 SUMMARY OF PROPOSED INTERVENTIONS

Intervention	Funding source	10-year cost (\$million)	Present value cost (\$million)
Incentivise rural staff accreditation and retention			
A) Improve wages and conditions for rural educators*	Commonwealth	34.5	25.2
B) Financially incentivise rural staff accreditation & retention	Commonwealth	0.9	0.6
Provide medium term assurance of rural service availability & reliability			
C) Fund rural service leadership & administration Fund rural service facilities maintenance**	Commonwealth	0.5	0.4
	Councils/ Operators	0.3	0.2
D) Coordinate a 'shared service' model for collaborative service delivery*^	Councils/ Operators	0.3	0.3
E) Build confidence in the availability and reliability of rural services**	Councils/ Operators	Included in D	Included in D
Harmonise regulation and funding streams across government			
F) Pilot the flexible application of rural staffing and building regulations	NA	NA	NA
Flexibly operate and price rural service delivery government			
G) Improve the rate and flexibility of rural community access to CCS	Commonwealth	Inc. in A, B & C	
H) Facilitate rural access to Additional CCS for at-risk children	Commonwealth	1.3	0.9
I) Develop integrated early childhood facilities in priority rural locations^	State	9.0	9.0
Total incremental costs	Commonwealth	37.2	27.2
	State	9.0	9.0
	Councils/ Operators	0.6	0.5
	Total	46.8	36.7

Source: SGS Economics & Planning, 2022.

Notes:

This table represents the 10 year cost of the proposed interventions applied in the Buloke, Gannawarra and Loddon Shires. Applying the proposed interventions across all equivalent areas would result in proportionately higher costs.

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*Intervention A) was calculated as the 25% increase in wages of existing childcare staff in the three shires, as well as the total wages paid to all new staff required to meet the increased take-up of childcare. This number of new staff was calculated in line with the ACQA educator to child ratios.

**Some rural councils are reluctant to step into the funding/ delivery of childcare services. These interventions do not suggest that councils actually run the services but play a coordination role where necessary.

^The costs associated with D) and I) are incurred in the first 2 years of investment.

5. Cost benefit analysis

This section presents a cost benefit analysis of implementing the interventions described in the previous section. In doing so, it assesses if a net gain in community welfare will result after contrasting the costs generated with the economic and social benefits generated.

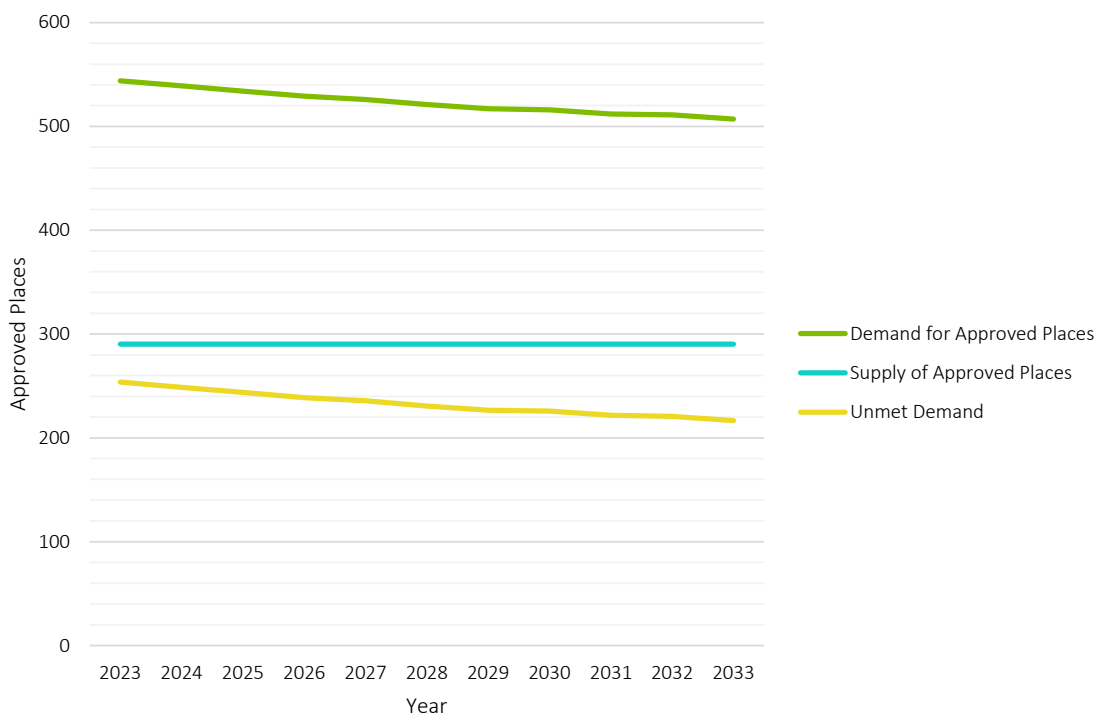
Note: While the cost benefit analysis has been developed for Buloke, Gannawarra and Loddon Shires, the results are likely applicable across small rural towns more generally.

5.1 Unmet rural ECEC demand

The level of unmet demand for ECEC services in the rural areas of Shires of Buloke, Gannawarra and Loddon has been assessed by comparing the current level of ECEC service provision with that offered in urban areas. If urban area servicing levels were available in the rural areas, the ratio of ECEC approved places to children would lift from 0.2 to 0.5.

The figure below identifies how many more approved places would need to be offered in the rural areas currently and in future (on an annual basis); adopting Victorian official population projections (Victoria in Future, 2019).

FIGURE 9 UNMET RURAL ECEC DEMAND: BULOKE, GANNAWARRA & LODDON SHIRES



Source: SGS Economics & Planning, 2022.

5.2 Increased rural ECEC service delivery costs

The cost of meeting this unmet demand has been estimated using the actual ECEC service delivery costs in Gannawarra Shire, i.e. by local government, and applying this rate of costs across Buloke and Loddon Shires on a per approved place basis.

These servicing costs have been initially estimated in future years, based on:

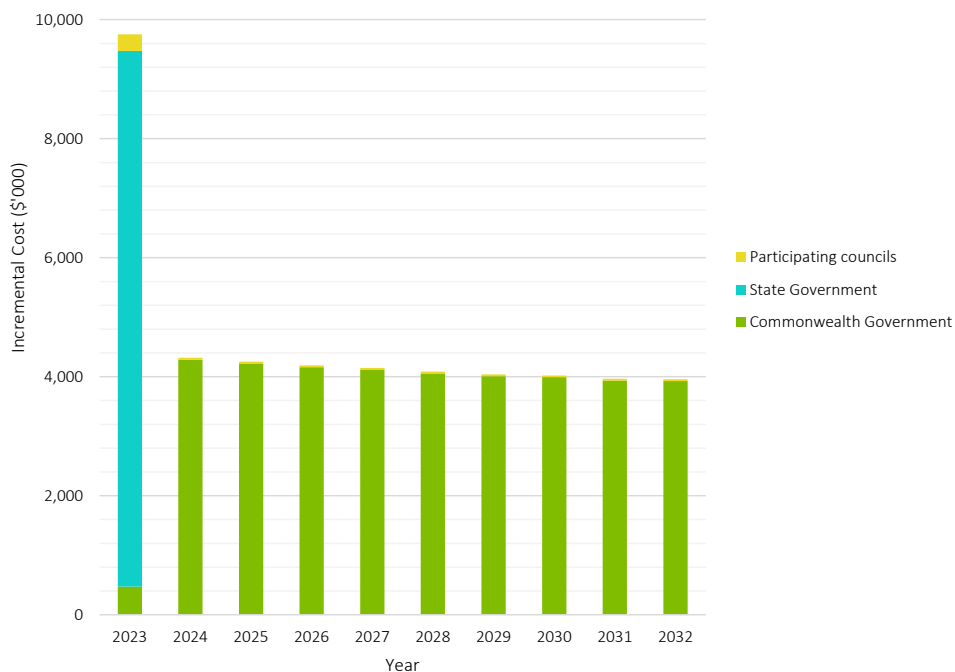
- Unmet demand levels forecast above in Section 5.1, and
- An optimal servicing model of offering integrated ECEC services (childcare, kindergarten preferably co-located with primary schools) operating 10 hours per day, 5 days per week and with 30 to 40 approved places.

These initial estimates of cost have then been updated given the cost implications of the proposed interventions in the previous chapter: primarily improved wages and financial incentives for early childhood educators, centralised service leadership, administration and promotion; increased CCS and Additional CCS payments; and facilities establishment and maintenance.

The figure below shows how:

- Annual service delivery costs will escalate if the proposed interventions are implemented, and
- How these increased costs are split between Commonwealth, State and local governments/ service operators.

FIGURE 10 RURAL ECEC SERVICING COSTS BY TIER OF GOVERNMENT



Source: SGS Economics & Planning, 2022.

5.3 Increased rural ECEC service delivery benefits

Section 3 outlines the key benefits that are expected from implementing the proposed interventions. They include improved:

- Resilience, educational & social development of rural children
- Long term viability for rural service providers
- Gender equity, workforce participation & the sustainability of rural communities.

The cost benefit analysis quantifies and then monetises (i.e. converts to dollar values), only a selection of these benefits given potentially overlapping benefits, and available data and monetisation techniques.

The table below outlines the benefits that have been monetised, the techniques applied, and the key assumptions adopted.

TABLE 7 BENEFITS MONETISED & TECHNIQUES USED

Benefit	Monetisation technique
<p>Improved education outcomes</p> <p>Research indicates that participation in childcare and kindergarten programs leads to a 1.8 per cent (Herbst, 2014) and 3.0 per cent (Andersson, 1992) uplift in lifetime earnings respectively.</p>	<p>Lifetime earnings</p> <p>An average uplift of 2.5 per cent was split across 5 years of participation to yield a 0.5 per cent uplift per unique child participating in childcare and kindergarten. This uplift was then applied to the median annual earnings in regional Victoria and lagged by 14-18 years.</p>
<p>Improved rural workforce participation</p> <p>Research indicates that careers (particularly women) who enjoy approved access to childcare will undertake paid work. We have assumed that 60% of rural carers will take up paid work given the equivalent number of full-time care places provided and will work in relevant rural employment opportunities.</p>	<p>Rural wages</p> <p>Of the 60% of rural families which take up paid work, we assume they each increase their hours of work in proportion to the number of days the child is in full time care. That is, 7.5 hours work gained for each 10 hours of care. This number of days was then applied to the median annual earnings in regional Victoria.</p>
<p>Improved rural business profits</p> <p>We have assumed that the expanded rural labour force will be employed by relevant rural industries, which in turn, will generate commensurate increases in business profits. We have assumed that the increase in labour force is completely made up of females.</p>	<p>Rural business profits</p> <p>The distribution of females by industry of employment for regional Victoria was multiplied by the average profit per worker for each industry. This was then used to establish a weighted average profit per regional Victorian female FTE.</p>

Benefit	Monetisation technique
<p>Reduced social disadvantage</p> <p>Participation in ECEC programs leads to better social & health outcomes for children experiencing social disadvantage. The Centre for Policy Development (2021) predicts that this participation leads to a decreased likelihood of leaving school early by 2.8 per cent (childcare) or 11.4 per cent (kindergarten) respectively. We assume that these early school leavers are highly likely to become disengaged youths in the rural areas; costing the government \$7,360 per annum each (Mitchell Institute, 2017).</p>	<p>Reduced government spending</p> <p>An average reduction in likelihood of becoming disengaged (7.1 per cent) was split across 5 years of ECEC participation to yield a 1.4 per cent annual reduction. This was applied to the incremental number of children accessing the Additional CCS payment to predict an annual number of children who, because of participation in ECEC, do not become disengaged. This was then multiplied by the lifetime cost of youth disengagement.</p>

Source: SGS Economics & Planning, 2022.

5.4 Performance results

Overarching assumptions

Overarching assumptions for the discounted cashflow analysis are as follows:

- Values 2022, real (i.e. no escalation)
- Timeframe 10 years (2023 to 2032)
- Discount rate 7% real.

Performance results

TABLE 8 COST BENEFIT ANALYSIS RESULTS

	Total Value (\$million)	Present Value (\$million)
Commonwealth government costs	37.2	27.2
Victorian government costs	9.0	9.0
Local government/ operator costs	0.6	0.5
Rural ECEC user costs	22.2	16.2
Total incremental costs (\$million)	68.9	52.8
Rural child education benefits	6.1	4.5
Rural career income gains	63.5	46.3
Rural business profit gains	26.4	19.3
Rural reduced social disadvantage benefits	0.1	0.1
Total incremental benefits (\$million)	96.2	70.1
Net benefits (\$million)	27.3	17.3

	Total Value (\$million)	Present Value (\$million)
Benefit Cost Ratio (BCR)	1.4	1.3

Source: SGS Economics & Planning, 2022.

A definition of NPV and BCR and how to interpret them is provided below.

TABLE 9 CBA PERFORMANCE MEASURES

Performance measure	Estimation method	Decision rule
Net Present Value (NPV)	A number generated by deducting the present value of the stream of costs from the present value of the stream of benefits, (with the present value of costs and benefits determined by using an appropriate discount rate).	<ul style="list-style-type: none"> - Accept options with a positive NPV - Reject options with a negative NPV - The greater the NPV the better.
Benefit Cost Ratio (BCR)	Ratio of discounted present day benefits over discounted present day costs.	<ul style="list-style-type: none"> - Accept options with a BCR > 1 - Reject options with a BCR < 1 - The greater the BCR the better.

Source: SGS Economics & Planning, 2022

Sensitivity analysis

This section assesses how the NPVs and BCRs change based on varying assumptions.

Pessimistic and optimistic assumptions are contrasted below in comparison to the original assumptions.

TABLE 10 SENSITIVITY TESTS

Variable	Original assumption	Pessimistic assumption	Optimistic assumption
T1 – Discount rate	7% real	10% real	4% real
T2 – Cost of developing one new facility	\$1.5M	\$2.0M	\$1.0M
T3 – Wage increases to ECEC educators	25%	35%	15%
T4 – Uplift in lifetime earnings	0.50%	0.25%	0.75%
T5 – Proportion of families increasing their level of employment	60%	40%	80%

Source: SGS Economics & Planning, 2022

The impact of these changes in assumptions on the projects' NPVs and BCRs is summarised in the figures below.

TABLE 11 SENSITIVITY TESTING RESULTS (NPV, \$M)

Variable	Original result	Pessimistic result	Optimistic result
T1 – Discount rate	17.3	12.1	28.2
T2 – Cost of developing one new facility	17.3	14.3	20.3
T3 – Wage increases to ECEC educators	17.3	15.9	18.7
T4 – Uplift in lifetime earnings	17.3	15.2	19.8
T5 – Proportion of families increasing their level of employment	17.3	(4.5)	39.2

Source: SGS Economics & Planning, 2022.

TABLE 12 SENSITIVITY TESTING RESULTS (BCR)

Variable	Original result	Pessimistic result	Optimistic result
T1 – Discount rate	1.33	1.25	12.1
T2 – Cost of developing one new facility	1.33	1.26	1.41
T3 – Wage increases to ECEC educators	1.33	1.29	1.36
T4 – Uplift in lifetime earnings	1.33	1.29	1.38
T5 – Proportion of families increasing their level of employment	1.33	0.91	1.74

Source: SGS Economics & Planning, 2022.

5.5 Distributional analysis

The table below identifies the parties that are impacted by each of the incremental costs and benefits included in the analysis above. It shows that the costs are disproportionately large to the Commonwealth and State governments, and the rural users of ECEC services. The benefits, on the other hand, are confined to rural carers (who become workers), rural business owners and children.

These beneficiaries, without the proposed interventions, will continue to face locational disadvantage due to the scarcity of ECEC services in rural Victoria.

TABLE 13 DISTRIBUTIONAL ANALYSIS

	Present Value (\$million)	Impact parties
Costs		
Commonwealth government costs	27.2	Commonwealth government
Victorian government costs	9.0	Victorian government
Local government costs/ service operators	0.5	Local government/ service operators
Rural ECEC user costs	16.2	Rural ECEC users
Benefits		
Rural child education benefits	4.5	Rural children
Rural career income gains	46.3	Rural workers
Rural business profit gains	19.3	Rural business owners
Reduced social disadvantage	0.1	Commonwealth & Victorian Governments

Source: SGS Economics & Planning, 2022.

5.6 Community welfare conclusions

The cost benefit analysis has:

- Estimated unmet demand levels for ECEC services across Buloke, Gannawarra and Loddon Shires
- Costed the servicing of this unmet demand, based on existing service delivery costs in Gannawarra, and assuming an optimal delivery model of integrated ECEC centre-based services is offered, and
- Escalated existing service delivery costs to account for each of the specific interventions proposed.

These costs are then compared with the benefits of servicing unmet demand. These benefits are well backed with research evidence and include the improved:

- Education outcomes of rural children that attend ECEC services
- Workforce participation and earnings enjoyed by freed up carers of rural children
- Profits generated by rural business that employ the expanded rural workforce
- Reduced disadvantage for at risk rural children that participate in ECEC services.

The cost benefit analysis shows that implementing the proposed interventions will increase economic welfare levels in the rural areas of the Loddon Mallee; meaning the proposed interventions are worthy investments for government.

They show that the benefits (\$70.1M) generated by the proposed interventions outweigh the costs (\$52.8M) generating a:

- Net Present Value (NPV) of \$17.3M and
- Benefit Cost Ratio of 1.3.

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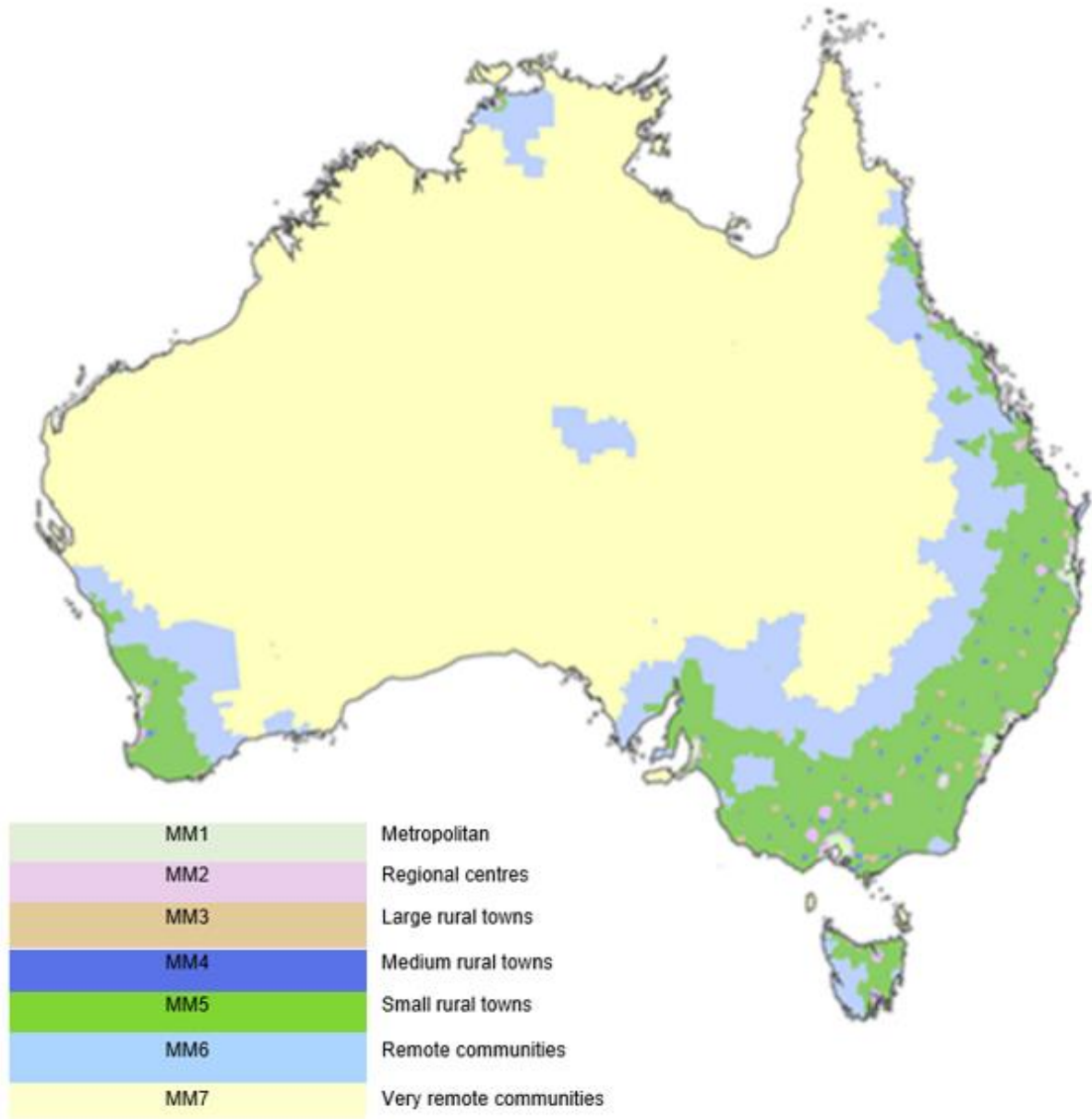
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7. Appendix A: Modified Monash Model (“MMM”) (2019)

FIGURE 11 AUSTRALIA BY MMM CATORGORIES (2019)



Source: Department of Health (2022)

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