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Cost, Compliance and User Fees in the Early Childhood Care and Education Sector in South Africa

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Update using the 2021 ECD Census and 2021 Thrive by Five Index and Baseline Assessment data.

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Abstract

In South Africa, there is a need to both increase access to early learning opportunities while addressing low levels of quality provisioning in current early learning programmes (ELPs). One approach to improve quality is to ensure that programmes meet norms and standards to become fully registered and receive the ECD subsidy. However, there may be potential trade-offs between addressing access challenges and this approach to improving the quality of early learning services, particularly for disadvantaged children. As programmes move towards meeting norms and standards, they may incur additional costs that might offset the advantages of government subsidies aimed at making the services more affordable. This is likely if the higher costs associated with registration are passed on to households through higher user fees. This paper investigates the hypothesis associated with this registration dilemma and presents an update of the analysis in Kika-Mistry and Wills (2022). It uses the more recent and larger 2021 Early Childhood Development (ECD) Census and the smaller sample-based 2021 Thrive by Five Index and Baseline Assessment. The paper explores variation and patterns in ELP registration status by whether norms and standards related to structural quality are met. It also examines trends in compliance with norms and standards between the 2013/2014 ECD Audit and the 2021 ECD Census. It investigates the fees charged by ELPs, whether they offer fee exemptions, and if there are any patterns associated with offering these exemptions. It then explores how operational costs align with higher standards of programming and goes on to consider whether access to subsidies helps to reduce the fees that parents or caregivers pay.

Several findings from Kika-Mistry and Wills (2022) are confirmed using newer data. First, just a small fraction of ELPs, including fully registered ELPs, are wholly compliant with norms and standards related to structural quality with variations in compliance observed across provinces. Second, looking at trends in compliance between the 2013/14 ECD Audit and 2021 ECD Census, we observe improvements in compliance for fully registered and unregistered ELPs, although we note the difference in data samples. For fully registered ELPs, significant improvements were observed in the percentage of programmes having a fence around the premises, having a structured learning programme, and at least one staff or practitioner receiving first-aid training. Third, we find that higher levels of compliance are associated with higher user fees, but the fees passed on to users are lower for fully registered or subsidised programmes compared to unregistered or unsubsidised programmes. Fourth, ELPs receiving the ECD subsidy are significantly more likely to offer fee exemptions than programmes not receiving the subsidy. Fifth, the current value of the subsidy is highly inadequate to cover the operating costs of running a compliant ELP, but it still contributes to lower user fees being passed on to parents or caregivers for a given level of quality. The ECD subsidy, therefore, supports the twin goals of improving access and quality of early learning services, but there are trade-offs in expanding the reach of the subsidy at its current value to more children in ELPs and raising the value of the subsidy.

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1. Introduction

Early learning opportunities are recognised for their significant benefits - building a solid foundation for future academic success, fostering cognitive and social development and cultivating lifelong learning. In South Africa, there is a need to simultaneously increase access to early learning opportunities while addressing low levels of quality provisioning in existing early learning programmes (ELPs). However, there are potential trade-offs in addressing these challenges.

One approach to improve quality and enable access is to ensure programmes meet norms and standards to become fully registered and get the Early Childhood Development (ECD) subsidy. The norms and standards for Partial Care Facilities and Early Childhood Development Programmes are set out in the Children's Act (Act 38 of 2005) and are accompanied by the General Regulations regarding the Children's Act (2010) that provides specific requirements for each of the stipulated norms and standards. Implementation of norms and standards takes place through registration with Provincial Education Departments (previously, Provincial Departments of Social Development), in addition to compliance with Municipal bylaws and environmental health and safety standards. Being fully or conditionally registered may enable programmes to access a per-child, per-day, means-tested subsidy. The subsidy serves as an enabler to access early learning services for poorer households, where subsidies are intended to be passed on to users in the form of lower fees or no fees. However, to access the subsidy, ELP operators have to jump through several hurdles to meet norms and standards related to quality and health and safety to become registered. ELP operators incur costs to meet and maintain these norms and standards, and in the pursuit to meet higher standards, may pass on costs in the form of higher user fees to households, which may offset the advantages of subsidies to make early learning services more affordable. The hypothesis associated with this registration dilemma (Figure 1) is investigated in the analysis in this paper.

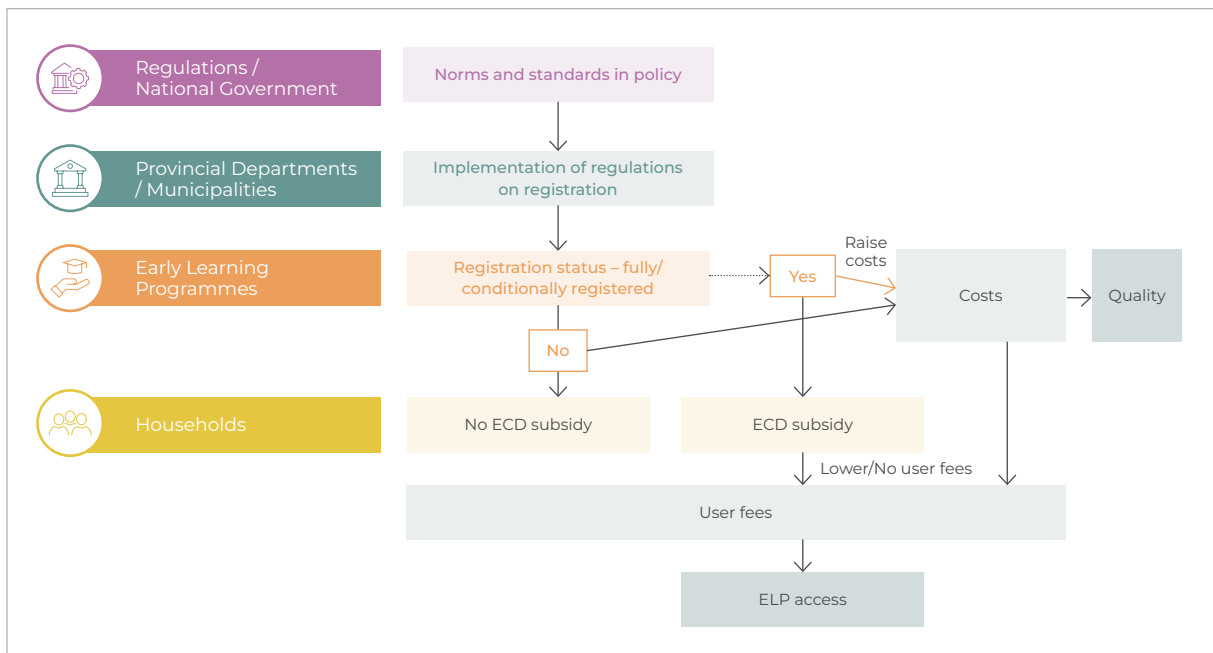
The registration dilemma necessitates that we closely examine user fees, costs and quality in ELPs in South Africa and their inter-relationships. In response, this paper builds on the analysis and findings of Kika-Mistry and Wills (2022). Our initial work on user fees, costs and quality in ELPs depended on the Early Childhood Development (ECD) Audit of 2013/14. We add to this earlier analysis, using data from the more recent 2021 ECD Census, and the 2021 Thrive by Five Index and Baseline Assessment in South Africa.

The research process underpinning this paper is guided by the following questions:

1. What are the user fees being charged by ELPs? Do ELPs offer fee exemptions, and if so, are there any patterns associated with offering these exemptions?
2. To what extent do ELPs meet norms and standards by their current registration status? The extent to which programmes meet norms and standards provides a signal of levels of 'structural quality'¹ in an ELP. How does this differ across provincial administrations?
3. What are the trends in compliance with norms and standards, comparing across the 2013/14 ECD Audit and the 2021 ECD Census?
4. What are the overall estimated costs of provisioning in ELPs?
5. What are the estimated costs of provisioning in ELPs meeting acceptable levels of compliance with norms and standards related to structural quality?
6. Can government subsidies help reduce the passing on of higher costs to households in the form of user fees?

¹Structural quality refers to observable aspects of the quality of the physical environment of an ELP; such as infrastructure, group characteristics such as child-practitioner ratios, and practitioner variables such as years of experience and qualifications (Slot, 2018).

Figure 1: Interconnections between National Regulations, Provincial Departments and Municipalities, ELPs and households for ELP registration.



The next section outlines the data and approach used in the analysis. Section 3 examines user fees, exemptions provided and implications for ELPs. Section 4 estimates the costs of ELP provisioning and looks at how ELP costs vary depending on the extent to which programmes meet norms and standards related to structural quality as set out in the Children’s Act. Section 5 then examines how access to subsidies for a given level of costs mitigates the passing on of operating costs in the form of higher fees to users. Lastly, section 6 summarises and concludes.

2. Data and Sample

2.1. ECD Census 2021

The 2021 ECD Census was initiated by the Department of Basic Education in collaboration with the LEGO Foundation. Data was collected between August 2021 and February 2022 for 42 420² ELPs. Gauteng had the highest number of ELPs (24%), followed by KwaZulu-Natal (19%) and the Eastern Cape and Limpopo (both at 13%). The ECD Census counted a total of 1.6 million children enrolled in ELPs, with only 1.1 million being present on the day of the visit and practitioners reporting that about 1.5 million children typically attend on a daily basis. Data for the ECD Census was collected soon after the COVID-19 pandemic. Large contractions were observed in the sector between March 2020 and February 2021 with depressed rates of child attendance; and levels of attendance had only started to recover and edge towards pre-pandemic levels by April/May 2021 (Wills & Kika-Mistry, 2021).

The 2021 ECD Census did not provide information related to the costs of provisioning, or include details related to income (apart from fees charged and the different sources of income received). Information on compliance with norms and standards was largely collected through fieldworker observations of the facility.

²Only 41 113 unique programmes were identified in the cleaned dataset.

Identifying compliance with norms and standards in the 2021 ECD Census data helps to provide an indicator of levels of structural quality in an ELP. These indicators refer to observable aspects of the quality of the physical environment of an ELP; such as infrastructure, group characteristics such as child-practitioner ratios, and practitioner variables such as years of experience and qualifications (Slot, 2018). While the Children's Act (Act 38 of 2005) contains indicators of 'process quality', which reflects a child's learning experience, such as interactions with teachers, peers and materials in the early learning setting (Slot, 2018), the 2021 ECD Census only measures structural quality indicators.

2.2. Thrive by Five Index and Baseline Assessment 2021

The 2021 Thrive by Five data is comprised of a representative sample of 5 139 children aged 50-59 months who were enrolled in 1 247 ELPs³. This sample was selected through a multi-stage cluster sampling strategy. Data for the index was collected between September and November 2021. At the time of data collection, there was no comprehensive list of ELPs in South Africa to serve as a "sampling frame" from which to select a random sample of ELPs (as data for the Thrive by Five Index was collected before the 2021 ECD Census). In addition, many children from low-income backgrounds in the 50-59-month age group do not attend an ELP. Consequently, the sample cannot be considered to be representative of all children in this age group (Tredoux et al., 2022).

In addition, a Baseline Assessment was carried out in a sub-sample of the ELPs (545 ELPs) that formed part of the 2021 Thrive by Five sample. The Baseline Assessment sought to provide insights into the resources, operations, management, finances, human resources and infrastructure provisioning in ELPs (Department of Basic Education, 2022). The sampling approach for the Baseline Assessment mirrors that of the Thrive by Five Index. The Department of Basic Education's (DBE's) Schools Master List was used to randomly select 48 public and private primary schools (and combined schools) per province (clusters) and stratified by Quintile as a proxy for income. The data collection team then identified nearby ELPs within a 5-kilometer radius using the Vangasali⁴ database and contacting primary schools and known ELPs. One ELP per cluster was randomly selected for the Baseline Assessment (Department of Basic Education, 2022). However, there is a potential bias towards more established ELPs, as they were more likely to be present in the Vangasali database or known to primary schools. This bias may underrepresent the perspectives of the informal and unregistered ELPs.

The 2021 Baseline Assessment data from ELPs can provide estimates of costs by utilising the reported expenses related to direct/operating costs such as food, staff salaries, rent, materials, maintenance, admin, or other costs. However, some overhead costs such insurance, technology, professional development, marketing and outreach; or imputed costs such as volunteer time, donated or subsidised resources and opportunity costs of buildings used are not included in the available data. The estimated costs are reported in 2021 price values throughout the analysis, as inflation of educational spending values is not easily achieved through simple methods like Consumer Price Inflation (CPI) adjustments.⁵

The two datasets are used interchangeably in the analysis based on the variables available.

³This excludes mobile centres and pure toy libraries.

⁴Vagasali is a campaign launched by the Government with support from the Nelson Mandela Foundation in 2020 to identify all ECD programmes in the country, including ELPs, playgroups, toy libraries and day-mothers.

⁵Salaries, for example, may not rise with inflation. It is also unclear whether user fees in ELPs increase with inflation over time.

2.3. Sample

2.3.1. ECD Census 2021

The 2021 ECD Census is used to establish compliance with norms and standards, provincial variation, and how compliance levels are associated with user fees. Building on the methodology adopted in Kika-Mistry and Wills (2022) using the 2013/14 ECD Audit, a key disaggregation for the sample is a programme's registration status. ELP heads were asked whether their programme was registered as a Partial Care Facility with the Department of Social Development (DSD); whether it was registered as an ECD Programme with the DSD; and whether it was registered as a Non-Profit Organisation (NPO).⁶ In addition, a follow-up question asks whether the programme is registered with the DSD in any way other than as an NPO (which accounts for either Partial Care or ECD programme registration). This question is used to disaggregate the sample for the 2021 ECD Census data. Programmes that are still in the process of registering or have lapsed⁷ in registration are reclassified as "not registered" and 1,738 programmes with unknown registration status are excluded from the sample.

The total sample for this analysis includes 39 342 programmes (96% of programmes in the 2021 ECD Census), mainly comprised of unregistered programmes, followed by fully registered and conditionally registered programmes (Table 1). Only 4.31% of programmes are excluded from the analysis sample in this paper. This includes programmes that did not report on registration status, and those that operate solely as toy libraries.⁸

Table 1: ECD Census 2021, sample.

Registration status	Frequency	Percent (%)
Fully registered	11 333	27.57
Conditionally registered	4 849	11.79
Not registered	23 160	56.33
Total included sample	39 342	95.96
Excluded sample		
Unknown registration	1 738	4.23
ELPs classified as "toy libraries"	33	0.08
Total excluded sample	1 771	4.31
Total	41 113	100.00

Source: ECD Census 2021, own calculations.

Wealthier programmes may have more financial resources to meet registration requirements or simply may be disincentivised to register their programmes. For this reason, we are sensitive as to when we include 'wealthier' programmes in the analysis.⁹

⁶Data was collected before the function shift from the Department of Social Development to the Department of Basic Education, and before NPO registration was dropped as a requirement to access the ECD subsidy.

⁷Those with lapsed registration may not have applied for registration again and may be more similar to registered compared to unregistered ELPs. However, they are still classified as being "unregistered".

⁸Toy libraries in this case refer to facilities that permit individuals (parents or caregivers) to borrow toys for a designated period.

⁹As was done in earlier work using the 2013/14 ECD Audit.

We identify these programmes using the highest fee charged per programme. Figure A1 in the Appendix presents the distribution of the highest fee charged by ELPs in the 2021 ECD Census, by whether or not programmes receive the DSD subsidy. For this analysis, we classify wealthier programmes as those charging more than R700¹⁰ per child per month.¹¹

2.3.2. Thrive by Five and Baseline Assessment 2021

In addition to the 2021 ECD Census, the smaller Thrive by Five and Baseline Assessment data (2021) are used to establish patterns of costs and user fees as they relate to compliance with norms and standards for structural quality. From these datasets, 447 ELPs (85% of all ELPs in the total sample) are used to derive patterns of costs across ELPs (see Table 2). This sample only includes programmes with known registration status (i.e., fully, conditionally or unregistered) that report receiving any income¹² and any expenditure¹³. Programmes with missing or unknown registration status were not included in the sample, and those that were identified to be “in process” or where registration has “lapsed” were classified as unregistered. This is consistent with our approach in Kika-Mistry and Wills (2022). As a caveat, this sample is relatively small and may be more biased towards fully registered programmes. As with the 2021 Census data, wealthier ELPs are identified as those charging more than R700 per child per month (See Figure A2 in the Appendix).

Table 2: Baseline Assessment 2021, sample.

Registration status	ELPs in Baseline Assessment	ELPs reporting any income and any expenditure	Proportion of ELPs reporting any income and any expenditure (%)
Fully registered	318	295	93
Conditionally registered	54	54	100
Not registered	128	98	77
Total included sample	529	447	85
Not included in sample			
Unknown registration	29	9	31

Source: Baseline Assessment 2021, own calculations.

3. User fee exemptions and implications for ELP providers

In South Africa, ELPs are known to accommodate different age groups of young children and the costs of provisioning may vary by the age of the child. Unfortunately, the 2021 ECD Census does not include fees charged by ELPs for individual age categories¹⁴ and only reports the maximum monthly fee per child. The figure below illustrates a cumulative distribution function that shows the likelihood that the maximum monthly fees charged by ELPs are less than or equal to a specific amount. We observe that close to 80% of ELPs charge R500 or less per child per month, with 40% charging R200 or less per child per month. We further observe that almost 0% (a very small sample) of programmes charge R50 or less per child per month.

¹⁰While in the 2013/14 Audit, wealthier programmes were identified as those charging more than R500 per child per month. Using the 2021 Thrive by Five Index and Baseline Assessment data, Henry & Giese, 2023 classify lower-income groups as those charging up to R750 per child per month.

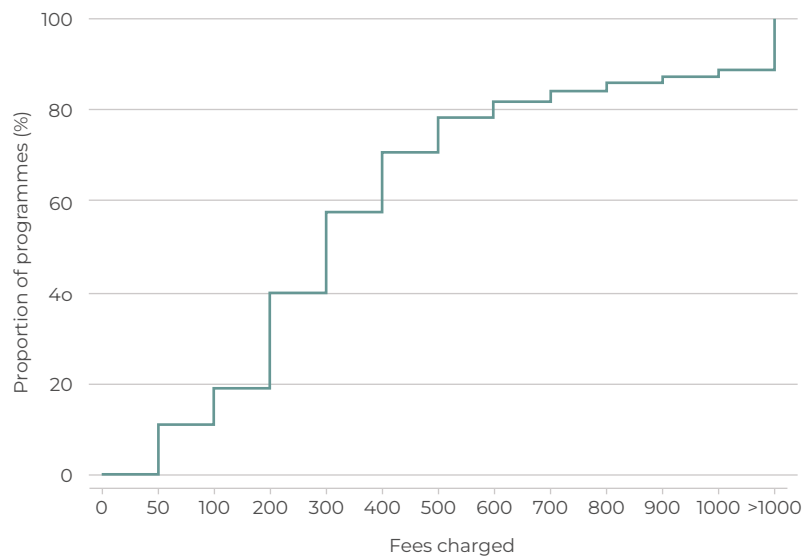
¹¹All values are expressed in nominal terms.

¹²A programme reports on receiving “any” income if the reported monthly income from the Department of Basic Education, Department of Social Development, Department of Health, donations, fees, fundraising, or other income sources is greater than zero.

¹³A programme reports receiving “any” expenditure if it reported costs for food, staff salaries, rent, materials, maintenance, administration, or other costs.

¹⁴Fees by child age are available in the 2013/14 ECD Audit.

Figure 2: Cumulative distribution function of maximum monthly fees charged per child per month, 2021 Rands.



Source: ECD Census 2021, own calculation. Notes: (i) Nominal 2021 prices, (ii) Fees charged are as reported by the ELP, (iii) Sample (N = 36 675) includes ELPs with known registration and report on fees-charged.

Even when user fees are charged, some children are allowed to attend the ELP without having to pay a fee. This could be due to a combination of household income constraints, the goodwill of ELP providers, and because the subsidy receipt is adequate to cover the costs of programming. To what extent does this occur and are there any discernible patterns in the fee exemptions granted? In Kika-Mistry and Wills (2022), we identified the percentage of children exempt from paying fees by fee categories and whether the ELP they attend receives the DSD subsidy. The 2021 ECD Census, however, does not capture the number of children exempt per ELP, but rather whether the ELP offers a fee exemption to *some* children in the programme i.e., whether one or more children attending the ELP are exempt from paying fees.¹⁵ We note that the nature of these exemptions are likely to be informal, whereby parents/caregivers are not exempt from paying fees for the duration of the child's enrolment in an ELP, but rather reflect a willingness to overlook occasional or circumstantial defaulting on fee payments across most children, on a case-by-case basis.

Figure 3 illustrates the percentage of ELPs offering fee exemptions by fees charged and whether or not they receive the DSD subsidy¹⁶. In addition, Table A1 in the Appendix presents the proportion of ELPs receiving the DSD subsidy or not by fee categories. The following key patterns are observed in the figure:

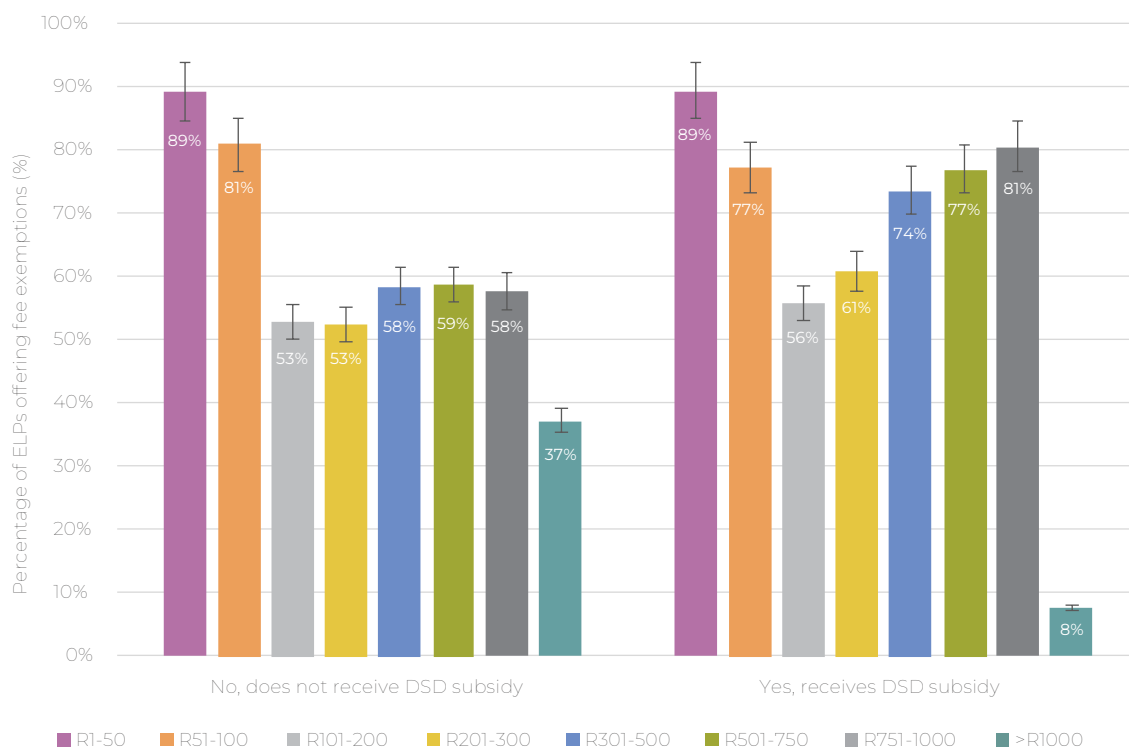
- a. Access to subsidies is associated with the provision of fee exemptions to some children by ELPs across fee categories, except when fees charged are greater than R1000 per child per month. Within the fee range of R300 and R1000 per child per month, ELPs receiving the subsidy are significantly more likely to offer fee exemptions than programmes not receiving the subsidy.
- b. The proportion of ELPs offering fee exemptions is particularly high where fees charged per child per month are less than R100, regardless of DSD subsidy receipt. For subsidised programmes in this lower fee segment, it implies that subsidies are passed onto users in the form of fee exemptions. However, for unsubsidised programmes charging low levels of fees, ELPs still offer fee exemptions. These unsubsidised programmes are offering exemptions to children from poorer households, even though the incomes from fees they receive are likely to be highly inadequate to cover costs to meet norms and standards for registration. This reiterates the triple income burden faced by unregistered ELPs servicing poor households (Kika-Mistry & Wills, 2022): these ELPs provide fee exemptions despite charging low fees, yet do not access government subsidies to cover any of their shortfalls.

¹⁵The precise question in the 2021 ECD Census is "Are some children allowed to attend the ECD programme without having to pay a fee?"

¹⁶The 2021 ECD Census data was collected during the final year of the DSD housing the ECD function. Since April 2022, it has shifted to the Department of Basic Education (DBE) which is now responsible for the same system, including norms and standards, subsidy administration etc.



Figure 3: Percentage of ELPs offering fee exemptions by categories of the fees they charge and whether or not they receive the DSD subsidy, among all fee charging ELPs, 2021 ECD Census.



Source: ECD Census 2021, own calculations. Notes: (i) Nominal 2021 prices, (ii) Estimates for 26 225 unsubsidised ELPs and 12 721 subsidised ELPs.

4. Costing ELPs complying with norms and standards

4.1. Compliance with norms and standards as an indication of structural quality in ELPs

Understanding patterns of costs and compliance with norms and standards enables us to identify where poorer children may not be accessing quality ELPs due to being unable to afford the fees resulting from higher costs. This section explores variations in patterns of programme registration by whether norms and standards relating to structural quality are met. It sets out the norms and standards for Partial Care Facilities and Early Childhood Development Programmes as per the Children's Act. These norms are mapped to variables in the 2021 ECD Census to establish whether programmes are meeting them (Table A2 in the Appendix). The variables mapped from the 2021 ECD Census at a facility level to the norms and standards are more indicative than precise since all norms and standards cannot be quantified, but also considering what a safe environment conducive to early learning might look like.

Table 3 shows 20 'items' in a norms and standards list that could be measured in the 2021 ECD Census. It ranks these items according to the proportion of ELPs meeting each item-specific requirement starting from highest to lowest and by registration category. The sample of ELPs is limited to those that report on all the specified items and have no missing values (33 400 ELPs). This reduces the sample size (to about 85% of the sample of 39 342 ELPs with any data), particularly for unregistered ELPs who have more missing values (see Table A4 in the Appendix). These exclusions would likely upwardly bias estimates of compliance with norms and standards, particularly for unregistered programmes.

Table 3: Percentage of fully, conditionally and unregistered ELPs meeting specific norms and standards (ranked from highest to lowest). 2021 ECD Census.

No.	Variables for 2021 ECD Census	Registration status			
		Total (N = 33 400)	Fully registered (N = 10 464)	Conditionally registered (N = 4 512)	Not registered (N = 11 046)
1	Available source of water is drinkable	97.97	98.13	97.94	97.88
2	ECD programme has a fence around the premises	95.09	97.76	96.52	93.23
3	ECD programme provides meals or snacks (two questions – what meal do children eat and who provides the meal)	90.58	95.91	96.61	86.08
4	Staff trained in implementing ECD programmes (certificate, diploma, degree)	90.57	96.53	94.28	86.27
5	ECD programme has lockable gate to prevent unauthorised access to premises	90.31	94.92	90.91	87.55
6	ECD programme offers separate classes for children in different age groups	90.04	95.34	90.98	86.81
7	Evidence of daily and/or weekly activity planners	89.57	95.33	94.92	84.99
8	There is an area for cooking and preparing meals separated from where children are.	88.55	94.61	93.73	83.85
9	The staff (professional) to child ratio is 1:20 or less	88.50	85.02	78.86	92.84
10	ECD programme operates in a formally built structure (conventional, brick or block, with tile or zinc roof OR prefab building)	88.12	92.22	88.03	85.82
11	Indoor play area's floor space is large enough for children to safely move around	84.18	88.84	86.95	80.86
12	Evidence of meal plan	79.10	89.37	86.84	71.37
13	At least 3 themed areas identified*	77.30	86.98	79.08	71.37
14	ECD programme has tap water on site/outside the building or in the building	74.67	72.43	53.08	81.23
15	ECD programme has more than one children's toilet	72.17	82.32	79.81	64.55
16	At least 10 materials available to the children**	69.10	79.84	76.11	61.28
17	Somebody checking who enters and leaves the facility	66.62	67.80	57.03	68.30
18	ECD programme has a flush toilet	63.71	63.00	35.70	70.89
19	At least one of the staff trained in first aid procedures	63.35	69.21	52.55	62.67
20	Evidence of curriculum	54.70	63.39	51.77	50.49
Average requirements met by ECD programme (out of 20)		16.14	17.09	15.82	15.69

Source: 2021 ECD Census, own calculations. Notes: The sample of programmes are restricted to those that report on each of the specified items and have no missing values, by registration status (Fully registered, N = 10 464; Conditionally registered, N = 4 512; Unregistered, N = 18 424). *Three or more themed areas identified from the following list: 1) Art (draw, paint, cut, model etc.); 2) Big blocks; 3) Fantasy (house + shop, clinic, etc.); 4) Educational toys and games; 5) Maths area; 6) Writing area; 7) Nature/science themed tables; or 8) Water and sand. ** Ten sets of materials from the following list include 1) Children's books, Storybooks, any books with text or pictures, including books made by an ECD practitioner; 2) Puzzles, games with numbers or shapes; 3) Wooden or plastic blocks children can play with (not LEGO or similar brands); 4) LEGO or similar brands (blocks and pieces that fit into each other and be taken apart again); 5) Picture cards, posters, charts; 6) Paint, crayons; 7) Pencils, pens, chalk; 8) Glue, paper, scissors (for children), tape; 9) Clay, play dough or similar; 10) Dolls, stuffed animals, toy cars; 11) Toys from recycled materials; 12) Dress up clothes, masks, pretend food, pots and pans; 13) Any materials for counting e.g., bottle caps, dice, beads, rocks etc. or Abacus; 14) Balls, hula-hoops, sandbags; 15) Buckets, spades and sand moulds; 16) Skipping ropes, scooters; 17) Chairs, desks or tables for children; 18) Carpets to play on, sleeping mats; 19) Theme tables; or 20) Drums, triangles, cymbals, maracas, bells, shakers, or anything else to create rhythm or music.



The table highlights considerable variation across the items by whether or not they are met by ELPs. In some cases, specific legal requirements are seldom met, regardless of programme registration status, as was found using the earlier 2013/14 ECD Audit (Kika-Mistry & Wills, 2022). Using the 2021 ECD Census, the least attained items include: having evidence of an ECD curriculum, having a flush toilet, at least one staff member trained in first aid, having tap water on site and having at least 10 support materials available to children in the programme. In contrast, it is noteworthy that more than 90% of ELPs, regardless of registration status, are likely to have a fence around the premises and the available water source is drinkable.

In comparison to fully registered ELPs, unregistered ELPs are less likely to meet certain norms and standards, such as providing meals or snacks, having a meal plan, staff trained in ECD programmes, evidence of a daily/weekly planner (structured learning programme), at least three themed areas, having multiple children's toilets, accessible indoor materials for children, separate classes for children in different age groups and an area to prepare meals that is separated from where children are. Approximately 86% of unregistered programmes provide a meal or snack, compared to 96% of fully registered programmes. Fully registered ELPs tend to pay more attention to nutrition, which could be attributed to their ECD subsidy receipt, a significant portion of which is earmarked for nutrition. On the other hand, unregistered programmes tend to have a better staff-to-child ratio, which is regulated at 1:20 for children aged 3-4 years, and this was also observed in the 2013/14 Audit data. This could, for example, be reflective of the fact that unregistered programmes typically serve older children (child-to-staff ratio for children aged 5-6 years is 1:30) but also unregistered ELPs may attract fewer children in the absence of subsidies where parents have to pay fees.

Across provinces, there are significant differences in the extent to which norms and standards are being met by ELPs. The average percentage of norms and standards being met by fully registered programmes is higher in Gauteng (95%) and the Western Cape (93%) relative to the Eastern Cape (76%). Variation is expected as registration processes in provinces also rely on whether programmes meet specific environmental health and safety standards and municipal bylaws. These bylaws are known to vary across municipalities, are costly to obtain, and have varied applications by individual inspectors. Provincial differences could also be attributed to the use of indicators from the 2021 ECD Census that relate to the norms and standards but are not necessarily precise indicators of the norms and standards. In addition, there is a lack of clarity around conditional registration which may result in varied registration application across provinces (Dulvy et al., 2023).

Table 4: Percentage of norms and standards (legal requirements for registration) met on average by fully registered ELPs by province, 2021 ECD Census.

Province	Mean	Standard Deviation	N
Gauteng	94.65	6.54	1 474
Western Cape	92.70	7.45	1 335
Northern Cape	87.35	11.45	310
Mpumalanga	87.21	9.22	937
North West	85.29	10.69	491
Free State	85.18	11.37	603
Limpopo	84.54	9.48	1 371
KwaZulu-Natal	80.94	12.15	2 764
Eastern Cape	75.63	15.25	1 179
Total	85.45	12.23	10 464

Source: 2021 ECD Census, own calculations. Note: The sample of fully registered ELPs is restricted to those that report on each of the 20 specified items and have no missing values, roughly 92% of fully registered programmes with any data.

Table A6 in the Appendix presents the item-level differences in fully registered ELPs meeting norms and standards by province. It is worth noting that provinces such as Gauteng and the Western Cape, which are more urban, are more likely to meet these norms and standards when compared to rural provinces. For example, 99% of ELPs in Gauteng and the Western Cape have a flush toilet compared to 31% in Limpopo and 45% in the Eastern Cape; and 99% in both Gauteng and the Western Cape have tap water on-site compared to 48% in Limpopo and 53% in the Eastern Cape. Both Gauteng and the Western Cape are more likely to meet norms and standards related to offering different classes for children in different age groups, operating in a formally built structure, an indoor floor area large enough for children to move around safely, and staff trained in first-aid procedures. It is less clear whether rural provinces are less stringent in their application of certain norms and standards. As discussed earlier, the observed differences could also be attributed to deviations of selected indicators from how the norms and standards are defined, as well as how these indicators are defined across registration frameworks.

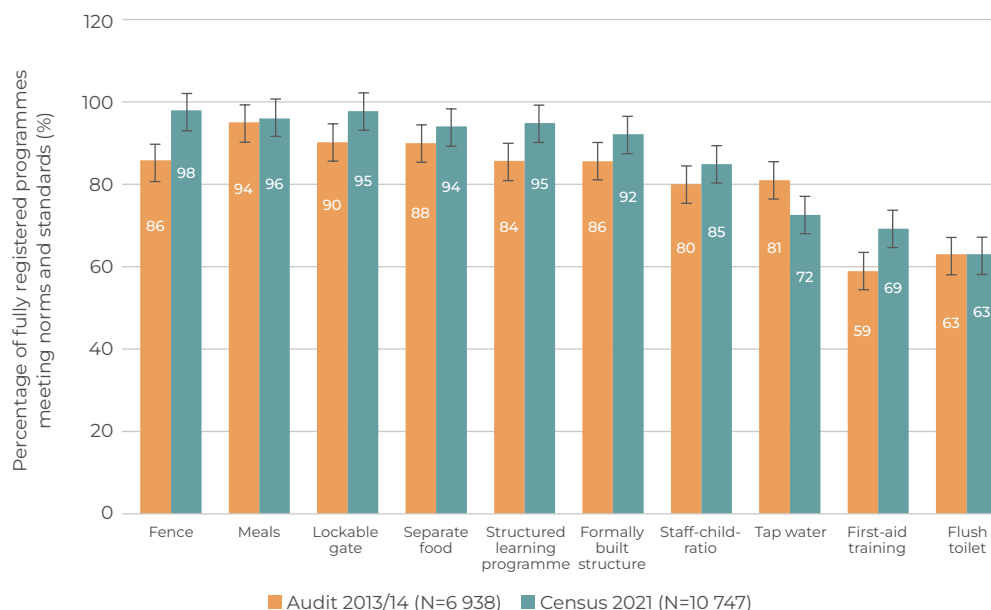
4.2. Trends in compliance over time

To assess changes in compliance with norms and standards from 2013/14 to 2021, we compared 10 variables that are consistent across the 2013/14 Audit and the 2021 ECD Census. Although the wording of some questions differed slightly, related variables were coded consistently.

Noteworthy improvements in “structural quality” were observed for both fully registered and unregistered ELPs between 2013/14 and 2021 (Figure 4 and Figure 5). Specifically, 8 out of the 10 identified variables showed improvement for fully registered ELPs, with significant improvements in the percentage of fully registered programmes having a fence around the premises, having a structured learning programme, and at least one staff or practitioner receiving first-aid training. For unregistered ELPs, 9 of 10 identified variables improved, with significant improvements observed with respect to the following: having a fence around the premises and at least one staff or practitioner receiving first-aid training. Despite improvements in the proportion of unregistered programmes meeting these norms and standards, other legal requirements by municipalities which are often costly to attain, may be preventing them from becoming registered.

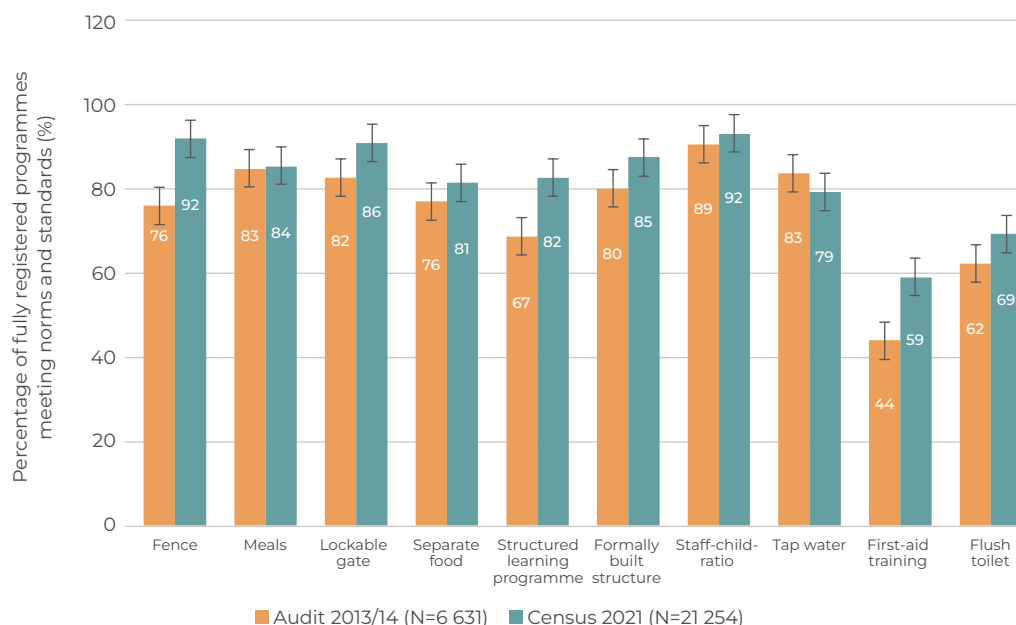
A limitation of this comparison is that the samples are not the same across the 2013/14 ECD Audit and 2021 ECD Census. Relative to the 2013/14 ECD Audit sample, the 2021 ECD Census sample included a greater variety of programmes, specifically poorer ones due to the sampling method used. The 2013/14 ECD Audit sample on the other hand, was based on known ELPs and was less likely to include programmes that were less visible. However, we note that both samples are likely to miss a large number of the smallest and poorest ELPs. COVID-19 may have also compromised the sustainability of poorer programmes, reducing their inclusion in the sample – an issue that is likely to affect unregistered programmes more (Wills & Kika-Mistry, 2023). Fully registered programmes, likely more financially resilient during the COVID-19 crisis, faced limited fee payments and ECD subsidy payment delays; but the sustainability of unregistered programmes was at greater risk, with no income from subsidies to buffer the impact of scarce fee payments for infrastructure maintenance or upgrades.

Figure 4: Percentage of fully registered ELPs meeting norms and standards, 2013/14 Audit and 2021 Census.



Source: ECD Audit 2013/14, ECD Census 2021, own calculations. Notes: (i) Sample with no missing data on 10 selected variables in the 2013/14 Audit and 2021 ECD Census: 6 983 fully registered ELPs from 2013/14 Audit (from a total sample of 8 032 fully registered programmes in the 2013/14 Audit) and 10 464 fully registered ELPs from 2021 Census (of a total sample of 11 333 fully registered programmes in the 2021 Census); (ii) The ELPs in the two samples are not the same and cannot directly be compared; (iii) The 2013/14 ECD Audit sample is comprised of fully registered programmes that report on receiving any income and incurs any expenditure.

Figure 5: Percentage of unregistered ELPs meeting norms and standards, 2013/14 Audit and 2021 Census.



Source: ECD Audit 2013/14, ECD Census 2021, own calculations. Notes: (i) Sample with no-missing data on 10 selected variables in the 2013/14 Audit and 2021 ECD Census: 6 631 unregistered ELPs from 2013/14 Audit (of a total sample of 7 892 unregistered programmes in the 2013/14 Audit) and 21 254 unregistered ELPs from 2021 Census (of a total sample of 23 160 unregistered programmes in the 2021 Census); (ii) The ELPs in the two samples are not the same and cannot directly be compared; (iii) The 2013/14 ECD Audit sample is comprised of unregistered programmes that report on receiving any income and incurs any expenditure.

4.3. Meeting metrics of compliance with norms and standards

ELPs are required to meet several norms and standards to become registered. This includes the norms and standards for Partial Care Facilities and Early Childhood Development Programmes set out in the Children's Act, National Norms and Standards Relating to Environmental Health in Terms of National Health Act, 2003 (Act No 61 Of 2003) as well as additional requirements by municipalities. Meeting all these requirements, especially those at the municipal level, are often complex, costly and time-consuming. In order to meet registration requirements, ELP operators are required to interact with multiple government departments at different levels. In addition, the environmental health and safety standards often vary by municipality with the general requirements being the same for different services which do not necessarily take into consideration the specific service offerings of ELPs. The focus in this paper is on the norms and standards set out in the Children's Act.

In the next section, we address the following question: What are the unit costs associated with programmes that meet a certain standard of structural quality? In order to answer this question, it first requires identifying a satisfactory level of compliance with norms and standards in the Children's Act, and identifying how many programmes meet this level.

Unfortunately, there are a very limited number of fully compliant programmes (adhering to all 20 norms and standards). Only 10.6% of the total sample (4 173 ELPs), and 15.5% of fully registered ELPs (1 623 ELPs) meet 100% of the 20 identified requirements. Unfortunately, using the entire pool of fully registered programmes does not serve as a reliable quality benchmark.

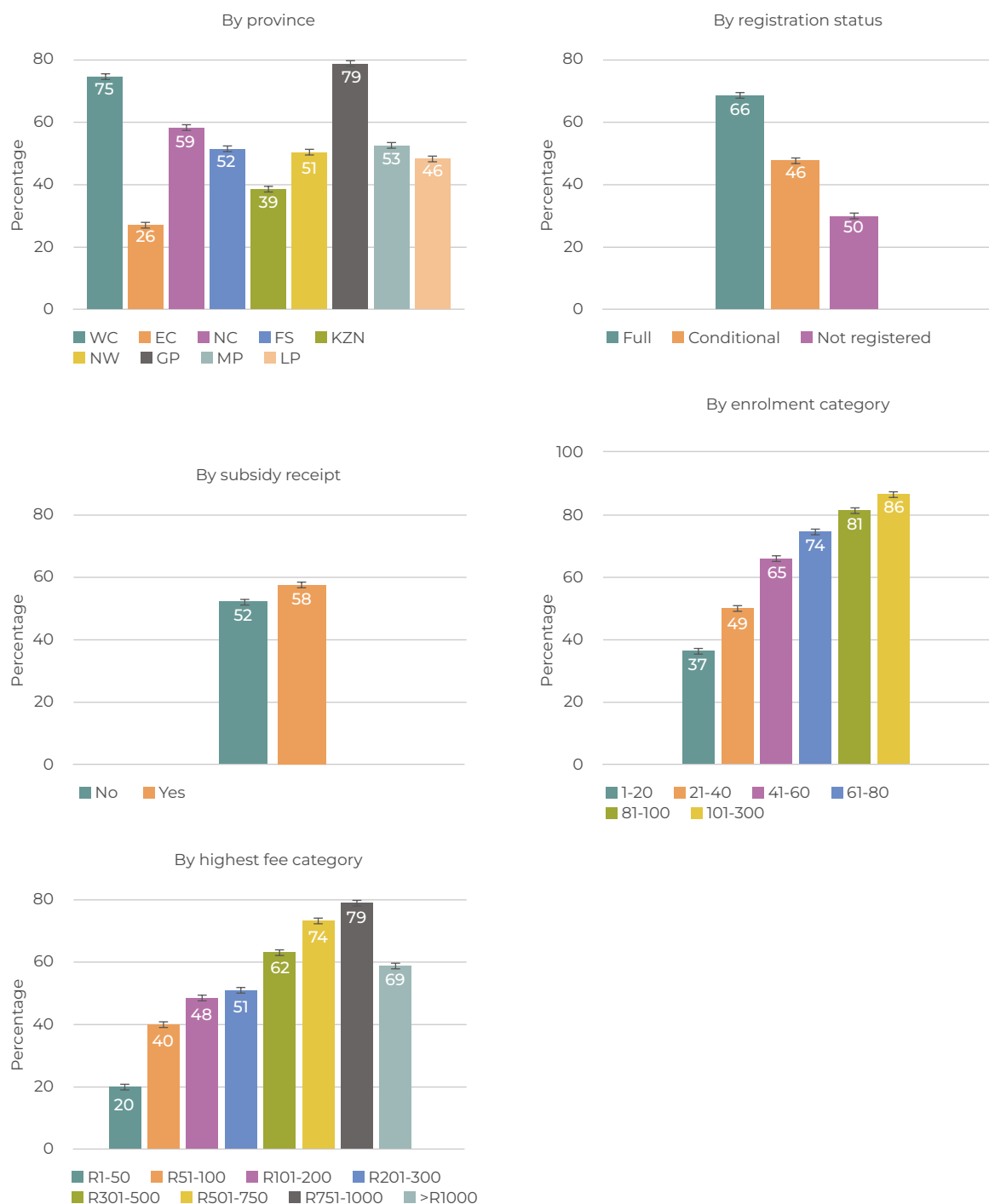
As done in Kika-Mistry and Wills (2022), a more suitable approach is to identify programmes meeting at least 85% of the legal requirements. The reason for this cut-off, is that on average, fully registered programmes are more likely to comply with just over four-fifths (17 of 20 criteria) or approximately 85% of identified norms and standards. About 66% (6 910 of 10 464) of fully registered ELPs meet at least 85% of the identified requirements.

4.4. What are the characteristics of more compliant programmes meeting an overall level of structural quality?

The bivariate association between programme characteristics and whether ELPs meet just over four-fifths (17 of 20) of these requirements is illustrated in Figure 6. The findings from the 2013/14 Audit are reinforced by the larger sample in the 2021 ECD Census. ELPs are more likely to be compliant if they are in the Western Cape or Gauteng, are fully registered, receive the DSD subsidy, have higher enrolment rates and charge higher fees.

Only 66% of fully registered ELPs satisfy 17 of 20 identified requirements, revealing a notable incongruity between the norms and standards in the Children's Act (Act 38 of 2005) and the *de jure* registration requirements for ECD programmes and Partial Care Facilities, with significant variation observed across provinces. Differences observed across provinces for fully registered programmes (Table 3), and across types of registration, prompt inquiry into what reasonable norms and standards would be and whether there is room to be more flexible to accelerate registration. Given the evidence presented in the paper, there arises a question as to why unregistered or conditionally registered ELPs are not granted full registration.

Figure 6: Percentage of ELPs that are compliant (meeting just over four-fifths of norms and standards – 17 of 20 requirements) by different characteristics, 2021.



Source: 2021 ECD Census. Note: Sample (N = 33 400).

Only 66% of fully registered ELPs satisfy 17 of 20 identified requirements, revealing a notable incongruity between the norms and standards in the Children's Act (Act 38 of 2005) and the de jure registration requirements for ECD programmes and Partial Care Facilities, with significant variation observed across provinces. Differences observed across provinces for fully registered programmes (Table 3), and across types of registration, prompt inquiry into what reasonable norms and standards would be and whether there is room to be more flexible to accelerate registration. Given the evidence presented in the paper, there arises a question as to why unregistered or conditionally registered ELPs are not granted full registration.



4.5. Estimating costs in all ELPs and more compliant ELPs meeting a level of ‘structural’ quality

The objective of this section is to estimate the overall costs of ELP provisioning. The focus then shifts to identifying the costs of provisioning in ELPs that are meeting a specified level of structural quality as measured by meeting acceptable levels of compliance i.e., meeting four-fifths of norms and standards related to structural quality.

Costs in all ELPs

The 2021 Thrive by Five Index and Baseline Assessment data is used to update costs from the 2013/14 ECD Audit, but the new data is based on a much smaller sample of ELPs. As with the 2013/14 ECD Audit, the 2021 Baseline Assessment data only reports monthly expenses related to direct or operational costs; imputed and overhead costs are not accounted for. The ‘direct’ or operating costs of an ELP, derived from reported monthly expenditure, are comprised of expenditure for food; salaries/stipends; rent; child and practitioner support materials; lighting, heating, cooking, water, sanitation, maintenance and building costs; administration, safety and security and other expenses. On average across registered and unregistered programmes, 42% of monthly direct or operating costs are made up of practitioner salaries and stipends, and approximately 29% is spent on food.¹⁷ The ranking of the monthly expense categories remains unchanged when disaggregating by registration status (for fully and unregistered ELPs), but we observe that unregistered ELPs spend a larger proportion on salaries and rent compared to fully registered ELPs. Fully registered ELPs on the other hand, spend a greater proportion on nutrition compared to unregistered ELPs. See Table A5 in the Appendix.

Table 5: Proportion of monthly direct or operating costs by expense category (fully, conditionally and unregistered ELPs), 2021.

Monthly expense category	Mean	Median	SD	N
Salaries/stipends	41.74	40.64	19.38	447
Food	29.06	28.27	15.93	445
Administration, safety and security	8.94	6.06	10.75	444
Lighting, heating, cooking, water, sanitation, maintenance and building costs	8.90	7.64	7.15	446
Child and practitioner materials	7.91	4.14	11.16	444
Rent	2.27	0.00	5.20	447
Other expenses	1.44	0.00	5.98	445

Source: 2021 Thrive by Five and Baseline Assessment, own calculations. Notes: (i) Including ELPs charging more than R700 per child per month, (ii) SD: Standard Deviation.

The direct or operating costs associated with running an ELP are estimated for all ELPs and ELPs charging less than R700 per child per month.¹⁸ The focus on the lower end of the user fee spectrum is to better target policy interventions for improved access and quality among the poor and middle-class. Estimates shown include monthly costs per programme, the monthly cost per child and the per child, per day unit costs¹⁹. Both medians and means are shown, as means are sensitive to outlier values. Costs are reported in 2021 Rands and are not compared to the findings from the 2013/14 Audit data, as simple measures such as CPI are unlikely to fully reflect changes in education expenditure over time.

¹⁷Currently, the recommended split of the subsidy is 40% for food, 40% for salaries and 20% for other items, including learning and teaching materials.

¹⁸Including wealthier programmes in the sample may distort the cost estimates given the relationship between user fees charged and the programme operating costs.

¹⁹To calculate unit costs, we first calculated the total monthly expenditure per child using the total monthly expenditure per programme divided by the number of children enrolled. We use the number of days a programme is open per week to establish the number of days operational per month, restricting the number of days a programme is operational per year to 264 (22 days per month). Total monthly expenditure per child is then divided by the total number of days a programme is operational per month to establish the unit cost.



Table 6: Estimated direct or operating costs associated with running an ELP (all ELPs in the Baseline Audit), 2021 Rands.

Including ELPs charging more than R700 per child per month					
	Median	Mean	Lower 95% CI	Upper 95% CI	N
Monthly cost per programme	24 957.78	31 993.82	29 719.25	34 268.40	447
Monthly cost per child	1 147.94	1 547.03	1 429.10	1 664.97	447
Unit cost - per child per day	52.98	71.27	65.86	76.67	447
Fully registered	58.58	75.82	69.14	82.50	295
Conditionally registered	57.95	74.45	58.97	89.92	54
Not registered	34.08	55.03	44.15	65.91	98
Excluding ELPs charging more than R700 per child per month					
	Median	Mean	Lower 95% CI	Upper 95% CI	N
Monthly cost per programme	22 874.07	30 291.11	28 025.31	32 556.91	417
Monthly cost per child	1 063.64	1 422.32	1 310.63	1 534.00	417
Unit cost - per child per day	49.09	65.56	60.44	70.68	417
Fully registered	55.44	71.93	65.45	78.40	281
Conditionally registered	50.80	64.73	51.73	77.72	50
Not registered	28.62	45.07	35.35	54.80	86

Source: Thrive by Five Index and Baseline Assessment 2021, own calculations. Notes: (i) Costs are capped at the 95th percentile, (ii) Sample size does not reduce significantly when excluding wealthier ELPs charging more than R700 per child per month.

In 2021, over half of the sampled ELPs incurred monthly provisioning costs exceeding R24 958, translating to roughly R1 148 per child per month. On average, these costs were higher at R31 994 per ELP and R1 547 per child. The estimated unit costs at the 50th percentile was R58.58 for fully registered, R57.95 for conditionally registered, and R34.08 for unregistered ELPs. These unit costs are slightly lower when excluding wealthier programmes charging over R700 per child monthly (Table 6 and Figure 7).²⁰ In particular, R49.09 regardless of registration status, R55.44 for fully registered ELPs, R50.80 for conditionally registered ELPs and R28.62 for ELPs that are not registered.

Costs incurred in more compliant ELPs

In addition to estimating the costs for the full sample, we are interested in understanding the costs associated with compliant ELPs meeting some level of structural quality to get a more realistic sense of the costs of quality provisioning. These costs are estimated for ELPs meeting just over four-fifths of norms and standards (85% of legal requirements) for the full sample and excluding wealthier programmes charging more than R700 per child per month (Table 8). A total of 32 norms and standards were identified that could be measured in the 2021 Baseline Assessment data (see Table A3 in the Appendix).

The costs of compliant programmes that fulfil roughly four-fifths of the standards for structural quality are notably higher than for all ELPs. When interpreting these values, it is important to exercise caution due to the small sample sizes, particularly for conditionally and unregistered ELPs. More than half of fully registered ELPs incur costs of more than R102 per child per day, with an average unit cost of R108 per child per day. Excluding wealthier programmes from the sample, this comes down to R93 per child per day at the median and R104 on average. This reflects the costs associated with meeting some reasonable level of structural quality, with the subsidy value being far from adequate to cover the operating costs at these programmes.

²⁰Ilifa Labantwana estimates that the average value of the subsidy should be approximately R32 per child per day in 2023 prices, which from our analysis, covers the costs incurred by unregistered programmes.



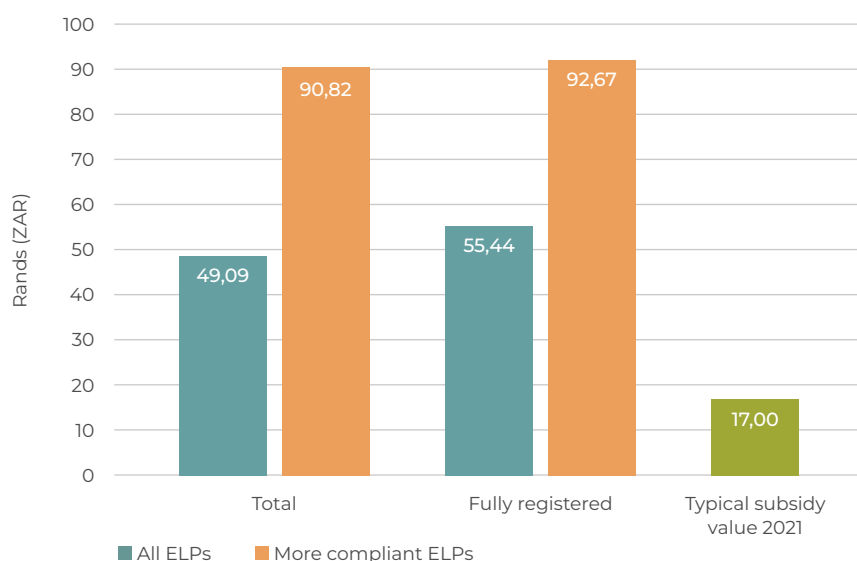
Table 7: Estimated costs associated with compliant ELPs (meeting just over four-fifths of norms and standards), 2021 Rands.

Including ELPs charging more than R700 per child per month					
	Median	Mean	Lower 95% CI	Upper 95% CI	N
Monthly cost per programme	41 452.07	48 867.67	42 785.93	54 949.41	95
Monthly cost per child	2 108.63	2 353.79	2 074.90	2 632.68	96
Unit cost - per child per day	97.32	108.64	95.76	121.51	96
Fully registered	101.98	107.54	92.38	122.70	65
Conditionally registered	94.99	103.47	73.51	133.42	20
Not registered	113.74	124.52	71.38	177.66	11
Excluding ELPs charging more than R700 per child per month					
	Median	Mean	Lower 95% CI	Upper 95% CI	N
Monthly cost per programme	39 022.27	45 725.78	39 279.88	52 171.68	78
Monthly cost per child	1 967.86	2 144.88	1 857.84	2 431.92	79
Unit cost - per child per day	90.82	98.99	85.75	112.24	79
Fully registered	92.67	103.78	87.98	119.59	58
Conditionally registered	79.69	84.56	60.30	108.82	17
Not registered	58.86	90.90	57.72	239.53	4

Source: Thrive by Five Index and Baseline Assessment 2021, own calculations. Notes: (i) Costs are capped at the 95th percentile; (ii) Sample sizes are very small and may result in biased estimates, (iii) No missing values in the list of 32 identified norms and standards.

Considering the costs associated with all ELPs and more compliant ELPs meeting four-fifths of norms and standards, the DSD subsidy, at R17 per child per day, falls significantly short. This highlights the fact that the subsidy is highly insufficient to cover daily operational expenses of running a compliant ELP. For all ELPs, the costs associated with running a fully registered programme is over three times the subsidy amount (R55.44 compared to R17). The costs associated with running a fully registered ELP compliant with norms and standards is more than five times (R92.67) the current subsidy value. The subsidy amount is, therefore, highly inadequate to cover the costs associated with ELP provisioning – regardless of whether programmes are compliant with norms and standards.

Figure 7: Median per-child per-day ‘operational’ costs of all ELPs and compliant ELPs (meeting at least four-fifths of requirements) by registration status (Total and fully registered). Subsidy value in 2021 prices also shown.



Source: Thrive by Five Index and Baseline Assessment 2021, own calculations. Notes: (i) Wealthier ELPs charging more than R700 per child per month excluded; (ii) sample sizes of compliant conditionally registered and unregistered ELPs are very small, and results are not shown; (iii) Costs are capped at the 99th percentile.



5. Do subsidies mitigate the passing on of higher costs to households?

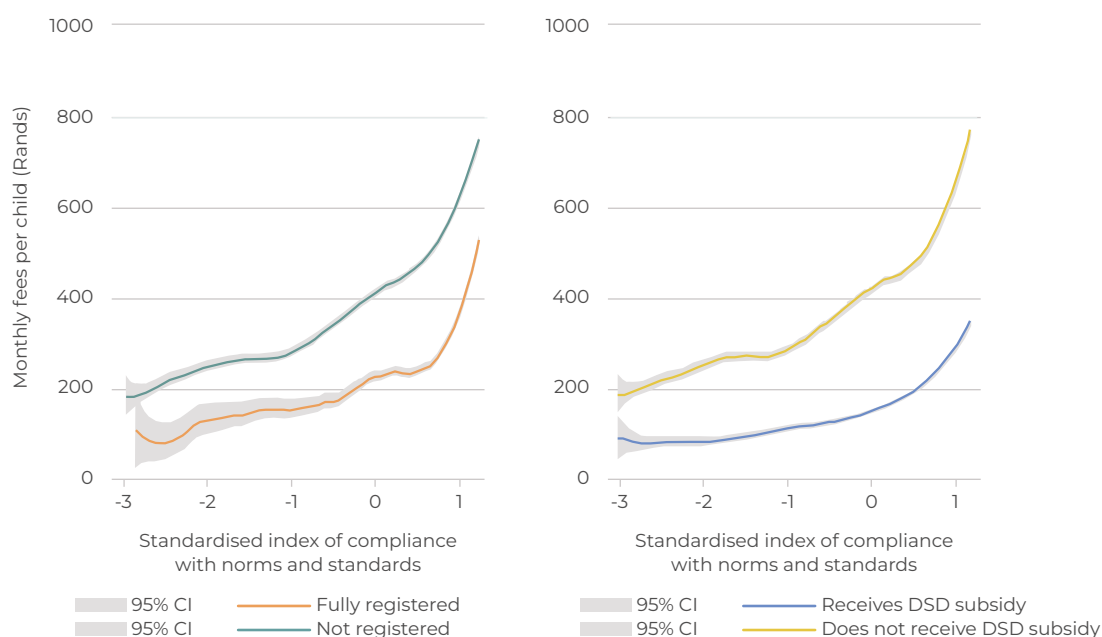
Can government subsidies help reduce the passing on of higher costs to households in the form of higher user fees? It is evident from the literature that higher costs are associated with higher standards of programming (Caronongan et al., 2016; Karoly & Walsh, 2020; Neelan & Caronongan, 2022). Our analysis from the 2013/14 ECD Audit illustrated that the monthly costs per child increased with higher levels of compliance with norms and standards. For programmes that met an acceptable level of compliance²¹, higher costs were observed for fully registered programmes compared to conditionally and unregistered programmes.

In addition, our observations from the 2013/14 ECD Audit revealed a positive relationship between total costs per child per month and realised fees per child per month. While the 2021 ECD Census does not contain information on programme costs, it could be inferred that more compliant programmes experience higher costs which are then passed on to parents/caregivers in the form of higher user fees charged.

In order to determine how fees are associated with an increase in compliance with norms and standards, we construct a standardised index²² based on all 20 identified norms and standards from the 2021 ECD Census. The index proxies for the level of 'structural' quality at the ELP. Figure 8 presents a local polynomial regression of the highest fee charged per ELP per child per month on this standardised index of norms and standards related to structural quality. This is shown by registration status and subsidy receipt, with 95% confidence bands in grey.

We observe that monthly fees per child increase with higher levels of compliance with norms and standards. Fully registered ELPs charge lower fees for a given level of compliance compared to unregistered ELPs. Similarly, subsidised programmes charged lower fees for a given level of compliance compared to unsubsidised programmes i.e., for the same level of structural quality, users are charged lower fees in subsidised compared to non-subsidised programmes. This potentially implies that the higher costs incurred by fully registered ELPs to meet a certain level of norms and standards (Kika-Mistry and Wills, 2022) are not necessarily passed on as higher user fees, which are offset by the receipt of subsidies.

Figure 8: Association between a standardised index of compliance with norms and standards and the maximum fee amount charged by an ELP by registration status and whether a not the programme receives the DSD subsidy, 2021 ECD Census.



Source: ECD Census 2021, own calculations. Notes: (i) Kernel weighted, (ii) Sample: 10 464 fully registered ELPs, 18 424 unregistered ELPs, 11 979 subsidised ELPs and 21 092 ELPs that do not receive the DSD subsidy.

²¹Programmes meeting three quarters of norms and standards.

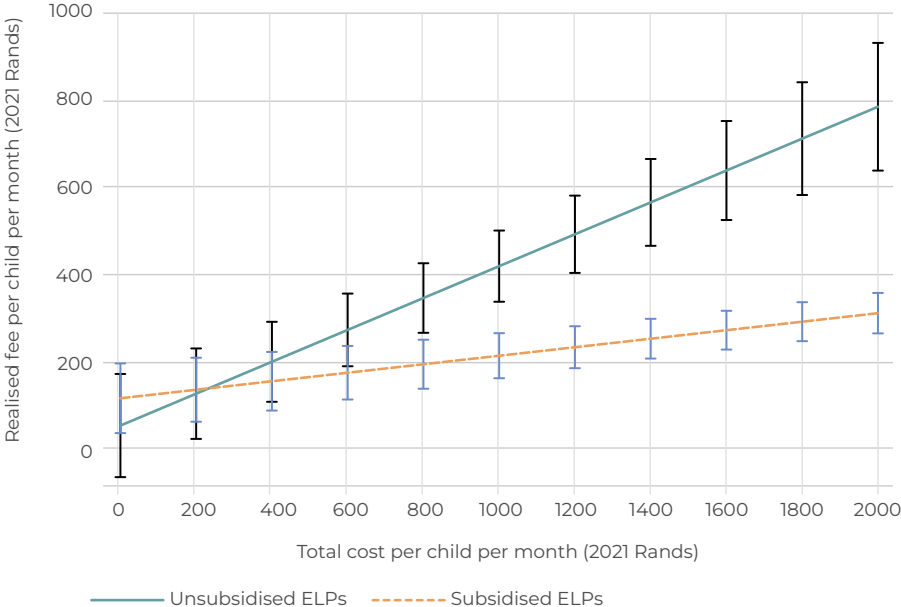
²²Generated using Principal Component Analysis (PCA).



To further explore whether subsidies help reduce the passing on of higher costs to households in the form of higher user fees, we use multivariate regression analysis with the key control variable being subsidy receipt. The multivariate regression allows for the possibility that unsubsidised ELPs are systematically different from subsidised ELPs. The multivariate regression, therefore, controls for other programme characteristics, including province and nearest school quintile. Wealthier programmes charging more than R700 per child per month are excluded from the analysis. We also control for monthly costs per child. An interaction term between the total cost variable and DSD subsidy receipt is included to examine how the relationship between costs and user fees is affected by subsidy receipt.

These estimation results of the fee-cost relationship are represented in Figure 9 which shows the realised fees per child per month on the y-axis and the per child unit costs per month on the x-axis. The coefficient for the interaction effect between subsidy receipt and total costs per child per month represents the difference in slope between programmes receiving the DSD subsidy and those that are not. The interaction term is statistically significant and negative. Thus, the gradient of the fee-cost relationship is flatter in subsidised programmes. This implies that subsidies are important in mitigating costs being passed on to parents or caregivers in the form of higher user fees. The marginal effect of an increase in user fees that is associated with an increase in monthly costs per child is higher for unsubsidised ELPs compared to subsidised ELPs. We note that this result is only statistically significant at a 95% level of confidence when the total costs per child per month are at or above approximately R800.²³ For total costs below R800 per child per month, this could imply that there is no significant difference in the marginal effect of costs being passed on as fees to parents/caregivers between subsidised and unsubsidised ELPs. Programmes may incur baseline costs that need to be covered in order to make a living wage. However, given the high fee exemptions offered in the lower segment of subsidised ELPs, one would expect that with a larger sample, subsidies will mitigate the passing on of costs to users in the form of fees at lower levels.

Figure 9: Margins plot of average realised fee per child per month, 2021 Rands.



Source: Thrive by Five Index and Baseline Assessment 2021, own calculations. Notes: (i) Sample (N=413 ELPs, 308 subsidised and 105 unsubsidised ELPs), (ii) ELPs charging more than R700 per child per month excluded, (iii) In addition to cost and subsidy receipt, the regression controls for the nearest school quintile and province, (iv) Includes 95% confidence bands.

²³Note, the sample size of unregistered ELPs is small, hence the larger confidence intervals.

6. Conclusion

In South Africa, there is a need to both increase access to early learning opportunities, particularly for disadvantaged children, while enhancing the quality of services currently being offered. This paper investigates the potential trade-offs that may occur between addressing challenges of access to ELPs and improving quality by ensuring that programmes meet norms and standards to become fully registered. It presents an update of the analysis in Kika-Mistry and Wills (2022) using the more recent and larger ECD Census 2021, and the smaller sample-based 2021 Thrive by Five and Baseline Assessment. Several findings from Kika-Mistry and Wills (2022) that used the 2013/14 ECD Audit data still hold.

A very low proportion of ELPs, including fully registered programmes, are wholly compliant with the norms and standards for Partial Care Facilities and Early Childhood Development programmes. Only 10.6% of all ELPs in the total sample (4 173 of 39 342 ELPs) meet 100% of the 20 identified norms and standards. Fully registered programmes are more compliant (meeting on average 85% of norms and standards) compared to conditionally and unregistered ELPs.

Between 2013/14 and 2021, we examined 10 common variables in both the earlier Audit and the newer ECD Census to track changes in compliance with norms and standards as indicators of quality. We found significant enhancements in the percentage of fully registered programmes that meet certain criteria, such as having a fenced premises, a structured learning program, and staff trained in first aid. Similarly, unregistered ELPs showed improvements in areas like having a fenced premises with a lockable gate, a structured learning program, staff trained in first aid, and a higher proportion of ELPs with flush toilets. Despite these improvements, some demanding requirements are still hindering their registration. It is worth noting that sample characteristics may have shifted between 2013/14 and 2021, possibly influenced by COVID-19 impacts on the financial viability of programmes, which may have impacted the inclusion of less financially viable programmes, particularly those that are unregistered, in the 2021 sample. This points to a clear need to strengthen ECD quality assurance mechanisms and longitudinally tracking key indicators.

While still weakly implemented as a process, registration is positively associated with higher standards of programming. In Kika-Mistry and Wills (2022), we found a significant positive association between monthly unit costs and higher standards of programming. Higher costs imply higher user fees for households although subsidies can disrupt this positive relationship. For all ELPs, higher levels of compliance fetch higher user fees, but these fees are higher for unregistered or unsubsidised programmes compared to fully registered or subsidised programmes.

Subsidies serve as a policy tool intended to encourage ELP access by making it more affordable for users at a given level of quality. In this case, we expect that subsidised ELPs are less likely to pass on higher costs in the form of user fees. The marginal effect of an increase in user fees that is associated with an increase in monthly costs per child is higher for unsubsidised ELPs compared to subsidised ELPs, so higher costs are not passed on as higher fees where subsidies are received. We note that this result is only statistically significant at a 95% level of confidence when the total costs per child per month are at or above approximately R800. Programmes may incur baseline costs that are compulsory to cover to make a living wage. If the sample size was larger, we may also observe significant results at lower costs. Findings from the 2021 ECD Census data point to high fee exemptions being offered by subsidised ELPs in lower-fee segments.

Subsidies enable the provision of fee exemptions by ELPs. For subsidised ELPs, particularly in the lower-fee segment (charging less than R100 per child per month), subsidies are passed on as fee exemptions. These fee exemptions are lower where higher fees are charged. Interestingly, it is also common for unsubsidised ELPs, particularly those charging lower fees, to offer exemptions to households from paying user fees. The fees charged by these unsubsidised ELPs are often inadequate to cover costs to meet norms and standards for registration, and they cannot access the subsidy, but they are compelled to offer exemptions to children from poorer households. This reflects the triple burden in Kika-Mistry and Wills (2022).

The unit costs in 2021 are much higher than the 2013/14 values in Kika-Mistry and Wills (2022), but they cannot be easily compared using simple inflation adjustments. CPI adjustments are unlikely to fully reflect changes in education expenditure and food prices. In addition, the sample sizes in the 2021 Baseline Assessment are small and may be subject to bias. In 2021, the median unit cost for fully registered ELPs is R58.58 for the full sample. For compliant ELPs meeting just over four-fifths of quality standards, the estimated median cost for registered ELPs is R102 and R93 when including wealthier ELPs. However, the subsidy value at the time was only (and still is) R17 per child per day. In addition, the Baseline Assessment did not capture information on overhead and imputed costs, which could imply that actual costs are a lot higher than those estimated.

Overall, we observe that while the current value of the subsidy is inadequate to cover costs of ELP provisioning, it still results in lower user fees for a given level of compliance related to structural quality. Subsidies thus support the twin goals of improving access and quality, but there are trade-offs associated with expanding the subsidy at its current value (R17 per child per day)²⁴ to more children in ELPs and simultaneously raising its value.

The findings from this update reinforce the policy considerations suggested in Kika-Mistry and Wills (2022). Compliance requirements in registration frameworks need to be simplified to enable ELPs to become fully registered and access the subsidy. These requirements should also be consistently applied across districts and provinces. This should be done in conjunction with a review of the costs associated with meeting norms and standards.

In addition, there is a need for better cost and income data associated with quality provisioning. It is imperative for the government to track unit costs (which also include overhead and imputed costs). This will help to appropriately set subsidy values that more closely reflect ELP costs and aid in an understanding of the costs of ECD provisioning more generally. This is necessary for planning purposes. Standardised and accurate costing data is important to make an investment case for early learning through more precise cost-benefit and cost-effectiveness analyses. The sample for costing information in the 2021 Baseline Assessment is small. Consideration should be given to including questions related to income and expenditure in the larger ECD Census assessments.

²⁴The subsidy value has been pegged at R17 per child per day for six years in a row.

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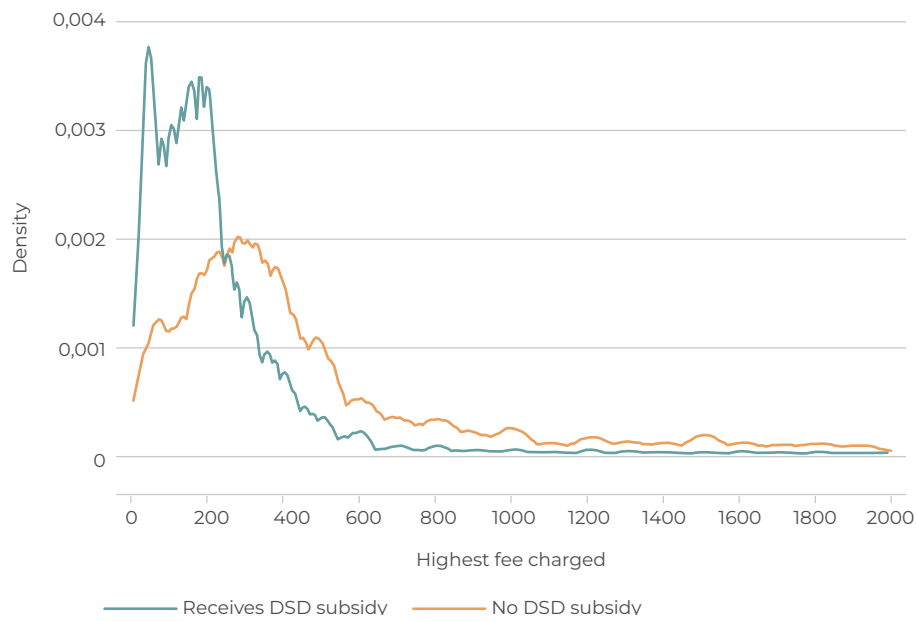
8. Appendix

Table A 1: Proportion of ELPs that receive the DSD subsidy or not by fee category, 2021 ECD Census

Fee category	Receives DSD subsidy (%)	Does not receive DSD subsidy (%)	N
R1-50	42.13	57.87	3 912
R51-100	41.37	58.63	2 932
R101-200	48.86	51.14	7 649
R201-300	70.30	29.70	6 391
R301-500	81.82	18.18	7 553
R501-750	88.23	11.77	2 293
R751-1000	93.41	6.59	1 486
>R1000	82.71	17.29	6 664

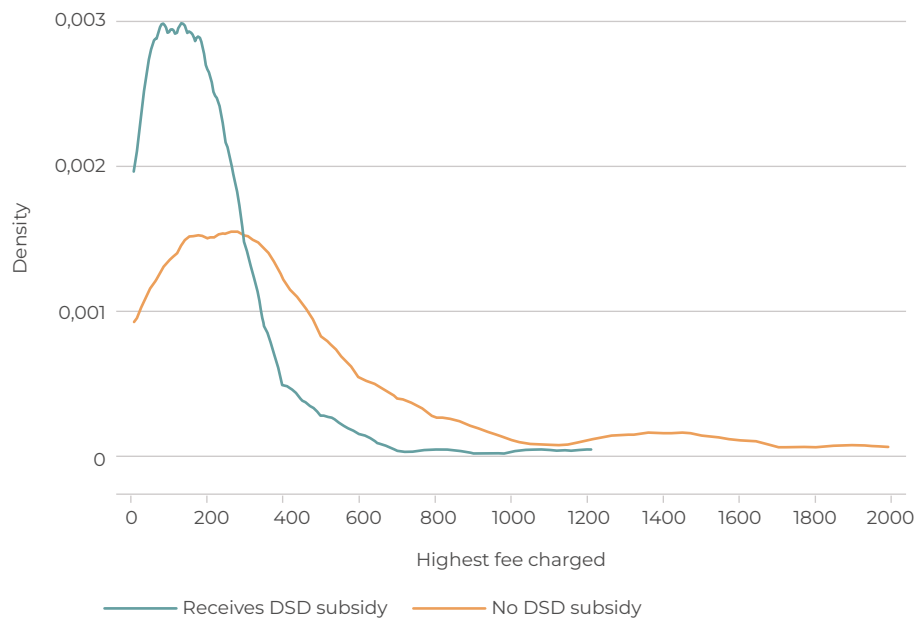
Source: 2021 ECD Census, own calculations.

Figure A 1: Distribution of highest fee charged by subsidy receipt, 2021 Census.



Source: 2021 ECD Census, own calculations. Notes: (i) Sample restricted to fee amounts of less than ZAR 2000: includes 12 687 subsidised ELPs and 24 427 unsubsidised ELPs. Missing subsidy values for 363 programmes, (ii) Missing fee data recoded as no-fees (ZAR 0), (iii) Kernel weighted.

Figure A 2: Distribution of highest fee charged by subsidy receipt, 2021 Thrive by Five Index and Baseline Assessment.



Source: 2021 Thrive by Five Index and Baseline Assessment, own calculations. Notes: (i) Sample restricted to fee amounts of less than ZAR 2000: 311 subsidised ELPs and 127 unsubsidised ELPs. Missing subsidy values for 9 programmes, (ii) Missing fee data recoded as no-fees (ZAR 0), (iii) Kernel weighted.

Table A 2: Norms and standards in the Children's Act matched against variables in the 2021 ECD Census.

No.	Norms and Standards	Variables for 2021 ECD Census
1		ECD programme has a fence around the premises
2	Children must experience safety and feel cared for whilst at partial care facility	ECD programme has lockable gate to prevent unauthorised access to premises
3		Somebody checking who enters and leaves the facility
4	The structure must be safe and weatherproof	ECD programme operates in a formally built structure (conventional, brick or block, with tile or zinc roof OR prefab building)
5	Safe and clean drinking water must always be available	ECD programme has tap water on site/outside the building or in the building
6		Available source of water is drinkable
7	Partial care facilities catering for toddlers must have potties, toilets and washbasins; For children between the ages of 3 and 6 years - Where sewage systems are available, there must be one toilet and one hand washing basin for every 20 children; For children 6 years and older, there must be Hygienic and safe toilets and one toilet and one hand washing basin for every 20 children	ECD programme has a flush toilet
8		ECD programme has more than one children's toilet
9	There must be a separate, clean and safe area for the preparation of food as well as for cleaning up after food preparation	There is an area for cooking and preparing meals separated from where children are.
10		Evidence of daily and/or weekly activity planners
11		Evidence of curriculum
12	The provision of appropriate development opportunities. Programmes must be:	Indoor play area's floor space is large enough for children to safely move around
13	a) be delivered by members of staff who have the knowledge and training to deliver developmental programmes b) be appropriate to the developmental stages of children c) respect and nurture the culture, spirit, dignity, individuality, language and development of each child d) provide opportunities for children to explore their world e) be organised in a way that each day offers variety and creative activities	At least 3 themed areas identified: - Art (draw, paint, cut, model etc.) - Big blocks - Fantasy (house + shop, clinic etc.) - Educational toys and games - Maths area - Writing area - Nature/science/themed tables - Water and sand
14		At least 10 materials available to the children: - Children's books, Storybooks, any books with text or pictures, including books made by an ECD practitioner - Puzzles, games with numbers or shapes - Wooden or plastic blocks children can play with (not LEGO or similar brands) - LEGO or similar brands (blocks and pieces that fit into each other and be taken apart again) - Picture cards, posters, charts - Paint, crayons - Pencils, pens, chalk - Glue, paper, scissors (for children), tape - Clay, play dough or similar - Dolls, stuffed animals, toy cars - Toys from recycled materials - Dress up clothes, masks, pretend food, pots and pans - Any materials for counting e.g., bottle caps, dice, beads, rocks etc. or Abacus - Balls, hula-hoops, sandbags - Buckets, spades and sand moulds - Skipping ropes, scooters - Chairs, desks or tables for children - Carpets to play on, sleeping mats - Theme tables - Drums, triangles, cymbals, maracas, bells, shakers, or anything else to create rhythms or music
15	Caring for children in a constructive manner and providing support and security. Programmes must adhere to policies, procedures and guidelines related to health, safety and nutrition practices: These must relate to: a) Practices aimed at preventing the spread of contagious diseases b) At least one meal per day must be provided c) All meals and snacks should meet the nutritional requirements of children	Evidence of meal plan
16	d) Where children are bottle-fed, a suitable facility must exist for cleaning the bottles e) Children must be supervised by an adult at all times	ECD programme provides meals or snacks (two questions - what meal do children eat and who provides the meal)
17	Staff must be trained in implementing ECD programmes	Staff trained in implementing ECD programmes
18	Staff must be trained in first aid	At least one of the staff trained in first aid procedures



No.	Norms and Standards	Variables for 2021 ECD Census
19	The staff to child ratio: a. 1 month to 18 months (1:6) b. 18 months to 3 years (1:12) c. 3 and 4 years (1:20) d. 5 and 6 years (1:30) For every staff member, there must be an assistant	The staff (professional) to child ratio is 1:20 or less
20	Meeting the emotional, cognitive, sensory, spiritual, moral, physical, social and communication development needs of children a) Programmes must be appropriate to the developmental stages and evolving capacity of children	ECD programme offers separate classes for children in different age groups

Table A 3: Norms and standards in the Children's Act matched against variables in the 2021 Thrive by Five Index and Baseline Assessment.

No.	Norms and Standards	Variables from TBFI and baseline assessment 2021
1	Children must experience safety and feel cared for whilst at partial care facility	Fence around the premises used by the ECD programme
2		Lockable gate to prevent unauthorised access to the premises used
3	Premises inside and outside must be safe, clean and well maintained	Indoor play areas floor space large enough for children to safely move...
4	Equipment used must be safe, clean and well-maintained	2 or more outdoor equipment available and in good working condition
5	The structure must be safe and weatherproof	ECD programme operates formal build - conventional or prefab
6	All reasonable precautions must be taken to protect children and staff from the risk of fire, accidents or other hazards	No safety hazards observed
7	Staff must have the ability to identify children who are ill and be able to refer them for appropriate health services	Takes 15 minutes or less to get to nearest clinic
8	The following medical records must be kept: - Up-to-date records of each child's medical history	Children's road to health booklets/immunisation schedules
9	- Records of each child's immunisation programme and Vitamin A schedule - Records of health incidents and accidents occurring at facility	Accident/injury file
10	Every partial care facility must have a first-aid kit	Adequately resourced first aid kit
11	Space for different activities and functions must be clearly demarcated.	ECD programme has 3 or more of the following activity areas: 1. Art (draw, paint, cut, model etc.) 2. Big blocks 3. Fantasy (house, shop, clinic etc.) 4. Educational toys and games 5. Maths area 6. Writing area 7. Nature/science/theme tables 8. Water and sand
12	Safe and clean drinking water must always be available	Main source of water is tap water in the building or tap water on-site/ outside the building
13		Is the water drinkable?
14	Partial care facilities catering for toddlers must have potties, toilets and washbasins; For children between the ages of 3 and 6 years - Where sewage systems are available, there must be one toilet and one hand washing basin for every 20 children; For children 6 years and older, there must be Hygienic and safe toilets and one toilet and one hand washing basin for every 20 children	ECD programme has a flush toilet
15		Toilets clean and safe for children to use
16		ECD programme has a tap for handwashing
17	Toilet and hand washing facilities must be reachable for children over the age of three years	Size of flush toilets are appropriate for children
18	There must be a separate, clean and safe area for the preparation of food as well as for cleaning up after food preparation	Food preparation is separate and away from the children



No.	Norms and Standards	Variables from TBFI and baseline assessment 2021
19	<p>Medicine, cleaning substances and any dangerous substances must be kept out of reach of children</p> <p>Medicine and dangerous substances must be kept in separate locked or childproof cupboards</p> <p>Dangerous objects, materials, sharp instruments and utensils must be kept out of reach of children</p> <p>Dangerous substances may not be used in the vicinity of children</p> <p>Electrical plugs must be covered</p> <p>Paraffin, gas and other electric appliances must be kept out of reach of children</p> <p>Cleaning agents must be kept in clearly marked containers and out of reach of children</p>	Harmful substances locked away at all times
20	Access to refuse disposal services or other adequate means of disposal of refuse generated at the partial care facility.	Safe and enclosed refuse area
21	There must be cooling facilities for storage of perishable foods	ECD programme has refrigeration facilities
22	Reasonable precautions to protect children from risk of fire, accidents and other hazards must be taken	Fire extinguisher up to date
23	Emergency procedures with relevant contact details must be visibly displayed	Exit or evacuation plan visibly displayed
24		Displayed contact list of emergency services
25	Staff must be trained in dealing with emergencies	Appointed first aid officer has received first aid training
26	<p>Programmes aimed at helping children to realise their potential:</p> <p>a) Children must receive care, support and security</p> <p>b) Programmes must promote children's rights to rest, leisure and play through the provision of a stimulating environment</p> <p>c) Programmes must promote self-discovery</p> <p>d) Programmes must be evaluated and monitored</p> <p>e) Programmes must promote and support the development of motor, communication and sensory abilities in children</p> <p>f) Programmes must promote self-control, independence and developmentally appropriate responsibility</p> <p>g) Activities must promote free communication and interaction among children</p> <p>h) Programmes must report and nurture the culture, spirit, dignity, individuality, language and development of each child</p>	<p>There are 10 or more varied materials for play and learning indoors</p> <ol style="list-style-type: none"> 1. Children's books, Storybooks, any books with text or pictures, including books 2. Puzzles, Games with numbers or shapes 3. LEGO or any other wooden or plastic blocks children can play with 4. Picture cards, posters, charts 5. Paint, Crayons, Chalk 6. Pencils, pens 7. Glue, Paper, Scissors (for children), Tape 8. Clay, Play dough 9. Sticks, grass, seeds 10. Dolls, Stuffed animals, Toy cars, Toys from recycled materials 11. Dress up clothes, Masks, Pretend food, pots and pans 12. Any materials for counting, e.g. bottle caps, dice, beads, rocks etc or Abacus 13. Balls, Hula-hoops, Sandbags 14. Buckets, Spades, Sand moulds 15. Skipping ropes, Scooters 16. Chairs, desks or tables for children 17. Carpets to play on, Sleeping mats 18. Theme table 19. Drums, triangles, cymbals, maracas, bells, shakers, tambourines 20. Other
27		Outdoor materials and equipment (small and large) to encourage development of different motor skills.
28	<p>Caring for children in a constructive manner and providing support and security.</p> <p>Programmes must adhere to policies, procedures and guidelines related to health, safety and nutrition practices: These must relate to:</p> <p>- At least one meal per day must be provided</p>	ECD programme provides meals/snacks for the children
29	Staff must be trained in implementing ECD programmes	Staff trained in implementing ECD programmes
30	Staff must be trained in first aid	Appointed first aid officer received first aid training
31	<p>The staff to child ratio:</p> <ol style="list-style-type: none"> a. 1 month to 18 months (1:6) b. 18 months to 3 years (1:12) c. 3 and 4 years (1:20) d. 5 and 6 years (1:30) <p>For every staff member, there must be an assistant</p>	The staff-to-child ratio is 1:20 or less (calculated).
32	<p>Meeting the emotional, cognitive sensory, spiritual, moral, physical, social and communication development needs of children:</p> <p>- Programmes must ensure that parents and caregivers are involved in the development of children</p>	Meet with parents at least quarterly to discuss the child's progress

Table A 4: Sample of fully, conditionally and unregistered ELPs reporting on all items in the norms and standards list, 2021 ECD Census

Registration status	Sample with no missing values	Total sample	Proportion of ELPs with no missing values
Fully registered	10 464	11 333	92%
Conditionally registered	4 512	4 849	93%
Not registered	18 424	23 160	80%
Total	33 400	39 342	85%

Source: 2021 ECD Census, own calculations.

Table A 5: Proportion of monthly direct or operating costs by expense category (fully and unregistered ELPs), 2021

Monthly expense category	All ELPs		Fully registered		Not registered	
	Mean	N	Mean	N	Mean	N
Salaries/stipends	41.74	447	40.82	295	45.56	98
Food	29.06	445	30.55	293	22.37	98
Administration, safety and security	8.94	444	8.82	294	9.35	96
Lighting, heating, cooking, water, sanitation, maintenance and building costs	8.90	446	8.79	295	8.98	97
Child and practitioner materials	7.91	444	8.04	294	8.15	96
Rent	2.27	447	1.80	295	4.27	98
Other expenses	1.44	445	1.45	295	1.80	96

Source: 2021 Thrive by Five and Baseline Assessment, own calculations. Notes: (i) Including ELPs charging more than R700 per child per month, (ii) Remainder of the sample are conditionally registered programmes.

Table A 6: Item-level differences in fully registered ELPs meeting norms and standards by province, 2021 ECD Census

No.	Variables for 2021 ECD Census	Province									
		All fully registered	Gauteng	Western Cape	Northern Cape	Mpumalanga	Free State	North West	Limpopo	KwaZulu Natal	Eastern Cape
1	Available source of water is drinkable	97,97	99,25	99,40	98,06	95,73	99,50	97,35	98,88	95,4	98,22
2	ECD programme has a fence around the premises	95,09	99,59	98,35	97,10	99,57	98,34	98,17	96,13	99,56	94,83
3	ECD programme provides meals or snacks (two questions - what meal do children eat and who provides the meal)	90,58	98,51	90,04	96,45	96,58	98,67	97,35	95,22	99,12	94,49
4	Staff trained in implementing ECD programmes (certificate, diploma, degree)	90,57	97,35	98,80	95,16	98,83	95,19	96,13	94,25	97,16	96,95
5	ECD programme has lockable gate to prevent unauthorised access to premises	90,31	99,32	96,70	98,71	97,76	95,69	93,89	92,11	98,1	87,02
6	ECD programme offers separate classes for children in different age groups	90,04	99,46	98,28	92,26	97,65	98,18	96,13	95,19	96,06	83,55
7	Evidence of daily and/or weekly activity planners	89,57	97,49	97,90	91,29	96,69	94,86	94,3	95,04	94,24	92,28
8	There is an area for cooking and preparing meals separated from where children are.	88,55	98,58	93,03	91,29	96,16	97,01	96,95	93,23	97,08	89,23
9	The staff (professional) to child ratio is 1:20 or less	88,50	97,76	92,36	87,42	83,88	91,87	91,04	79,23	87,09	66,16
10	ECD programme operates in a formally built structure (conventional, brick or block, with tile or zinc roof OR prefab building)	88,12	97,96	94,23	88,71	94,77	70,81	93,08	95,22	95,33	81,59
11	Indoor play area's floor space is large enough for children to safely move around	84,18	94,57	92,58	88,39	93,7	77,45	92,26	88,57	88,77	78,80
12	Evidence of meal plan	79,10	94,98	85,62	87,74	94,34	84,47	94,09	88,1	95,04	79,90
13	At least 3 themed areas identified	77,30	92,74	96,55	94,52	82,82	85,57	86,15	83,25	85,05	82,36
14	ECD programme has tap water on site/outside the building or in the building	74,67	99,59	99,10	90,32	77,48	95,85	68,84	57,78	48,07	51,74
15	ECD programme has more than one children's toilet	72,17	90,16	78,80	82,58	91,14	75,46	88,8	75,33	95,26	71,50
16	At least 10 materials available to the children	69,10	88,33	92,21	77,10	77,27	81,92	82,69	73,73	80,38	69,38
17	Somebody checking who enters and leaves the facility	66,62	86,02	79,55	73,55	80,36	79,6	71,28	47,5	79,87	46,31
18	ECD programme has a flush toilet	63,71	98,98	99,55	82,58	58,7	80,1	56,42	47,07	30,2	44,36
19	At least one of the staff trained in first aid procedures	63,35	93,69	94,08	64,84	71,4	63,52	56,62	58,83	58,79	54,45
20	Evidence of curriculum	54,70	68,72	76,78	69,03	59,34	39,3	54,18	64,22	70,31	49,45
Average requirements met by ECD programme (out of 20)		85,45	94,65	92,7	87,35	87,21	85,18	85,29	80,94	84,54	75,63

Source: 2021 ECD Census, own calculations. Notes: Sample sizes for each province included in Table 4. * Ten sets of materials from the following list include 1) Children's books; Storybooks, any books with text or pictures, including books made by an ECD practitioner; 2) Puzzles, games with numbers or shapes; 3) Wooden or plastic blocks children can play with (not LEGO or similar brands); 4) LEGO or similar brands (blocks and pieces that fit into each other and be taken apart again); 5) Picture cards; posters; charts; 6) Paint, crayons; 7) Pencils, pens; 8) Glue, paper, scissors (for children); tape; 9) Clay, play dough or similar; 10) Dolls, stuffed animals, toy cars; 11) Toys from recycled materials; 12) Dress up clothes, masks, pretend food, pots and pans; 13) Any materials for counting e.g. bottle caps, dice, beads, rocks etc. or Abacus; 14) Balls, hula-hoops, sandbags; 15) Buckets, spades and sand moulds; 16) Skipping ropes, scooters; 17) Chairs, desks or tables for children; 18) Carpets to play on, sleeping mats; 19) Theme tables, or 20) Drums, triangles, cymbals, maracas, bells, shakers, or anything else to create rhythm or music. **Two or more outdoor equipment in good or working condition from following list: 1) Jungle gym; 2) Swings; 3) Slide; or 4) Sand tray/Pit. ***Three or more themed areas identified from the following list: 1) Art (draw, paint, cut, model etc.); 2) Big blocks; 3) Fantasy (house + shop, clinic, etc.); 4) Educational toys and games; 5) Maths area; 6) Writing area; 7) Nature/science themed tables; or 8) Water and sand.



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