

## Building a high-performing ECEC system

The role of microdata and system stewardship

The Front Project



### **Executive summary**

### Early childhood sector performance has stagnated despite significant growth in public expenditure

Australia's early childhood education and care (ECEC) sector has seen notable improvements in overall quality over the past decade, supported by substantial increases in public investment. Government spending through the Child Care Subsidy (CCS) has more than doubled since 2010, reaching almost \$2,500 per child per quarter by 2023.

However, this expansion has not translated into productivity or high-quality growth across the sector. Productivity across the care sector lags behind the national average, reflecting limited technological progress and high labour intensity. Although more services now meet quality standards under the National Quality Framework, fewer exceed them.

Maintaining sector-wide efforts to improve performance while keeping cost growth modest is a core challenge for policymakers and the sector.

### Linked microdata provides unique insight into provider performance

Firm-level microdata combined with NQS data allows measurement of provider performance across productivity and quality. Assessing performance across both dimensions is crucial as high quality ECEC services are important to deliver better outcomes for children.

The analysis reveals a spectrum of performance. From top performers with high efficiency and quality of care, to bottom performers with poor productivity and quality. There are many more bottom performers and just a few top performing providers.

Microdata can identify aggregate trends and allows for more granular levels of analyses.

Presently, microdata from the Australian Early Development Census is used at localised levels to great effect. In the ACT, microdata pinpointed where new language and multicultural programs are most needed. In regional SA, AEDC informed new additional support programs based on the profile of vulnerabilities among children.

Commonwealth and State governments can build granular microdata sets to further drive sectoral improvements, especially given the appetite for productivity improvements in the care sector.

### A system stewardship approach can strengthen quality and accountability

Governments currently rely on regulation and funding levers to shape provider behaviour, but the system remains fragmented and compliance-heavy. Providers face administrative strain, staffing shortages, and high turnover, all of which undermine quality and sustainability.

A stewardship model would align policy, funding, and workforce development under a shared vision. Leveraging linked data, governments could better monitor outcomes, coordinate support, and target interventions. Stronger system stewardship would promote continuous improvement, more efficient resource use, and high-quality, accessible ECEC for all families.





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### Measuring ECEC sector performance requires understanding of both the productivity and quality of ECEC services



### **High performance in the ECEC sector**

A **high-performing ECEC sector** supports children, their families, communities and is key to a strong economy.

When **children** have access to high quality ECEC, they are more likely to achieve better health, educational, and social outcomes.

**Families** benefit from accessible and affordable ECEC, as it enables caregivers to participate in the workforce and supports parents to provide educational and social supports to their children.

The **economy** benefits from improved workforce and education participation and **governments** benefit from reduced interventions needed from education, healthcare and social services.

There are **two important measures** of a strong ECEC sector:

- Highly productive ECEC services
- High quality ECEC services



### **Productivity**

A highly **productive ECEC sector** means that services are delivered efficiently, maximising the impact of the resources (e.g. time, revenue, staff) invested.

ECEC services generate revenue through fees paid by parents/guardians and is subsidised by the Government. The Government funds the sector through the childcare subsidy (CCS) and other grants and payments.





### Quality

**High-quality** ECEC services ensure children receive care, learning, and development support that meets established standards.

The National Quality Framework (NQF) and National Quality Standard (NQS) define quality through laws, regulations, assessments and rating processes, and learning frameworks. These include staffing qualifications, educator-to-child ratios, physical settings, and practices that support teaching, learning, and educator to family interactions.

Source: Mandala analysis.

MANDALA

### Australia's productivity growth has stagnated, especially in the care sector

Australia's productivity growth has slowed substantially in recent years, driven by a range of interconnected factors. An aging population has amplified demand for services while simultaneously shrinking the available workforce. Meanwhile, there is also a slowdown in innovation and investment.

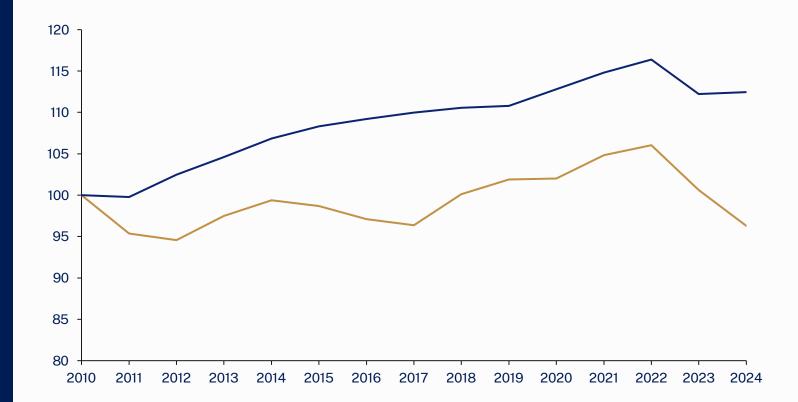
Productivity growth in the care sector, which includes aged care, childcare, and disability services, is particularly poor. Care work is inherently labor-intensive and technological advances in the sector are limited which makes productivity gains more challenging to achieve. Productivity challenges are exacerbated by the suboptimal allocation of resources to high performing firms by governments, and the limited adoption of best practices through innovative technologies and advanced datasets.

As demand for care grows, there will be increasing strain on public and household finances, meaning that productivity improvements will be key to a sustainable and high-performing Australian care sector.

### **Labour productivity in Australia**

GVA per hour worked, Index (2010=100), June 2010 - June 2024

All industries
 Healthcare and social assistance



# The quality of ECEC providers has improved on average, but fewer providers now 'exceed' quality standards

Over the past decade, the quality of ECEC services has risen, with 69 per cent of services now being rated as 'Meeting NQS', up from just 34 per cent in 2013.

This reflects the significant efforts of government and industry in ensuring access to and lifting standards of quality ECEC services across Australia through a national approach on ECEC.

The National Quality Standard (NQS) is Australia's rating system to assess childcare services. ECEC services are rated across seven Quality Areas (QA). NQS scores range from 'Exceeding', 'Meeting', to 'Working Towards' and 'Significant Improvement Required', with the lattermost score prompting action from regulators.

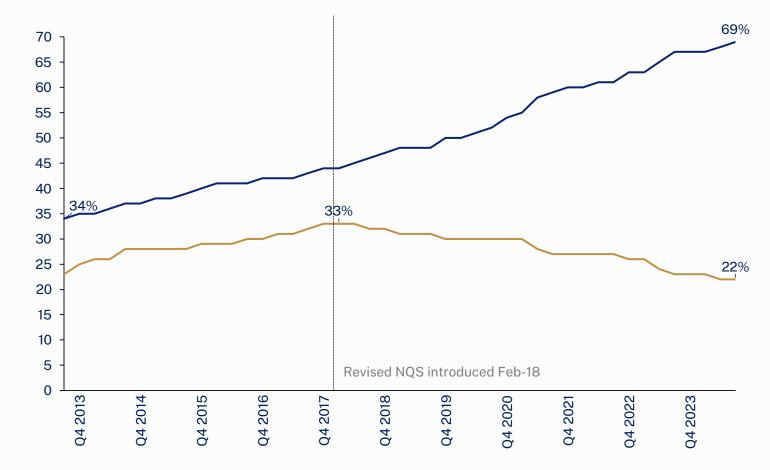
However, fewer services are being rated 'Exceeding' than previous years. The share of services who were rated as 'Exceeding' standards or above have fallen from 33 per cent in 2018 to 22 per cent in 2024.

Children in services rated 'Exceeding' had lower rates of developmental vulnerability compared to children in services with lower NQS scores.

#### The share of ECEC services rated under NQS standards

% of total ECEC services, Q4 2013 - Q4 2024





Note: Percentages do not sum to 100 due to the absence of NQS scores rated 'Working Towards' or below.

Source: ACECQA (2024) NQF Snapshot 2024; Mandala analysis.

# Public expenditure on ECEC has grown significantly since 2010, despite quality and productivity stagnating

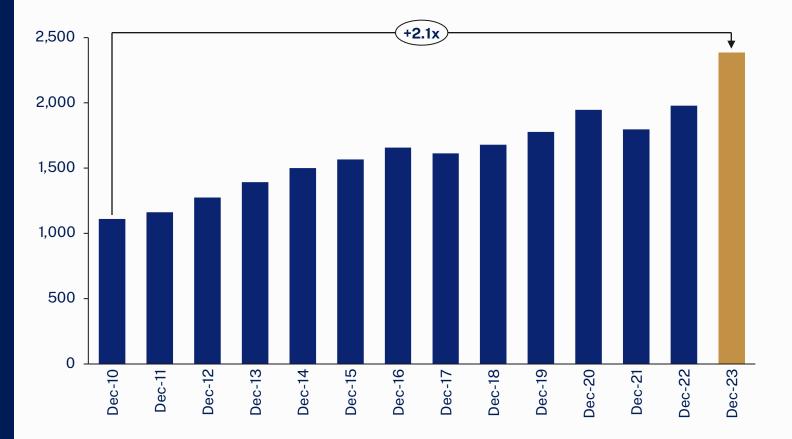
The Commonwealth's Child Care Subsidy (CCS) has more than doubled to almost \$2500 per child per quarter between 2010 and 2023. This contrasts with the stagnation in the productivity and quality of ECEC services, as previously discussed.

The CCS serves as the primary form of government support for childcare services. It is paid directly to ECEC providers and calculated based on a family or individual's income, employment status, and the childcare fees incurred.

A sharp increase in subsidy spending was observed in 2023, driven by expanded CCS eligibility and increased subsidy rates.<sup>1</sup>

### Per child quarterly government expenditure through the Child Care Subsidy (CCS)

\$, real





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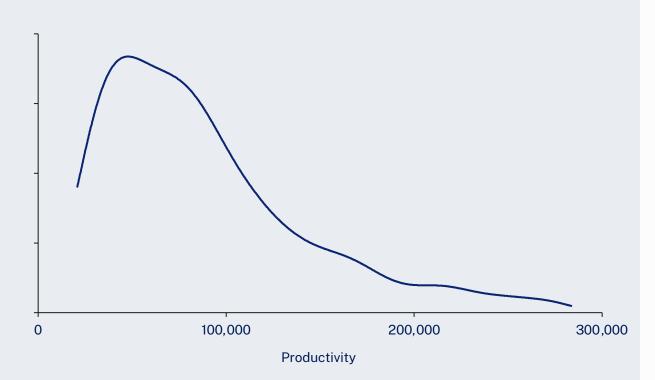
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## Firm level microdata enables us to measure the productivity of ECEC providers across Australia...

### Distribution of ECEC provider productivity<sup>1,2</sup>

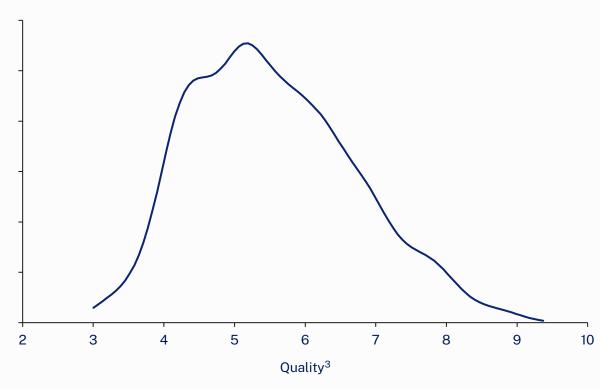
Probability density distribution for annual revenue per employee, 2024



### ...while NQS data allows us to proxy for the quality of providers in the sector

### Distribution of ECEC provider quality<sup>1,2,3</sup>

Probability density distribution for quality<sup>3</sup>, 2024



1 Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded). 2 Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NQS in Q3 2024) across Australia. 3 Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5.

Source: Data obtained for Mandala by Purpose Bureau: ACECOA (2024) NOF Snapshots: Mandala analysis

# Linking microdata on productivity and quality enables us to identify top and bottom performing providers

Microdata on productivity and quality can be linked together to map out the performance of providers in the ECEC sector. The top performing providers are those that are highly productive and offer high quality services, as measured by revenue per worker and NQF ratings.

Conversely, bottom performers have low productivity and low quality.

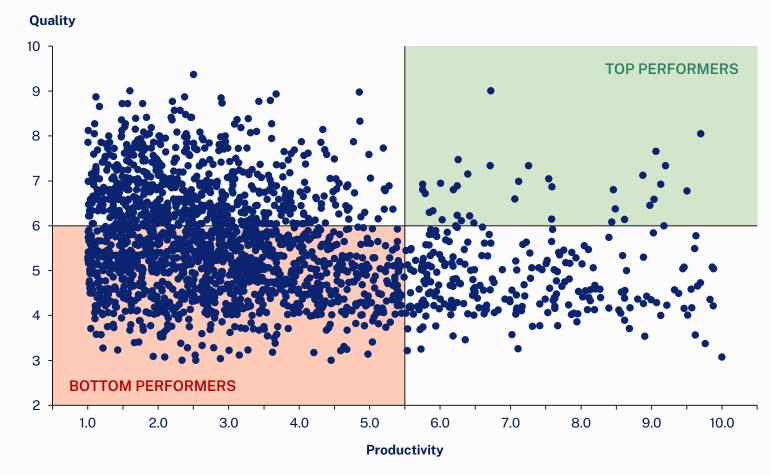
We find that there are many more providers who fall within the bottom performer quadrant and comparatively fewer providers who are in the top quadrant.

Assessing performance across both productivity and quality is essential but difficult. High quality ECEC services are important to deliver better outcomes for children. This is especially crucial since a provider can be highly productive and still be low on quality (see bottom right quadrant of the chart).

Top performers can be further studied to better understand effective operational habits and methods. Lagging performers can be targeted with specific interventions to improve their performance across one or both dimensions.

### ECEC providers productivity versus quality<sup>1,2</sup>

Productivity (indexed score based on annual revenue per employee); Quality<sup>3</sup>; 2024



<sup>1</sup> Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded).
2 Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NQS in Q3 2024) across Australia.
3 Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5.

Source: Data obtained for Mandala by Purpose Bureau; ACECQA (2024) NQF Snapshots; Mandala analysis

## Closing the performance gap between bottom and top providers generates benefits to children, their parents, their communities, and the economy at large

### Benefits generated from improving early childhood services Childhood development Improved health and wellbeing benefits Improved cognitive development Improved social and emotional development Parental, household, and Improved parental wellbeing economic benefits Stronger workforce participation Higher household income Job creation in ECEC sector Reduced reliance on other health and social services Wider economic benefits Higher employment participation Improved productivity **Higher GDP**

### **Key points**

- Increasing the productivity and quality of the lowest performing firms up to the level of the most productive and high-quality firms would see significant benefits
- Access to quality ECEC services transforms children's development, providing a foundation for future success. These services nurture essential skills and promote equity, ensuring that all children have the tools to thrive.
- The ECEC sector has a particularly strong impact on women, who typically shoulder a greater share of caregiving responsibilities.
   Caring for children is the top reason for women not being able to start a job or work more hours.<sup>1</sup>
- A strong ECEC sector could enable greater workforce participation, particularly for women, and have broader benefits to the economy such as improved productivity and GDP.

# Lifting performance of bottom quintile ECEC providers could generate \$15.7 billion in economic benefits by 2060

Lifting the performance of the lowest performing band of ECEC providers to the top quintile could generate an increase of \$15.7 billion in GDP over the 35 years to 2060.

Based on a general equilibrium model of the Australian economy, the increase in performance was represented as two shocks.

A productivity shock was modelled through increasing revenue per worker, weighted by the size of the ECEC sector with respect to the economy.

A quality shock was based on the percentage improvement in NQS quality scores and the relationship between high quality childcare and improvements in literacy and numeracy, and subsequent future productivity benefits.

The first shock (improvement in productivity) is assumed to be instant after the reform is introduced. The second shock (improvement in quality) is modelled to begin to occur after the children are working age (assumed to be 15 years of age).

Lifting the performance of the ECEC sector has other benefits including increases to employment, private investment and government revenue.

### Effect of lifting ECEC service performance on the economy out to 2060

\$ values are in present value terms (2025), impact over 2025 - 2060



Source: McKibbin and Triggs (2018) *Modelling the G20*; Sylva et al. (2003) The effective provision of pre-school education (EEPE) project research brief; PwC (2014) Putting a value on early childhood education; Mandala analysis.



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## Commonwealth policymakers primarily rely on regulatory levers to influence provider performance

**Current policy approach for managing ECEC provider performance** 



### **Funding levers**

- The Child Care Subsidy (CCS) is the Government's core funding support for ECEC services
  - The Hourly Rate Cap acts as a constraint on provider cost growth, though the ACCC notes that this is inconsistent with many providers charging above the Hourly Rate Cap
- Support to establish services in areas where there is undersupply and limited viability is currently provided via a modest grant program, the Community Child Care Fund (CCCF). This includes some support for operational expenses.
- The Preschool Reform Agreement (PRA) is a joint funding model between the Commonwealth and states to lift preschool attendance



### **Regulatory requirements**

- Regulatory requirements are established by the National Law and administered via State and Territory regulators
- The National Quality Framework (NQF) and the National Quality Standard (NQS) is the overarching regulatory system for providers
- The NQS specifies 7 quality areas important to ECEC, ranging from educational and care practices, health and safety, facilities, and operations
- Minimum qualifications are required. Staff must be enrolled or have completed a Certificate III or Diploma in ECEC
- Services are required to maintain and update Quality Improvement Plans
- The Commonwealth has recently announced that it will remove access to CCS for those providers for whom there are systemic quality and safety issues



### Monitoring and other measures

- Services are required to undergo regular assessments and be rated under the NQF and NQS. NQS ratings determine ongoing eligibility for funding
- State based regulators monitor services through scheduled and unscheduled site visits, targeted monitoring campaigns and investigations into services
- The Commonwealth provides support via ACECQA, which establishes and promulgates support to achieve national standards

### ECEC providers continue to face two main challenges: operational capabilities, staff availability and capability

### **Provider challenges**

### **Operational capabilities**



- Compliance and viable operations: Providers must navigate a highly regulated environment, balancing quality requirements, with resources and costs to maintain compliance while staying financially sustainable
- Administrative burden: Providers interface with multiple levels of government, requiring significant administrative capacity. This includes CCS administration via Services Australia, National Law compliance and reporting via State Regulators, State funding for preschool delivery (where applicable) and applications for supplementary funding lines from the Commonwealth (e.g. the Inclusion Support Program)
- Funding and scaling challenges: Limited funding streams and slim budgets
  mean some providers have insufficient resources to identify opportunities,
  locations, review contracts, recruit, train and oversee staff that would be
  required to grow
- Oversupply in some areas: Occupancy rates and parental ability to sustain higher fees are important to provider profitability. This leads to providers opening new services in higher income areas, competing for a scarce workforce and causing under-occupancy in existing services. As noted by the ACCC, parents have trouble assessing provider quality, and so this does not necessarily lead to better outcomes for parents and their children.

### Staff shortages and capabilities



- Recruitment: Recruitment challenges are driven by low wages relative to qualification requirements and demanding working conditions
  - Median hourly earnings for educators (\$29) are on par with checkout operators (\$28) and lower than bar attendants and baristas (\$33)
  - In Greater Sydney, "Child carers" is the top occupation with excess demand
- Attrition: Over half of current ECEC staff plan to leave the profession within the next 3 years and a quarter plan to leave within the year
- Required qualifications: High-quality EC services require specific qualifications and ongoing professional development within a complex regulatory framework
  - Enrolments in the Diploma of Early Childhood Education and Care, a qualification required under the NQF, declined by more than 25 per cent from 2018-2022
- Varied demands: There's significant variation in the skill mix requested in ECEC jobs, which be a challenge for career progression.
  - Budgeting, management, cooking and social media are examples of specific skills requested.

## There are a range of potential levers available to improve ECEC outcomes, including better use of microdata

		Non-financial interventions	Financial interventions		
Provider- focused	Targeting under- performance	<ul> <li>Data-driven regulation: use microdata assets to identify lowand high-quality providers beyond NQF measures</li> <li>Empower regulators: ensure regulators have adequate resources to deliver timely assessments and support activities to remediate poor performance</li> </ul>	<ul> <li>Additional restrictions: consider additional restrictions on access to the Child Care Subsidy, for example, for providers with poor quality track records entering well supplied markets</li> </ul>		
	Build capacity of high-potential providers	<ul> <li>Data-driven identification: understand unique attributes of good performers and develop educative and operational support materials for centres with consistently poor quality</li> </ul>	<ul> <li>Growth support: provide funding and operational advice for providers who meet quality or performance thresholds and are seeking to expand</li> <li>Standardised digital solutions: develop standard digital tools for providers including compliance automation and shared services platforms across the sector</li> </ul>		
	Incentivise high performance	<ul> <li>Streamlined pathways: provide streamlined pathways for those applying for supplementary funding streams (e.g. the Inclusion Support Program) for those providers with higher performance (as identified through microdata)</li> </ul>	<ul> <li>Access priority: consider prioritising access to any new needs-based funding streams for those services meeting provider benchmarks</li> </ul>		
Staff- focused	Grow worker supply	<ul> <li>Uplift microdata use: use microdata (including National Workforce Census data) to understand patterns of retention of workforce, provide benchmarking data, and share features of firms that are retaining their workforce</li> </ul>	<ul> <li>Localised recruitment: develop sophisticated recruitment drives that target areas of critical shortage with appropriate incentives or offer relocation support</li> </ul>		
	Improve worker retention	<ul> <li>National ECEC capability framework: develop a national capability framework with standardised professional development pathways and quality metrics</li> <li>Design new training programs: understand unique attributes of good performers and develop supplementary training programs for quality improvement and/or career progression opportunities</li> </ul>	<ul> <li>Review retention payment: consider success of worker retention payment program and increasing payments to reflect worker tenure</li> </ul>		

Source: Desktop research; Mandala analysis.

MANDALA

## Linked microdata can help overcome information barriers by providing insights on top performers, including the practices which help drive superior outcomes

1 Linking longitudinal data with ECEC providers to understand relationship between firm productivity and population outcomes											
	Indiv	iduals		Households	Businesses						
Person Level Integrated Data Asset (ABS)	Data Over Multiple Individual Occurrences (DSS	Australian Early Development Census (Cth)	National Workforce Census (Cth)	Household, Income, and Labour Dynamics	Business Longitudinal Analysis Data	National Quality Standards (ACECQA)	Firm-level business characteristics				
Whole-of-life longitudinal description of individuals	and AIHW) Longitudinal data describing payments from social service programs	Data from teachers completing a survey for each student in their first year of full- time school	Data describing the national ECEC workforce and service information	in Australia (Melbourne Institute) Longitudinal data on households	Environment (ABS) Longitudinal data of businesses	Longitudinal data of ECEC services and providers	(Purpose Bureau) Longitudinal data of businesses describing ECEC service and provider information				

### 2

### Identification of high and low performance providers including unique characteristics or activities

- Low quality, high-fee providers vs high quality, low-fee providers
- · Providers with high staff turnover vs strong retention
- Growth rates

- Productivity
- Socio-economic and education outcomes
- Workforce characteristics



### Design and roll out of targeted policy solutions



#### **Leveraging good performers**

- Dedicate growth resources
- Understand and replicate ways of working
- · Reward and incentivise high performance



#### Improving weak performance

- Dedicate support resources
- Educate on ways of working
- Monitor and intervene for ongoing underperformance

## A system stewardship model leveraging microdata can improve sector performance and deliver better outcomes

A strong ECEC system relies on effective stewardship. Governments play a central role in shaping how the sector performs - by setting clear expectations, monitoring performance, and supporting providers to deliver quality outcomes.

A stewardship approach shifts the focus from isolated provider performance to how the system as a whole functions. By using linked microdata, governments can identify patterns in quality, workforce capability, and access, and target interventions where they are most needed.

System stewardship ensures that policy, funding, and accountability arrangements work together to support high-quality, affordable, and accessible services for all children and families.

### A stewardship model for the ECEC system

### **GOVERNMENT STEWARDSHIP**

Policy, funding, accountability

- Sets system direction through clear goals for quality, access, and workforce sustainability.
- Aligns policy, funding, and regulation to support these goals.
- Uses transparent data and evaluation to ensure accountability and continuous improvement.



### SYSTEM ENABLERS

Microdata, workforce capability, quality assurance, provider support

- Translate stewardship into practical action across the sector.
- Leverage linked microdata to identify trends and target support.
- Strengthen workforce capability, quality assurance, and provider performance.



### OUTCOMES FOR CHILDREN AND FAMILIES

Quality, affordability, accessibility

- Higher quality, more affordable, and more accessible ECEC services.
- Builds long-term system sustainability and public trust.

Source: Mandala analysis MANDALA 18



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### Traditional productivity measures do not capture the full set of characteristics, such as quality, necessary to evaluate the ECEC sector's performance

- Productivity is commonly measured using indicators such as revenue per employee, output per hour worked, or multifactor productivity (output relative to combined labour and capital inputs).
- However, these metrics are poorly suited to the ECEC sector because of four key reasons (below)



DESCRIPTION

DISTORTION

Mandated staff-to-child ratios limit output per worker



**Regulation standardises** inputs and limits flexibility



Subsidies and price caps drive revenue, not market dynamics



Quality - not volume - is the core objective

- Mandatory educator-to-child ratios (e.g. 1:4 for infants) are fixed by regulation
- Providers cannot serve more children per educator without breaching legal requirements or compromising care
- National ECEC regulations set minimum qualifications, space requirements, programming, and governance standards
- Providers invest and operate to a specific standard and in such a environment there is less room for efficiency gains through substitution or scaling

Multifactor productivity appears static or declining, even as quality improves, because inputs (labour, capital) are locked in

- Child Care Subsidy (CCS) and hourly fee caps determine much of provider revenue
- Increases in productivity measurements may be due to policy and CCS changes, and not improvements to operational efficiency

Revenue-based productivity metrics alone (e.g. revenue per staff) rise or fall with subsidy settings, masking real performance.

- High-quality ECEC requires intensive inputs: smaller groups, bettertrained staff, enriched environments.
- These raise costs and lower output per worker but deliver better child development outcomes.

Traditional metrics penalise providers who invest in quality, even though they are pursuing better outcomes.

Output per worker measures (e.g. children per staff) appears flat or low. even in well-run, high-performing services.

Here, we assess sector performance using a hybrid of measures, incorporating both a measure of operational efficiency (e.g. revenue per worker) and National **Quality Standard (NOS) indicators.** 

### Linking productivity and quality microdata enables us to identify top and bottom performers in the ECEC sector: Provider size

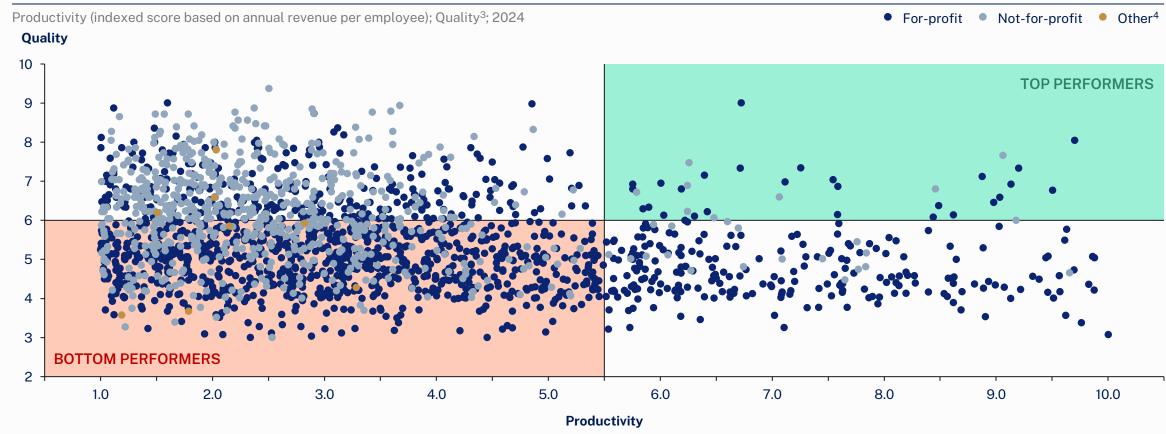
### ECEC providers productivity versus quality by size<sup>1,2,3</sup>



1 Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded). 2 Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NQS in Q3 2024) across Australia. 3 A provider is considered 'Large' if it operates at least 8 LDC services, 'Small/medium for 2-7 LDC services and 'standalone' operates 1 LDC service. This definition is based on the Royal Commissions into ECEC within South Australia report (March 2023). 4 Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5.

### Linking productivity and quality microdata enables us to identify top and bottom performers in the ECEC sector: Provider type

### ECEC providers productivity versus quality by provider type<sup>1,2</sup>



<sup>1</sup> Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded).

<sup>2</sup> Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NOS in O3 2024) across Australia.

<sup>3</sup> Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5.

<sup>4</sup> Other includes Catholic schools and Independent schools

## Linking productivity and quality microdata enables us to identify top and bottom performers in the ECEC sector: Primary region of operation

### ECEC providers productivity versus quality by primary region of operation<sup>1,2,3</sup>



<sup>1</sup> Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded).

<sup>2</sup> Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NQS in Q3 2024) across Australia.

<sup>3</sup> Primary region of operation is the region where more than 50% of the providers centres are based. Excluded 18 providers from the sample that don't have a primary region. 4 Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5.

Source: Data obtained for Mandala by Purpose Bureau; ACECQA (2024) NQF Snapshots; Mandala analysis

### Linking productivity and quality microdata enables us to identify top and bottom performers in the ECEC sector: Socioeconomic status of areas of operation

### ECEC providers productivity versus quality by average socioeconomic status of areas of operation<sup>1,2,3</sup>



<sup>1</sup> Only includes providers that operate childcare centres exclusively (e.g., government departments are excluded).

<sup>2</sup> Based on a sample of 2000 providers (out of 6526 CBDC providers rated in the NQS in Q3 2024) across Australia.

<sup>3</sup> Based on the average decile of Socio-Economic Index for Areas of Relative Socio-Economic Advantage and Disadvantage, across all centres that the provider operates. A score of >= 8 is categorised as high SES, 4-7 as medium and <4 as low. 4 Based on the average NQS rating and the staff to child ratio (number of employees and maximum places) across all centres of a provider. The NQS ratings were assigned a numerical score starting from "Significant Improvement Required = 1" to "Excellent = 5". The staff to child ratio was normalised to be between 1 to 5. Source: Data obtained for Mandala by Purpose Bureau; ACECQA (2024) NQF Snapshots; Mandala analysis

## Method overview: The economic benefits of increasing sector performance can be measured by combining firm-level microdata with computable general equilibrium modelling





**Firm-level microdata on ECEC providers** across Australia is available for analysis.

This is a firm-level dataset which is linked to NQS data, providing detailed insights into ECEC providers.

This microdata includes variables such as:

- Provider revenue
- Number of employees
- Location including State and postcode
- NQS rating
- Type of service



### COMPUTABLE GENERAL EQUILIBRIUM MODELLING (CGE)

A computable general equilibrium model (CGE) can be used to estimate the effects of having the bottom quintile increase productivity and quality up to the level of the top quintile.

This is used to **model flows of capital, jobs and economic activity** as it moves between different sectors of the economy and between economies at a global scale. The model accounts for both direct, indirect and offsetting effects, and is widely used by macroeconomists, including the RBA, Treasury, IMF and other commercial and central banks.

Key agents in the model include:

Firms

+

- Households
- Governments
- Central banks



### **ECONOMIC BENEFITS**

Leveraging the firm-level dataset along with CGE modelling, the **economic benefits** from lifting ECEC productivity and quality can be estimated.

This includes benefits such as increases in GDP, employment, government revenue and investment.

Source: Mandala analysis. MANDALA | 25

## 84% of the increase in government revenue from lifting performance, would go to the Commonwealth

Lifting the performance of the ECEC sector could generate \$2.1 billion in government revenue by 2060. Of this, \$1.8 billion (84 per cent) is expected to be directed to the Federal Government.

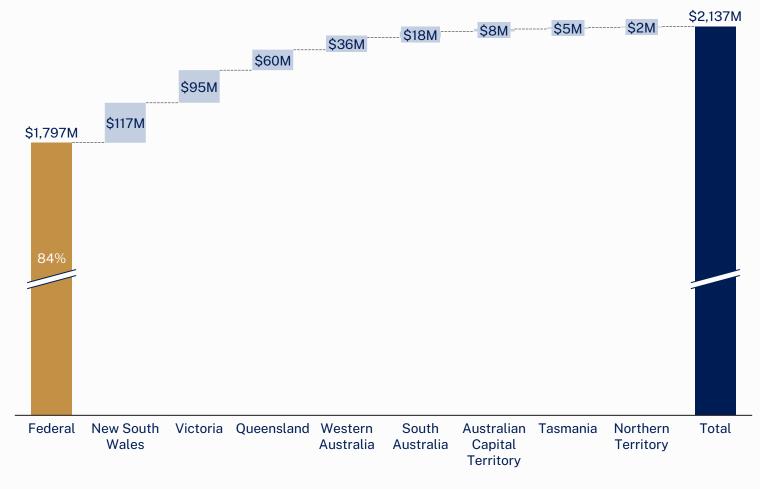
The next biggest beneficiaries are the states with the largest populations, with the New South Wales and Victorian State Governments receiving \$117 million and \$95 million respectively.

Raising government revenue is important as it is reinvested into the population through funding public services and infrastructure to improve public wellbeing, as well as supporting productivity and the economy.

Investing in quality ECEC also reduces the cost of future government interventions. High quality programs, particularly for disadvantaged children, lead to high quality outcomes as children grow and develop with reduced health and social spending.

### Breakdown of increase in government revenue due to lifting ECEC performance

\$ million in present value terms, 2025 - 2060

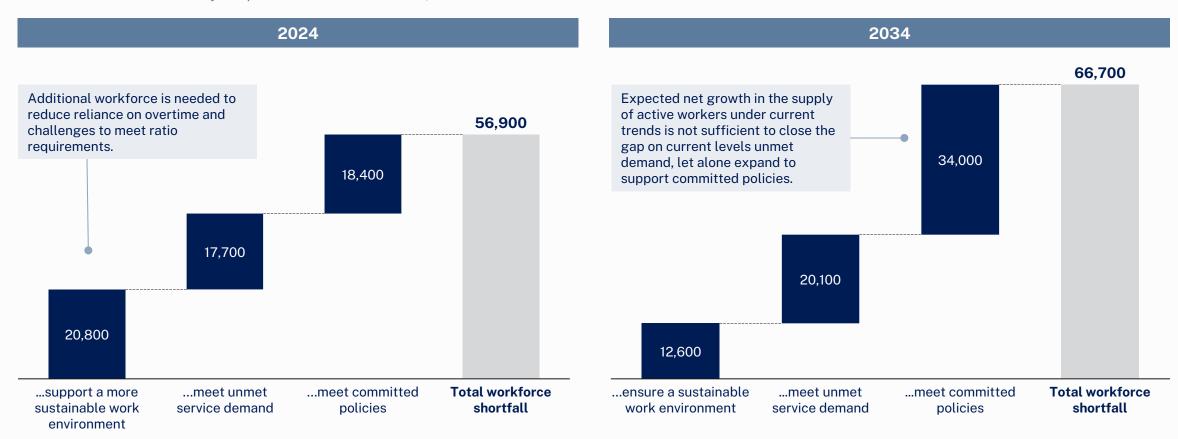


Source: McKibbin and Triggs (2018) *Modelling the G20;* Sylva et al. (2003) The effective provision of pre-school education (EEPE) project research brief; PwC (2014) Putting a value on early childhood education; Mandala analysis.

### The ECEC sector faces significant workforce shortfalls, which are expected to increase over the next decade

### Additional ECEC workers are needed to mitigate current resourcing stress as well as meet future demand

Nature of workforce shortfall by component of workforce demand, headcount



## ECEC educators are more likely to consider leaving than other workers across the broader care sector

ECEC educators have expressed a higher preference for leaving their current profession, with 25 per cent of workers planning to leave the sector within the next 12 months. This contrasts with 10 per cent of nurses and 20 per cent of aged care workers reporting similar plans of leaving.

The ECEC sector has many transient workers. Almost a quarter are casual employees and only 48 per cent plan to stay within the sector for more than three years.<sup>1</sup>

Significant staff turnover makes it difficult for ECEC services to commit to long-term plans and invest in staff training. With educators who have already left the sector, the top reasons for why they left included poor rate of pay (41 per cent), work stress (34 per cent), developing new skills (26 per cent), and high workload (25 per cent).<sup>2</sup>

### Workers who plan to leave their profession within the next 12 months

% of workers who consider leaving within the next 12 months by worker type



<sup>1</sup> Productivity Commission (<u>2024</u>) A path to universal early childhood education and care

<sup>2</sup> Jobs and Skills Australia (<u>2024</u>) The Future of the Early Childhood Education Profession.

## Workers must complete education qualifications . . .

### **Education requirements for workers under the National Quality Framework**



Note: Course names are Certificate III in Early Childhood Education and Care and Diploma of Early Childhood Education and Care.

Source: Skills IQ (2021) CEC Children's Education and Care Implementation Guide Release.

## ... yet are paid wages comparable to jobs that do not require additional qualifications

### Hourly earnings for educators are similar or less than some retail occupations

Median hourly earnings, \$AUD, 2023



Note: Educators is based on ANZSCO code for child carers. Source: Productivity Commission (<u>2024</u>) A path to universal early childhood education and care.

# Despite an increase in minimum qualification enrolments, ECEC diploma enrolments have dropped

Despite an increase of over two thirds in enrolments for Certificate III, there has been a sharp decrease of 64 per cent in enrolments for the Diploma of Early Childhood Education and Care between 2015 and 2023.

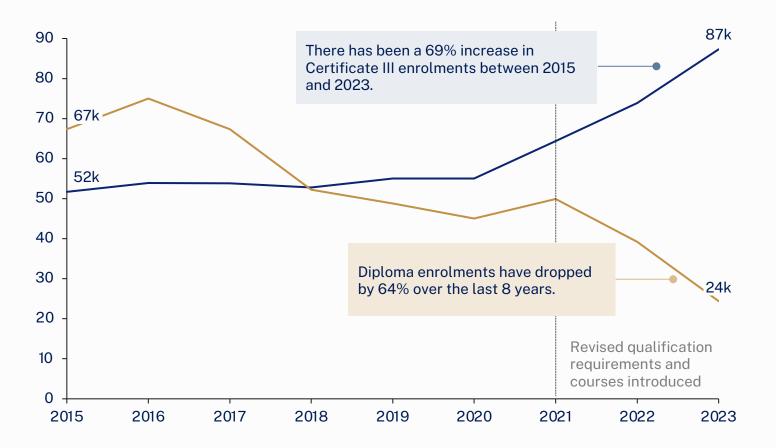
The ECEC diploma program offers additional training in topics such as budget and management, which are needed for leadership roles within the sector and provide career advancement opportunities.

In 2021, the requirements for Children's Education and Care Qualifications involving units and skill sets were updated. Among the revisions were requiring Certificate III to be completed before a Diploma in Early Childhood Education and Care.<sup>1</sup>

#### **Enrolments in ECEC VET courses**

Number of enrolments in ECEC Vet courses, 2015 - 2022





Note: As part of updates to Children's Education and Care Qualifications in 2021, Certificate III is required to enroll in the Diploma program. Courses included in this chart are Certificate III in Early Childhood Education and Care (course codes CHC30113 and CHC30121) and Diploma of Early Childhood Education and Care (course codes CHC50113 and CHC50121).

Source: NCVER (2025) Total VET Students and courses 2023; Skills IQ (2021) CEC Children's Education and Care Implementation Guide Release.

## Limited operational capacity limits firms' ability to expand...

#### Factors challenging not-for-profits services to scale

### Access to capital



Difficulty borrowing from banks, given the financial criteria to borrow uses a multiplier of an organisation's earnings.

Prioritising service quality improvements



Not-for-profit providers tend to prioritise using surpluses for improving quality of service, such as by paying staff above award wages or having higher staff to child ratios.

Insufficient staff resources



Insufficient staff resources to identify opportunities, research potential locations, review contracts, and train new staff – all required as part of the process to consider expansion.

**Costs of compliance** 



Providers face significant operational costs and complexity in maintaining compliance and delivering quality programs while remaining financially viable.

## ... or commit resources to apply for government grants

### Complexity and limited operational capacity create challenges for applicants

The Community Child Care Fund (CCCF) provides about \$400 million to support over 1,000 ECEC services through five types of grants. Unfortunately, some not-for-profit providers have reported the application process can be prohibitive due to the cost and time required. CCCF does provide a business support program, but only for those already awarded grants.

"You could employ almost one person full-time just to keep to date with all the changes in the structure, and the opportunities to ... access additional funding, or making sure that we're capturing the funding that we need. It's just impossible."

(Online hearing in 2024 with participants from the Wimmera Southern Mallee, Mallee, Loddon Campaspe and surrounding regions.)

"A volunteer working group was established in 2017 by the community to find and implement a solution after two family daycare operators announced plans to retire. . . . The small volunteer group has had to become politically savvy, read complex and technical reports, and understand grant eligibility – all time consuming and arduous work for already busy parents and grandparents."

(Case study of Crystal Brook, SA by The Parenthood.)

