ECD Census 2021
because children count

ECD CENSUS
2021 Report

Acronyms

DBE	Department of Basic Education
DSD	Department of Social Development
ECD	Early Childhood Development
ELP	Early Learning Programme[1]
EMIS	Education Management Information System
LtP	Learning through Play
MIS	Management Information System
Q	Income quintile where Q1 refers to the poorest income quintile and Q5 to the richest

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1 Early Learning Programmes are also commonly referred to as pre-schools, creches, educare centres, day mothers or playgroups (but not Grade R).

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FOREWORDS

Angie Motshekga - Minister of Basic Education

I've always been a firm believer in the fact that building the future we strive for starts with strengthening early learning and development. And as we begin a new chapter for Early Childhood Development (ECD) in South Africa, under the curatorship of the Department of Basic Education, we are proud of the success and insights gathered through the first national ECD Census. These will be the building blocks for us to improve access to quality ECD services for our young children and families.

From the outset, the primary objective of the ECD Census was to gather reliable, verified data on Early Learning Programmes (ELPs) that would help us move towards a centralised management information system to enable improved resource allocation, oversight and support of ELPs throughout the country. The data on chil- dren accessing ECD services and the number of practitioners providing those services, is instrumental for our planning and will allow us to prioritise the poorest children most in need of public assistance.

It is encouraging to recognise the progress made by the sector in terms of provision of quality ECD services in the country – despite the devastating pressure that the Covid-19 pandemic has placed on the system. Additionally, the priorities and areas of growth are clear – continued professionalisation and training of the ECD workforce, strengthening play-based curriculum implementation, and improving our processes for registering and funding ELPs in order to expand access.

The ECD Census also shone a light on the role of Learning through Play in our sector. As a country we need to afford our youngest citizens opportunities to learn in the manner which comes most naturally to them – through play. We also need to provide our practitioners and ELPs with the tools and competencies to facilitate this kind of learning to equip them with the skills needed for the future.

This partnership with the LEGO Foundation is an important one, whose outcomes will be lasting. It will assist us to improve the quality of ECD in South Africa.

We're energised to create the foundation that our children need to thrive, together. Because every child counts.

FOREWORDS

Anne-Birgitte Albrectsen - CEO of The LEGO Foundation

The resilience of children and families over the past few years in SA has been nothing short of extraordinary. Despite the tumultuous climate, the determination and agility of learners and caregivers have been inspiring to witness. This has been especially true for the ECD sector in SA who suffered and continue to deal with the impact that Covid had on the sector.

At the LEGO Foundation, we believe that learning through play is one of the key vehicles to help children build social and emotional learning skills to successfully navigate life's challenges and uncertainties. At the heart of it all, children play to make sense of the world around them. To find meaning in life's many experiences by connecting it to something already known to them. Through play, children learn about themselves and the great big world around them. It also unlocks skills they need for study, work and relationships, making play a fundamental building block to our society's success.

We appreciate that an enabling environment for quality learning through play needs to be in place for quality learning to happen. And for a country to scale such environments, solid national systems need to be in place. It is for this reason that we saw the need to partner with government and invest in systems-building proj- ects like the ECD Census that will pave the way for South Africa to foster quality early learning environments and give children the nurturing care and stimulation they so desperately need in these pivotal years.

Findings from the ECD Census indicate that little time is allocated for free play, and materials and equipment that lend themselves to these activities, are not very common. It is also concerning to note that opportunities for free play, where children have more agency in their learning, is more common in higher quintile ELPs.

We look forward to building on the foundation laid by the ECD Census and continuing to work with the government and the ECD sector of South Africa as they build systems to drive quality learning in the early years. We celebrate this incredible achievement as a significant mile- stone in the learning journey of all children in South Africa.

ABOUT THE ECD CENSUS 2021

The Department of Basic Education commissioned the ECD Census 2021 to collect data on all Early Childhood Development programmes in the country to better understand the early childhood development landscape in South Africa.

The ECD Census 2021 counts all registered and non-registered ECD programmes to build a data management information system for the ECD sector. Funded by the LEGO Foundation, the data and indicators will also provide a basic assessment of the enabling environment for quality learning through play.

The first national census highlights opportunities to broaden the access to quality learning for every child in South Africa. The information gathered will be used to integrate ECD into the Education Management Information System (EMIS) and expand education support and play-based learning programmes.The census also makes observations on the facilities available at the sites to enable planning for greater inclusion of children with disabilities and the delivery of integrated health and safety programmes.

ACKNOWLEDGMENTS

The ECD Census 2021 has been the largest effort to map the South African ECD landscape to date, and its success was only possible through a partnership between government, civil society and the private sector.

The LEGO Foundation's role has been invaluable as not just the funder, but as a sector coordinator, and overall supporter of the project.

The Department of Social Development offered critical support in identifying ECD services both through existing databases and local DSD officials provided much-needed guidance to the data collection teams in the field.

The ikapadata team deserves gratitude for conducting the fieldwork under extraordinary circumstances. Their fieldworkers worked tirelessly as they visited each and every ward in the country to identify Early Learning Programmes.

We would also like to thank Nelson Mandela Foundation, Brian Liggett and Prof Andy Dawes who offered their advice, insights and knowledge for the duration of this project. We would also like to thank the project steering committee (UNICEF, StatsSA, Department of Planning, Monitoring and Evaluation) for their ongoing support and guidance throughout the project.

But most importantly, none of this would have been possible without the selfless support of NGOs, ward councillors, community members, NECDA, and especially the ECD principals and practitioners who so willingly opened their doors to us.

Thank you!

PROJECT COLLABORATORS

Basic Education
Social Development

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EXECUTIVE SUMMARY

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The ECD Census 2021 constitutes the first complete mapping of early childhood development (ECD) services in South Africa. Its purpose is to integrate Early Learning Programmes (ELP) into the Department of Basic Education's (DBE) Education Management Information System (EMIS), identify gaps in the access to and quality of ELPs in South Africa, support research on ECD, and gain insights into the enabling environment for Learning through Play (LtP).

The ECD Census was initiated by the DBE in partnership with the LEGO Foundation. The data collection was carried out by service provider ikapadata (Pty) Ltd.

Data for the Census was collected between August 2021 and February 2022. Over 360 fieldworkers visited every ward in the country to identify ELPs of any size and type. Grade R classes were not included in the Census.

The instruments used for data collection covered the following themes: location, address, opening times, services, fees, registration and registration status, subsidies, affiliations, land and facilities ownership, enrolment and presence of children, staff counts, teaching environment and practices, attitudes towards LtP, infrastructure, access to water and electricity, learning and playing environment and materials, equipment, and access control.

In total, 42420 ELPs were captured during fieldwork. The province with the most ELPs is Gauteng (10376), followed by KwaZulu-Natal (8089) and Eastern Cape (5426). About 60% of ELPs are urban, 40% are rural.

Over 1.6m children enrolled in ELPs were counted during the Census, but only 1.1m children were physically present during site visits. Based on ECD practitioners' estimates, about 1.5m children usually attend ELPs on a day to day basis and just under 2m children did so before the Covid pandemic.

Forty percent of ELPs are fully or conditionally registered with DSD as a partial care facility, an early learning programme or both, while 16% are in the process of registering. Forty-two percent of programmes are not registered with DSD. One third of ELPs stated that they receive a subsidy from DSD.

The large majority (69%) of ELPs mention fees as their main source of funding, followed by government funding (27%) and donations/fundraising (4%). The average monthly fee amount is R509 per child. Many (77%) ELPs provide meals for learners, and at just under half (48%) of ELPs parents also contribute to the meals. Government provides meals at 17% of ELPs. At 59% of ELPs children can wash their hands using water from a tap and flush toilets are available at 60% of ELPs.

Just over half (52%) of ECD practitioners have an ECD qualification at NQF level 4-9, and 27% underwent a relevant skills programme. Twenty-two percent do not have any relevant qualifications.

More than half (54%) of ELP programmes allocate less than 30 minutes per day to free play as part of their daily programme. ELPs that are subsidised by the government have on average more types of play and learning materials (13.5) than those that are not subsidised (11.1). Only 56% of ELPs have access to age-appropriate children's books.

The next steps after the conclusion of data cleaning and verification will be the integration of the dataset into EMIS. An anonymised version of the dataset will be made available to the public via DataFirst at the University of Cape Town. This will coincide with the full report, and provincial profiles being released.

INTRODUCTION

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Rationale for the ECD Census 2021

The lack of accurate data and formality in the ECD sector continues to hamper government and civil society's efforts to harness its full potential. Having a comprehensive and well-maintained ECD database in place, similar to DBE's Education Management Information Systems for schools, would represent a huge leap forward in providing access to early learning opportunities and measuring the impact of the sector on children's development and well-being. Knowing exactly how many ECD services are operating in which parts of the country, and what their challenges are in terms of infrastructure, funding, qualifications and government support will enable the relevant decision makers in government and civil society to allocate resources more effectively and efficiently. This knowledge will be of particular value during the ECD function shift as DBE is taking over responsibility for the ECD sector from DSD.

The data and insights gained from this exercise will also be of immense value to academics and researchers working on early childhood development. Those who are designing studies on early childhood development in South Africa will for the first time have a reliable sampling frame for ELPs available, and they will be able to use the ECD Census results for their own explorations of factors that are enabling or hindering the advancement of ECD in the country.

Finally, the Census also shines light on the role of Learning through Play (LtP) in the South African ECD sector, and looks at factors that will enable or hinder quality LtP taking place in ELPs. This includes factors such as availability of relevant play and learning materials, practitioner attitudes, dedicated time for free play, and indoor and outdoor spaces for play. Learning through Play is considered a crucial component of early childhood development because children make sense of the world around them through play. Play has a positive impact on cognitive and physical development and offers stimuli for problem-solving, imagination, language, observation and concentration.

The result of a successful collaboration between DBE and the LEGO Foundation, the ECD Census 2021 represents an exemplary partnership between government and civil society.

Early Childhood Development Services in South Africa

Significant progress has been made in terms of provision for Early Childhood Development (ECD) services in South Africa after the first democratic elections in 1994. Since then, the South African government has put in place several policies and programmes intended to prioritise ECD as a critical component of overcoming the negative impact of poverty on young children.

As noted in the *Education White Paper 5* of 2001 (Department of Education, 2001a), children from poor families were increasingly at risk of stunted growth, poor adjustment to school, increased grade repetition, and higher dropout rates. This led the government to increase funding for ECD centres for children aged 0-4 years through the Department of Social Development, and for Grade R in public schools for children aged 5-6 years through the Department of Education. The primary goal was to provide universal access for five-year olds to formal Grade R programmes by 2014. Ten years later, 67% of five-year olds were enrolled in Grade R (Jamieson *et al*, 2011), and by 2016, this percentage had increased to an estimated 77% of the population of 5-year olds in South Africa (Atmore et al, 2019). According to a report by the DBE (2019) using General Household Data from 2010 to 2019, the picture in 2019 is more complex. While 87% of 4-6 year olds attended an Early Learning Programme in 2019, only 54% of 5-year olds were attending Grade R (this figure includes learners that are repeaters). A substantial proportion (28%) were attending an ECD Center but were not enrolled in Grade R.

While the *White Paper* focused primarily on access to Grade R, the *National Integrated Plan for ECD 2005–2010*, and later the *National Plan of Action for Children* (NPAC) in South Africa 2012–2017, made provision for an integrated government approach to early childhood development programmes for children from birth to four years of age (i.e. pre-Grade R). The strategic plans cover both traditional center-based ECD programmes, as well as non-traditional home-based and community based services in informal settings. Here the goal was to ensure universal access to two years of ECD exposure before Grade R, which would require increased coordination between government departments (Atmore *et al,* 2012a). These plans culminated in the National Integrated Policy for Early Childhood Development in 2015 covering development from conception until the year before children are required to enter compulsory schooling.

It was estimated that, in 2015, approximately 63% of children aged 3-5 years were enrolled in some form of early learning programme such as Grade R, creche, or playgroup (Hall *et al* 2017), indicating a significant increase in access to ECD programmes since 2001. Despite this progress, by 2017, nearly 1.1 million 3-5 year olds still had no access to any form of early learning programme (Hall *et al*, 2019). Most importantly, this access gap is widest among poorer children such that a 3-year old child from a rich household was twice as likely to attend an ECD programme as compared to a child of the same age from a poor household (Hall *et al*, 2019). The attendance gap between rich and poor disappears as children enter Grade 1, where all poor children are able to access fully subsidised primary and secondary education. Early learning programmes outside of public schools are only partially subsidised,

requiring most parents to pay fees. In 2017, nearly 45% of parents paid over R200 per month in fees for ECD services (Hall *et al*, 2019). This suggests that much of the existing inequality in access to ECD programmes is due to costs, especially since the majority of children in South Africa come from poorer households. These gaps are further exacerbated when one considers the quality of the ECD services.

While increased access to early learning services is encouraging, the desired early learning outcomes for children will only be realised if the programmes accessed are of sufficient quality. Notwithstanding the progress made since 1994, the ECD sector in South Africa still faces significant challenges, including those related to infrastructure, types of ECD programmes offered, ECD practitioners qualifications and training, as well as institutional capacity and funding (Atmore *et al*, 2012). Furthermore, several studies have shown that poorer children are more likely to receive poorer quality ECD programmes and that higher quality ECD services are related to better learning outcomes (Biersteker *et al*, 2016; Dawes *et al*, 2020).

Unfortunately, there is no reliable national data that enables regular monitoring of the quality of early learning programmes .Neither does South Africa have an administrative data system for ECD similar to those used by the Department of Basic Education, e.g the South African School Administration and Management System (SA-SAMS), and by the Departments of Health. For example, there is no reliable data on the number of registered and unregistered ECD sites and how many children are enrolled and are attending these sites on a regular basis. As a result, all data on ECD services is drawn from national survey data, such as the StatsSA General Household Survey (GHS) and the National Income Dynamics Study (NIDS), which is not optimal nor sustainable for robust programme monitoring and planning.

Below we review the state of data available on ECD services in South Africa and explain how the current study contributes to and builds on existing data.

Data Sources on Early Childhood Development

National ECD Audit Data

The first nationwide ECD audit was completed in 2000 (DoE, 2001). In total, 23,482 ECD sites across South Africa were found. There were 1,030,473 children enrolled, making up 16% of the population of children aged 0-7 years, 86% of which were in attendance on the day of the audit. Half the learners in attendance were female and half male. Of the 837,753 children with valid age data, 49% were 5–6 year olds, 33% were 3–5 year olds, and only 16% were under the age of 3 years. The rest were over 7 years of age. Within the 5-6 year age cohort, 43% were enrolled, indicating that less than half of the national cohort of 5-6 year olds were being accommodated.

Forty percent of ECD services were located in rural areas and 60% in urban areas. Nearly half of the sites audited were community-based, a third were home-based, and the remainder school-based. Most of the learners under the age of five years were at home based sites, while the 5-7 year olds were in community based or school based sites. The majority of ECD sites (72%) were, however, within one kilometer of the nearest primary school. While provincial distribution of sites mirrored population distribution data, access to ECD services was lower than the national average in the three provinces with the greatest number of poor children – Limpopo, Eastern Cape and KwaZulu-Natal (Atmore, 2012a). English was used as a language of instruction in 83% of the sites, despite being the home language of only 12% of enrolled learners (although some sites had more than one language of instruction).

Educator quality was found to be poorest at ECD sites catering predominantly for black African learners (Atmore, 2012a). Of the 54,503 practitioners working at the ECD sites, only 12% were fully qualified and 23% had no form of training at all. The majority had some sort of training (mainly through NGOs) or qualifications that were not recognised by the Department of Education. Unfortunately, the lack of qualifications was not offset by years of experience since those with the highest qualifications also had the most years of ECD experience (i.e. five years or more). Significantly, nearly 70% of black African practitioners had not received any training at all, while only 5% of black African practitioners were fully qualified as compared to 35% of their White colleagues.

The audit data was also used to generate indices providing summaries of key aspects of ECD provisioning including indices for infrastructure and support. In terms of infrastructure, different types of ECD services (school, home, and community) had similar proportions of sites above, below, and at

national average levels. However, a higher proportion of sites (23%) providing services to predominantly black African learners were below average as compared to the national proportion of sites scoring below average (18%). In contrast, a higher proportion of sites servicing White learners were above the national average (68%) as compared to the proportion of sites scoring above average nationally (20%). Overall, 53% of sites had electricity, piped water, and flushing toilets, whereas 8% of sites had no access to any of these basic services.

With respect to support, a higher proportion of sites servicing predominantly White learners (35%) scored above average as compared to the proportion of sites scoring above average at a national level (19%). Two thirds of sites were registered with either the previous Department of Education (mainly schools) or the previous Department of Welfare (home and community based sites). The majority of sites relied on learner fees as their primary source of income, with more than 25% of sites reporting that they had no other source of income. Nearly a third of sites charged fees of less than R25 per month, and in about half of these sites the fees were not paid regularly. This over-reliance on parental sources of income places most ECD programmes in a highly vulnerable financial position. The sector as whole was, for the most part, poorly funded.

Significantly, the proportion of African sites receiving a 'below average' rating with respect to both the infrastructure and support indices either equated to or exceeded the combined proportions of the other four population groups.

Programme Types & Access

In both audits, the majority of ECD sites that were audited were located in urban areas, and the overall urban/rural divide was relatively the same. However, whereas 49% of ECD sites in the first audit were located in formal urban settings, only 20% of the ECD sites in the 2013 audit were located in similar settings. In contrast, 39% of ECD sites audited in 2013 were located in informal urban settings as compared to 11% in the 2000 audit. The majority of learners for both audits were enrolled in community-based programmes.

The Department of Social Development conducted a second national ECD audit in 2013 (DSD, 2014). As with the 2001 audit, the aim was "to obtain comparative information on the nature and extent of ECD provisioning, services, resources and infrastructure from all nine provinces across registration statuses in order to inform and support ongoing policy and planning initiatives in the ECD sector". The 2013 audit covered a number of themes (some of which were not covered in the 2000 audit), including the location and registration of ECD sites, human resources, children, programmes, health and safety, nutrition and food, infrastructure and transportation. The 2013 audit also provides greater detail on each of these themes in comparison to the 2000 audit.

A total of 17,846 ECD sites were audited with an enrolment figure of 972,623 children aged 0-5 years. A key reason why these enrolment figures are lower than the ones reported in the 2001 audit is that the previous audit included children in Grade R (which at the time was still largely provided by non-school based programmes), whereas the 2013 audit does not. It does, however, indicate that around a third of ECD sites offered Grade R. Below we briefly review key findings in the 2013 audit and compare it with findings from the 2000 audit where possible.

However, a higher proportion of learners were enrolled in home and school-based programmes in the 2000 audit (43%) compared to the 2013 audit (27%). At the time of the first audit, nearly 75% of ECD sites were located within 1km of the nearest primary school. This figure had dropped to 58% for the 2013 audit. These differences can be explained by the fact that the 2013 audit included programmes located at "schools" that offered Grade R (presumably these were pre-schools) but excluded schools that offered Grade 1.

Registration & Funding

Whereas two thirds of ECD programmes were registered with either the Department of Education or Welfare in the 2000 audit, the proportion of registered sites in the 2013 audit dropped to just over half (56%). However, this figure is likely to be overestimated since a large number of unregistered sites were not accounted for in the 2013 audit. In 2000, only 25% reported receiving government funding from either the education or welfare departments in addition to monthly fees. A large number of ECD sites (28%) reported having no other source of income apart from monthly learner fees. In the 2013 audit, 40% of ECD programmes reported receiving a subsidy from DSD. While the majority of programmes receiving the subsidy were registered with DSD, about 30% of registered programmes had not received any subsidy. The 2013 audit does not report the percentage of ECD sites that rely on fees alone.

Infrastructure. Of the ECD programmes in the 2000 audit, just over half (53%) reported having access to mains electricity, piped water and flushing toilets, 22% reported only having piped water, and 8% reported having access to none of these basic amenities. The 2013 audit showed that 56% of programmes had flushing toilets and 80% had access to piped water. Fewer than 2% had no toilets of any kind. With respect to access to mains electricity, 83% of programmes had electricity for lighting and 53% for cooking, whereas 8% had no electricity for lighting and 1.5% had no electricity for cooking.

Staff & Programme Quality. The 2000 audit data showed that the majority of practitioners (63%) either had no ECD training or received training from an NGO that was not accredited by the Department of Education. In the 2013 audit, 61% of practitioners had no specialised ECD training. What is most concerning is that the highest qualification of 64% of practitioners in the 2013 audit was below matric (or equivalent). Unregistered programmes had the highest proportions of practitioners with less than matric (92%). Unfortunately, the report does not specify the highest school grade achieved by practitioners (although the data is available and was incorporated as a component of the educator index). In terms of learner-practitioner ratios, the figure estimated in the 2000 audit was 19:1. The ratio reported in the 2013 audit report was significantly higher, however, this was likely due to overestimating the number of practitioners in the workforce (a point which we elaborate on in the next section).

Audit vs Government Data

In a 2016 report comparing the 2013 audit data with household data from StatsSA and educational data from DBE and DSD, Gustafsson (2017) identified significant discrepancies in learner enrolment and ECD staffing figures. They note that a key weakness of the audit report is that it does not examine the audit data in light of emerging statistics from other sources.

Data from the General Household Survey (2013-2015) indicated that 766,000 children aged 4 years old were enrolled in ECD programmes, including those enrolled in schools and with day mothers (around 74% of children who should be in pre-Grade R). Based on data from DBE, the report estimates that in 2016, around 34,000 pre-Grade R children were enrolled in schools. The 2013 audit estimated 222,000 children aged 4 years enrolled in ECD programmes. This leaves a gap of 544,000 children, and even after taking into account missed children as estimated in the audit report, there are still approximately 325,000 children unaccounted for in this age cohort.

The authors explain that this discrepancy is likely due to unregistered ECD sites that were not captured in the audit data. Taking the 325,000 unaccounted for children and dividing it by the average number of learners enrolled in ECD programmes, they estimate that approximately 6,325 ECD sites were unaccounted for in the 2013 audit (this figure excludes day mothers). Looking at provincial figures, the authors show that, according to DSD statistics for Kwa-Zulu Natal in 2016, the province had 2,622 fully registered and conditionally registered ECD sites. In contrast, the 2013 audit only captured 1,636 registered sites in the province. While the difference could partly be explained by some unregistered ECD sites becoming registered between the two time periods, the gap is more indicative of the problems around identifying ECD sites, particularly those that aren't registered.

Gustafsson and colleagues (2017) also examine the discrepancies relating to staffing in the ECD sector.

A major problem with the 2013 audit data is that it reports two sets of conflicting results with respect to the number of practitioners and assistant practitioners employed by and present on the day of the audit. The first set of results is based on questions directed at the person in charge of the ECD programme (presumably the principle or programme manager). The questions required numbers of staff in each of five age cohorts, which led to significant double counting of staff across the different age groups. A second set of questions were posed directly to individual staff members, which resulted in much lower staff counts. Using estimated child-teacher ratios, Gustafsson and colleagues (2017) show that results based on the second set of questions were in line with figures derived from other data sources and are therefore more reliable than results using the first set of audit questions. Unfortunately, all ratios discussed in the audit report are based on the inflated staff data (i.e. from the first set of questions). As such, the child-teacher ratios reflected in the 2013 audit report are considerably lower than ratios reported in other publications and are therefore largely invalid.

Finally, the authors note that without reliable estimates of the numbers of children accessing ECD services in the target age cohort, and the number of practitioners providing those services, government planning and funding systems will likely fail to reach the poorest children most in need of public assistance. Estimating the number of pre-grade R children that are funded by the state, they show that 77% of the target population for a year of pre-Grade R education are in fact not funded. Breaking this down they estimate that, of the population of children that should be enrolled in an ECD programme in the year before they enter Grade R, 23% are funded by the state, 51% are enrolled but not funded by the state, and 26% are not enrolled at all. These figures are critical to understand if the government wishes to achieve their strategic goal of providing universal access to one year of education prior to Grade R.

Impact of Covid on ECD sector

The importance of sufficient government funding for pre-Grade R ECD programmes became even more apparent during the Covid-19 pandemic. On 18 March 2020, following the government's declaration of a state of national disaster to contain the spread of COVID-19, ECD programmes across South Africa were instructed to cease all operations and close their doors. On 6 July 2020, the High Court ruled that the ECD sites could re-open immediately, as long as they were able to meet specified safety standards. Unfortunately, the sector was slow to recover, mainly because of ECD programmes' over-reliance on fees as their primary source of income. In the absence of these fees, and without government funding to subsidise the loss of income, the sector has been placed in an even more precarious financial position than ever before.

A 2020 report based on data from the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM) showed that "the ECD sector was operating at just a fraction of its pre-crisis levels a month after programmes could reopen" (Wills, et al, 2020). Estimating the extent of the decline in children's attendance rates, the report shows that less than 5% of children aged 0-6 were attending ECD programmes in the month after the sector re-opened, compared to 38% in 2018. Eighty three percent of survey respondents with children who were enrolled in an ECD programme pre-lockdown reported that their children had not yet returned after programmes were officially allowed to re-open. Over half (55%) of these respondents stated that the reason why their children had not yet returned was because the programmes had not yet re-opened. Amongst those who reported that their children had returned, findings showed that attendance was nearly twice as high for respondents living in urban areas (16%) as compared to those in rural areas (8%).

While the NIDS-CRAM Survey findings provide insight from the perspective from caregivers, two surveys conducted in April and August 2020 (First and Second Surveys Assessing the Impact of COVID on ECD) shed light on the situation from the perspective of ECD providers (Bridge et al, 2020a, 2020b). Data from the second survey in August confirmed the delayed re-opening of ECD programmes and showed that 68% of 4,500 ECD providers had not yet re-opened their programmes one month after they were officially allowed to do so. The two main reasons cited for continued closures was that they could not afford the costs of the additional health and safety protocols and that they simply did not have enough money to re-open.

Findings from the first survey in April showed that 99% of ECD providers (there were 3,925 in the sample) did not collect any fees during the period that they were closed and 83% had not been able to pay the full salaries of their staff. Moreover, only 38% of these providers received child subsidies from DSD at the time (despite many more being registered with the department) and only 35% of the ECD workforce accounted for in the survey were registered with the Unemployment Insurance Fund and could therefore qualify for income protection from the Temporary Employment Relief Scheme (TERS).

Vangasali Campaign

In 2020, the Department of Social Development, the Nelson Mandela Foundation and GovChat commissioned the Vangasali campaign which consists of three phases: (1) data collection, (2) standardising the process for ECD registration across the country, and (3) mass registration of unregistered ELPs. The first phase, data collection, aimed at finding every ELP in the country by inviting them to participate in the campaign via an online form, email or WhatsApp. The list of participating ELPs was merged with already existing lists of ELPs, resulting in a combined list of 52288 ELPs. The main difference between the Vangasali and the ECD Census datasets is that the ELPs in the Vangasali dataset had not been visited and mostly not been contacted while the ELPs in the ECD Census dataset have all been visited. It is therefore possible that the Vangasali dataset includes ELPs that had not been active already at the time they were added to the dataset. It is also possible that the Vangasali dataset contains duplicates as identifying information of ELPs in the Vangasali dataset is partially missing and address data is inconsistent. Nonetheless, the Vangasali dataset offered immense value to the ECD Census as it provided the basis for the list of so-called "known" ELPs fieldworkers were expected to look out for and visit in each EA before they had to start looking for additional ELPs.

METHODOLOGY

METHODOLOGY

Questionnaire Development and Pilot Study

The fieldworkers captured the data with the help of two instruments. One was for the responses of the ECD programme manager or someone with in-depth knowledge of the programme, the other was used to capture observations (e.g. on infrastructure or number of children present) made by the fieldworkers. The separation of the two instruments was to cater for the possibility that the interview and observations had to be captured on two separate occasions, e.g. only the observations could be done during the first visit and the interview was possible during the second visit the following day. The instruments covered the following themes: location, address, opening times, services, fees, registration and registration status, subsidies, affiliations, land and facilities ownership, enrolment and presence of children, staff counts, teaching environment and practices, attitudes towards LtP, infrastructure, access to water and electricity learning and playing environment and materials, equipment, and access control.

The first draft of the instruments were developed by ikapadata together with the LEGO Foundation and DBE. As much as possible, existing questionnaires from other audits, surveys and studies in the ECD sector were used to construct the questions for each theme to enable a certain level of comparability and consistency between the census data and legacy datasets. The process entailed a listing of all the questions we could find in existing questionnaires under the theme headings, followed by a discussion which of these questions should be kept for the draft questionnaire and what additional questions should be added to each section.

The first draft underwent several rounds of reviews by various ECD experts and practitioners until a pilot draft was agreed on by the relevant stakeholders from ikapadata, LEGO Foundation and DBE. The instruments were piloted over nine fieldwork days between the 7th of June and the 25th of June 2021. In total, four teams of eleven fieldworkers visited 179 ECD programmes in 27 wards for the pilot. The insights gained from the pilot led to further substantial changes to the instruments. Perhaps most importantly, the decision was taken to drop the in-field categorisation of the ECD programmes due to a lack of shared little shared understanding of the objective criteria that distinguish different types of programmes.

The final interview questionnaire was translated into six other languages: Afrikaans, Sepedi, Sesotho, Setswana, Xhosa, and Zulu.

Approach

The organisation of fieldwork relied on wards, which were chosen as the smallest geographical and administrative unit for subdividing the fieldwork effort. The decision to use wards, opposed to merely geographical units such as census enumeration areas, was guided by the fact that wards have meaning in the public consciousness, and they have easily identifiable stakeholders (e.g. ward councillors) in charge of them. Wards were assigned to fieldwork teams, whose responsibility it was to identify and capture every eligible ECD programme in a ward before they could move on to the next ward. Eligible ECD programmes were divided into "known" and "new" categories. Known ECD programmes refer to the estimated 34 000 ECD programmes that were extracted from the Vangasali dataset and that had good enough address information to place them in a ward through geocoding. New ECD programmes are the ones that were identified only during fieldwork. However, this clear distinction does not necessarily reflect reality as there are probably plenty of instances where a known programme could not be found where we expected it to be and was then later captured as a new ECD programme at its actual location. It is therefore better to see this approach as a strategy to lead fieldworkers to already known ECD programmes in a "fresh" ward as much as possible since ECD practitioners at those programmes were usually a great source of information about other ECD programmes nearby. Aside from known ECD programmes themselves, other key sources of information were the local DSD offices, as well as ECD forums operating in the area. For this reason, the fieldworkers were provided with the contact details of ward councillors, local DSD officials and ECD forums and expected to contact them whenever they entered a new area or municipality to obtain up-to-date lists of known ECD programmes in the area.

In order to ensure that fieldwork teams did not leave a ward prematurely before all programmes in that ward had been identified and captured, they were required to follow a ward completion protocol. The protocol entailed the following instructions:

- All known and new ECD programmes in the ward had to be flagged as either "Complete" or "Unavailable". Any programmes with statuses "Open" and "Return" still needed to be contacted or visited. Quality control (QC) staff checked the statuses on their end to confirm this.
- The team must have visited all populated areas in a ward and asked community members about ECD programmes. This had to be achieved by speaking to community members and submitting a Capture Location form in each populated area. The form submissions populated the Progress Map which was then used by the QC staff to confirm that all relevant areas had been covered.
- Only once QC staff confirmed the above and gave the team's driver the green light, was the team allowed to move on.

Training

The fieldwork staff, consisting of 341 fieldworkers and 26 regional coordinators, were trained over a series of eleven training workshops across the country. The first training workshop also served as a "training of the trainers" and was also attended by the trainers, who would go on to deliver the training workshops in the other provinces. The training schedule and content had been carefully planned with the intention to ensure the highest level of consistency between training workshops. The goal was to give the trainers a training kit consisting of slides, a training manual and data tools that would guide them through the workshops. This meant that all training participants across the different venues across the country received the same training.

The training presentation consisted of a collection of 85 slides that corresponded directly to the training schedule, so it was clear what slide the trainer was meant to show at any point during the training. Equally, the training manual was a 22-page document with detailed additional information for each section of the schedule and presentation. The presentation itself provided many visual prompts and examples to help illustrate key concepts of the survey. For example, it contained images of types of dwellings or learning materials to ensure that the recruits had a solid understanding of what was meant by certain terms used in the questionnaires. Other concepts explained to the participants included the principles behind LtP.

At the end of the first and second training day, the recruits were asked to complete an assessment on their tablet, the results of which were automatically compiled on a dashboard and discussed the following training day.

On the third day of training, the fieldworkers were in the field for the pilot. Recruits were grouped into four to five different teams who were then sent to different ECD programmes that had previously been prepared by the fieldwork management team. At each pilot site, one of the fieldworkers would lead through the interview with the ECD manager while the rest of the fieldworkers were capturing the responses on their tablets. Then each fieldworker would complete the observations form on their own.

On the last day of training, an additional training session for regional coordinators was held to clarify their roles and responsibilities during fieldwork.

Training Workshop in Johannesburg

After the last training day, the trainers together with the research consultants who were present at the training, decided on the final selection of fieldworkers, using the assessment results and impressions from the training and pilot as selection criteria. Additional training was provided to all the regional coordinators during September to ensure efficient and effective team management.

The fingerprints of all recruits were taken during training and processed for criminal background checks by a third party supplier. Any recruits with a criminal record were excluded from being selected to work on this project.

Fieldwork

The main fieldwork period for the Census commenced on the 24th of August and ended on the 10th of December 2021. In total, 341 enumerators and 26 regional coordinators were in the field during that period. Fieldwork for mop-ups continues in January and February 2022 with a smaller contingent of fieldworkers.

Fieldwork management was divided across three regional teams: Sea, Veld and Town. On the ground, regional coordinators, who were responsible for supporting the fieldwork teams with stakeholder engagements, quality control and logistics, reported directly to fieldwork management. The fieldworkers were grouped into teams of two to four fieldworkers, including one driver.

Fieldwork on the ground was largely determined by the ward completion principle, in that the fieldwork teams worked their way through their wards by, first, visiting all known ECD programmes in a ward, then, second, working with stakeholders in identifying new ECD programmes, and, third, literally covering as much ground as possible visiting all populated areas of a ward and asking ward residents whether they knew any programmes in the area. This approach helped us to complete the Census systematically and comprehensively, and we would recommend it for future iterations of the Census.

Another crucial aspect of fieldwork logistics concerned building trust and awareness in the ECD sector. This was to a large extent achieved by a media awareness campaign guided by the Lego Foundation and DBE, which included a virtual Census launch event as well as coverage by print media and radio. It also meant that the Census had its own brand identity with its own logo, colour scheme, etc. These efforts contributed immensely to the success of the Census as our fieldworkers were generally welcomed by the ECD practitioners and local stakeholders. It also meant that the fieldworkers were equipped with branded collateral (face masks, fact sheets, posters that were given to ECD programmes as a token of gratitude for their time) that looked professional and trustworthy.

The awareness campaign arguably also contributed to the safety of our fieldworkers, which ultimately was our highest priority. Given the scale of the project - about 320 fieldworkers traversing the country for about four months - it seemed almost inevitable at the beginning of the project that at least a few fieldworkers would experience serious threats to their safety. Thankfully we can report that no fieldworker suffered any serious physical harm in the course of the Census. The measures that were taken to minimise these risks include the following:

- Drivers were not allowed to drive at night, or at least to avoid it as much as possible, and were instructed to book overnight accommodation instead of returning home late at night.
- Fieldworkers were asked to report unsafe driving of their team drivers. Where this happened, new drivers were added to the team.
- Fieldworkers were instructed that they must leave an area if they sense any sort of danger. Where this occurred, efforts were undertaken to reenter the area under safe conditions.
- Fieldworkers were also instructed not to offer resistance when being robbed of their possessions - we would not hold them accountable for stolen tablets etc in such circumstances.
- The fieldwork teams were allowed to hire local community members, often recommended by the ward councillor, who would accompany them during their time in a community, steer them away from danger, and negotiate between the fieldworkers and community members who questioned their presence in the community.
- It was stressed during training that the fieldworkers must not make any contact with the children at the ECD programmes. While doing so might not evoke any immediate sense of danger, sticking to this principle served to minimise potential misunderstandings between fieldworkers and community members.
- In terms of Covid prevention measures, the fieldworkers were all equipped with two branded face masks which they were instructed to wear at all times in the presence of others and particularly when visiting an ECD programme.

Quality Control

The fieldworkers used SurveyCTO, a reliable and secure mobile data collection tool with offline capabilities, to submit data from the field to our database. Aside from the survey instruments ("Interview" and "Observations") they also had access to the following forms:

- Add New ECD Programme: Every time a fieldworker identified a new ECD programme (e.g. via local stakeholders or by talking to community members) they had to first add it to the existing list of ECD programmes before they could select it in one of the survey instruments. Once they submitted one of these forms, a new entry would automatically be added to the list of ECD programmes on the backend.
- Fix Ward: This form was used to "fix the ward" of known ECD programmes. This was necessary more often than expected as a result of the often incomplete or inaccurate address details for ECD programmes stored in the Vangasali dataset, resulting in inaccurate ward allocations. As fieldwork was organised through wards, it was important that fieldworkers had a quick way of reassigning ECD programmes to their correct ward so they would show up under their correct ward on the tablet when completing the survey instruments.
- Capture Location: In order to ensure complete geographical coverage, fieldworkers were required to submit their GPS location via this form whenever they were in a populated area without an ECD programme. In total, just over 100k GPS locations were captured that way.
- Contact ECD Programme: fieldworkers were required to complete this form every time they made contact with an ECD programme, even if it was just a phone call that had not been answered. One purpose of this was to keep track of the availability of ECD programmes as we knew that the contact details of a good number of ECD programmes sourced from the Vangasali dataset were outdated. The other purpose was to enforce the rule that fieldworkers must contact ECD programmes before a visit to ensure that they are available and willing to participate in the Census and not be surprised by our visit. In total, about 37000 contact attempts were documented using this form.
- Administrative forms: aside from the project-specific forms, the fieldworkers were required to complete a daily health check form (for Covid-screening - a missed or positive screening triggered a Slack alert), a form to log fieldwork expenses, a form to log per diems (overnight travel), and one form for logging car journeys (odometer readings).

All form submissions were directly imported from SurveyCTO into a database hosted on Airtable, a cloud-based relational database solution. The database also stored information about the teams, fieldworkers and wards, and as submissions were automatically linked to all three, our office staff were able to view all submissions either in their raw format (i.e. rows and columns) or through data aggregations (e.g. number of completed forms per team, fieldworker or ward). With the help of calculated fields, submissions were automatically flagged for quality control purposes (e.g. unusually short interviews), which would trigger an automated quality control alert in a shared Slack channel. It also gave our quality control staff deep insights into performance at a team and individual level as we were able to see, for example, how many ECD programmes each team would visit per day, on average, and rank teams accordingly at any point during the Census. Further, the Airtable database served as our administrative hub as we used it to send automated email communications to recruits and fieldworkers, calculate monthly payslips, and keep track of local stakeholders, among other things.

Assigned wards, lists of known ECD programmes in those wards, and the relevant contact details of local stakeholders were shared with the fieldworkers via an online user interface called the Fieldwork Portal. After signing up to the portal during training, fieldworkers were able to see the list of wards assigned to their team, including the "status" and progress indicator (percent of known and new ECD programmes completed). By tapping on a ward they were also able to see a list of relevant stakeholders for that ward and all known ECD and added new ECD

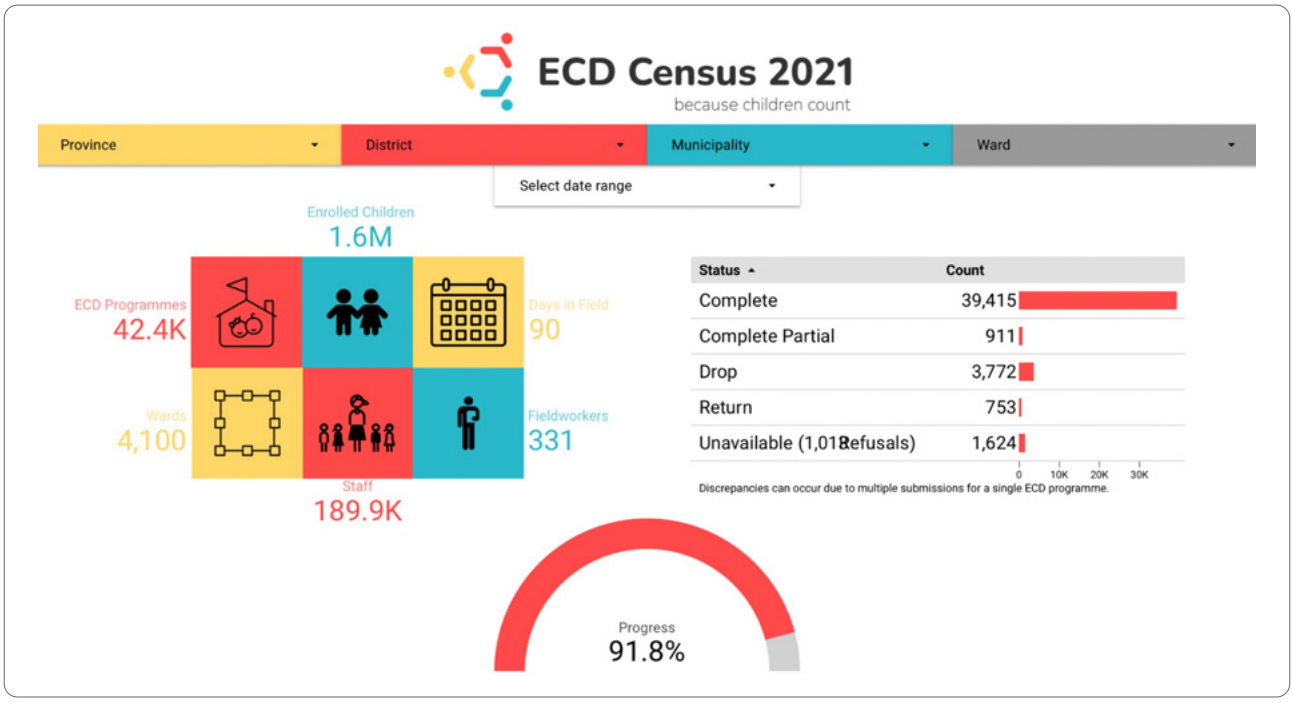
programmes in the ward with their contact details, address and, if available, a map showing the location of the programme. Additionally, the fieldworkers could update their personal information and view their latest pay slip (and later also bonus payments) via the portal. The portal was built with the help of Stacker, a software that adds a portal-like user interface to Airtable databases.

The communication between QC staff and fieldwork teams happened on Slack. Every regional coordinator had their own Slack channel accessible to every team's driver reporting to the regional coordinators. These channels had multiple functions:

- General exchange of information and issuing of instructions from fieldwork management to fieldwork staff.
- Quality control alerts asking for clarification from fieldwork teams. These alerts were automatically triggered by the backend every time a submission matched certain quality control criteria.
- Ward completion protocol: once a team initiated the ward completion protocol, QC staff would check the lists of ECD programmes and a map showing the geographical coverage of that ward before allowing the team to move on to the next ward.
- Sharing of challenges and lessons from the field within and between teams

Google Data Studio was used to visualise data collection progress and preliminary results, as well as to track key QC variables via a dedicated dashboard. A data table was automatically populated with the latest datasets from Airtable on an hourly basis and used to present graphs and figures in a visually appealing format. Dashboard users, which included ikapadata staff and relevant external stakeholders, were able to drill down into key results geographically and by team down to the individual fieldworker level. This enabled our QC team to spot significant differences between teams and fieldworkers, giving them the opportunity to rectify fieldworker bias or misunderstandings early on.

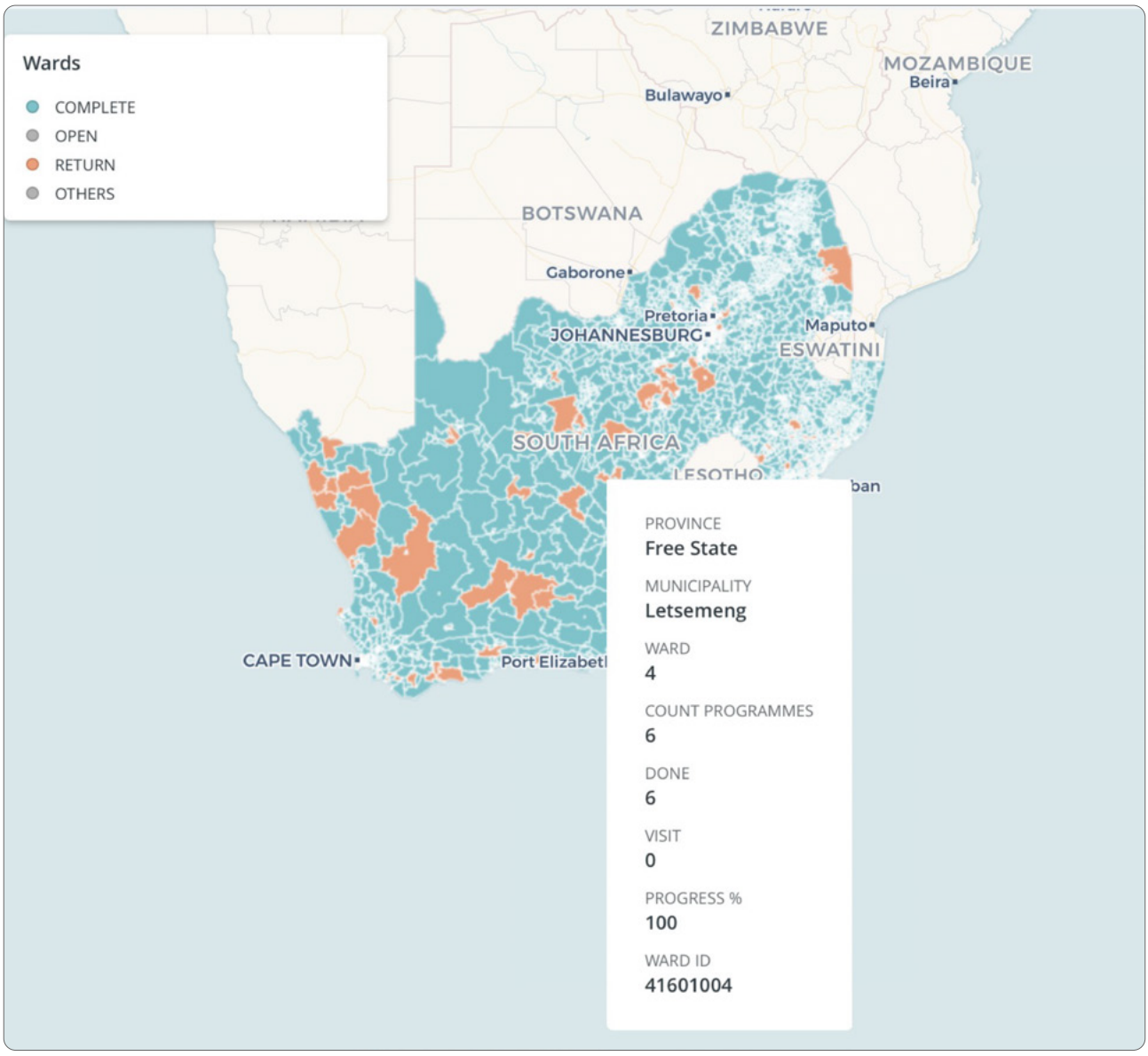
Dashboard



The dashboard also gave access to a live progress map compiled in Carto, an online mapping platform for creating interactive maps (see below). The incoming data was automatically synced to Carto such that the map was continuously updated in real time. The progress map showed all wards according to their status: *Open*, *Return* (in progress), and *Complete*.

Users were able to click on a ward to see the number of ECD programmes in that ward, and the percentage of completed ECD programmes (in *Return* wards that were not yet completed). This map purposefully did not show locations of individual ECD programmes as the map was shared with external stakeholders.

Progress Map



A team of 15 call agents conducted telephonic backchecks on 12% of the ELPs. If the discrepancy between the information they gathered on the phone and what was gathered in the field reached a certain threshold, the regional coordinator responsible for the area where the ELP was enumerated was asked to repeat the site visit. The same call agents also conducted telephone interviews with ELP principals who were not available for an interview at the time of the fieldworkers visit to the ELP.

Learning Opportunities

With any fieldwork project, and especially with a project of this scale, there are certain aspects that went exceptionally well, and others that one would do differently if given the opportunity to repeat the exercise. The purpose of this section is to provide practical advice for future data collection projects in the ECD sector based on the experiences we had during the Census.

Work closely with local stakeholders

The fact that we worked with ward councillors, local DSD officials, and ECD forums was definitely a factor that contributed significantly to the success of the Census. While it can be time consuming, it creates trust in the community, reduces the risk of potentially dangerous "misunderstandings" (especially when working with children), and helps identify ECD programmes that might have gone undetected if not for the help of these local stakeholders. It is worth adding another category to the list of local stakeholders to consult though: local public clinics. We learned that many public clinics maintain their own lists of ECD programmes in the area for public health purposes (e.g. immunisation campaigns). We only capitalised on this source of information relatively late, during mop-ups, when those lists often offered information about previously unidentified programmes in wards we had already visited.

Create awareness

Thanks to the efforts of our partners in this endeavour, namely the Lego Foundation and DBE, awareness around the Census had been created in the ECD sector and the public at large, even before our fieldworkers started to knock at ECD centres' doors. It is easy to underestimate how much time and effort the awareness campaign saved us, as the absence of trouble is easier to ignore than trouble itself. Nevertheless, we would encourage anyone attempting similar work in the sector to invest the necessary time and resources in clearly communicating who you are and your intentions as widely as possible to ensure that you are met with as many open doors as possible.

Come with branded collateral

The reach of the awareness campaign becomes amplified when it is matched with visible collateral on the ground. While the effect is difficult to measure, we believe that the fact that our fieldworkers wore branded face masks and name tags, and handed out information material that matched the logos and colours used for the media campaign, immediately created trust among ECD managers who might have otherwise felt cautious about individuals trying to gain access to their sites without proper credentials.

Smaller teams are better

We started fieldwork with the assumption that larger teams (three or four fieldworkers per team) would work better in urban and high-density areas than smaller teams. The idea was that such teams would be able to share a car but then split up into smaller groups and roam wards by foot. In theory, this assumption might still hold true for smaller data collection exercises where one can keep a very close eye on all teams at all times and interfere when teams make decisions that are bad for fieldwork efficiency. However, with a project of this scale, where one cannot micro-manage every team all the time, larger teams tend to work less efficiently as they do not always split up into smaller groups but go from site to site in one big group, which effectively means that only one or two fieldworkers are actually collecting data while the rest of the team sits and waits. It is therefore recommended to budget for smaller teams of two fieldworkers per car. Although this increases the expenses on car rentals significantly, it also means that less time will be spent in the field, so overall costs will be reduced and fieldwork will finish sooner.

Use your tools effectively

We developed a whole range of tools such as the fieldwork portal, various forms for fieldwork administration, a relational database and automations in the form of Slack notifications specifically for this project, and we do believe that the success of the Census depended to a large part on having this toolbox at our disposal. Yet we also encountered instances where these tools became counterproductive, especially in the hands of fieldworkers who were not clear on the right priorities for this project. More precisely, we found that in the early stages of fieldwork some teams had spent hours on "administration" every day, which often meant that they were "fixing ward numbers" or "adding contact details" for ECD programmes which weren't at the location where the fieldworkers expected them to be based on the available address or GPS data. We had to remind these fieldworkers that the main purpose of the Census was to find and visit actual ECD programmes on the ground and that they had to spend as much time as possible on the road looking for new programmes and talking to residents in order to achieve that instead of trying to "fix" things on their tablets. In the future, we would therefore stress a pragmatic approach to fieldwork instead of creating the illusion that it can be done by merely filling out forms on a tablet.

Do not rely too heavily on existing lists

There is no doubt that access to the Vangasali dataset and some other sources of ECD programme details gave us a huge advantage and saved our fieldworkers an enormous amount of time in the field. In fact, known programmes from the Vangasali dataset were, more often than not, our fieldworkers' first point of entry into a ward, which in turn led them to previously unknown ECD programmes in the area. Nevertheless, there were also caveats to that approach. The Vangasali dataset is essentially a patchwork of all sorts of lists of ECD programmes, which meant that its reliability varied tremendously. For example, many programmes from that list were no longer operating or had moved to a new location. Relatedly, and perhaps the biggest challenge of all, were the inconsistent address fields. Although we had already removed all ECD sites from the list that we were not able to geocode (i.e. locate using GPS coordinates) to at least the street level, the reality was that our fieldworkers often struggled to locate even those programmes with GPS locations simply because the address information available to them was incorrect. As a result, a lot of time was spent in the field searching for supposedly known ECD programmes with often little success. Therefore, our recommendation would be to only "preload" known ECD programmes with accurate GPS locations or complete and reliable street addresses.

Incentivise fieldworkers

It is recommended to incentivise fieldworkers to find new ECD programmes. We started with a basic incentive of R10 per completed ECD programme per team member (e.g. if a team had 100 completed ECD programmes at the end of fieldwork, each team member received a R1000 bonus), which we later increased to R25 for ECD programmes beyond a certain threshold (see details about incentives under *Progress and Performance* above). We do not have a clear picture what difference the incentives ultimately made as the R10 bonus was paid from the beginning and the R25 bonus was introduced just as fieldworkers started to run out of open wards so whatever positive effect it might have had on performance, it was somewhat mitigated by the fact that teams generally struggled to reach previous performance peaks due to a lack of easily available new programmes. But we did see a marked increase in a few teams who seemed to be genuinely motivated by the extra bonus while still being able to find enough new programmes to make it worthwhile.

There are a couple of suggestions we would make in terms of incentives though, based on our experience. First, a purely "quantitative" bonus system is biased against fieldworkers who are operating in rural and generally less populated areas where ECD programmes are just more scarce and fieldworkers spend more time in the car travelling between wards and sites. It would therefore be fairer, and more encouraging, to have different incentive amounts according to area types. The other suggestion would be to give fieldworkers easy access to their bonus accounts and pay bonuses out frequently in order to make them more tangible and "real". While we gave fieldworkers the opportunity to view and track their bonus amounts via the fieldwork portal, this was only possible at a relatively late stage and bonuses were only paid with their last payslip. Ideally, a daily reminder or SMS notifications ("You earned R80 in bonuses today!" or "You are only one submission away from unlocking the R25 bonus!") would go a long way to maximise the benefit of such an incentive structure.

Bring sector experts to the training

One learning opportunity from the training was that information specific to the ECD sector needed more attention. While topics such as ECD registration were dealt with in the training, some of these concepts remained unclear to at least some of the fieldworkers. Realising that, we provided extra training to the regional coordinators after the start of fieldwork who then met with their teams and reminded them of the main points. In future though, we would either recruit trainers from the ECD sector (only one of the three trainers was an ECD professional) or bring sector experts to the workshop to cover the relevant sections of the training.

RESULTS

ECD census 2021 in numbers

Number of ELPs

42,420

Average number of children per ELP

39

Ratio ELPs registered with DSD

41%

Ratio ELPs receiving subsidy

33%

Number of children registered

1,7m

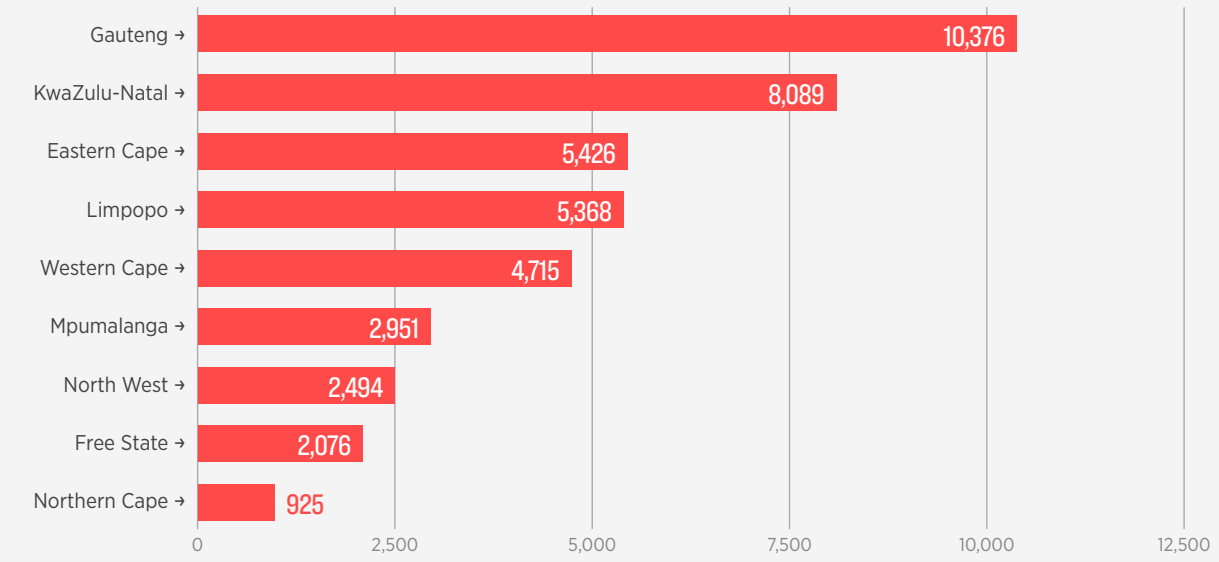
Number of staff

198k

Geographical Distribution

In total, 42420 ELPs were counted during the Census. The province with the highest total number of ELPs is Gauteng (25% of all ELPs), followed by KwaZulu-Natal (19%), the Eastern Cape and Limpopo (both 13%).

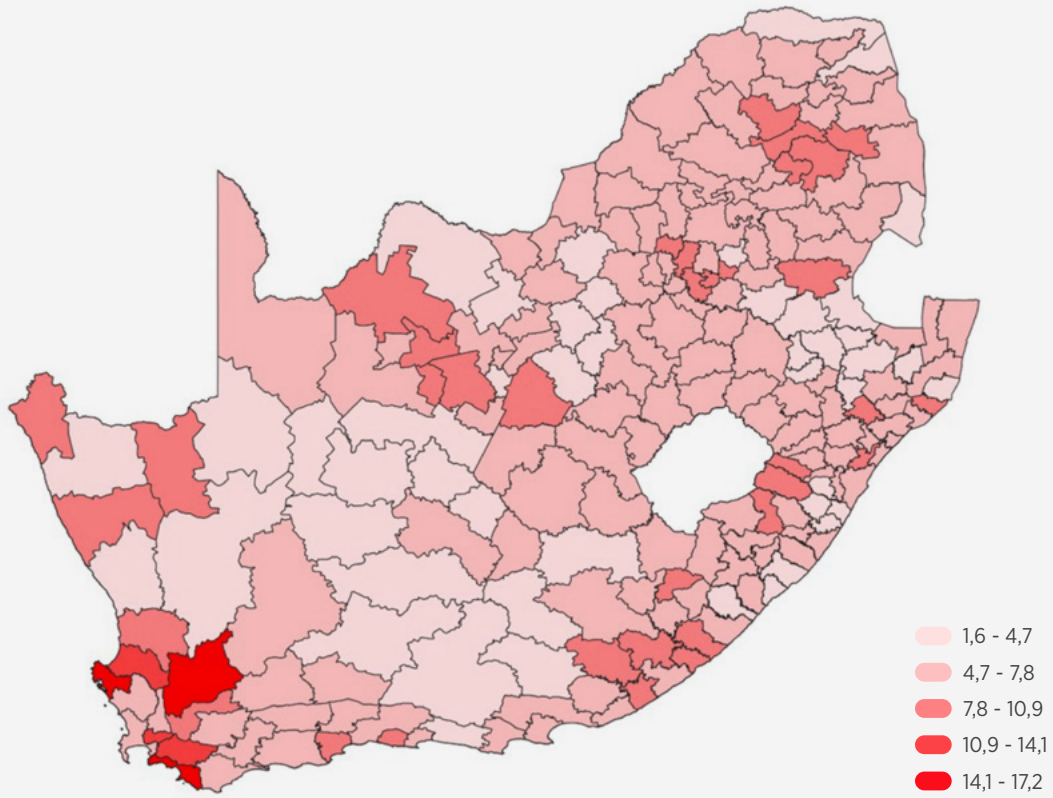
ECD Programmes per Province



The following visualisation reflects the chart above by mapping the ratio of ECD programmes per 1000 children (based on Census 2011 data) by municipality. The breakdown by municipality displays a much stronger variance (1.6-17.2) across municipalities than the provincial breakdown above suggests.

On average, there are 6.2 ECD programmes per 1000 children between 0-5 years nationwide. This ratio varies geographically though

ECD Programmes per 1000 Children (Municipality)

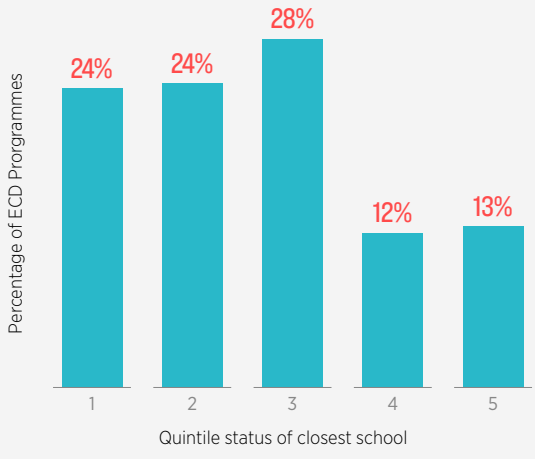


Quintiles

The GPS locations for ECD programmes collected during fieldwork were used to conduct a spatial join to the NatEmis database of South African schools (2021, Quarter 2) to obtain the socio-economic quintile of the closest school for each ECD programme.

Almost half (48%) of the ECD programmes fall into one of the two lower quintiles 1 and 2, over a quarter (28%) into the middle quintile 3 and a quarter into the two highest quintiles 4 and 5.

Quintiles

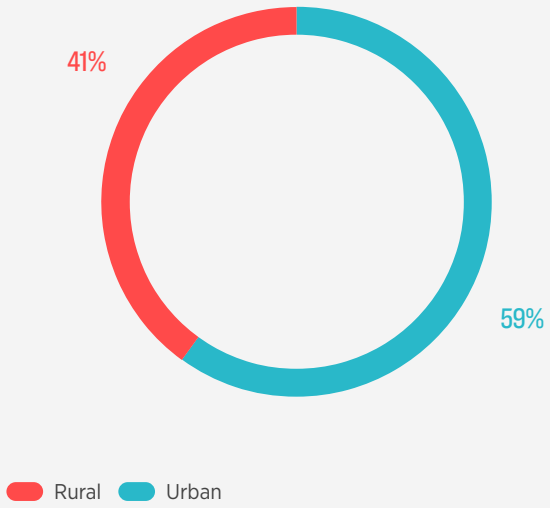


Urban vs Rural

Six out ten (60%) ECD programmes are located in urban[2] areas, which is an almost perfect match compared to the proportion of urban enumeration areas (59%) according to national census demarcations used by StatsSA.

Figure

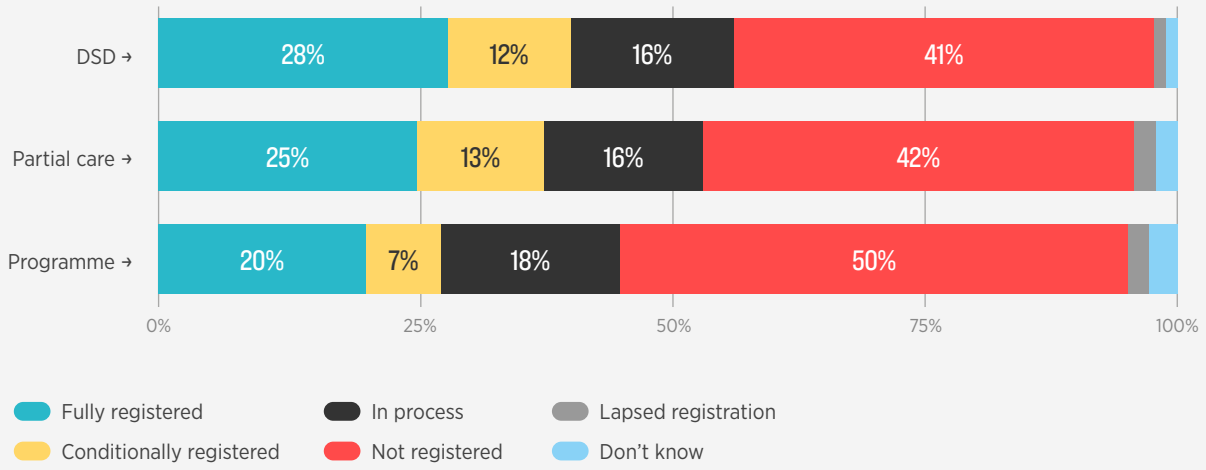
Urban vs Rural Distribution



Registration Status and Affiliations

Four out of ten (40%) of ELPs are (conditionally) registered with DSD as a partial care facility or ECD programme, and another 16% are in the process of registering. A large proportion (41%) however are not registered, or their registration has lapsed, and they also have not started the application process. Registration with DSD includes both registration as a partial care facility or as an ECD programme. Some respondents were not sure whether their ELP was registered as one or the other but knew that they were registered with DSD in some way.

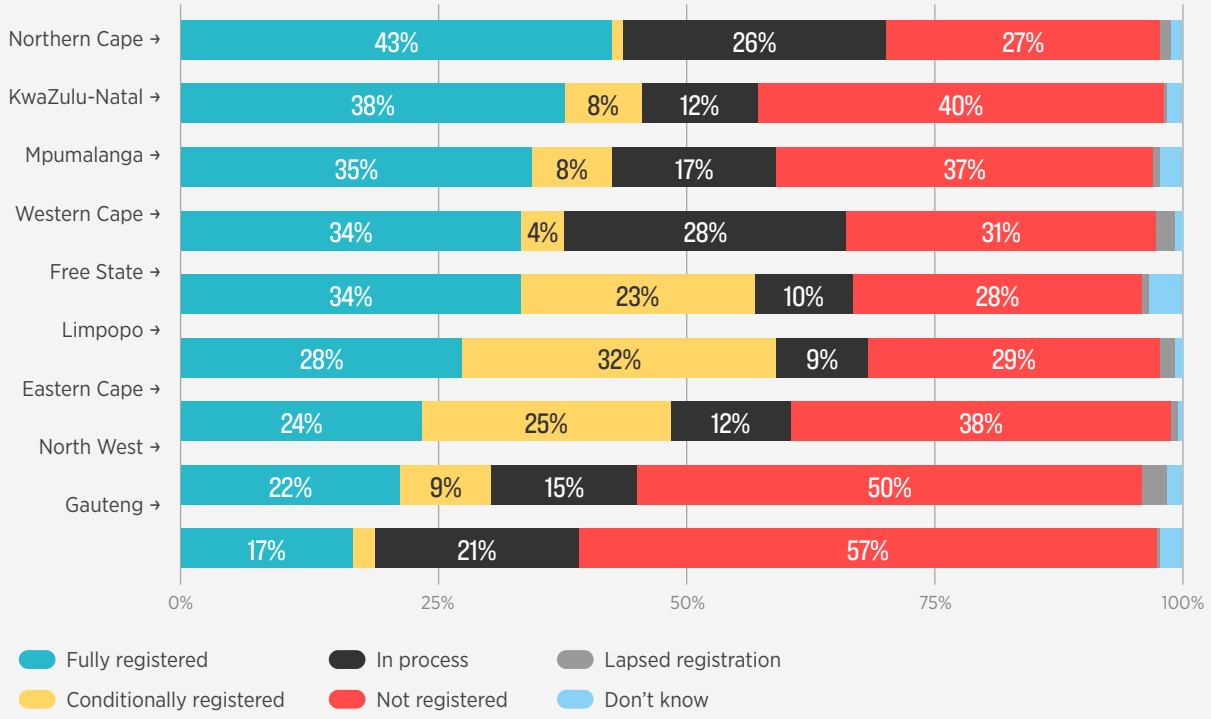
Registration with DSD



2 The urban vs rural classification was derived from plotting the ECD programmes' GPS locations on StatsSA's map of census enumeration areas which are classified into urban (formal and informal) and non-urban (commercial farms, traditional or tribal authority areas, and other non-urban areas) categories.

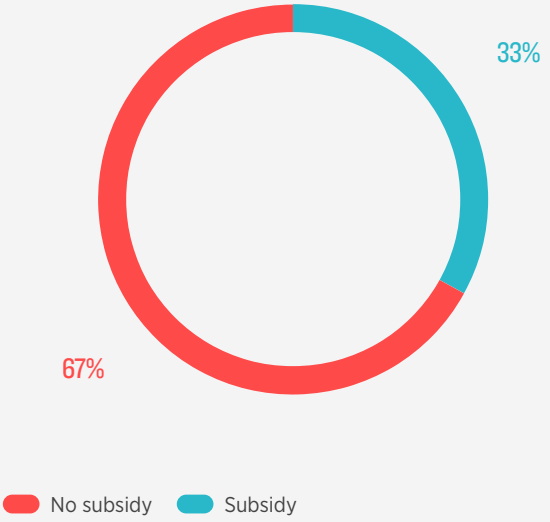
Registration with DSD fluctuates significantly between provinces though, and the trend that is discernible is untypical of other provincial results as the Northern Cape tops the list with 43% of the province's ECD programmes fully registered (either as an ECD programme or partial care facility or both) vs 17% in Gauteng.

Registration with DSD



A third (33%) of ELPs receive a subsidy from the Department of Social Development (DSD). It is noteworthy that 3737 (25%) of the 15123 ECD Programmes fully or conditionally registered as a partial care facility with DSD, claim not to receive a subsidy from DSD, while 1269 (5%) of 23636 programmes not registered as a partial care facility claim to receive the subsidy. Similarly, 333 (3%) of 12220 programmes that are not registered as an NPO supposedly also receive the subsidy although registration as an NPO is another prerequisite to receiving the subsidy. There are also 1166 ECD Programmes that claim not to receive the DSD subsidy but their primary funding source are government subsidies (although it is not clear whether these might include other types of subsidies distributed locally or provincially).

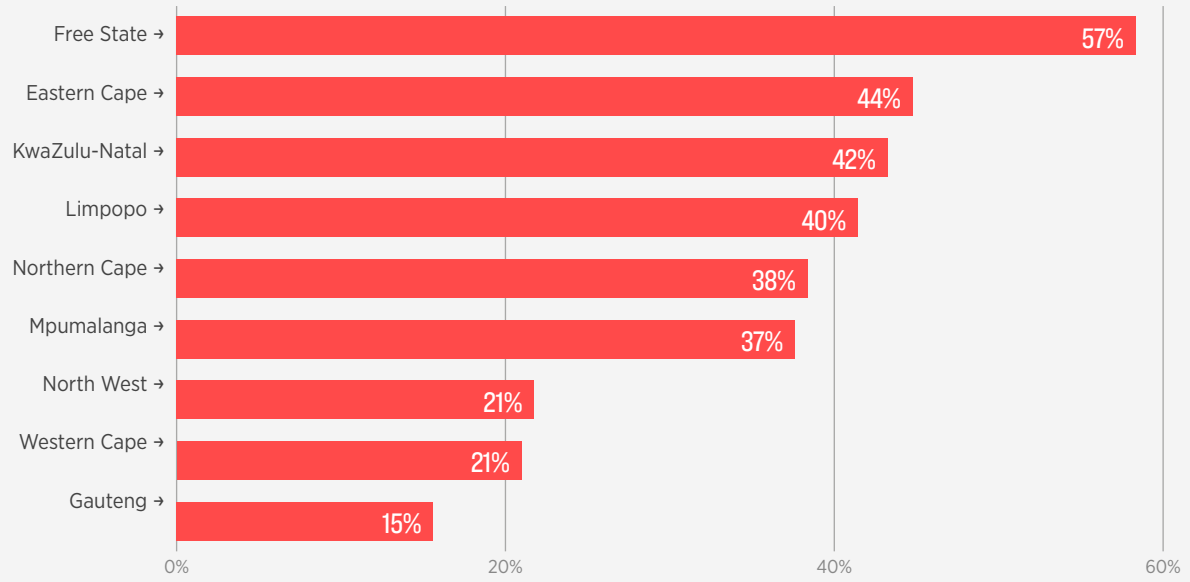
DSD Subsidy



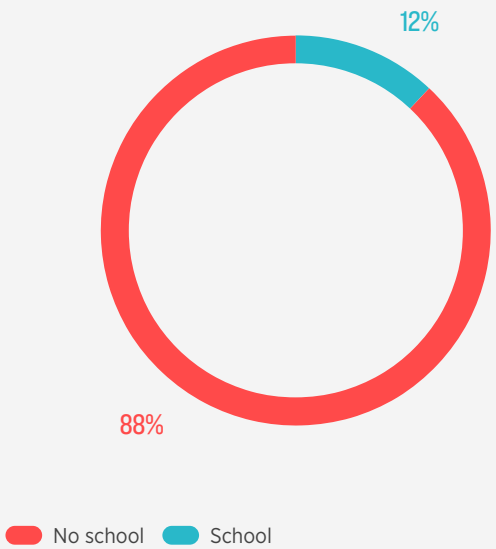
The highest poverty rates for young children are in Limpopo, KwaZulu-Natal and the Eastern Cape (Hall et al., 2019). While a large proportion of centres in these provinces do receive DSD subsidy support, a higher proportion of ECD centres in the Free State also report receiving DSD subsidies.

Twelve percent of ELPs are affiliated with a school, i.e. they are either on school premises or part of a school with an EMIS number. Despite this relatively low ratio of school-based ECD programmes, 76% of ECD programmes are within a 1km radius of a primary or combined school, which is in line with the ECD Audit 2001 (75%) but different to the results of the ECD audit in 2013 (58%).

Subsidised ECD Programmes by Province



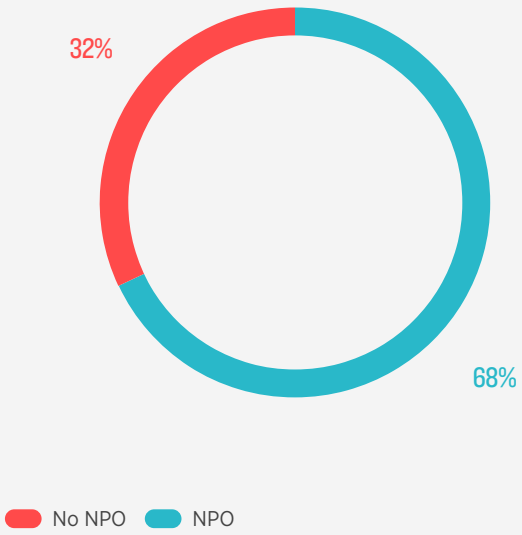
Affiliation with a School



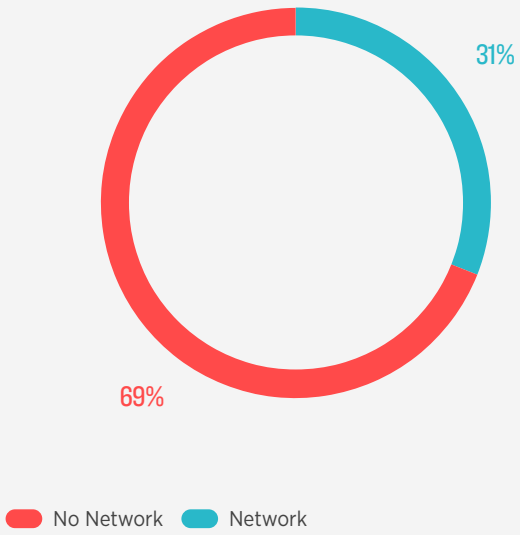
More than two thirds (68%) of ELPs are registered as a non-profit organisation (NPO), and just under a third (31%) are part of a larger network or organisation comprising multiple ELPs, such as a regional ECD Forum.

Almost a quarter of ELPs (24%) offer an aftercare programme, meaning they provide a space for school-going youth to learn and play after school while their primary caregivers are working or unavailable.

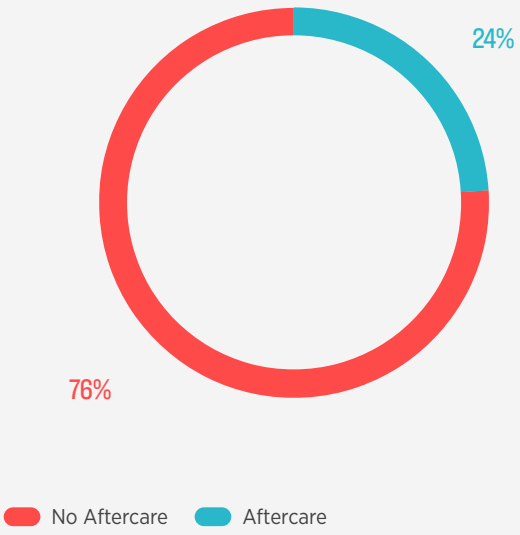
Registered as an NPO



Part of a Larger Network



Aftercare

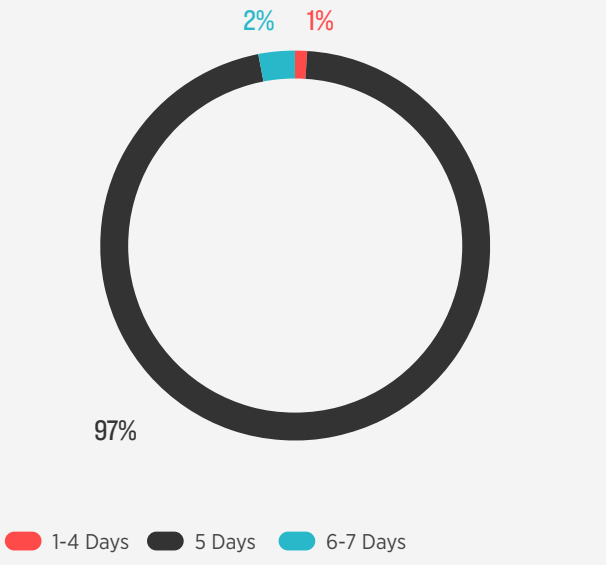


Opening Days and Hours

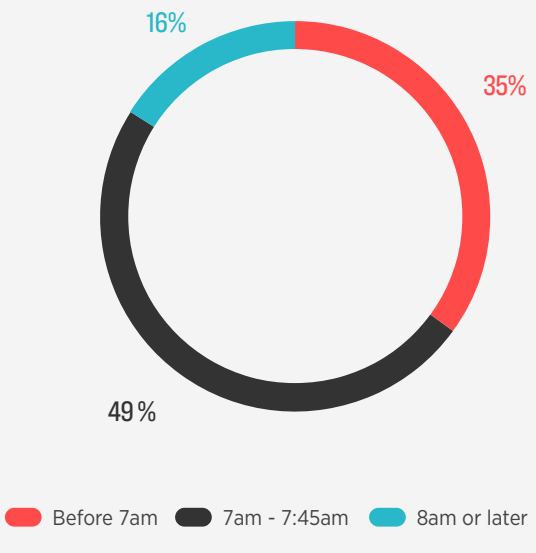
Almost all (97%) of ECD programmes are open five days per week. Over two percent are open at least six days per week. A very small minority (less than 1%) of ECD programmes are open for fewer than five days per week. An important piece of information that was not captured by this question is the number of days in the week the children typically attend the programme. For example, a playgroup might technically operate on five days a week but the children attending the play sessions rotate based on the day of the week. It is recommended to capture this information in future iterations of the census.

Six out of ten (61%) of ELPs open before 8am in the morning and close at 4pm or later. About half of them (49%) open between 7am and 8am, and about a third (35%) open before 7am. Just under two thirds (64%) close at 4pm or later on a day to day basis, regardless of opening times.

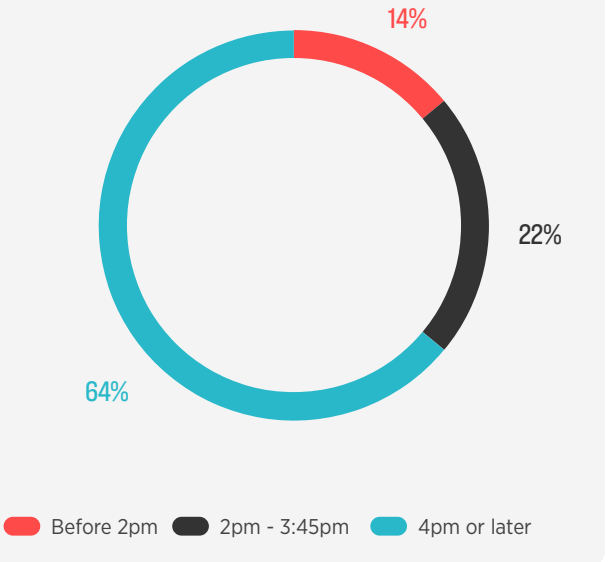
Days Open per Week



Opening Time



Closing Time

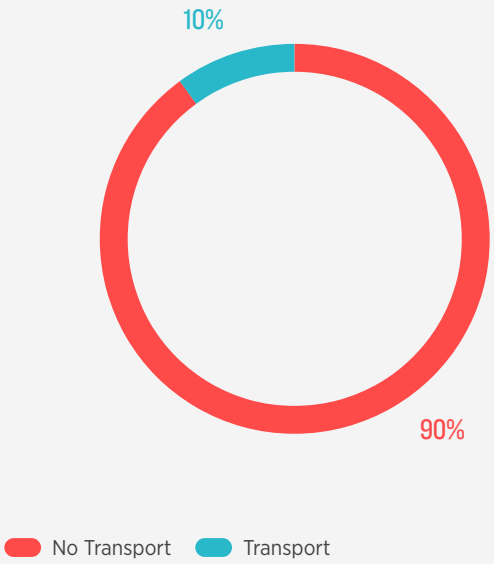


In KwaZulu-Natal, the Eastern Cape, and Northern Cape, the majority of centres operate for less than eight hours per day. Centres in the Western Cape and Gauteng stay open for longer (averaging more than 10 hours). This is consistent with expectations and could be linked to employment patterns.

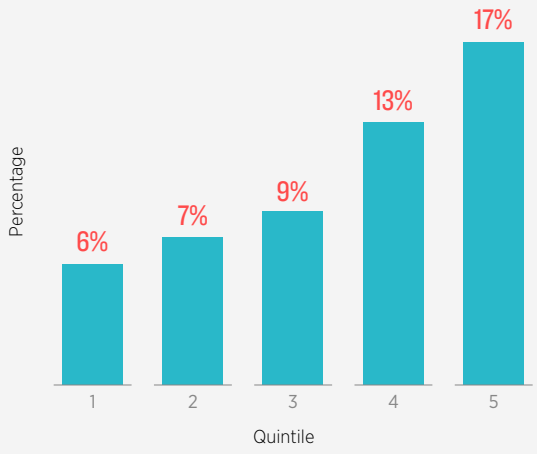
With regards to access, only 10% of ECD programmes offer transport for children attending the ECD programme.

The breakdown by quintile shows that ECD programmes in higher quintiles are more likely to offer transport compared to ECD programmes in lower quintiles, with quintile 5 programmes being about three times more (17%) likely to provide this service than quintile 1 programmes (6%).

Transport



Transport by Quintile

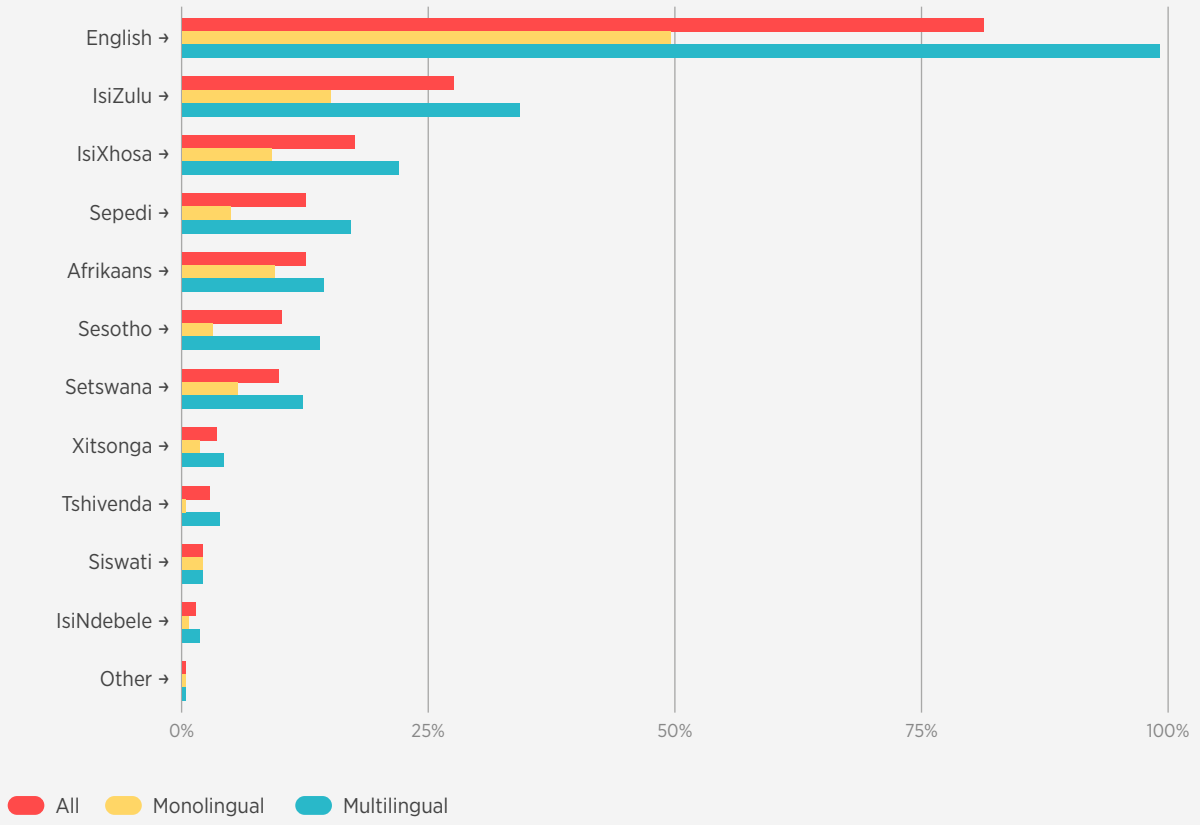


Language

For the great majority of ELPs (80%), English is one of the spoken languages. At the ELPs where English is not spoken, isiZulu (29%), isiXhosa (19%) and Afrikaans (19%) are the most spoken languages.

At a majority (55%) of ELPs, two languages are commonly spoken among children. More than a third (36%) of ELPs are unilingual, with English being the language of choice at about half (49%) of those places. About nine percent are multilingual with three or more languages spoken. English is spoken at almost all (98%) ELPs where more than one language is spoken.

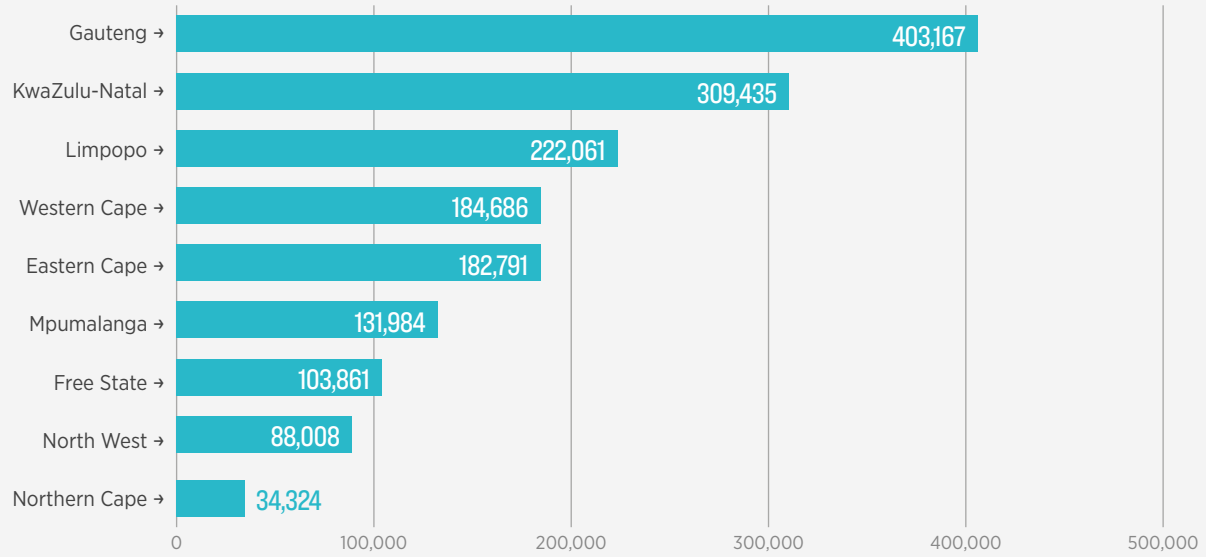
Languages spoken at ELPs



Enrolment and Attendance

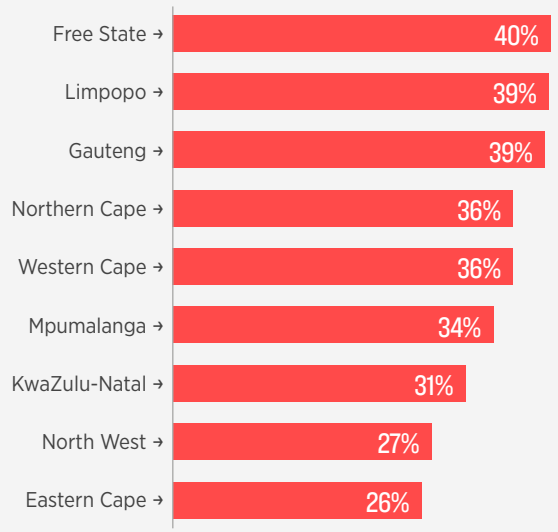
In total, 1,660,317[3] children are enrolled in the 42,420 ECD programmes counted for the Census. This means that the average number of children enrolled in an ECD Programme is 39.

Enrolled Children per Province



Taking into account the population figures for children aged 3-5 (Census 2011), one can calculate the percentage of children enrolled in ECD programmes per province (counting only children born between 2016 and 2018 as it is expected that younger children are often cared for at home). Here, the ratio ranges from (almost) 40% in the Free State, Limpopo and Gauteng, to 27% in North West province and 26% in the Eastern Cape.

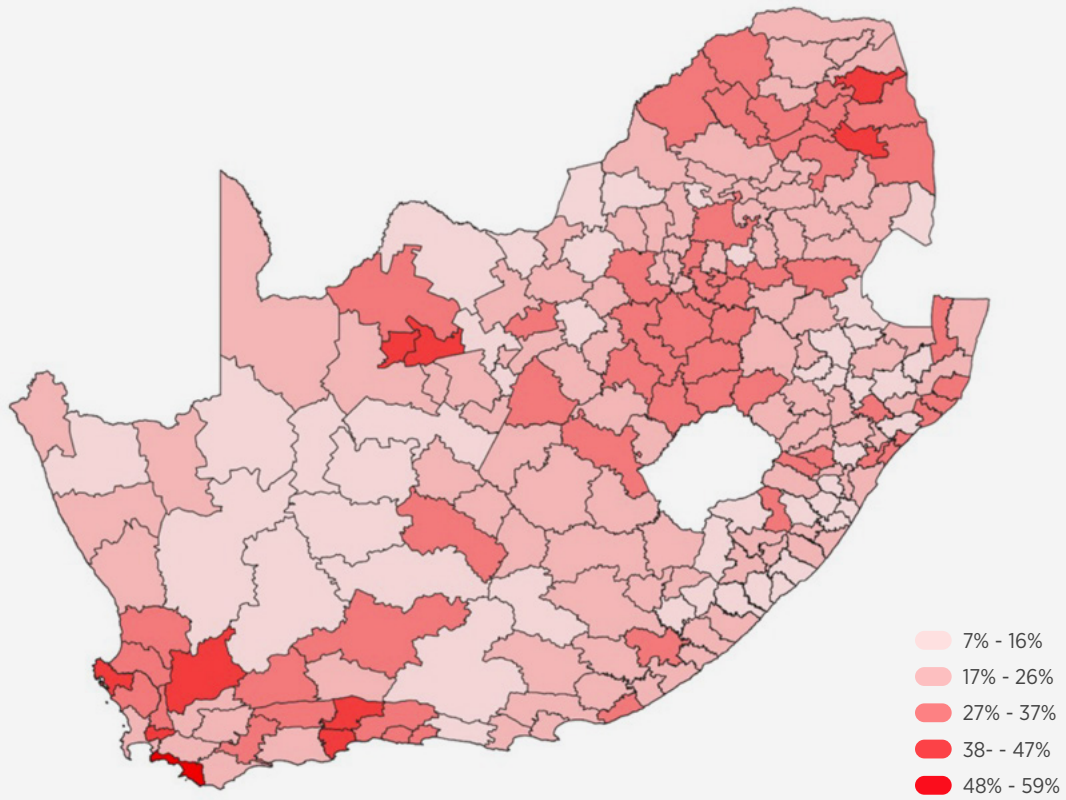
Enrolled Children per Province



3 Absolute figures throughout the report, such as total enrolment and children present as well as staff counts, usually include imputed values for missing observations (e.g. "Don't know"). The imputed estimates are using other, non-missing, children and staff counts, municipality, quintile, and geotype (urban/rural) as predictors.

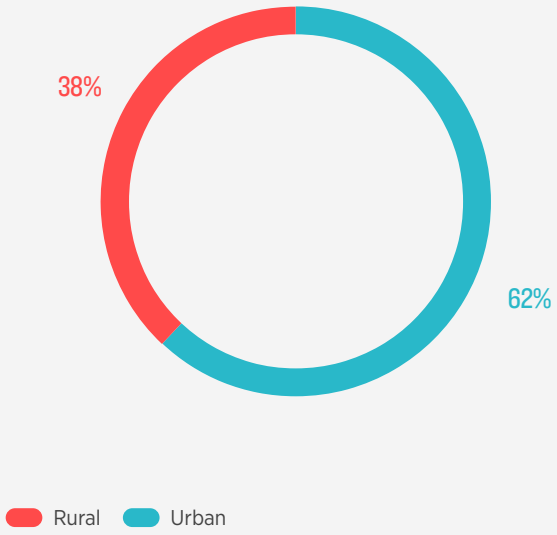
Looking at the enrolment vs child population ratio at the municipality level on the map below, it becomes apparent that strong regional variances exist between municipalities.

Enrolment vs Child (0-5) Population Ratio by Municipality



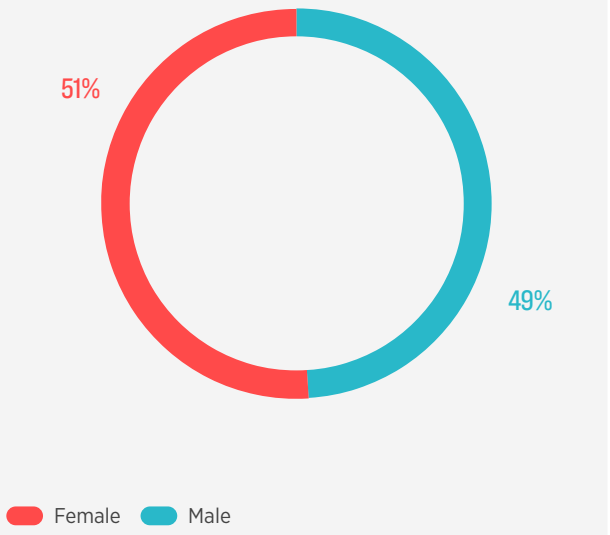
In terms of urban/rural divide, the distribution of children in ECD programmes largely reflects the geographical distribution of ECD programmes, with 62% of children enrolled in ECD programmes in urban areas and 38% in rural areas.

Enrolled Children by Urban vs Rural



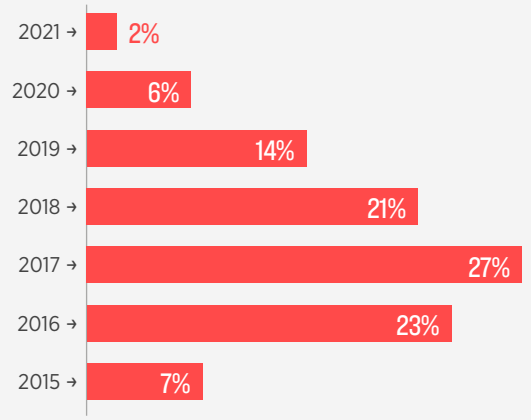
The gender distribution of enrolled children is an almost perfect 50/50 split between male and female children. Only 38 children were categorised as "Other" in gender terms.

Gender of Enrolled Children



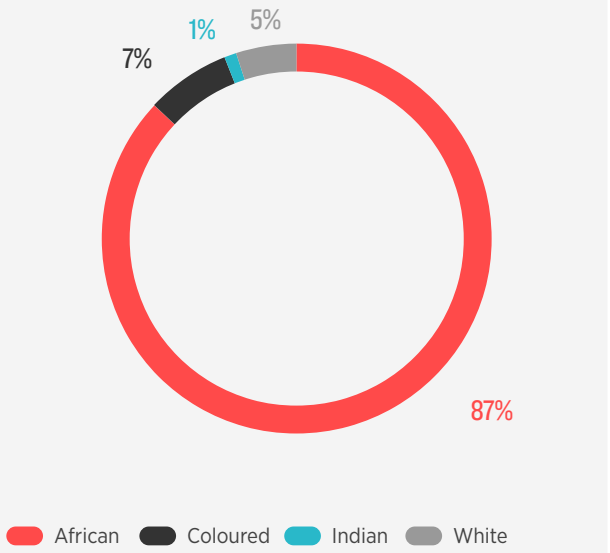
Close to three quarters (71%) of the children enrolled in ECD programmes are between the ages of three and five years at the time of the Census (born between 2016 and 2018). A small number of children of school-going age (those born in 2013, 2014, or part of 2015) were also enrolled in ECD programmes. The reasons for children of school-going age still being enrolled in ECD programmes included developmental difficulties and disabilities preventing them from progressing to schools.

Year of Birth of Enrolled Children



The great majority (87%) of enrolled children are African/Black, followed by coloured (7%) and white (5%) children.

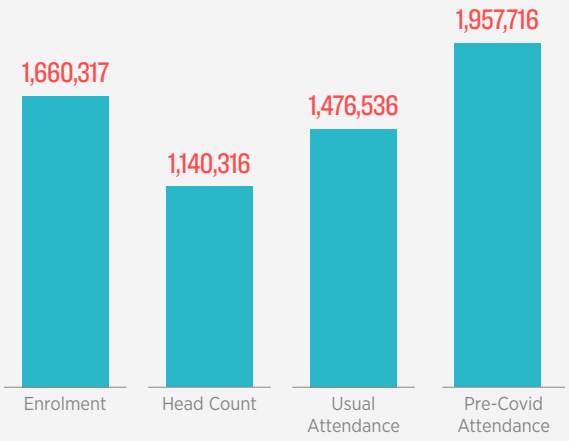
Population Group of Enrolled Children



Enrolment figures do not necessarily translate into attendance rates though. In awareness of the fact that attendance fluctuates depending on the day of the week or time in the month and is impacted by external factors such as weather conditions and social unrest, especially in the context of a pandemic, three separate measures of attendance were employed:

1. Head count conducted by the enumerator. This is arguably the most objective measure but is impacted by external factors as well as the time of the day when the count was done as children might not have yet arrived or already left the site.
2. The ECD practitioner's estimate of how many children usually attend the ECD programme (if different from the head count). As a self-reported measure there might be a subjective bias in the responses.
3. The ECD practitioner's estimate of how many children usually attended the ECD programme before the start of the Covid pandemic. This measure is also self-reported and there might be a recall bias in the responses.

Enrolment and Attendance

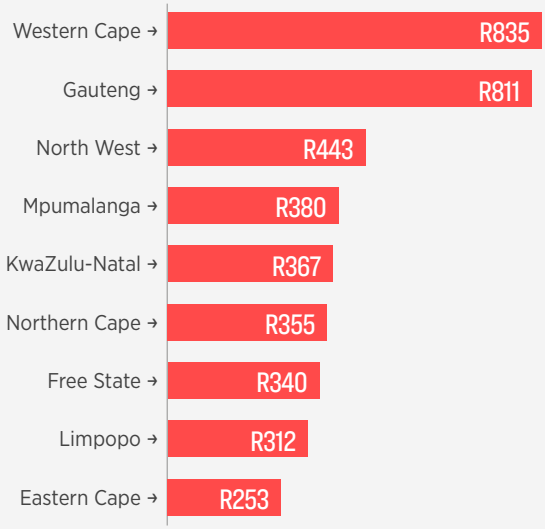


The actual average daily attendance of children at the time of the Census arguably lies somewhere between the head count of 1.14m children and the usual attendance of 1.48m children. It is also likely that attendance has increased during the months since the end of data collection in line with the broader opening up of society after the fourth Covid wave, with the current figure closer to the "usual" attendance rate. It is unlikely, though, that current attendance is close to the estimated precovid-attendance count, which is closer to 2m children. Nevertheless, it is worth noting that enrolment does not necessarily reflect attendance and that actual attendance is 10%-30% below enrolment.

Fees, Funding and Banking

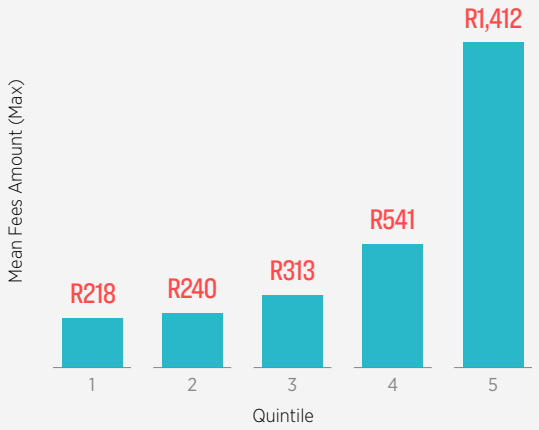
Although the great majority (94%) of ECD programmes charge fees, most (62%) of them also allow at least some children to attend the ECD programme without having to pay a fee. On average, the highest[4] monthly fee charged by ECD programmes is R509. However, significant differences exist between provinces, with monthly fees in Western Cape and Gauteng more than three times higher than fees in the Eastern Cape. It is important to note though that while the fees are higher in some provinces, fees amounts vary strongly within those provinces. For example, in the Western Cape, half of the programmes charge R450 or less per month.

Average Maximum Monthly Fee Amount by Province



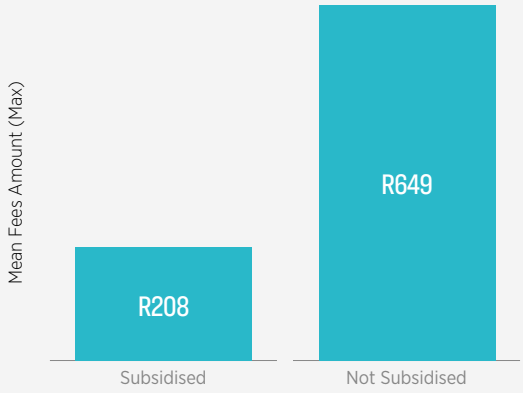
Differences in fee amounts are also clearly discernible between socio-economic quintiles. In particular, primary caregivers of children attending quintile 5 programmes are paying significantly higher fees compared to the other primary caregivers. The average quintile 1 and 2 caregiver, pays approximately half of the value of the Child Support Grant, at the time of the Census.

Average Maximum Monthly Fee Amount by Quintile



ECD programmes subsidised by DSD charge significantly lower fees (average of R208) than ECD programmes that are not subsidised (average of R649).

Average Maximum Monthly Fee Amount by Subsidy

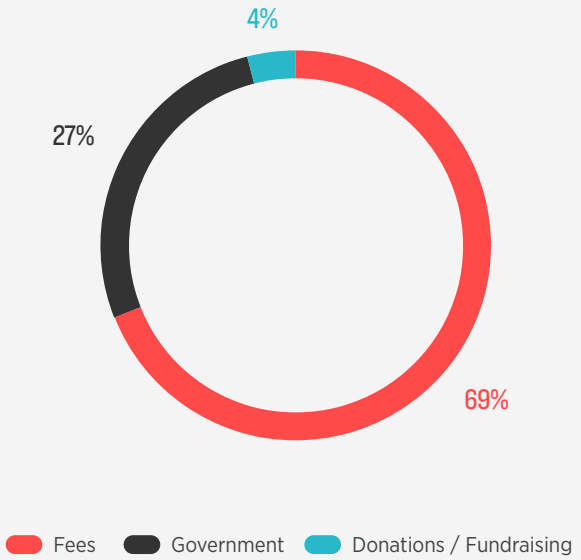


4 Question: What is the maximum monthly fee per child?

The primary funding source for ECD programmes are fees (69%), followed by government subsidies (27%). The remaining 4% depend on donations, fundraising and other sources of income.

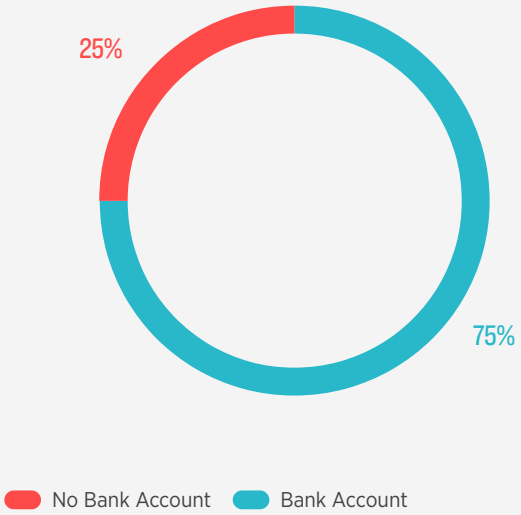
Three out of four (75%) ECD programmes reportedly have a bank account in the name of the programme.

Primary Funding Source



Figure

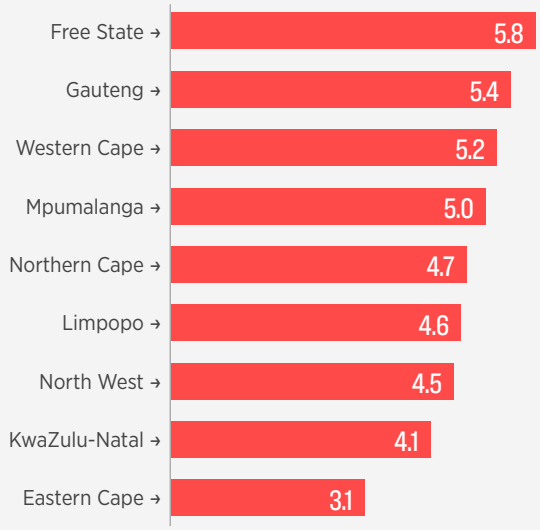
Bank Account



Staff

In total, 198361 staff work in ECD programmes across the country, which means that, on average, there are 4.7 staff members per ECD programme. This figure varies significantly from province to province though, with Free State having the highest staff ratio of 5.8 and Eastern Cape the lowest with 3.1.

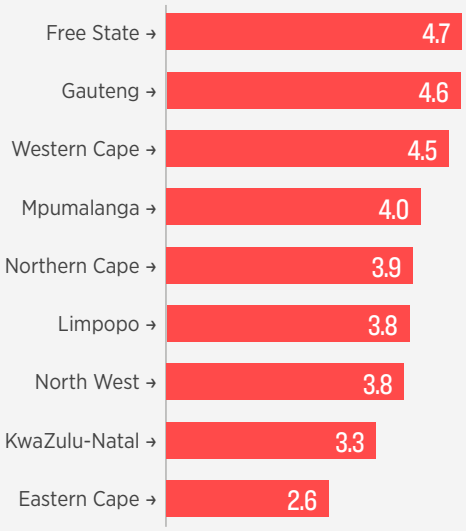
Average Number of Staff per Province



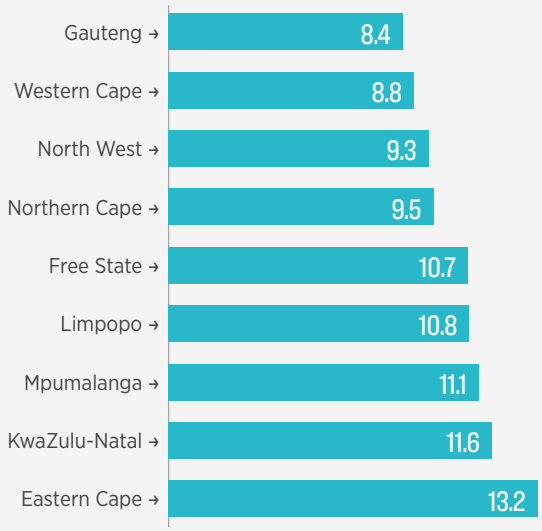
Leaving out support staff and taking into account only ECD practitioners, Grade R educators and managers who also function as ECD practitioners[5] (basically excluding support and "pure" managerial staff), the total figure of "teaching" staff comes to 165059 and the average per ECD programme to 3.9.

A slightly different picture emerges if one looks at the average ratio of enrolled children per teaching staff member, which nationally stands at 10.1, but ranges from 8.4 in Gauteng to 13.2 in Eastern Cape.

Average Number of Teaching Staff per Province



Average Ratio Enrolled Children per Teaching Staff by Province

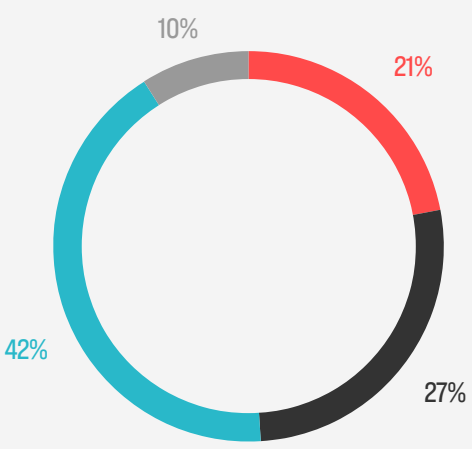


5 We do not have the exact count of ECD managers who are also fulfilling practitioner functions but we do know at which ECD programmes at least some of the managers also fulfill those functions. We therefore added one practitioner at every ECD programme where this is the case, meaning that the resulting total of educators and practitioners is a conservative estimate.

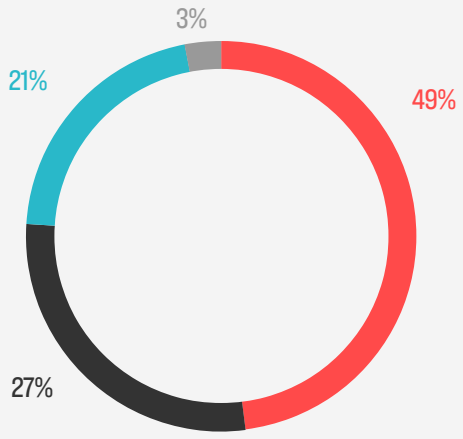
Close to a quarter (22%) of the teaching and managerial staff[6] working in the ECD sector do not have a relevant ECD qualification. Over a quarter (27%) participated in an accredited skills programme, about four out of ten (42%) have an NQF Level 4 or 5, and 10% an NQF Level 6 or higher.

About half (49%) of those working in the ECD sector are ECD practitioners. More than a quarter (28%) are support staff (e.g. security, cleaners), and about one out of five (21%) are in managerial positions. However, in 89% of cases at least some of the managers also work as ECD practitioners.

Qualification of Teaching Staff



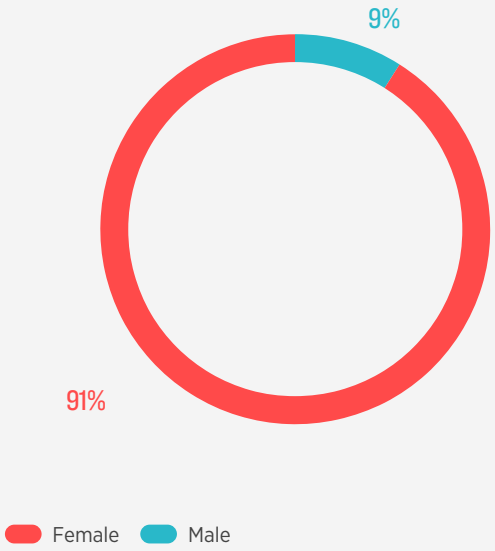
Staff Categories



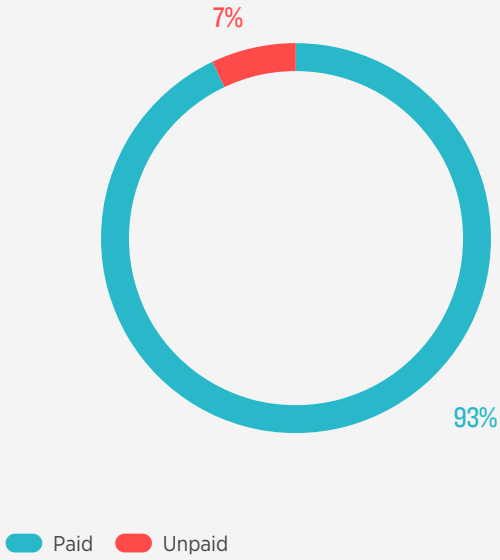
6 For these calculations we used the total staff count and subtracted the support staff count.

Nine out of ten (91%) staff working in the sector are female and almost all (93%) are paid staff members. Most staff (93%) have a permanent position, and almost all (95%) work full-time.

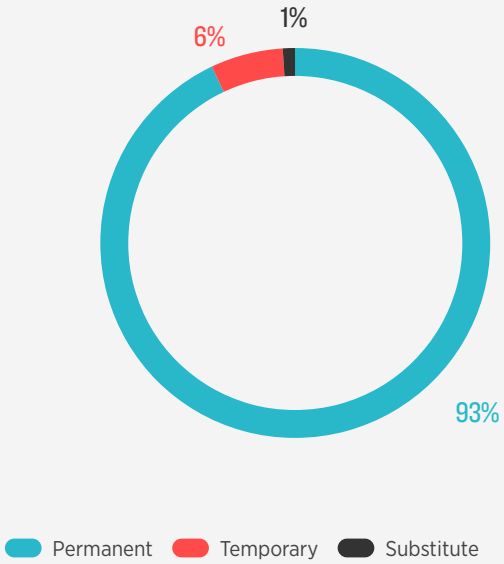
Staff Gender



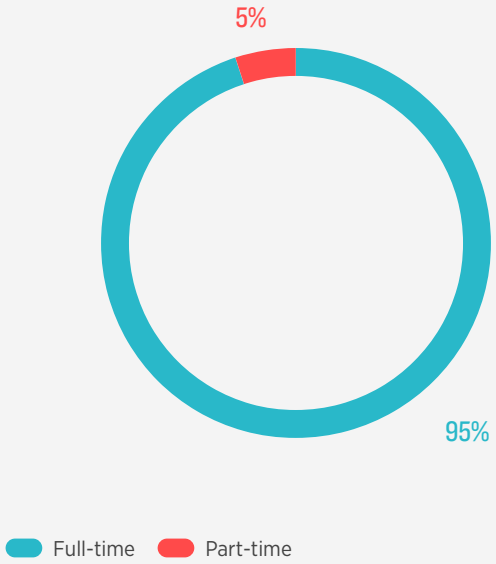
Paid vs Unpaid



Staff Type of Employment



Staff Full- vs Part-Time



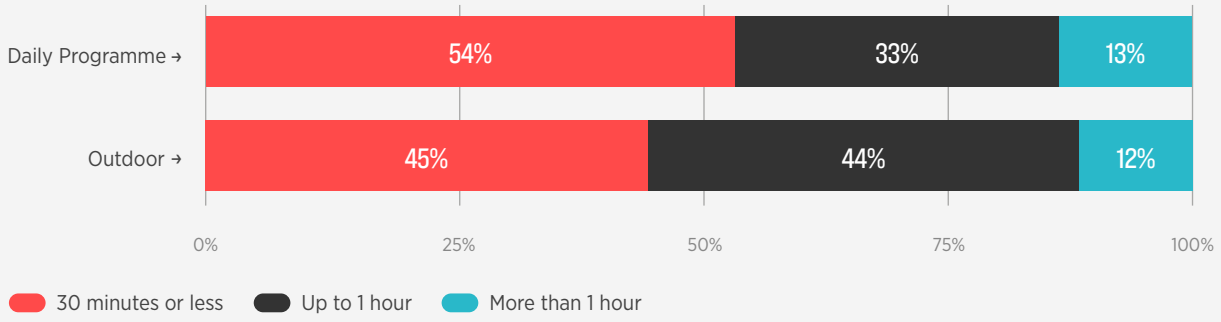
Learning through Play

Two separate questions were asked about the amount of time available for free play during the day:

1. How much time is there for free play as part of the daily programme?
2. How much time is there for free play when the children are outside?

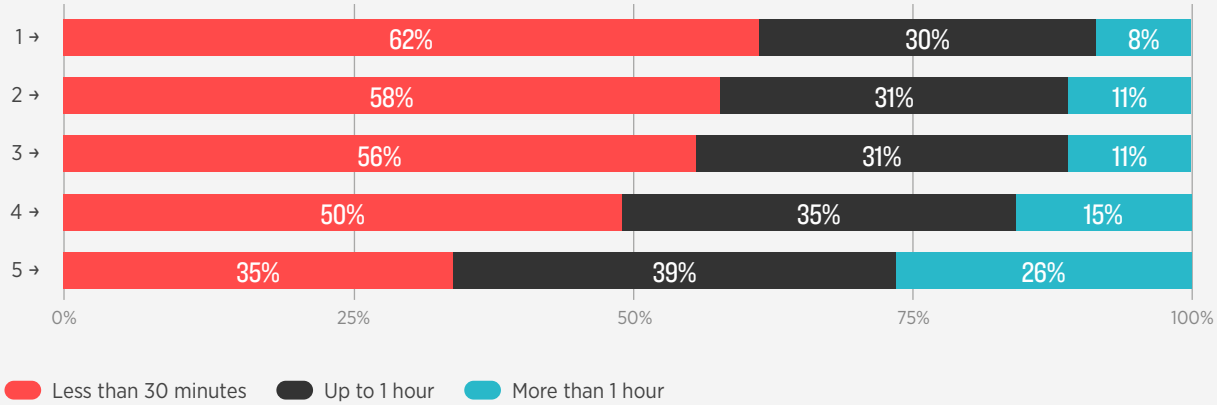
Generally, more time is spent on free play outdoors, with 44% of respondents saying that children spend up to an hour on free play outside compared to 33% for free play as part of the daily programme. But in both instances, around half (54% and 45%, respectively) of the ECD programmes allow less than 30 minutes for free play per day.

Free Play



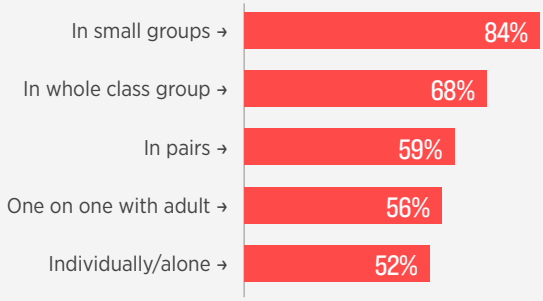
Generally, higher quintile ECD programmes dedicate more time to free play as part of the daily programme than lower quintile ECD programmes. For example, 65% of quintile 5 programmes have more than 30 minutes of free play per day, compared to 38% of quintile 1 programmes.

Free Play by Quintile



The most common grouping for children to do activities are small groups, which applies to 84% of ECD programmes. Generally though, programmes let children play and learn in a wide range of groupings.

Groupings



A series of seven questions probed the respondents' attitudes towards child agency in learning and playing. For each item, the respondents were asked to indicate their agreement with one of two statements (or agreement or disagreement with both): one of the two statements expressed a preference for children's agency, the other for ECD practitioners' agency. These are the pairs of statements put to the respondents (1 child agency; 0 practitioner agency):

Choice

- (1) Children should choose their own learning activities in the classroom.
- (0) Practitioners should be responsible for choosing the playing and learning activities for the children.

Understand

- (1) If children don't understand, they should try to find the answer independently before asking the practitioner.
- (0) It is better if children tell the practitioner when they don't understand.

Explore

- (1) Children learn best by exploring new things on their own.
- (0) Children learn best when new things are explained by the practitioner.

Play

- (1) Early learning is best when children are free to play with whatever they choose.
- (0) Play in the Programme should be connected to learning outcomes.

Questions

- (1) If children answer their own questions, they will be more likely to understand.
- (0) If the practitioner answers children's questions, they will be more likely to get the correct answer.

Learn

- (1) Children learn best from their peers.
- (0) Children learn best from the practitioner.

Questions

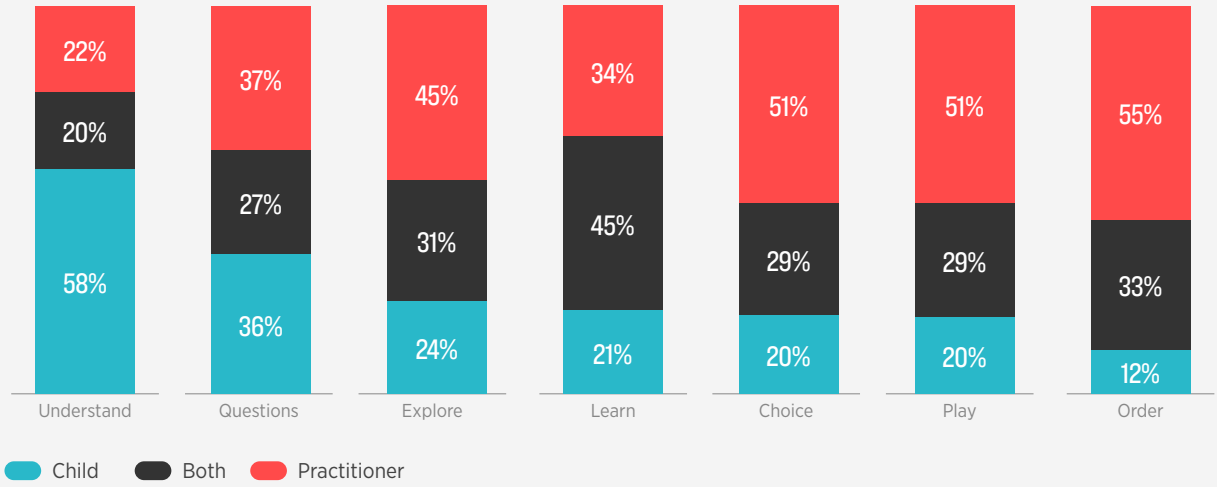
- (1) If children answer their own questions, they will be more likely to understand.
- (0) If the practitioner answers children's questions, they will be more likely to get the correct answer.

Order

- (1) It is important for children to be free to talk and play.
- (0) It is important for the class to be orderly and quiet.

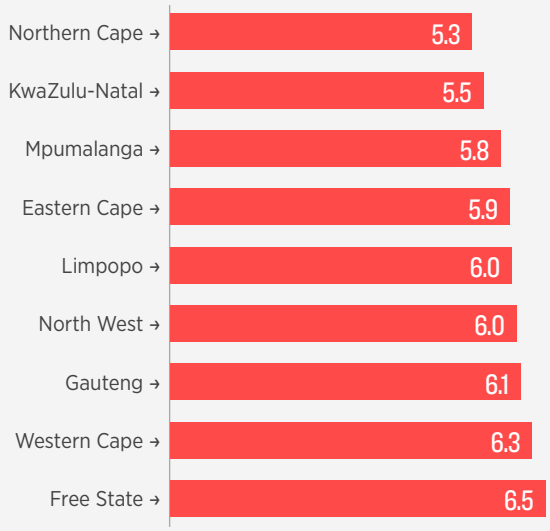
Generally, respondents tended to favour practitioner agency, the only exception being the "Understand" item where more than half (58%) were of the opinion that "if children don't understand, they should try to find the answer independently before asking the practitioner".

Agency Items[7]



An agency scale was constructed by assigning two points for each "pro-child" response and one point for agreement with both statements. While the scale ranges from 0-14, the average score is 6.0, reflecting the bias towards practitioner agency depicted in the chart above. The score is fairly consistent across quintiles (5.8-6.2) and programmes with (6.0) and without (5.9) NQF-qualified practitioners, and only minor variations between provinces can be detected, with Northern Cape showing an average of 5.3 vs 6.5 in Free State.

Agency Scale by Province

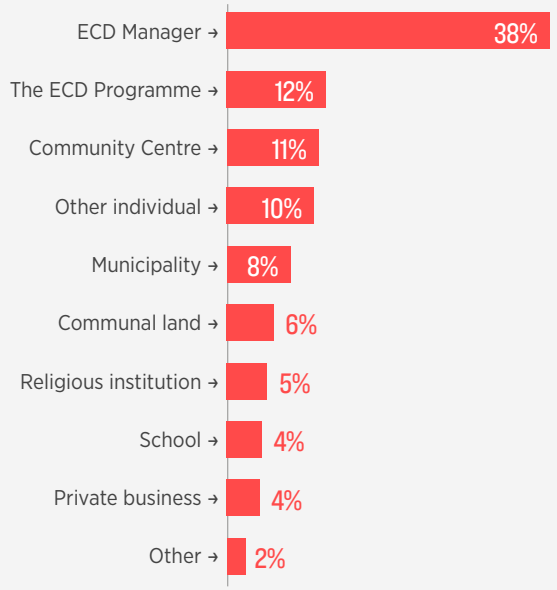


7 The "None" part in the Practitioner/None category accounts for 0.2%-0.4% per item.

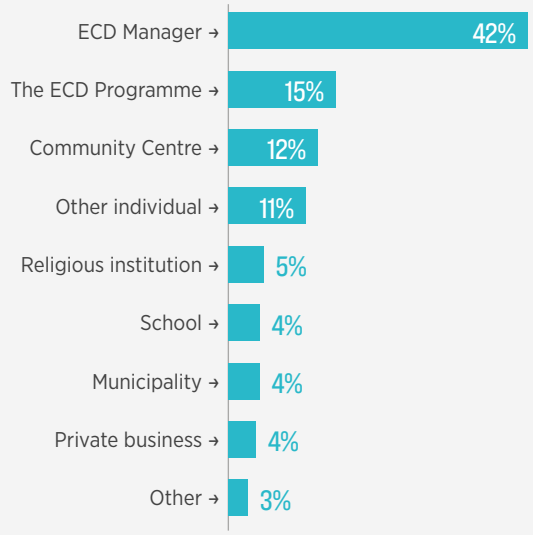
Ownership

The land and facilities used by an ECD programme is most commonly (38% and 42%, respectively) owned by the person in charge of the ECD programme, followed by the ECD programme itself (12% and 15%), a community centre (11% and 12%) or another individual (10% and 11%).

Ownership of Land



Ownership of Facilities

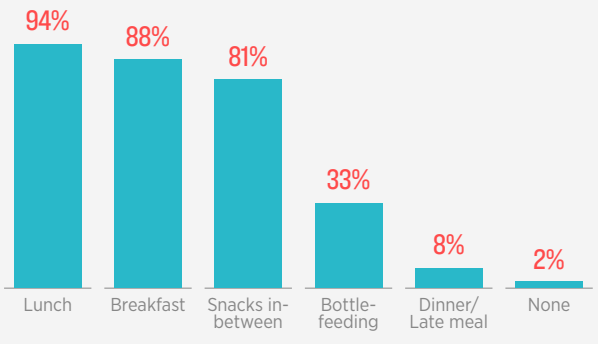


Meals and Cooking

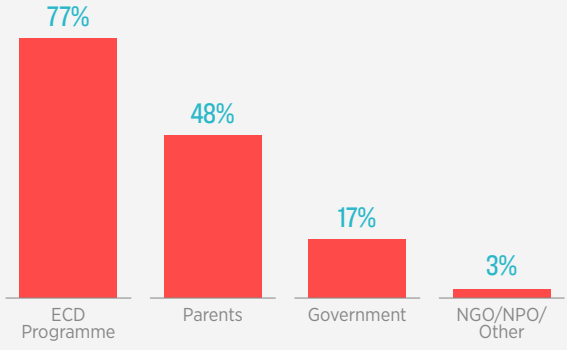
Virtually all (99%) ECD programmes incorporate at least one meal time into the daily programme, usually lunch (94%), breakfast (88%) or snacks between meals (81%).

Usually (77% of the time) the ECD programme provides at least some of the meals, but about half of the time (48%) primary caregivers also contribute. Less than two out of ten (17%) ECD programmes receive support in the form of food from the government.

Meals

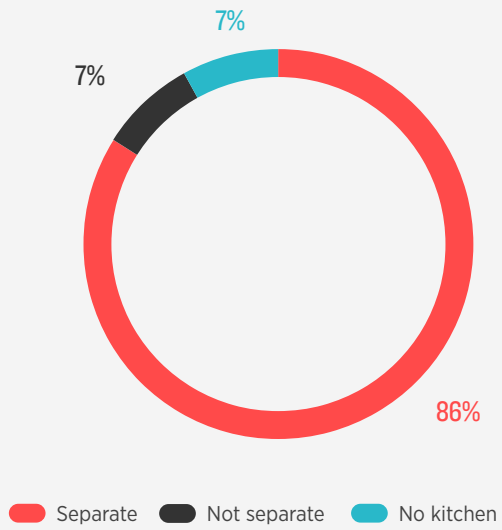


Providers of Meals



The great majority (85%) of ECD programmes have an area for cooking and preparing meals separated from where the children engage in daily activities. Seven percent do not have that space, and the other seven percent do not have any designated food preparation area or do not provide meals.

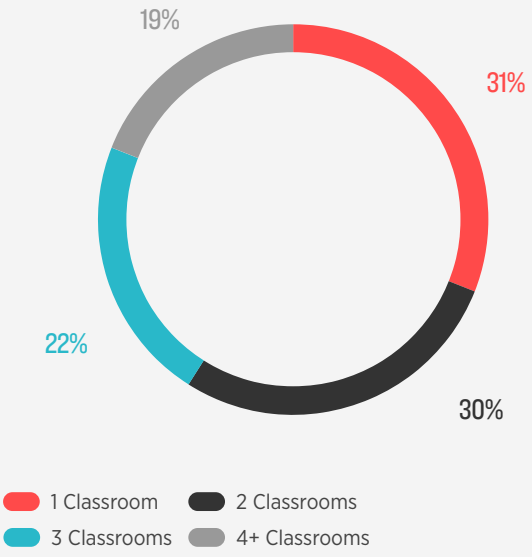
Separate Meal Preparation Area



Space

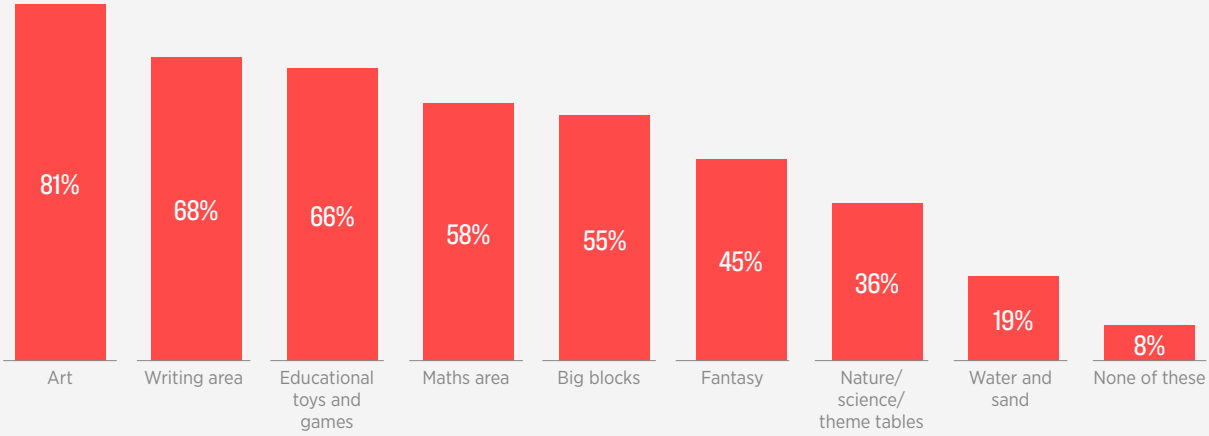
The great majority (81%) of ECD programmes have three or less classrooms for the children, and the average number of children per classroom is 17. The enumerators found that the indoor play area's floor space is large enough for children to safely move around at 82% of the ECD programmes.

Number of Classrooms



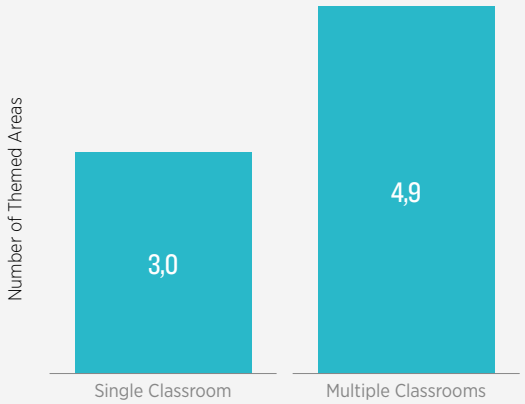
During their observations, the enumerators were asked to identify themed areas for each ECD programme. The most frequently (81%) identified area was for art (draw, paint, cut, model etc) while the least common was for playing with water and sand (19%).

Themed Areas



The number of themed areas per ECD programme depends very much on the number of classrooms though. Single-classroom ECD programmes, accounting for almost a third (31%) of all ECD programmes, have on average three themed areas, while other ECD programmes have closer to five themed areas.

Number of Themed Areas by Classrooms



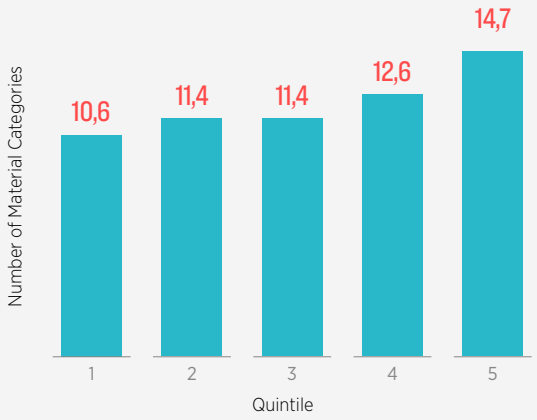
Materials for Playful Learning

The enumerators were required to look out for a wide range of materials at the ECD programme. The table below shows the relative frequency of each category of materials.

Materials	%
Picture cards, posters, charts	84%
Furniture for children	84%
Paint, crayons	84%
Pencils, pens, chalk	79%
Books	77%
Carpets or sleeping mats	73%
Glue, paper, scissors	72%
Games with numbers or shapes	71%
Dolls, stuffed animals, toy cars	64%
Balls, Hula-hoops, Sandbags	53%
Materials for counting	52%
Wooden or plastic blocks	52%
Clay, play dough or similar	52%
Construction toys	50%
Skipping ropes, Scooters	48%
Toys from recycled materials	44%
Theme tables	41%
Fantasy toys	38%
Instruments for rhythm	37%
Buckets, spades, sand moulds	37%
None of these	2%

On average, an ECD programme has twelve of these categories of items, with half of the ECD programmes having up to and including twelve and the other half having more than twelve. Higher-quintile ECD programmes have access to a wider range of materials though, compared to lower quintiles. For example, ECD programmes in quintile 5 had, on average, items in 15 different categories, whereas programmes in quintile 1 had items in 11 categories.

Number of Materials by Quintile

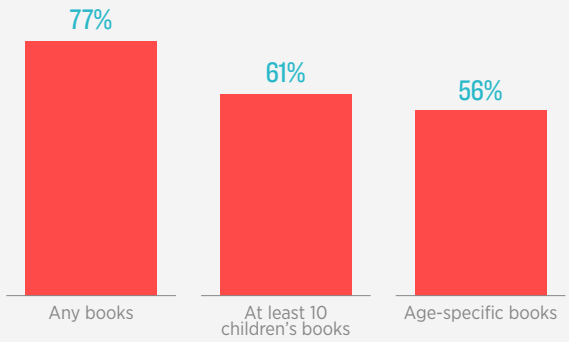


ECD programmes subsidised by DSD are also able to present a wider selection of learning and playing materials, with, on average, 13 or 14 categories vs 11 categories for those with no DSD subsidy.

Number of Materials by Subsidy

While 77% of ECD programmes have some sort of collection of books, only 61% have at least 10 children's books to play with, and only 56% have age-appropriate books for different age groups.

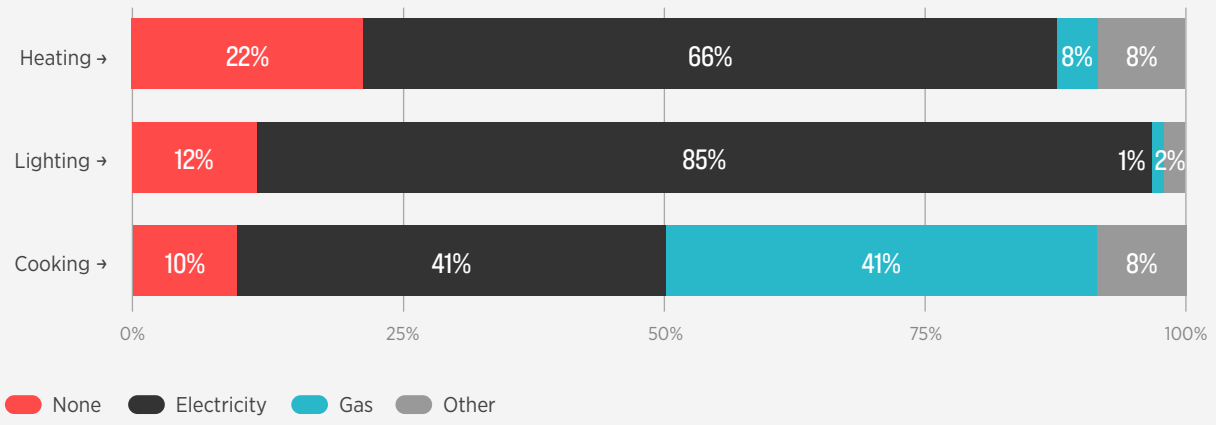
Books



Energy, Water and Hygiene

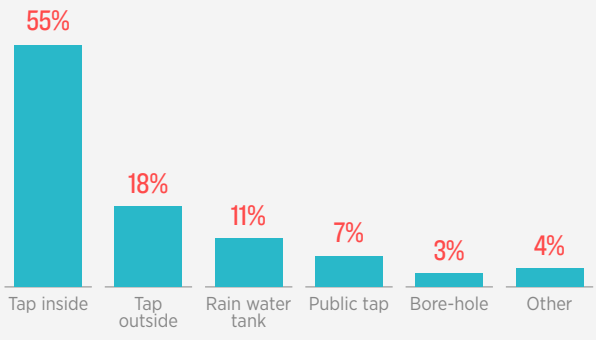
Most ECD programmes have access to electricity for lighting (85%), heating (66%) and cooking (41%). A large proportion (41%) use gas specifically for cooking.

Energy Sources for Heating, Lighting and Cooking



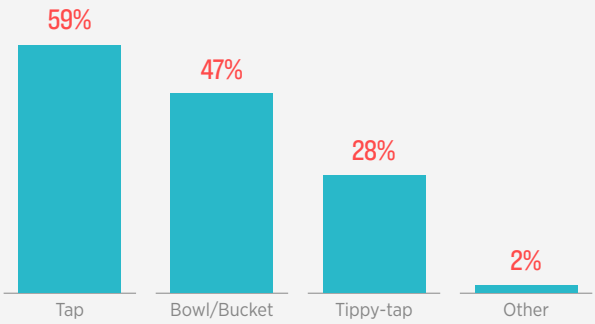
The majority (55%) of ECD programmes have access to running water inside the building. Less than 1% (0.7%; combined with Other option) do not have access to any water. Almost all (98%) ECD programmes with access to water say that the water is drinkable.

Source of Water



The children at the majority (59%) of ECD programmes use taps to wash their hands. At almost a quarter (22%) of ECD programmes the children exclusively use a bowl or bucket to wash their hands.

Handwashing Facilities

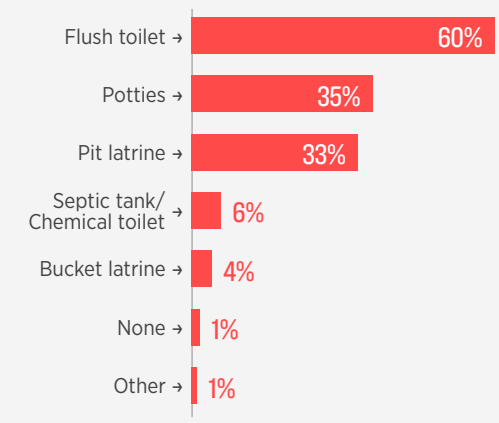


Sanitation

On average, 16 registered children share one toilet at an ECD programme, not counting toilets for staff members, and at half of the programmes more than twelve children are expected to share one toilet. However, four out of ten (40%) ECD programmes are not connected to a sewage system. While the majority of programmes (60%) have flush toilets connected to sewage, a fairly large proportion rely on pit latrines with (12%) or without ventilation (22%), flush toilets connected to septic tanks (3%), chemical toilets (2%), bucket latrines (4%). Between one and two percent (1.5%) do not have any toilet facilities. Over a third (35%) of programmes have potties for small children.

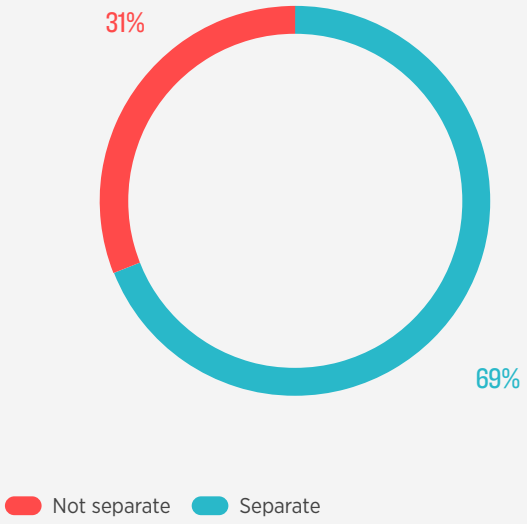
It is further noteworthy that less than one percent (0.5%) of programmes offer toilets for people with disabilities.

Types of Sanitation

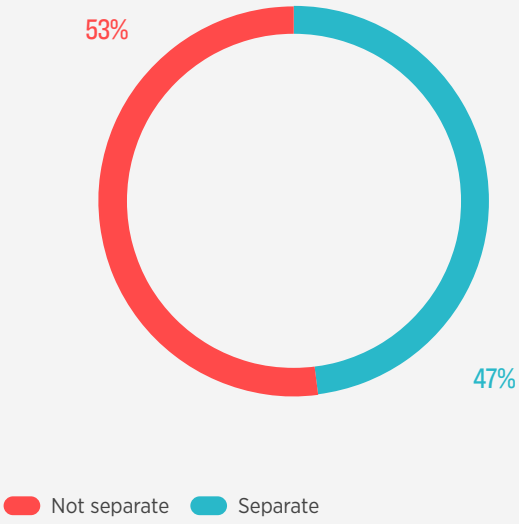


Over two thirds (69%) of programmes have separate toilets for staff and children and just under half (48%) have separate toilets for boys and girls.

Toilets for Staff and Children



Toilets for Boys and Girls

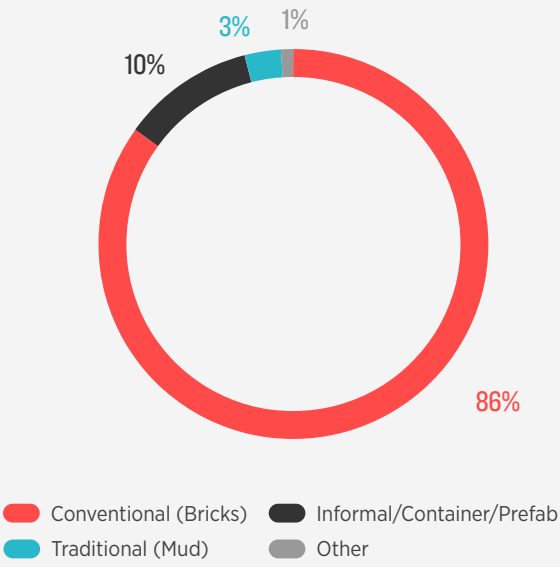


Infrastructure

Only a small number (195) of enumerated ECD Programmes are mobile, i.e. they move from place to place or are operating out of a movable vehicle (e.g. van). It is likely that more of such programmes exist as they are the most difficult to find for obvious reasons, but it is safe to say that they constitute only a very small fraction of the ECD sector

Of the "stationary" ECD programmes, the great majority (86%) are housed in conventional dwellings, i.e. brick or block buildings with tile or zinc roofs. A substantial proportion (11%) operate in more informal settings, such as shacks, containers and prefab dwellings. A smaller minority (3%) are situated in "traditional" dwellings (mortar or mud walls). Most buildings (82%) are used only for the ECD Programme.

Building Type

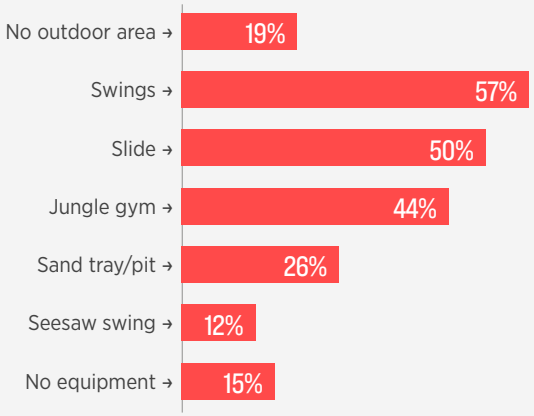


While most ECD programmes are in conventional buildings, the majority (62%) of informal structures belong to programmes not registered with DSD.

About four out of five (81%) ECD programmes have an outdoor play area which can be on the programme's premises but can also be a public space (e.g. park) nearby that is used by the ECD programme. However, another significant proportion (15%) have access to an outdoor area but none of the most common outdoor playground equipment, meaning that about a third (34%) of ECD programmes do not have access to an outdoor playground with suitable equipment.

In terms of equipment that is available, swings (57%), slides (50%), and jungle gyms (44%) are the most common ones. Less frequent are sand trays/pits (26%) and seesaw swings (12%).

Outdoor Play Area

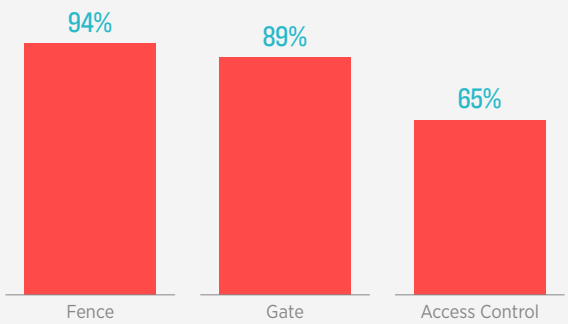


Only about two thirds of the equipment are in a very good or mostly in working condition (63%). At a quarter (25%) of playgrounds at least some of the equipment is in working condition and at one of ten (11%) playgrounds the equipment is mostly broken and unused.

Quality of Outdoor Equipment

In terms of security, almost all (94%) of ECD programmes have a fence around their premises, most (89%) have a lockable gate to prevent unauthorised access, and two thirds (65%) have someone checking who enters and leaves the facility.

Security



DISCUSSION POINTS

Enrolment and Attendance

Overall enrolment and attendance is lower than previously estimated

A primary insight emerging from the analysis of the ECD Census data is the relatively low enrolment and attendance of children in ECD programmes across South Africa. Until now, due to the lack of reliable data, figures for enrolment had only been estimates. Arguably the most thorough attempt had been made by Martin Gustafsson (2017) who in 2017 estimated, based on all data sources available to him, that 2.4m South African children aged 0-4 were enrolled in ECD programmes at the time. Assuming fairly equal-sized age cohorts this would translate to about 2.9m children aged 0-5 (which is the age range used in this report). The ECD Census is telling us that the true figure is in fact much lower than that, at around 1.7m. Even if one takes into account a degree of undercounting during the Census, it seems very unlikely that the total count of "missed" children could fill the gap between the estimated and observed figure, especially since one can assume that any missed ECD programmes are likely to be relatively small as larger ECD programme are less likely to have been overlooked in the field.

Furthermore, the Census data shows that enrolment and actual attendance differ significantly, with attendance about 30% below enrolment. Based on an estimated 6.7m children aged 0-5 in South Africa, it is possible to deduce that only about 25% of children aged 0-5 are taken care of at an ECD programme on any given day. These results point to the need for considerable expansion of ECD programmes, as well as the need for a more comprehensive understanding of their demand, especially since almost half (48%) of these centres are from quintiles 1 and 2.

It must be pointed out though that the ECD Census was done during a global pandemic, between the third and fourth South African Covid wave. Previous studies, media reports as well as anecdotal reports have established that the ECD sector had been severely impacted by the pandemic, with many programmes closing down temporarily or permanently, their services curtailed by lockdown regulations, primary caregivers unable to afford fees, or worried about their children getting infected, and staff getting ill or not wanting to risk infection. Therefore, it is very likely that attendance rates have already increased and will continue to increase as the sector continues to recover from the pandemic shock. Nonetheless, whether this increase will be significant enough to meaningfully alter the overall attendance rate is debatable.

DSD Registration and Subsidies

Proportion of registered ECD programmes is lower than previous estimates and not concentrated in lower quintiles

The Census shows that unregistered rates are much higher than previous estimates, as a large proportion (60%) of centres are not registered with the DSD. This is in contrast to the 2001 audit (DoE, 2001) which showed that approximately one-third of centres were not registered and the 2013 audit (Department of Social Development, 2014) which reported that 44% were not registered.

The 2013 audit suggested that a large percentage of unregistered centres are likely to be in urban informal areas. While the Census does show that roughly two-thirds of unregistered centres are in urban areas, of these a smaller proportion are in lower quintile areas (28 percent in quintiles 1 and 2), while the majority of unregistered urban centres are those in quintiles 3 to 5 (28, 21 and 23 percent, respectively). This is contrary to prior reports that suggest a greater focus on registration is needed in low-income urban areas (Department of Social Development, 2014).

Greater efforts of streamlining the registration status need to be made, particularly in provinces such as the North West and Gauteng. Limpopo still remains the province with the highest proportion of registrations, as per prior reports (Department of Social Development, 2014). Learning and adapting registration intervention efforts carried out in Limpopo may be beneficial.

The allocation of subsidies remains unequal

Arguably, one of the most pressing reasons to centralise the ECD centre database is to inform the better allocation of resources to improve service quality and child outcomes. The highest poverty rates for young children are in Limpopo, KwaZulu-Natal and the Eastern Cape (Hall et al., 2019). The Census shows that while a large proportion of centres in these provinces do receive DSD subsidy support, a higher proportion of ECD centres in the Free State also report receiving DSD subsidies.

In the 2013 audit, 69 percent of fully registered centres reported receiving a subsidy from DSD, a sharp increase from 25 percent in 2001. Currently, this is estimated to be even higher, at 78 percent of fully or conditionally registered centres. The 2013 estimates showed that a small proportion (6 percent) of unregistered centres also reported receiving subsidies, but the current estimate has increased to 14 percent. This inconsistency could either be a result of incorrect data capturing in the field, although the data capture form was programmed to alert the fieldworkers to potential mistakes such as this one when they entered the information on their tablets, or a reflection of challenges in the record keeping of ECD programmes by DSD. The truth is likely a combination of both factors, although it is worth considering that it is impossible to investigate the extent of bad record keeping due to the lack of a central database of subsidised programmes, which in itself could be seen as an obstacle to ensuring the accuracy of subsidy payments. Furthermore, a small proportion of programmes that receive subsidies but are not conditionally or fully registered in the 4th and 5th quintile report receiving DSD subsidies. This further reiterates the need for central oversight and the important contribution of the Census to both reliable data efforts, as well as informing the move towards a centralised information system to improve resource allocation.

Even school-based or school-affiliated programmes remain unregistered

The Census is consistent with prior reports that roughly 12 percent of children were at school-based programs, which is slightly lower than 2001 estimates of 19 percent. In terms of registration status, the 2001 audit found that most school-based sites were registered, this was later estimated to be 44 percent in 2013. However, Census estimates show that about half (49%) of school-based sites do not have any registration (full or conditional) with the DSD. Furthermore, this percentage is distributed across all quintiles. The fact that even school-based programmes distributed across all quintiles are not registered, points to red flags in the registration process and the need for streamlining, or easing this process.

Current distinctions between types of ELPs are not reflected in the data or on the ground

The government's National Integrated Early Childhood Development Policy (DSD, 2015) distinguishes between ECD Centres, child-minders (or "or day mothers") and playgroups, among others, as different types of ELPs. In practice, these distinctions are often difficult to establish. For one, ELPs themselves often do not classify themselves according to these categories (e.g. they would call themselves a creche or preschool), and if they do, they do not always fulfil the official criteria of the category they have chosen. For example, 18% of only 320 ELPs with "day mother" in the name have more than six children enrolled although the day mothers are supposed to look after only six or less children. Similarly, playgroups which are supposed to be attended by children in the company of their parents or caretakers not more than three days a week often seem indistinguishable from what is commonly referred to as ECD Centres.

Staffing

Staffing seems consistent

Consistent with prior estimates, practitioners and educators account for nearly half of the ECD sector staff. On average, there is not much of a difference across the percentage of staff that are practitioners by registration status. Differences occur for managerial staff and educators, where they account for a larger proportion of total staff at unregistered centres. This could be because unregistered centres enrol fewer students on average. Support staff such as cooks, cleaners and security guards account for a larger proportion of staff at registered centres. Consistent with prior reports, the vast majority of staff are female.

Ratios seem to have improved

The average ratio of children to practitioners and educators (this excludes support staff) is on par with previous estimates and data shows improvement over the past few years. In 2013, this was reported to be 20.6 (with assistants) and 22.3 (without assistants). The Census shows that this is 17.9.

Unregistered centres typically have lower ratios, possibly due to their smaller relative size than registered centres. However, by province, the Eastern Cape is still faced with higher ratios.

Qualifications of practitioners have improved but still need work

Close to half of the teaching staff working in the ECD sector are not trained and qualified at the desired level (excluding non-accredited skills programmes). The 2001 audit data showed that the majority of practitioners (63%) either had no ECD training or received training from an NGO that was not accredited by the Department of Education. In the 2013 audit, a similar percentage (61%) of practitioners had no specialised ECD training. The current data suggest that there seem to have been improvements as 52% of teaching staff have an NQF qualification.

A higher proportion of staff at registered centres hold NQF qualifications which may be translated to better service quality. If qualifications are a barrier to registration, offering additional training or professional development activities at unregistered centres, particularly in the Free State and Limpopo may help with obtaining registrations.

Lastly, there remains inequity across race in line with the 2001 audit. Average educator qualifications for predominantly black-African centres remain lower than non-black-African dominated centres, on average.

Infrastructure and Operations

Accessibility seems consistent

The findings regarding ECD centres' days of operation are similar to that of the 2013 audit, which suggests that caregivers generally use non-centre-based care if they work over weekends. Only 2.5% of ECD centres are open at least 6 days per week, this is consistent with the 1-3% estimate from 2013.

In KwaZulu-Natal, the Eastern Cape, and Northern Cape, the majority of centres operated for less than nine hours per day in 2013. In contrast, registered centres in the Western Cape and Gauteng centres stayed open for longer. While the Census is consistent with lower opening hours in KwaZulu-Natal, the Eastern Cape, and Northern Cape, on average, unregistered centres stay open for longer hours in comparison to registered centres (with the exception of the Northern Cape).

The majority of informal structures are unregistered

Infrastructure is critical in the provision of high-quality services and conducive learning environments. The 2013 audit found that most ECD centres are located in formal structures. The Census is consistent with these prior findings with only 11% being housed in informal or container structures and 3% in mud dwellings.

The great majority, 86%, are located in conventional brick dwellings, and of those 60% are (conditionally) registered with DSD or in the process of registering. In comparison though, only 38% of ELPs not housed in formal structures are registered with DSD.

Electrification and sanitation largely the same compared to earlier audits

Results from the 2001 audit showed that 53% of sites had electricity, piped water, and flushing toilets, whereas 8% of sites had no access to any of these basic services. The 2013 audit showed that 56% of programmes had flushing toilets and 80% had access to piped water. Fewer than 2% had no toilets of any kind. With respect to electricity, 83% of programmes had electricity for lighting and 53% for cooking, whereas 8% had no energy source for lighting and 1.5% had no energy source for cooking.

The Census produced very similar results in terms of electricity for lighting (85%), and consistency with regard to running water (81%; including public taps) and lack of access to a toilet (2%).

Consistency across meals provision, safety and transport

Virtually all ECD programmes incorporate at least one meal time into the daily programme, usually lunch or breakfast. Children at most centres appear to be relatively safe, with almost all centres having a fence or a lockable gate. Only a small percentage of ECD programmes offer transport for children attending the ECD programme. These results are all consistent with those from the 2013 audit.

Registered programmes have more Learning and Teacher Support Materials (LTSM)

In 2013, most provinces reported insufficient and poor condition of materials for arts and craft, and music and movement. This was similar across registration status. The Census shows that registered programmes typically have more materials on hand, with starker differences across Limpopo, Mpumalanga and the Eastern Cape. This suggests that registered programmes are better positioned to provide quality service.

In summary, the Census shows a lot of consistency with prior estimates relating to the distribution of staff, health, sanitation, and usage of other facilities or services. Improvements are noted in staff ratios, however as previously stated – the lack of comparably reliable data hinders this conclusion. The Census illuminates differences in quality by staff qualification, materials access, and infrastructure by registration status. It is shown that registered centres have more qualified staff and support materials that are conducive to better learning environments. The fact that learners at unregistered centres may spend longer hours in environments with less qualified staff, and materials for stimulation, point to the need for a boost in professional development activities as well as materials provision in unregistered centres.

Learning through Play

Both the LEGO Foundation and the DBE share a common belief that play-based approaches to early learning are the key to achieving positive holistic developmental outcomes for children. In this respect, giving children agency in their own learning is fundamental, but results suggested that practitioner attitudes didn't always reflect this, and mostly valued the role and agency of the teacher over that of the child.

Also, relatively little time is allocated to free play – both indoors and outdoors and materials and equipment that lend themselves to free play, such as fantasy toys and sand pits, are less common than other types of toys. Another concerning finding was that almost a third of ELPs didn't have a suitable outdoor playground facility. Additionally, we know the importance of children having access to picture books and shared reading, but almost half of ELPs didn't have age-appropriate books available.

These attitudes shift somewhat in the higher quintiles where more agency is given to children. Overall though, the impression left by the findings is that LtP remains an undervalued tool amongst ECD practitioners. This finding indicates the need for more awareness raising around LtP and play-based practitioner training to fully leverage the value of LtP in a resource-strapped ECD environment.

The data also shows that subsidised ELPs, and higher-quintile ELPs, have access to more educational materials and toys. This points to a general lack of resources in the sector and it supports the call for stronger government support.

NEXT STEPS

The ECD Census marks a crucial milestone on the way to a better functioning ECD system in South Africa but there is a lot of important work still ahead. One of the first tasks will be the integration of the list of ELPs into DBE's Education Management Information System so sites of early learning for young children can receive the same attention as schools.

This will dovetail with an effort to build out and pilot a tailor made ECD Management Information System (MIS) at both national and provincial levels. Ultimately, this MIS will incorporate modules for registration, funding, and quality assurance and support. Provinces will play a central role in the continuous effort to maintain the database of ELPs.

The Census data is already being used to inform policy decisions and resource planning. We expect that it will lead to an expansion of the existing support programmes to ELPs as decision makers both in government and civil society will be able to target the allocation of resources more effectively.

An anonymised version of the dataset will be made available to the public via DataFirst at the University of Cape Town, which, together with other recently published datasets such as the Thrive by Five Index, we hope will spark a new wave of research into ECD in South Africa.

Additionally, a detailed set of provincial profiles will be published alongside policy briefs and a basic dashboard where the public will be able to engage with the data and insights.

REFERENCES

1. Atmore, E., Van Niekerk, L., & Ashley-Cooper, M. A. (2012a). Early childhood education: The difference between policy and reality. J. Hofmeyer.(ed.). *Transformation Audit*, 81-87.
2. Atmore, E., Van Niekerk, L. J., & Ashley-Cooper, M. (2012b). Challenges facing the early childhood development sector in South Africa. *South African Journal of Childhood Education*, 2(1), 120-139.
3. Biersteker, Linda & Dawes, Andrew & Hendricks, Lynn & Tredoux, Colin. (2016). Center-based early childhood care and education program quality: A South African study. *Early Childhood Research Quarterly*. 36.
4. BRIDGE, Illifa Labantwana, the Nelson Mandela Foundation, National ECD Alliance, SmartStart, SA Congress for ECD. 2020a. *The Plight of the ECD Workforce: An urgent call for relief in the wake of covid-19*.
5. BRIDGE, Illifa Labantwana, National ECD Alliance, SmartStart, SA Congress for ECD. 2020b. Second Survey Assessing the Impact of COVID on ECD.
6. Dawes, A., Biersteker, L., Girdwood, L., Snelling, M. and Horler, J. (2020). *Early Learning Programme Outcomes Study Technical Report*. Cape Town: Innovation Edge and Ilifa Labantwana.
7. Department of Education. (2001a). *Education White Paper 5 On Early Childhood Education: Meeting The Challenge Of Early Childhood Development In South Africa*. Pretoria: Department of Education.
8. Department of Education. (2001b). *Nationwide audit of early childhood development provisioning*. Pretoria: Department of Education.
9. Department of Education, Department of Health, Department of Social Development & UNICEF. (2005). *National integrated plan for early childhood development in South Africa 2005–2010*. Pretoria: Department of Education.
10. Department of Basic Education, Department of Social Development, & UNICEF. (2010). *Tracking public expenditure and assessing service quality in early childhood development in South Africa*. Pretoria: Department of Basic Education.
11. Department of Basic Education. (2015a). Second & third quarterly reports on the performance of the department in meeting its strategic objectives for 2014/15. In: *Presentation to the portfolio committee of basic education, South African parliament*. Pretoria: Department of Basic Education.
12. Department of Basic Education. (2015b). *The South African national curriculum framework for children from birth to four*. Pretoria: Department of Basic Education.
13. Department of Basic Education. (2019). *General Household Survey (GHS): Focus on Schooling 2019*. Pretoria: Department of Basic Education.
14. Department of Social Development (2014). *Audit of early childhood development (ECD) centres*. Pretoria: Department of Social Development.
15. Department of Social Development (2015). *National Integrated Early Childhood Development Policy*. Pretoria.
16. Gustafsson, M. (2017). *Enrolments, staffing, financing and the quality of service delivery in early childhood institutions*. Unpublished report.
17. Hall, K., Sambu, W., Berry L., Giese, S., & Almeleh, C. (2017). *South African Early Childhood Review 2017*. Cape Town: Children's Institute, university of Cape Town and Ilifa Labantwana.
18. Hall, K., Sambu, W., Almeleh, C., Mabaso, K., Giese, S., & Proudlock, P. (2019). *South African Early Childhood Review 2019*. Cape Town: Children's Institute, University of Cape Town and Ilifa Labantwana.
19. Jamieson L., Bray R., Viviers A., Lake L., Pendlebury S & Smith C. (eds) (2011) *South African Child Gauge 2010/2011*. Cape Town: Children's Institute, University of Cape Town

NOTES

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because children count

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