



Economic evaluation of NSW-specific staffing regulations on childcare costs

NSW Treasury

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Deloitte
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1 Introduction

Summary and key findings

- This report estimates the cost impact of three NSW specific staff regulations on services (long day cares and preschools) in the early childhood education and care sector in New South Wales (NSW). These regulations include that childcare providers:
 - Must operate under a 1:10 staff to children ratio for children 3-6 years (relative to the national 1:11 ratio).
 - Must employ a minimum number of early childhood teachers (ECTs) that is different to that outlined in the National Quality Framework (NQF) (for example, at least four fulltime ECTs relative to two ECTs required for 60 percent of the time by providers with 80 or more children under the NQF).¹
 - Do not have the option to use 'suitably qualified persons' in lieu of additional ECTs. Under the NQF, a provider can employ one ECT and one 'suitably qualified person'. In this context, a suitably qualified person is either; registered as a teacher; or, holds an early childhood education and care (ECEC) diploma; or, is actively working towards an ECT qualification.
- The analysis is based on a set of assumptions (set out in Section 2.4) as there is limited service-level staff data available for the sector.
- Importantly, the analysis assumes that every service operates in accordance with the regulated staff-to-child ratio.
 - However, in practice, services may choose to maintain higher staffing standards or be limited to lower ratios (through waivers provided to services that are unable to maintain the required staff regulations due to legitimate barriers in accessing staff).
- Taken together, the three regulations are estimated to increase labour costs in the sector by \$233 million (17.5 percent of staff costs), relative to those outlined in the NQF.
 - This corresponds to an 9.1 percent increase in total costs for these services.
- The estimated individual cost of each individual regulation is estimated as follows:
 - The requirement for services in NSW to maintain a staff to children ratio of 1:10 is the largest contributor to costs, estimated to increase costs in the sector by \$128 million (8.9 percent alongside the other in-scope regulations), relative to the costs under the staff to children ratio of 1:11 set out in the NQF.
 - The requirement for services in NSW to employ a higher minimum number of ECTs increases costs in the sector by \$95 million for LDC services, relative to the requirements set out in the NQF.
 - The inability to substitute additional ECT with 'suitably qualified persons' increases costs in the sector by \$10 million for LDC services, relative to the requirements set out in the NQF.
- The analysis does not compare the cost of these regulations against the benefits they may bring by raising educational quality in ECEC services.

1.1 Background

The NQF, introduced in 2012, sets out the quality standards to improve education and care across long day care services, family day care and preschool/kindergarten services. The NQF outlines the legal obligations of approved providers and educators, including the minimum qualification and educator to child ratio requirements for children's education and care services.

The NQF is the result of an agreement between all Australian Governments, and outlines a cohesive approach to regulation, assessment, and quality improvement for ECEC. NSW has more stringent staffing requirements than those required by the NQF. Specifically, NSW requires more

¹ The minimum number of ECTs decreases based on the number of children in the service, as outlined in Table 1.1.

educators per child, and a greater number of ECTs per service. The intention of these requirements is to support high quality interactions between children and staff and ultimately drive improved educational and developmental outcomes for children.

Deloitte Access Economics has been engaged by NSW Treasury to evaluate the cost impact of NSW staffing regulations, relative to those set out in the NQF.

This report considers:

- the extent to which NSW specific staffing ratios and minimum qualifications requirements, above the NQF standards, impact costs for childcare;
- how each staffing regulation contributes to the aggregate cost; and
- how the ECEC workforce is impacted by the regulation in terms of aggregate change and composition.

Any determination of the effectiveness of regulation should be done with consideration towards both the costs of the regulation, and the benefits that accrue as a result. This analysis covers only one part of this calculus – the cost component – and should be considered within this context.

1.2 Purpose

This report is intended to estimate the extent to which the additional regulatory requirements impact childcare services by increasing operational costs (and, by extension, the potential cost reduction for families if these regulations are aligned with the standards set out in the NQF). In the context of this report, childcare services include Long Day Care (LDC) and community preschools.

This work is motivated by a recommendation in the recent NSW Productivity Commission White Paper (2021) that the Government evaluate the costs and benefits of NSW childcare regulatory requirements that differ from national staff ratio and qualification requirements (Recommendation 4.9).

The scope of this analysis is limited to three regulations. These are that childcare providers:

1. Must operate under a 1:10 staff to children ratio for children 3-6 years (relative to the national 1:11 ratio).
2. Must employ a minimum number of ECTs that is different to that outlined in the NQF (for example, at least four fulltime ECTs relative to two ECTs required for 60 percent of the time by providers with 80 or more children under the NQF).²
3. Do not have the option to use 'suitably qualified persons' in lieu of additional ECTs. Under the NQF, a provider can employ one ECT and one 'suitably qualified person'. In this context, a suitably qualified person is either
 - i) registered as a teacher; or,
 - ii) holds an ECEC diploma; or,
 - iii) is actively working towards an ECT qualification.

These differences in requirements between NSW and those outlined in the NQF are summarised in Table 1.1.

² The minimum number of ECTs decreases based on the number of children in the service, as outlined in Table 1.1.

Table 1.1: Overview of regulation and options for children aged 3 to 6 years old (i.e. preschool age)

Regulation category	NSW regulation	NQF standards
Staff to children ratio	1:10	1:11
Minimum ECTs for services with:		
i. 0 to 24 children	One (20% of time)	One (20% of time)
ii. 25 to 29 children	One (60% of time) ⁴	One (60% of time)
iii. 30 to 39 children	One (fulltime)	One (60% of time)
iv. 40 to 59 children	Two (fulltime)	One (60% of time)
v. 60 to 79 children	Three (fulltime)	Two (60% and 30% of time)
vi. 80 or more children ³	Four (fulltime)	Two (both 60% of time)
Ability to substitute additional ECT with 'suitably qualified persons' ⁵	No	Yes

Source: Education and Care Services National Regulations (2011 SI 653). Note: Relevant regulations for NSW are regulation 271 and 272. Those regulations outlining the National Quality Framework standards are included in regulations 123 and 130-134. Regulations 130 and 131 apply in the same way in NSW as other jurisdictions, meaning the requirement for the minimum number of ECTs in services with less than 30 children is consistent.

1.3 Context

The ECEC sector provides a variety of different services for children, which can vary considerably based on their age and education and care requirements. These include preschool, centre based day care, family day care, outside school hours care (OSHC), in-home care and occasional care services.

The only childcare service in-scope for this analysis is preschool and centre based day care, or more specifically, LDC. Other service types are not in scope as they are either not service-based (i.e. they are based in an educator's home) or relate to children who are not preschool age.

A centre-based care program (referred to as an LDC in this report) cater for children aged zero to five years old and operate longer hours relative to community preschools. They can offer preschool programs, although have slightly different staff requirements (set out in Table 1.1). Preschool programs are play-based learning programs delivered for 15 hours per week per child or 600 hours per year, with an ECT in attendance (NSW Department of Education, 2021). LDC services may operate on stand-alone or shared premises, for example, on school grounds.

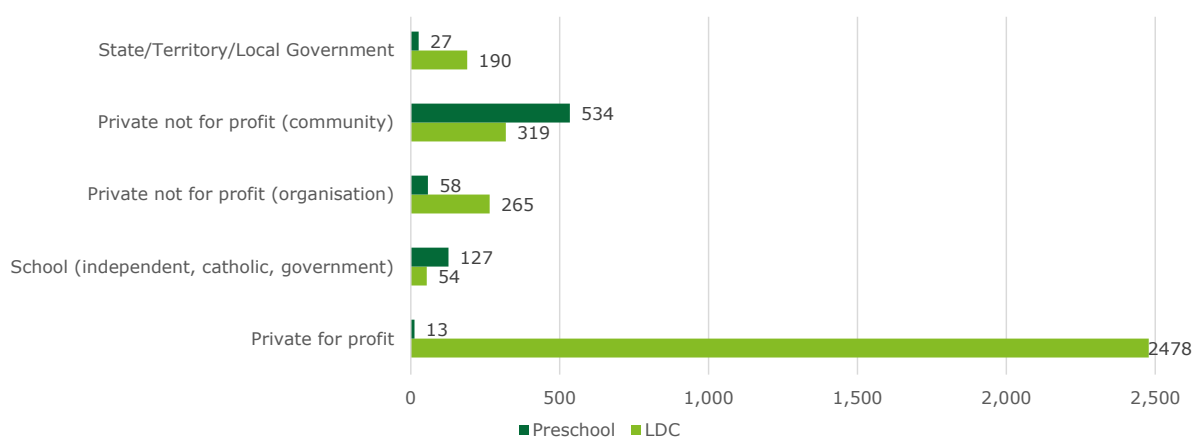
Preschools are government approved services and provide early childhood education programs for children in the year before they start kindergarten (Service NSW, 2021). While most preschools are community-based not-for-profit services, there are also a number of other service types, outlined in Chart 1.1. This chart also demonstrates the large number of LDCs in the sector (3,300) relative to preschools (750).

³ Children aged three to five years (i.e. preschool age).

⁴ For services where ECTs are required for a percentage of operating hours, there also exists the requirement for a minimum number of hours per day for services that operate less than 50 hours a week. Where an ECT is required 60% of the time, the minimum is six hours per day. Where an ECT is required 30% of the time, the minimum is three hours per day.

⁵ This regulation is also considered in the context of the 2019 NQF Review.

Chart 1.1: Number of services by provider management type in NSW, 2021



Source: ACECQA (2021).

In preschools, there is one ECT per room to deliver the preschool program. In LDCs, the ECT requirement is at least one ECT in the service (i.e. they do not have to be in the same room as the children), increasing with the number of children as presented in Table 1.1.

The LDC workforce requirements are set out under the National Quality Framework (NQF). In addition to the ECT requirements, at least 50% of educators must be diploma level qualified or higher at an LDC, with the remaining educators must be at least certificate III level qualified in a relevant qualification (ACECQA, 2021).⁶ As LDCs are typically much larger than preschools,⁷ it is these staff that are organised across rooms to ensure relevant staff-to-children ratios are met.

Across Australia, the Australian Industry and Skills Commission (2020) report that, at childcare services, 6% are early-childhood teachers, 6% are centre managers while 76% of the workforce are child carers (with a Certificate III or Diploma).⁸

Box 1: Cost structure in the preschool sector

Staff costs represent the largest expense for the sector given the primary role of staff in supervising and educating children (IBISWorld, 2019). Services will also purchase supplies (e.g. paints, toys, etc), which represent the next largest cost category. IBISWorld (2019) estimated that:

- wages represent 52.3 percent of costs
- purchases represent 15.9 percent of costs
- rent represents 10.1 percent of costs
- other costs, depreciation and utilities represent 21.7 percent of costs.

⁶ ACECQA (2021). Qualifications for centre-based services with children preschool age or under. Accessed at <<https://www.acecqa.gov.au/qualifications/requirements/children-preschool-age-or-under>>

⁷ Of the 228 preschool and LDC services in NSW with a maximum capacity (at a given time) of over 100 children, 226 are LDC services. The average capacity is 36 children for preschools and 56 children for LDC services.

⁸ Australian Industry and Skills Committee (2020). *Children's Education and Care*. Accessed at <<https://nationalindustryinsights.aisc.net.au/industries/community-services/childrens-education-and-care>>

1.4 Stakeholder engagement

This exercise was principally informed by desktop analysis. However, the research was supported by a consultation with the NSW Early Childhood Education Advisory Group, which was attended by a variety of stakeholders within the sector. Among other things, stakeholders emphasised the history of early childhood staff regulations in NSW and the role the current regulations play in driving quality outcomes for children in the sector.

The views expressed in this consultation are summarised in Table 1.2, and referenced in the subsequent sections, where relevant to the analysis. Findings from a separate consultation with small businesses coordinated by the Small Business Commissioner are also summarised, where relevant to staff ratios for ECTs in NSW.

Table 1.2: Overview of stakeholder views

Stakeholder	Approach	Findings
NSW Early Childhood Education Advisory Group	Deloitte Access Economics Consultation	<ul style="list-style-type: none"> Views expressed by the group were that subsequent analysis should be undertaken on the benefits associated with higher regulation standards relating to quality and long-term educational outcomes. A change in staff requirements is likely to impact staff wellbeing, where teachers risk feeling less valued. There is a view that this could lead to increased teacher burnout and a greater number of ECTs exiting the sector in the short-term. A 1:10 staff ratio in NSW promotes flexibility for staff to better manage children with additional needs. Suitably qualified persons are not considered as a replacement for ECTs. They can assist in some settings, and support training, but should be considered ECTs "in training". There is a view that the not-for-profit sector employs above the minimum staff requirements, meaning a change in the minimum standard will have less of an impact on these service types. Many regional and remote areas already have issues with sourcing the necessarily levels of staff for services Views expressed by the group were that there should be a greater focus on increasing teacher supply rather than accepting reduced demand due to regulatory changes.
Small businesses stakeholder views	Summary of Department-run consultation	<ul style="list-style-type: none"> Under the NSW regulations and NQF guidelines, the number of ECTs required no longer scales after 80 children. This means that large centres with hundreds of children can operate with the same number of ECTs as a centre with 80 children. With many LDC services requiring twice the number of ECTs in NSW compared to comparable services in other states, small business stakeholders view this has reinforced teacher shortages in areas of the state.

Source: Deloitte Access Economics (2021).

2 Approach

2.1 Overview

Relative to what would have prevailed under NQF settings, the current NSW staff regulations are expected to have contributed to a greater number of early childhood staff being employed in the sector and differences in the composition of the workforce (between ECTs and educators holding diplomas).

The analysis focuses on each of the regulatory requirements set out in Table 1.1, examining the extent to which the NSW requirements are expected to have impacted service costs relative to the national standard set out in the NQF. Changes in the total number and composition of staff are used to estimate the overall cost of the difference in regulation, noting that staff and associated costs are the primary driver of costs for childcare services.

The cost difference between services adopting staff requirements set out in NQF as compared to NSW could occur through either a change in the number of *staff* or *children* at each service. Currently, services in NSW are required to employ a greater number of staff for a given number of enrolments relative to other states and territories following the requirements in the NQF.⁹ This has contributed to a higher cost per enrolment for the sector.

While the decision of services will depend on their current staff and enrolment profile (alongside other characteristics), the net effect on costs would be the same per child. Therefore, this analysis considers the change in costs under the scenario where the size of the *workforce* changes, holding the number of enrolments constant.

The NSW Department of Education provides waivers to services that are unable to maintain the required staff regulations where they face legitimate barriers to accessing staff (e.g. labour shortages). Between 2013 and May 2021, there were 2,700 applications for waivers approved by the NSW Department of Education for LDC and preschool services. Waivers can be either temporary or ongoing, so it is uncertain how many are currently active.

The staff estimates presented in the report represent an efficient scenario, where services are able to employ the necessary amount of staff for their child enrolment profile, not accounting for the use of waivers.

2.2 Data informing individual service level analysis

Analysis at a service-level draws predominantly from three sources; the NSW Department of Education, the Department of Education, Skills and Employment (DESE) and the Australian Children's Education & Care Quality Authority (ACECQA).

Information on community preschools is collected based on enrolments for all children, recognising the sessional hours. Whereas attendance numbers and hours are collected for LDC services for children aged 3, 4 and 5, recognising the extended operating hours and variation in attendance patterns. Service-level characteristics, such as service type and location, were sourced from ACECQA. The variables and limitations of each dataset is summarised in Table 2.1.

⁹ Alternatively, services could reduce the number of enrolments for a predetermined number of staff.

Table 2.1 Overview of data used in the modelling of NSW ECEC staff regulation

Source	Description	Variables	Limitations
NSW Department of Education	Pre-school community sector enrolments (service-level, 2019).	<ul style="list-style-type: none"> Current enrolment (by age group) Location (suburb) Service ID 	Does not include hours of attendance or staff information. Only includes pre-school community services (i.e., no LDC services)
Department of Education, Skills and Employment	Long-day care attendance and charged hours per week (service-level, 2020 December quarter)	<ul style="list-style-type: none"> Attendance by age (2-5 years old), Average charged hours by age (2-5 years old) 	Does not include data on staff or distribution of hours across service operating hours.
ACECQA	Service-level data	<ul style="list-style-type: none"> Maximum total places Location (by SEIFA and ARIA+) Service sub-type (PSK and LDC) Provider management type (e.g. for profit, not for profit, etc) Service ID 	Does not include information on enrolment or staff profile.

Source: Deloitte Access Economics (2021).

As there is no data available at a service-level on the number of staff in early childhood services, it is necessary for this analysis to use enrolment and attendance data to estimate the number of staff required for each service. This is done by assuming an *efficient* scenario, where staff numbers – and the differential between the NQF and NSW-specific regulations – is estimated based on the minimum number of staff required for a given service under each regulation. In this sense, the analysis considers the difference in costs associated with efficiently complying with the current NSW regulations compared with efficiently complying with the NQF.

2.3 Estimating an enrolment profile for services

A change in the NSW regulation to staff requirements outlined in the NQF would mean that services with the flexibility to do so, could reduce the number of employed staff while satisfying the prevailing staff requirements.

The difference in the minimum number of ECTs required and the ability to substitute ECTs with 'suitably qualified persons' would result in a change in the composition of the sector's workforce. Given the option, services may choose to replace an existing ECT with another educator that is appropriately qualified at a lower cost. The overall basis of this configuration will be determined by staffing efficiency¹⁰ and wage differences between ECTs and other educators.

To estimate the difference in staff required under each regulatory environment, an enrolment profile is developed for each service. This includes an estimate of the number of enrolments by age for each service, and the associated number and composition of staff required.

For **community preschools**, reported enrolment data is combined with the average length of attendance per child and the service operating hours to estimate the average number of children

¹⁰ Efficiency is defined as minimising the number of staff to children, such that wage can be spread over the largest number of children.

attending each day. Not all children enrolled in preschools will attend every day, meaning that using reported enrolments would lead to an *overestimate* of the number of staff required.

For example, a community preschool with 40 reported enrolments would be interpreted as an average attendance of 20 children a day, with two staff required. This occurs as the service is assumed to operate 30 hours a week and children are assumed to attend an average of 15 hours a week. Recognising that community preschools typically operate 30 hours a week despite staff contact time being 24 hours a week, staff numbers are scaled 25% to ensure they are representative of the full week (see Table 2.2 for further detail of these assumptions).

For **LDC services**, the number of children in attendance is identified in the DESE data provided, alongside the average number of hours per child. In practice, attendance may be distributed across the spectrum of operating hours of a service. However, for the purpose of this analysis average attendance hours are assumed as data on the distribution of children across service operating hours is not available.

For example, consider a service that operates for 50 hours with 30 children attending in a given week, for an average of 25 hours each. The modelling assumes all 30 children attend at the same time, for the average attendance time of 25 hours. This means that the service would provide the necessary number of staff for 25 hours a week. This assumes that the service has sufficient capacity for 30 children to attend at the same time.

An alternative assumption could be that 15 children attend across all 50 hours, such that the average per child is still 25 hours. However, while some families may utilise the extended hours, attendance is predominantly going to occur during typical working hours (i.e. 9am to 5pm weekdays), meaning the distribution of attendance will be closer to a scenario where each child attends their average hours.

Where the average hours of attendance are greater than 36 hours (i.e. staff contact hours), LDC staff numbers are scaled by a percentage based on the difference. For example, for a service with children attending an average of 36 hours per week, staff numbers are not scaled. However, a service with children attending an average of 39.6 hours per week have their staff numbers scaled up 10 percent.

Services are assumed to employ the minimum number of staff required to operate their service given the regulatory environment. With access to data on the number of staff at each service, it would be possible to test the appropriateness of this assumption.

2.4 Key assumptions

The key inputs to the modelling and assumptions are presented in Table 2.2.

Table 2.2: Key modelling parameters and assumptions

Assumption/parameter	Description
The number of enrolments is held constant and the cost difference is achieved through a change in the number of staff.	There are number of both supply and demand factors that are likely to impact cost, which are not considered in this analysis. For example, it is possible that as the costs to services decrease, there is an increase in the number of enrolled children (or hours attended) across the sector.
Services employ the minimum number of staff required to operate given the regulatory environment.	Services may choose to operate at higher staff ratios. For example, this may be because they believe they can deliver (or be perceived to deliver) higher quality education and care to children.
Children attend an average of 15 hours each week (preschools).	The 15-hour attendance for children attending preschools is assumed based on the NSW Department of Education (2021) description of a preschool program, as play-based learning programs delivered for 15 hours per week per child (equivalent to 600 hours per year). These hours are consistent with preschool programs delivered in both Victoria and Queensland.
Preschool services have an average of 30 hours staff contact time per week.	This assumption is based on two 15-hour groups (typically split across 7.5-hour days or two 6-hour and a 3-hour day). Services may operate longer hours, recognising differences in staff number requirements will not impact these costs.
LDC services have an average of 36 hours staff contact time per week.	The number of hours required by staff each week to be in front of children in LDC services as described in Fair Work Ombudsman Children's Services Award (2010). Note that where the average attendance time of children (at a service-level) is greater than 36 hours, this has been adjusted for in the analysis by increasing the number of full-time equivalent staff required.
Weekly pay rate of \$1,291 for ECTs.	Educational Services (Teachers) Award wage for level 6 children's services employee (ECT) of \$1,241 with a 4 percent full-time employee adjustment (Clause 17.2) (Fair Work Ombudsman). Published 1 July 2021.
Weekly pay rate of \$960 for other educators.	Children's Services Award wage for level 3.3 support worker (other educators) for full time employment (38 hours a week). Level 3.3 possesses an AQF Certificate III or equivalent skills and performs work at that level as required by the employer. Wage assumed two years from commencement. Published 1 July 2021.
Staff oncosts of 32.5 percent.	<ul style="list-style-type: none"> • Superannuation contribution of 10 percent (ACECQA Enterprise Agreement, 2019) • Leave loading of 19.6 percent (ACECQA Enterprise Agreement, 2019) (adjusted for NSW wages) consisting of 7.7 percent for annual leave, 6.9 percent for public holidays and 5.0 percent for sick leave.¹¹ • Payroll tax contribution of 1.4 percent (estimated based on proportion of services exceeding eligibility threshold). • Workers compensation insurance of 1.4 percent (NSW average)

Source: Deloitte Access Economics (2021).

¹¹ Other leave types such as parental and compassionate leave were excluded from these calculations.

3 Results

3.1 Staff to children ratio

Early childhood services in NSW are currently required to operate under a 1:10 staff to children ratio, relative to the 1:11 ratio for children aged 3 to 6 years, as set out in the NQF. This has contributed to a greater number of staff employed in the NSW sector, assuming a consistent number of children enrolled in early childhood programs.

Overall, the NSW regulations of staff ratio for children aged 3 to 6 years is estimated to have contributed to an additional 1,880 staff employed, or an increase of 10 percent, relative to the requirements set out in the NQF. This difference is estimated to cost NSW services an additional \$128 million in wages each year or 8.9 percent (presented in Table 3.1).

The difference in staff is driven by a change in the number of educators that services employ, with the number of ECTs employed only changing in certain circumstances (i.e. where a preschool has multiples of 11 children enrolled). This occurs as the requirements around the minimum number of ECTs and use of 'suitably qualified persons' are consistent under both estimates. In other words, where a service is able to reduce the number of staff employed under a 1:11 staff to children ratio, they must do so while maintaining minimum ECT requirements. As the number of enrolments is assumed to be constant under both scenarios (with the cost difference arising through a change in number of staff employed), there is limited difference in the number of ECTs.

Table 3.1: Estimated number of staff and cost for staff to children ratio

Staff to children ratio	1:11 (NQF requirement)	1:10 (NSW current)
LDC - Number of ECTs	6,360	6,360 (+0%)
LDC - Number of other educators	8,640	10,140 (+17.4%)
PSK - Number of ECTs	2,210	2,370 (+6.8%)
PSK - Number of other educators	1,590	1,820 (+14.2%)
Total number of staff (FTE)	18,800	20,680 (+10.0%)
LDC - Cost of ECTs	570	570
LDC - Cost of other educators	570	670
PSK - Cost of ECTs	200	210
PSK - Cost of other educators	110	120
Total cost (\$m)	1,440	1,570 (+8.9%)

Source: Deloitte Access Economics (2021). Note: totals may not sum due to rounding.

In relative terms, service providers with high numbers of children enrolled are likely to experience the greatest difference in staff operating costs, as they can more efficiently reallocate children and staff between rooms, compared with smaller services. For example, a service with 150 enrolments can immediately reduce the number of staff employed. Whereas a service with 30 enrolments does not have this same flexibility and is required to continue with the same number of staff employed under both scenarios in the short-term. Where capacity permits, they may be able to either increase or decrease enrolments in the future to optimise their distribution of staff costs per child.

3.2 Minimum number of ECTs

Services are required to employ a minimum number of ECTs based on the number of children enrolled. For NSW, these requirements are considerably higher for services compared to those set out in the NQF, in some cases requiring over three times as many ECTs employed at the service. These differences are outlined in the previous section, in Table 1.1.

A change in ECT requirements is expected to influence the composition of the early childhood workforce (i.e. change the distribution of staff between ECTs and other educators). This change impacts LDC services only, as community preschools are still required to have one ECT per room to deliver the preschool program.

Table 3.2 presents the difference in number of staff and cost associated with the regulations in NSW compared to the NQF. It is estimated that the NSW regulations have led to an additional 4,150 ECTs employed in the sector, relative to the minimum ECT requirements set out under the NQF. Overall, this has meant approximately 63 ECTs employed for every 100 other educators in LDC services, compared to 16 for every 100 under the NQF requirements. It is estimated that this contributed a difference of \$95 million or 6.4 percent of staff costs in the sector.

Table 3.2: Estimated number of staff and cost for minimum ECT requirement

Minimum ECT requirements	NQF	NSW
LDC - Number of ECTs	2,220	6,360 (+187%)
LDC - Number of other educators	14,290	10,140 (-29%)
PSK - Number of ECTs	2,370	2,370 (+0%)
PSK - Number of other educators	1,820	1,820 (+0%)
Total number of staff (FTE)	20,680	20,680 (+0%)
LDC - Cost of ECTs	200	570
LDC - Cost of other educators	940	670
PSK - Cost of ECTs	210	210
PSK - Cost of other educators	120	120
Total cost (\$m)	1,470	1,570 (+6.4%)

Source: Deloitte Access Economics (2021). Note: totals may not sum due to rounding.

This estimation assumes that services are efficient in their staff decisions, minimising overall cost of staff (for a given number of children). Specifically, services are assumed to hire the minimum number of ECTs required and then hire the number of other educators to satisfy the staff to children ratio for children aged 3 to 6 years.

The ability for services to be efficient in their hiring of ECTs and other educators is influenced by their ability to access the number of staff required. In addition, where the difference in wage between staff groups is small, a service would have a greater incentive to hire an ECT in place of a less qualified educator where an ECT was more easily accessible.

Any change in the minimum ECT requirement would include a transition period, during which the sector would adjust to requiring a greater number of educators and lower number of ECTs. Directly following a change, it is likely that a greater wage premium (i.e. increase above the reported award wage) is offered for educator salaries relative to ECTs, reflecting the increased demand.

In the short term, this would mean that the difference in cost under each regulatory environment would be lower than that estimated. Over time, it is expected that the wage premium would reduce in line with the estimates presented in Table 3.2.

3.3 Option for suitably qualified persons

Services in other jurisdictions operating under the NQF currently have the option of using 'suitably qualified persons' in lieu of additional ECTs (i.e. services still require a minimum of one ECT). NSW does not allow the use of 'suitably qualified persons' to replace ECTs. Consistent with the previous regulation, this change impacts LDC services only, with community preschools still required to employ an ECT in the delivery of a preschool program.

As to not overstate the impact of including an option for suitably qualified persons, the baseline number of ECTs is assumed to be aligned to the NQF, without the option to substitute ECTs with suitably qualified persons. This means that LDC services with between 60 and 79 children attending require two ECTs for 60 percent and 30 percent of the time, as outlined in Table 1.1.

With the option to substitute additional ECTs with suitably qualified persons, these services can replace the ECT working 30 percent of the time with another educator, leading to a reduction in total staff cost. LDC services with 80 or more children attending can replace the second ECT (working 60 percent of the time) with another educator.

It is estimated that this difference has increased staff costs in the sector by 0.7 percent (or \$10 million). There is no change in the number of total staff, relative to the requirements set out in the NQF. The cost difference is attributable to the substitution of 460 ECTs in the sector with suitability qualified persons. The differences in staff numbers and cost are presented in Table 3.3.

Table 3.3: Estimated number of staff and cost for use of suitably qualified persons

Use of suitably qualified persons	NQF	NSW
LDC - Number of ECTs	1,760	2,220 (+26%)
LDC - Number of other educators	14,740	14,290 (-3.1%)
PSK - Number of ECTs	2,370	2,370 (+0%)
PSK - Number of other educators	1,820	1,820 (+0%)
Total number of staff (FTE)	20,680	20,680 (+0%)
LDC - Cost of ECTs	160	200
LDC - Cost of other educators	970	940
PSK - Cost of ECTs	210	210
PSK - Cost of other educators	120	120
Total cost (\$m)	1,460	1,470 (+0.7%)

Source: Deloitte Access Economics (2021). Note: the baseline scenario assumes the minimum ECT requirements aligned to the NQF, rather than those currently in NSW. This is done to avoid overstating the impact of this difference in requirements. Totals may not sum due to rounding.

3.4 Total difference in cost (in-scope regulations)

Where each of the above differences in regulatory settings (i.e. NSW regulations are aligned to the NQF) is considered simultaneously, the total difference in staff is estimated to be 10 percent and total staff costs is estimated to be 17.5 percent. The difference in staff is primarily impacted by the

difference in staff ratio, whereas the other two regulations (i.e. minimum ECT requirements and use of suitably qualified persons) contribute to the difference in total cost associated with a change in workforce composition.

Table 3.4: Estimated number of staff and cost under current NQF requirements and NSW regulations

Teacher type	NQF	NSW
LDC - Number of ECTs	1,760	6,360 (+261%)
LDC - Number of other educators	13,240	10,140 (-23%)
PSK - Number of ECTs	2,210	2,370 (+7.2%)
PSK - Number of other educators	1,590	1,820 (+14.5%)
Total number of staff (FTE)	18,800	20,680 (+10%)
LDC - Cost of ECTs	160	570
LDC - Cost of other educators	880	670
PSK - Cost of ECTs	200	210
PSK - Cost of other educators	110	120
Total cost (\$m)	1,330	1,570 (+17.5%)

Source: Deloitte Access Economics (2021). Note: totals may not sum due to rounding.

3.5 Implications of results

Where there is an option to operate at lower staff to children ratios, services may choose to continue operating at higher standards. For example, this may be because they believe they can deliver (or be perceived to deliver) higher quality education and care to children. As a result, the differences presented in previous sections represents an upper limit of cost savings that are achievable, where all services align to the requirements outlined in the NQF.

Consultations with the NSW Early Childhood Education Advisory Group suggested that the not-for-profit sector would be more likely to maintain higher staff requirements when provided the option to operate at lower staff to children ratios. This would mean that a change in the minimum standard (number and composition) of staff would have less of an impact on these services in the short-term.

In a scenario where not-for-profit services maintained the current staff requirements in NSW, where other services moved to requirements aligned to the NQF, the decrease in the difference in cost is approximately equal of the proportion of not-for-profit services within the sector (i.e. 30 percent). This would result in a difference in cost of 11.6 percent, rather than the 17.5 percent indicated in Section 3.4. In the long-term, as the sector adjusts to lower costs and these are passed onto parents, the not-for-profit sector may need to adjust (i.e. reduce staff and costs) or maintain higher staff numbers at the expense of greater costs for parents.

Where staffing costs are reduced, the extent to which this is reflected in reduced fees for parents is uncertain as there a range of factors that influence price setting. The costs presented in this report assume that the number of enrolments is held constant and the cost difference is achieved through a change in the number of staff. However, it is possible that as the cost per child for services decrease, there is an increase in the number of enrolled children (or hours attended) across the sector.

While the change in demand for ECEC due to price changes cannot be clearly measured, parents may vary their decision to send their children to childcare or enrol them in a preschool program based on a range of factors. For example, these may include service type (i.e. is there an educational component or is it predominantly for care) or the employment status of the parents (i.e. are there easily accessible substitutes of care).¹²

A stylised example is set out below, to demonstrate the possible impact of these changes on fees for families.

The example sets out the fee increase for parents *before CCS* in the event the cost is passed on in full to parents; 50 percent of the cost is passed on to parents and 25 percent of the cost is passed on to parents. This is calculated by dividing the total difference in cost associated with the in-scope regulations by the number of children enrolled in relevant services.

The impact on the average cost of centre-based care each week is estimated to be:

- \$23.8 per week for LDCs (\$12.7 per week for preschools) where 100 percent of costs were passed through to families
- \$11.9 per week for LDCs (\$6.4 per week for preschools) where 50 percent of costs were passed through to families
- \$6.0 per week for LDCs (\$3.2 per week for preschools) where 25 percent of costs were passed through to families.

¹² The ABS Childhood Education and Care survey (2017) finds that 70 percent of parents mainly choose to access care for their child as they are working. A further 21 percent say they choose to use ECEC services because of the benefits for the child, while the remainder cite personal reasons (such as needing a break from their child).

4 Conclusion

This report estimates the cost-impact of NSW-specific staff regulations in ECEC. The focus of this analysis is to identify the differences in the number and composition of staff attributable to the difference in NSW-specific regulation, relative to those outlined in the NQF. The differences in staff number and composition is consequently converted to a cost-estimate, based on early childhood teacher and educator wages drawn from the relevant Enterprise Bargaining Agreements. **The analysis does not compare the cost of these regulations against the benefits they may bring by raising educational quality in ECEC services.**

Taken together, **the three regulations are estimated to increase labour costs in the sector by \$233 million (17.5 percent of staff costs)**, relative to those outlined in the NQF. As staff costs represent 52.3 percent of total costs within the sector (IBISWorld, 2019), this corresponds to a 9.1 percent increase in total sector costs.

By way of comparison, median weekly fees in centre-based care are 3.6 percent higher in NSW compared to the national median before any subsidies (Productivity Commission, 2020). There are a number of reasons centre-fees do not increase commensurately with the labour costs – state government subsidies differ across jurisdictions, services in NSW may take actions to lower non-staffing costs or there could be differences in wages across jurisdictions which is not considered when making this comparison.

For these reasons, this report does not identify whether the incidence of these additional costs fall on provider margins (i.e. providers absorbing the cost) or parents, through higher fees.

It is estimated that of the three regulations considered in this report:

- **the requirement for services in NSW to maintain a staff to children ratio of 1:10 is the largest contributor to costs**, estimated to increase costs in the sector by \$128 million (8.9 percent alongside the other in-scope regulations), relative to the costs under the staff to children ratio of 1:11 set out in the NQF.
- **the requirement for services in NSW to employ a higher minimum number of ECTs** increases costs by \$95 million for LDC services (an increase of 6.4 percent for the sector alongside the other in-scope regulations), relative to the requirements set out in the NQF.
- **the inability to substitute additional ECT with 'suitably qualified persons'** increases costs by \$10 million for LDC services (an increase of 0.7 percent for the sector alongside the other in-scope regulations), relative to the requirements set out in the NQF.

The sum of the individual regulations (16 percent) is less than the total change in costs associated with aligning all three in-scope regulations to the NQF (17.5 percent). This is due to the interaction between the requirements relating to the minimum staff ratio and minimum ECT ratio.

The analysis presented in this paper is based on a set of informed assumptions given there is no service-level staff data available for the sector. While the efficient scenario presented above is useful in setting out the staff costs that would occur if every service was operated to optimise efficient staff-to-child ratios at all times, services may choose to maintain higher standards be limited to lower ratios (due to availability of staff in certain areas).

In this context, the findings included in this paper may be expanded by identifying the *actual* number of staff within each service (rather than the estimation provided in this report). Further, this report does not consider provider behaviour – that is, if they had the choice to do so, whether providers would adjust their staffing arrangements to meet the minimum regulatory requirements. These considerations will change the cost differences, relative to those set out in this report.

Finally, to accurately assess the impact of these regulations, this work would be complemented by an analysis of the benefits of more stringent staffing regulations, alongside the costs presented in this report.

Limitation of our work

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