Schools in the time of COVID-19: Possible implications for enrolment, repetition and dropout

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SCHOOLS IN THE TIME OF COVID-19:

POSSIBLE IMPLICATIONS FOR ENROLMENT, REPETITION AND DROPOUT

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ABSTRACT

One needs good quality data on current enrolment, dropout and repetition in order to evaluate the possible implications of different repetition and dropout decisions by school authorities, learners and parents for enrolment numbers and for the composition of classes in 2021. We obtained learner level data from LURITS, a relative recent way of organising and managing enrolment data that has superseded the Annual National Census of Schools. Though far from perfect, this data give good information about the extremely high levels of repetition. High repetition leads to many learners being over-aged and to dropout being quite common in secondary school. Assessing various alternative scenarios about learners returning to school, repetition and dropout, we conclude that the most likely outcome for 2021 is that considerably more learners would be promoted to grades 11 and 12 in particular, with implications for allocations of classrooms, books and teachers, with a decline of repetition in Grade 10. Learners in all grades would have a learning deficit compared to previous years, but in addition, the heterogeneity of academic backgrounds would be even greater than usual in 2021 in the final two grades, confronting teachers with an even more difficult task than usual.

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1. BACKGROUND AND INTRODUCTION

1.1 Background

This research project stems from a discussion between individuals from Resep and the DG Murray Trust about rethinking some issues relating to South African education in the context of the Covid-19 pandemic, the lockdown and the economic recession. This gave rise to inter alia a research project on *Schools in the time of Covid-19*, with two parts to it, one investigating the implications of the Covid-19 pandemic for flows through the school system, on which this paper is based, and the second part investigating the effect of the pandemic for shortened curricula and curriculum planning more generally. This second part of the research was coordinated by Ursula Hoadley, and is available as a separate Working Paper (Hoadley 2020).

The pandemic has devastating economic consequences. These include the direct effects of the virus, the effect of people's attempts to avoid being infected and the effect of the lockdown introduced to reduce the health impact of the virus. Moreover, domestic economic effects have been exacerbated by a global recession that is more sudden than anything seen before, and quite severe in its impact. South Africa has been struck by the pandemic at a time when its domestic economy was weak and public resources constrained, and when the country was trying to recover from a decade of state capture.

The pandemic will impact on education and the situation of children and youths in a number of ways, some of which will receive attention in other current Resep research. This paper deals with issues related to enrolment, promotion, repetition and dropout.

The school year has been shortened and curricula had to be adjusted. It remains to be seen how well the shortened curricula will be covered, and whether these new curricula provide an adequate foundation for subsequent grades. In the early grades, it is known that the reading, writing and mathematics ability of South African school children is already far below par if compared in an international context. Shortening the school year will probably simply add to the problem of inadequate preparation for the next years of the Foundation Phase, or even the Intermediate Phase.

It is unclear what the effects of incomplete coverage of the curriculum in the shortened academic year will be. How well can even a shortened curriculum be covered? Will curriculum changes have knock-on effects for subsequent grades? Given a reduced and hastily covered curriculum, greater leniency may perhaps be shown to struggling learners. The possible consequences for repetition, flow-through and class sizes need to be understood to direct advocacy efforts.

Usually, repetition rates are high in the last few school grades, and consequently, so is repetition. This has been no ordinary year, however, and the education authorities have still made no clear decisions on how to apply repetition policy this year. There are views that it would be unfair to hold children back at the end of the year in a situation where there is only limited opportunity to test their performance, against criteria that are unclear because of the trimmed curricula, and where their opportunities to learn were severely curtailed by circumstances. On the one end of the spectrum there is a view that everyone should pass, and that they should rather be tested again at the end of the next grade. At the extreme other end of the spectrum is a view put forth by some academics that the whole year should be repeated, and that this should apply to everyone, a policy that was implemented in Kenya. In between there are varying views, e.g. that the current year's curriculum should continue for a few months into 2021, before learners are promoted to the next grade, where they will also have to

have a trimmed curriculum. Something along those lines may have been what was implied by the Minister in a recent Press Statement where she said

> *All teachers know that catching-up lost learning, or learning recovery, is not an easy quick activity but requires a lot of dedicated time. This will include a concerted effort by both parents and teachers and will need to extend into the 2021 academic year. To allow for this, we have revised the Annual Teaching Plans to extend to next year. (Motshekga, 2020)*

But there are also other options. Many teachers and also parents appear reluctant to accept a policy where everyone is promoted to the next grade, if that were to apply also to those learners who have not returned to school since the schools reopened. So it is quite possible that we may see a policy that combines a decision that learners who have not returned for a substantial part of the last semester of 2020 would not be allowed to progress to the next grade, while all those who did return could be promoted on the strength of the fact that they have not been given a 'fair opportunity' to complete the 2020 work and that it would be fairer to test them at the end of 2021. In the final part of this paper, possible consequences of alternative repetition policies in 2020 for enrolment in 2021 are investigated.

1.2 Covid-19 & school closures

The number of school days that have been lost due to the school closures varies because of the way the lockdown was imposed and return to school was scheduled and managed. The school calendar that was to apply for the rest of the year when school reopened in August would have implied that learners would attend school for between 119 and 168 days, depending on the grade, compared to the normal approximately 200 school days. These numbers exclude matriculants, who have a shorter calendar for instruction before starting their exams. However, lack of readiness for reopening meant that some schools only opened later, children or teachers being positively tested for the virus led to many schools closing again for a period, and also, to manage social distancing, most schools adopted a system of rotating attendance, where learners in each grade would alternate attending school on a daily, weekly or bi-weekly basis. This meant an additional 40 to 60 days that children could not attend school.

1.2.1 SCHOOL CLOSURES AND LEARNING LOSS

In a recent statement, the Minister of Basic Education, Ms Angie Motshekga, referred to the loss of schooling days and the consequences for learning as well as for planning for next year:

> *'We are all aware that many days of schooling has been lost this year, especially in the early grades. This could lead to long term learning losses, and increase the inequality in learning outcomes even further. This situation makes it more urgent than before to provide sufficient support to teachers in teaching reading. All teachers know that catching-up lost learning, or learning recovery, is not an easy quick activity but requires a lot of dedicated time. This will include a concerted effort by both parents and teachers and will need to extend into the 2021 academic year. To allow for this, we have revised the Annual Teaching Plans to extend to next year.' (Motshekga, 2020)*

Information about the extent of learning loss is at this stage very limited, and largely confined to experiences in single schools or small groups of school. Learning loss is likely to be greater than simply the part of the year that was lost to teaching and learning. In addition, there are large differences in the ability of parents to support children's work at home, and also differences in the learning opportunities offered by the school even during the school closures. Indeed, in the first major international study of such learning loss during the pandemic that has become available, it is found

that learning loss amongst Flemish children in a grouping of Belgian Catholic schools was large, and also differed between as well as within schools along socio-economic lines (Maldonado & De Witte, 2020).

2. THE RETURN TO SCHOOL

2.1 Data

When examining the amount of schooling lost, it is important to examine school attendance following the re-opening of grades. At the time of writing in November 2020, there is still no systematic and complete attendance data available from government, despite this being an important metric for evaluating learning losses. This is symptomatic of a greater administration problem, and it is therefore fortunate that the NIDS-CRAM survey provides data from which some idea of school attendance can be gathered.

Data and information are crucial in uncertain times. During the lockdown, Statistics South Africa had to stop fieldwork. Resep then initiated an inter-university project, supported by government, to monitor living conditions over six months, using a telephone survey.[1] NIDS-CRAM (Coronavirus Rapid Mobile Survey) collected information in its first wave from a broadly nationally representative sample of 7 000 respondents drawn from the National Income Dynamics Study (NIDS) panel survey; after attrition of 20%, the second wave of about 5 600 respondents was still broadly representative. The survey draws on the background information of respondents collected in five earlier NIDS waves to supplement the limited short telephone survey. This data set provides important information on school attendance regarding education and the position of children and youth in this time of rapid change, and some other issues that will be discussed in this report.

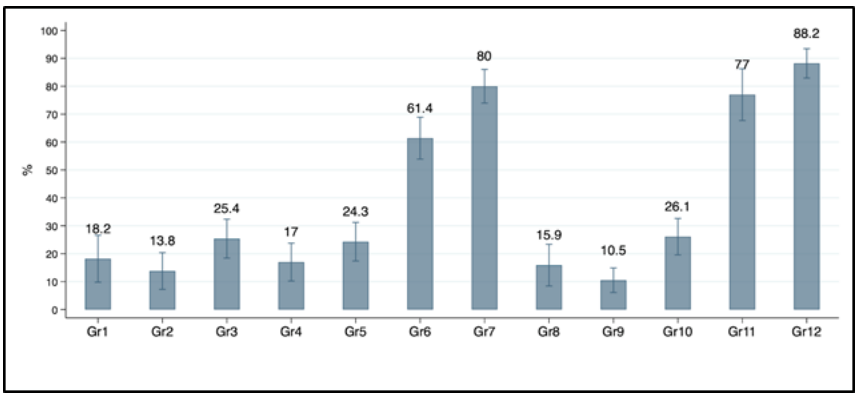
2.2 What the NIDS-CRAM data tell us about the return to school

Mohohlwane, Taylor & Shepherd (2020) did a thorough investigation of the NIDS-CRAM Wave 2 data insofar as it pertains to education, to examine attendance rates in July, prior to schools closing for the second time. This forms the information used in this section of this paper.

From the work of Mohohlwane et al (2020), it can be seen that even in so-called 'open' grades (grades 6, 7, 11 and 12, which were allowed to return to school first), attendance was still not nearly 100 percent, while in 'closed' grades, attendance was not zero (Figure 1). This indicates that there was no strict adherence to school closure policies, but also that schooling did not return to normal even for those grades that were allowed to return to school.

[1] *http://resep.sun.ac.za/how-does-south-africas-covid-19-response-compare-globally-a-preliminary-analysis-using-the-new-oxcgrt-dataset/*

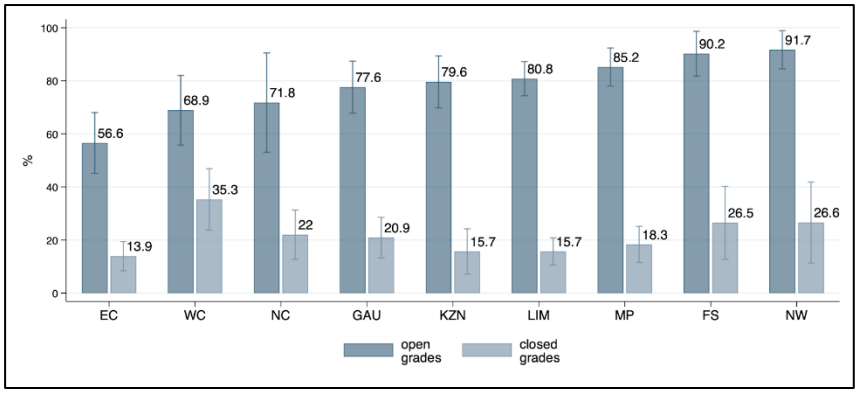
Figure 1: Attendance rates by grade in July prior to closure



Source: Source: Mohohlwane, Taylor & Shepherd 2020.

The Eastern and the Western Cape were the two provinces with the lowest attendance rates for open grades in July. This may have been because these two provinces were initially the provinces hardest hit by pandemic, but strangely the Western Cape had the highest attendance for closed grades of all of the provinces.

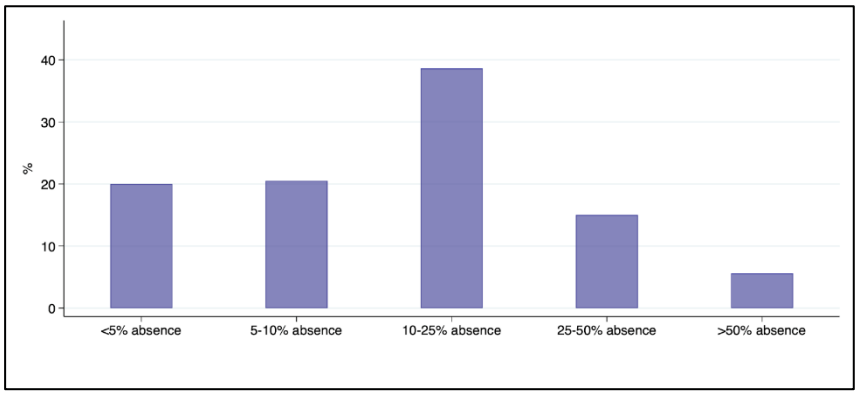
Figure 2: Attendance rates by grade in July prior to closure



Source: Mohohlwane, Taylor & Shepherd 2020.

One source of data from government is absenteeism as reported by school principals, in a survey of 611 schools, focussing on open grades in early July. From the results of this survey, absenteeism rates appear to cover a wide range (Figure 3). Although 20 percent of school principals reported less than five percent absenteeism, which is quite close to normal, approximately three quarters of school principals reported between five and fifty percent absenteeism. On average, absenteeism of approximately 17 percent was reported. Thus significant numbers of learners did not return to school when their grades reopened.

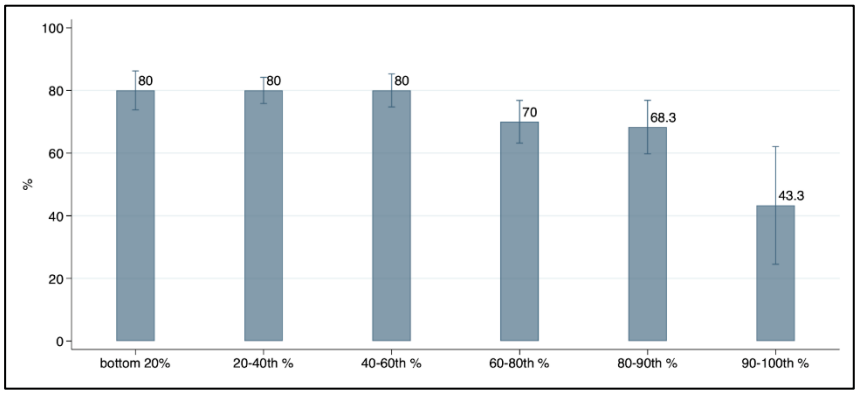
Figure 3: Rates of absenteeism reported by school principals in July 2020



Source: Mohohlwane, Taylor & Shepherd 2020.

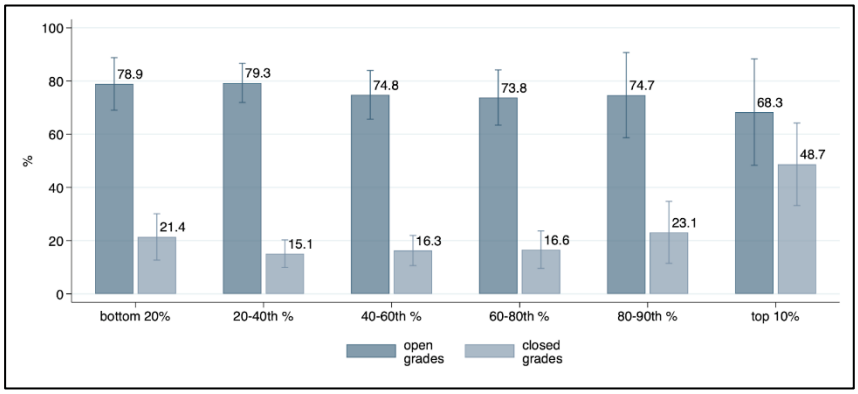
Although the richest 10 percent of the population appear less concerned about children in the household returning to school (Figure 4), attendance in open grades does not differ significantly according to learner socioeconomic status (Figure 5). On the other hand, the richest 10 percent of learners in closed grades have far higher attendance than poorer learners, perhaps as a result of more of these learners attending private schools that did not phase in return to school according to grades.

Figure 4: Level of concern about return to school by quintile/decile



Source: Mohohlwane, Taylor & Shepherd 2020.

Figure 5: Attendance by SES quintile/decile in July

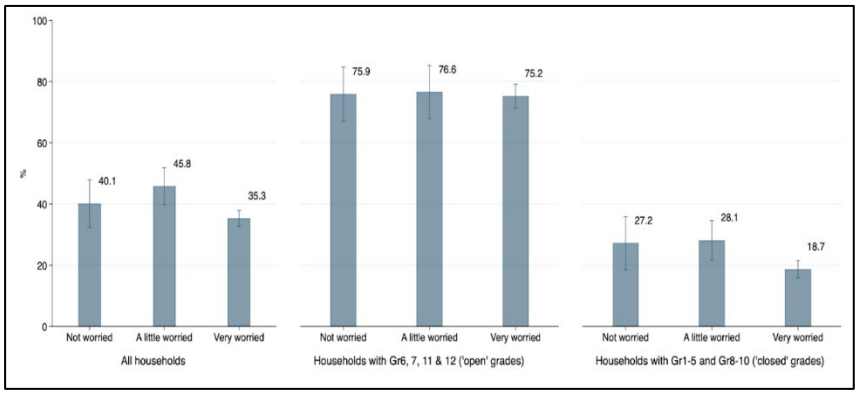


Source: Mohohlwane, Taylor & Shepherd 2020.

Interestingly, return to school appears to have been relatively unaffected by how concerned parents are about their children returning to school, although respondents in NIDS-CRAM reporting that they were “very worried” about the return to school reported lower attendance than those reporting

themselves to be “not worried” or “ little worried”, but the differences are not statistically significant. This indicates that other reasons may exist for learners not attending school.

Figure 6: Attendance in July by level of concern about return to school



Source: Mohohlwane, Taylor & Shepherd 2020.

2.3 Conclusion on the return to school

From the above, it is clear that there has been no complete return to school. This is indeed very much in line with the experience in many other countries where schools have reopened. In South Africa’s case, this may mean that many learners do not return to school before the end of the year. If this should be the case, it is likely to have implications for repetition policy and perhaps also for dropout, as will be considered in Section 3, where we turn to enrolment scenarios.

3. ENROLMENT ANALYSIS

3.1 Research questions and methodology

Will dropout at this stage be dissimilar from other years? It is necessary, for instance, to determine what the implications will be of greater leniency in pass rates for enrolment, progression, dropout and class sizes at different levels. This is potentially particularly important at Grades 10 and 11, given historically high dropout rates in Grades 9 and 10, and high repetition rates in Grades 10 and 11.

The methodology in this part of the report is to utilise available data sources (discussed in the next sub-section, 2.2), to present a short literature review on the topic of enrolment, repetition and dropout (in sub-section 2.3), and to investigate current and past patterns of progression, repetition and dropout (in the following sub-section, 2.4), similar to earlier Resep research. This background and that in the previous section will be used to arrive at a few alternative scenarios affecting repetition policy and behaviour of learners that will be the subject of Section 3, along with the possible implications of these scenarios for future enrolment numbers.

3.2 Data

The Department of Basic Education has given Resep the LURITS datasets for 2017, 2018, 2019 and 2020, after the data had been anonymised. LURITS is the acronym for the Learner Unit Record Information and Tracking System, and has in recent years replaced the data that were historically collected from schools using the so-called EMIS (Education Management Information System) tables. In principle, each learner should have a unique number assigned to her that will follow her if she should move to another school in any province. That system is not yet fully operational, however, with the

consequence that tracking learners remains difficult. For instance, 27% of learners who were in Grade 7 in 2018 could not be found in Grade 7 or Grade 8 in 2018; this is the grade where learners move between primary and secondary school, and few learners drop out at this stage. This makes it impossible to calculate dropout rates, as learners who have 'dropped out' of LURITS may simply be the same ones found at another school that have 'dropped in' to LURITS, because their unique learner number is not maintained.

The data underlying LURITS is obtained from individual schools, most of which keep their records electronically, with SA-SAMS (the South African Schools Administration and Management System) being the main management system used for this purpose. The Western Cape does not use SA-SAMS, but a system similar to LURITS that predates LURITS, known as CEMIS, from which the Western Cape's LURITS data is derived.

The quality of data management within schools and reporting of such data to higher levels in the education system are still quite varied, thus enrolment numbers appear to jump quite erratically in some schools across years. Failure to improve this data management and particularly to get the unique learner identification number functioning well means that this potentially extremely powerful system is still functioning below its capacity, and careful analysis is necessary in some cases to avoid drawing erroneous conclusions. Nevertheless, after considerable investigation it was decided to use the 2018 LURITS data as the core data for analysis.

3.3 Literature overview on repetition and dropout

Until recently, limited data was available on school repetition and dropout, and as a result these issues took a back seat to other education problems in terms of policy focus and education research. A confounding factor is that repetition and dropout reporting and calculations are often problematic or misunderstood (DBE, 2006; Crouch, 2005; Simkins, 2013). However, in recent years, repetition- and dropout-specific questions have been included in the General Household Survey (GHS) and National Income Dynamics Study (NIDS), and some researchers have been able to access administrative datasets, resulting in more research on the subject, despite results still varying according to the data used.

Officially, according to the Admission Policy for Ordinary Schools (Department of Education, 1998) repetition is allowed once per school phase, where phases consist of the Foundation Phase (Grades 1 to 3), the Intermediate Phase (Grades 4 to 6), the Senior Phase (Grades 7 to 9) and the Further Education and Training (FET) phase (Grades 9 to 12). While mostly adhered to in earlier grades, the policy was largely ignored in the FET phase until 2013, when it was specifically endorsed for this phase (DBE, 2012). Kika and Kotzé (2018) use NIDS data and determine that although the policy is not strictly adhered to in the FET phase, it resulted in a large decline in the number of learners repeating more than once, which in turn led to a decrease in overall repetition rates for the period 2013-2016, although these rates have increased since the study was conducted. Regarding overall repetition, South Africa's repetition policy does not cap repetition numbers and therefore does not keep repetition numbers low.

A study conducted in 2019 (Van der Berg, Wills, Selkirk, Adams & Van Wyk, 2019) highlighted the large numbers of learners repeating in the South African education system, with the associated costs of this repetition estimated to amount to at least 8% of the national basic education budget in 2018/2019. This repetition is mainly concentrated in the FET phase (as a result of schools holding back weaker learners in order to maintain good matric pass rates), but there also exist "peaks" in repetition at the

start of each phase (namely Grades 1, 4, and 8[2] and 10), indicating that in the absence of the promotion policy, many learners would repeat more than one in a phase.

For those favouring repetition, it is heralded as a positive remediation method to reduce learning deficits in later grades, to encourage learners to put effort into learning, and to reduce heterogeneity of learner capabilities which poses difficulties in teaching to the right level for teachers that already struggle to produce adequate learning outcomes. However, it is argued by others that repetition is strongly linked to later dropout, and that since repetition is more concentrated in poorer schools, repetition perpetuates social inequalities. The usefulness of repetition in South Africa is cast into doubt with repetition having been described as "a lottery" in the past (Lam, Ardington & Leibbrandt, 2011; Branson & Lam, 2010), with assessment practices and correct identification of repeaters appearing to be problematic in less functional schools (Van der Berg & Shepherd, 2015; Van Wyk, Gondwe & De Villiers, 2017; Von Fintel & Van der Berg, 2017).

Repetition has been linked to dropout in a number of international and developing country studies (Roderick, 1994; Jimerson, 2001b; Jimerson, 2002; Glick & Sahn, 2010; Andre 2009; Manacorda, 2012), although only in some grades in the case of Jacob and Lefgren (2009). Furthermore, a meta-analysis of repetition studies found that only around 5% of 175 studies found an improvement in repeaters' academic performance (Jimerson, 2001a). Lorence (2014) proposes that repetition too early (Grades 1 or 2) may have detrimental effects, but that repetition too late is ineffective at improving academic achievement. South Africa has universal enrolment in Grade 1 and good learner retention in primary school (Bashir et al, 2018), but significant numbers of learners drop out in secondary school, with the most likely dropouts being learners who have failed or were failing their current grade, and learners who repeated once or more in earlier grades, resulting in them being classified as overage (Van der Berg et al, 2019a).

Challenges associated with correctly identifying dropout from administrative data, even data not publicly available, are brought to light in Gustafsson (2017), Van der Berg et al (2019a) and Van der Berg, Van Wyk, Selkirk, Rich & Deghaye (2019b). As a result, not many studies have examined South African dropout. Individual analysis of school flows identifies quality issues with the data in terms of missing or inaccurately recorded information and unique learner identifiers that do not always migrate with learners moving between schools. This implies that dropout figures likely overestimate dropout, while at a learner-level dropout identification is still not accurate until better data quality is obtained.

Branson, Hofmeyr and Lam (2013) used NIDS to investigate dropout between 2008 and 2010 and confirmed international findings that repetition (as identified by overage learners) was associated with higher risk of dropout, a finding confirmed by Van Wyk, Gondwe & De Villiers (2017), who found that as many as 75% of Grade 9 repeaters dropped out within the next four years. Potential reasons for dropout are given as pregnancy for females, academic difficulties for both genders (Gustafsson, 2011; Gustafsson, 2015; Branson et al, 2013), and financial reasons (looking for work) mainly for males (Branson et al, 2013).

3.4 Education in 2020 under the Covid-19 pandemic

By 1 April 2020, 89% of the learners globally had been affected by school closures (UNESCO, 2020a), and this number grew over subsequent months. The global Covid-19 pandemic resulted in school closures around the globe in order to slow down the spread of the virus. In South Africa, schools first

[2] Grade 7 is really the start of the Senior Phase, but in this last grade of primary school, schools appear to avoid having excessive repetition rates. When learners enter secondary school in Grade 8, however, many schools are concerned about the academic background of these new learners and hold many of them back.

shut down in March, with a staggered return beginning in June that was once again halted in July with only Grades 6 and 7 and 11 and 12 learners returning to school before 24 August 2020. Although some schools implemented remote learning, for the majority of schools there has been a significant number of school days lost, from which we can infer substantial learning loss has taken place during the 2020 academic year. Schools worldwide also reported concerns about learners' health and wellbeing in terms of nutrition, social isolation and other psychological effects under school shutdowns (UNESCO, 2020c), indicating that detrimental effects of the shutdowns extend beyond simply school days lost. A World Bank report (2020:12) also note the detrimental effect of school closures on attachment to school:

> *"For some children and youth, being out of school may cause disengagement and reduce their schooling persistence. Children who were already tenuously connected to school could be further discouraged, making them especially vulnerable to dropping out as the economic shock hits. For instance, interest in going back to school may be much lower for vulnerable or struggling students if they feel they will not be able to catch up due to school closures and if schools do not offer extensive support for remedial learning."*

Although it is too early to know what effect school shutdowns have had on repetition and dropout, there have been numerous studies examining school attendance rates, which are likely to affect both dropout and repetition in most school systems. The first European country to allow learners to return to schools was Denmark, which found between 80% and 90% of primary school learners returning to school. Korea opened schools for distance learning, with nearly 99% attendance of online classes, while countries like Mexico adopted a two-phase approach to school return, and Sierra Leone used its experience from past Ebola closures to deliver remote learning and school readiness measures (UNESCO, 2020b). Upper middle-income countries like Armenia faced difficulties in implementing distance learning, while countries such as Canada faced fewer difficulties with the transition (UNESCO, 2020d).

Schools' ability to teach remotely is dependent on four forms of "readiness": technological readiness, content readiness, pedagogical readiness, and monitoring and evaluation readiness (UNESCO, 2020d). In the context of South Africa, it is reasonable to assume that the majority of South African schools do not fare well under these readiness criteria and as a result remote teaching has not been a solution to avoid learning losses, although there may be exceptions in some schools. Regarding attendance in South Africa, Mohohlwane, Taylor and Shepherd (2020) evaluate the initial impact of school return using NIDS-CRAM and school attendance data and find that while high numbers of adults reported being worried about children returning to school, this did not have an effect on attendance rates. Overall, attendance rates in South Africa 2020 are lower than in previous years, but higher than might be expected given the concerns and disruptions to schooling in 2020. For grades open in August, attendance disaggregated by most learner and school characteristics is mostly between 77 and 88%, indicating high, but not universal, return to education after school shutdowns.

In previous school disruptions, it has been seen that vulnerable girls in Sub-Saharan Africa were more likely to drop out of school or to have had less access to remote learning resources (Rafaeli & Hutchinson, 2020). Higher dropout can be the result of increased care-burdens stemming from school closures, as well as increases in gender-based violence and unplanned pregnancies affecting female students. On the other hand, boys who are likely to drop out as a result of disengagement from school may be more likely to stay away from school once schools reopen, exacerbating existing male disadvantage in dropout in many countries (UNESCO, 2020e). Concerns have also been raised about widening inequalities along socioeconomic lines (Fortuna, Tolou-Shams, Robles-Ramamurthy & Porchel, 2020; Alvi and Gupta, 2020; Dorn, Hancock, Sarakatsannis & Viruleg, 2020), and in the past this has been found, where disruptions to schooling results in dropout among poorer learners (Reddy

and Sinha, 2010). For a country with as high social and educational inequalities as South Africa, this is cause for concern.

One policy recommendation to lessen widening inequalities is to prioritise identifying and reaching out to learners at risk of not returning to school, something that has not received sufficient attention in South Africa. A strong EMIS system has been observed to assist with monitoring school return and targeting support in Maldives and Montenegro (Nugroho, Pasquini, Reuge & Amaro, 2020), but previous findings on the limited reliability of South Africa's EMIS even under normal circumstances do not point to this being a reliable tool in South Africa's crisis response.

Although no official policy recommendations regarding repetition have been published in 2020, it appears likely that there will be strong public opposition to large scale repetition for learners who have returned to school, as it would be regarded as unfair to penalise them for not meeting appropriate the usual promotion requirements, as this may be largely due to school closures and learning loss that affected most learners in 2020 through no fault of their own. Automatic promotion may be the most acceptable decision. However, there may also be strong opposition among teachers and peer learners to promoting learners who have not returned to school to the next grade, except perhaps in some cases related to absence from school due to fears about children's susceptibilities to the virus due to co-morbidities. It can therefore be hypothesised that learners who have not returned to school will repeat the grade, should they return to school in 2021. In the absence of other interventions, though, dropout for learners not returning to school and who would be made to repeat could be quite high. We return to this issue in the scenario exercise.

3.5 Progression, dropout and repetition: Current patterns

3.5.1 ENROLMENT

Total enrolment captured in LURITS in 2018 is 16% less than that reported by the General Household Survey, at 11.4 million versus 13.2 million (Figure 7). This undercount in LURITS seems to be very consistent across grades, with the exception of Grade 1, where it is less[3], and in Grade 12, where the GHS numbers exceed the LURITS numbers by fully 38%. It is not clear why this is the case and whether matrics are even more undercounted in LURITS than in other grades, or whether responses to the GHS question may in some ways have contributed to an inordinately high estimate for matriculants in GHS.[4] The figure shows that the pattern of enrolment in LURITS and the enrolment numbers derived from the GHS is very similar, with similar peaks and troughs. Notable is the rise in Grade 3 or 4, another minor rise in Grade 8, and then a bulge in Grade 10. This pattern is well known and reflects the effect of the repetition policy and repetition practice. Learners are not supposed to repeat more than once in a phase, and repetition tends to be when learners enter a new phase: In Grade 1, then again in Grade 4, and then again in Grade 8 rather than in Grade 7, which is the beginning of the senior phase, as repetition is more inclined to occur in high school than in primary school. Such greater repetition is perhaps indicative of teachers not being very satisfied with the cognitive levels that many learners have achieved, and holding them back at the beginning of every phase.

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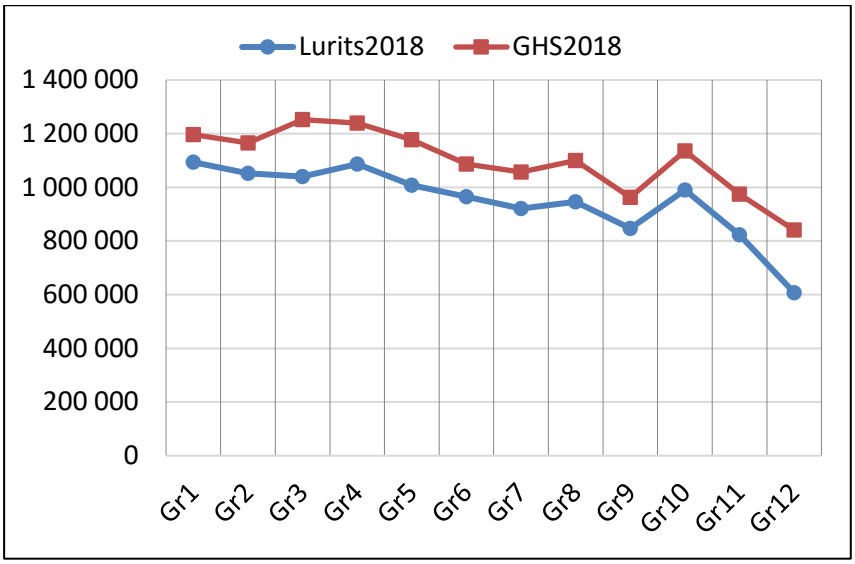
[3] Grade 1 enrolment can be estimated in GHS as all those reporting to be at school, and who have not yet completed Grade R. However, some enter Grade 1 without having been to Grade R, so the Grade 1 numbers in GHS would be an undercount.

[4] The 629 000 full-time matriculants that wrote the matric exam in 2018 indicates that the 608 000 captured by LURITS might be closer to reality than the 841 000 reporting in GHS being at school and having completed grade 11. This differences of more than 200 000 is twice as large as would have been expected based on the ratios applying for other grades.

Figure 7: Enrolment by grade according to LURITS and the General Household Survey, 2018



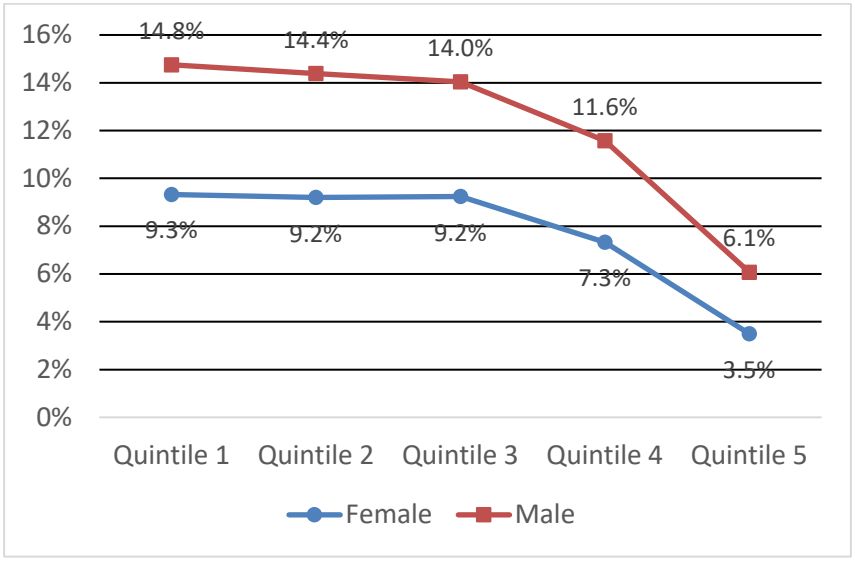
Source: Own calculations from GHS 2018 and LURITS 2018-19.

Despite the problems with the completeness of the LURITS data, the patterns across the data are broadly in line with expectations, and it is probably good enough to use for analysis of repetition and overage learners. Unfortunately, as will be shown, this is not the case for the dropout rate, which is completely over-estimated if LURITS data is taken at face value.

3.5.2 REPETITION

Repetition rates in South African schools are high. The average rates for each school quintile are shown for boys and girls separately in Figure 8. It is apparent that boys have a repetition rate that is at least 50% larger than that of girls in the bottom four quintiles, and the proportional difference is even larger in the top quintile. It should be noted that for both genders, there is little difference in repetition rates for the bottom three quintiles, but for both genders, repetition is a great deal lower for Quintile 4 and especially for Quintile 5 schools.

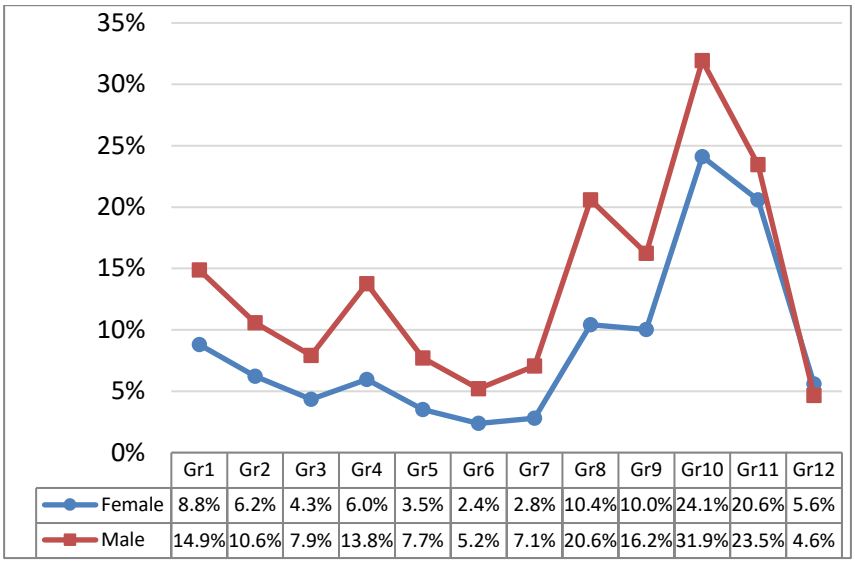
Figure 8: Repetition by quintile & gender, 2018



Source: Own calculations from LURITS 2018-19.

The difference in repetition between boys and girls is also evident in Figure 9, which shows repetition rates by grade and gender. The pattern across grades is very clear from this, with the higher repetition rates in Grade 1, 4, 8 and 10 quite evident, though rates remain high in Grade 11, despite the more lenient progression policy introduced in 2013. The DBE distinguishes "promotion" from "progression" where the former refers to continuing on to the next grade after meeting all the requirements whereas the latter is continuing on to the next grade without having met all the normal requirements for that grade. (Kika & Kotzé, 2018).

Figure 9: Repetition rates by grade & gender, 2018



	Gr1	Gr2	Gr3	Gr4	Gr5	Gr6	Gr7	Gr8	Gr9	Gr10	Gr11	Gr12
Female	8.8%	6.2%	4.3%	6.0%	3.5%	2.4%	2.8%	10.4%	10.0%	24.1%	20.6%	5.6%
Male	14.9%	10.6%	7.9%	13.8%	7.7%	5.2%	7.1%	20.6%	16.2%	31.9%	23.5%	4.6%

Source: Own calculations from LURITS 2018-19.

Repetition rates also differ greatly across provinces, as can be seen from Figure 10 and Table 2. It shows patterns of repetition by province, with the same underlying peaks in rates in Grades 1, 4, 8 and 10. For provincial comparison, it is useful to look at the final row in this table, which shows the average repetition rates across all grades for the different provinces. The greatest contrast is between Limpopo's 15.6% average repetition rate and the Western Cape's 7.6%. To shed further light on these two extremes, Figure 11 compares their repetition rates by grade. From this it appears that the differences are not great at primary levels, despite the generally better socio-economic background of learners in the Western Cape compared to Limpopo, but in high school there are large differences. Limpopo's repetition rate of 39.3% in Grade 10 is more than twice the 17.0% in the Western Cape.

It is important to keep in mind that the repetition rates are also affected by drop-out, just as repetition affects dropout. Where learners drop out, it is very often after they have failed a grade. Repeater numbers are obtained by observing learners who remain in the same grade from 2018 to 2019, usually also in the same school.[5]

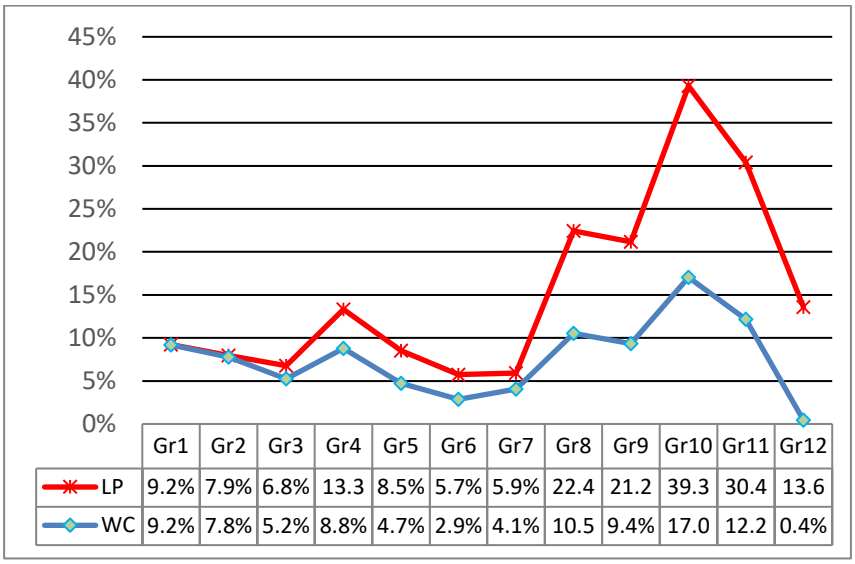
[5] *Due to the difficulty currently still experienced in tracking movement of children between schools in LURITS, it is very difficult to know how many learners drop out of a school and how many simply change schools (in which case they also may be repeating). The difficulty matching learners who move between schools is illustrated by the fact that 27% of learners who in 2018 were in grade 7 (usually the end of primary school) could not be tracked to another school in 2019, though it is clear that most of them did not drop out,*

Figure 10: Repetition rates by grade & province, 2018 (2019 repeaters as % of 2018 enrolment)

	EC	FS	GT	KZN	LP	MP	NC	NW	WC	TOTAL
Gr1	16.6	13.8	10.5	12.9	9.2	11.9	15.6	9.8	9.2	12.0
Gr2	11.1	9.5	7.1	8.1	7.9	8.2	9.2	8.9	7.8	8.5
Gr3	8.1	6.0	5.2	5.8	6.8	6.1	6.6	6.3	5.2	6.2
Gr4	11.5	13.8	6.5	8.8	13.3	8.5	14.8	12.4	8.8	10.1
Gr5	6.6	7.3	3.4	5.2	8.5	4.6	6.6	6.3	4.7	5.7
Gr6	4.7	3.9	2.4	3.6	5.7	3.3	4.9	4.1	2.9	3.8
Gr7	6.2	9.7	2.6	3.9	5.9	4.3	12.4	4.7	4.1	4.9
Gr8	13.4	20.9	13.1	15.2	22.4	12.4	17.5	19.7	10.5	15.6
Gr9	11.6	13.3	10.2	13.2	21.2	11.8	14.7	13.1	9.4	13.1
Gr10	29.1	31.4	24.6	25.9	39.3	26.0	29.2	28.2	17.0	28.0
Gr11	22.8	18.1	16.0	23.0	30.4	25.0	17.7	20.2	12.2	21.9
Gr12	6.7	4.6	0.6	4.4	13.6	7.0	1.0	0.6	0.4	5.2
Total	**12.3**	**12.8**	**8.6**	**11.1**	**15.6**	**10.8**	**12.8**	**11.4**	**7.6**	**11.3**

Source: Own calculations from LURITS 2018-19.

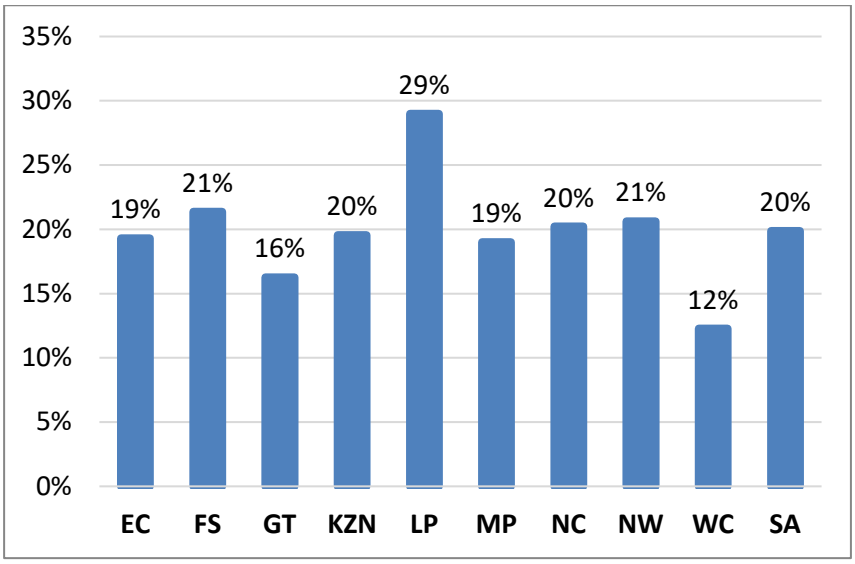
Figure 11: Repetition by grade, Western Cape and Limpopo, 2018



Source: Own calculations from LURITS 2018-19.

Provincial differences are well illustrated by Figure 12, which shows the average repetition rate in 2018 for Grades 8, 9, 10 and 11, across provinces. Most provinces had repetition rates that were very similar to South Africa's average of 20% – quite a high figure – but three stand out: The Western Cape's 12% and Gauteng's 16% are much lower than the average, while Limpopo's average of 29% is an extreme outlier.

Figure 12: Average repetition rate Gr8-11

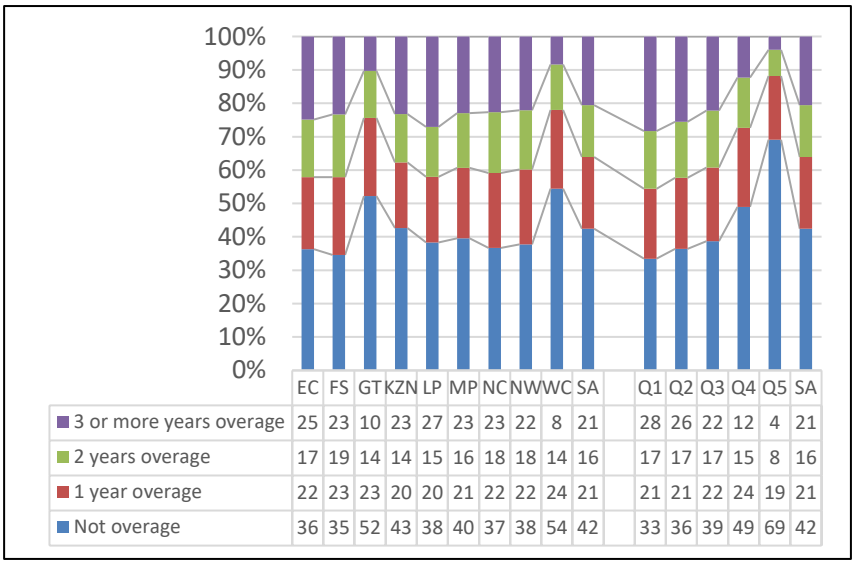


Source: Own calculations from LURITS 2018-19.

One of the consequences of repetition, when it is not cancelled by dropout, is that some children become older for their age. If one considers all learners in the public school system, we see that only 42% are not too old for their grade (this is taken to be turning 7 in Grade 1), and that 21% are a full three years or more overage (Figure 13). As very few South African children enter Grade 1 late, that means that many learners have repeated at least three times, which is only possible for those in the final (Further Education and Training) phase if the repetition rules are applied as is prescribed. In the Eastern Cape, only 36% of learners across all grades are not overage.

If one considers patterns across the socio-economic spectrum by contrasting learners in different school quintiles, we see only small differences between the bottom three quintiles, but in Quintile 4 the non-overage proportion is higher at 49%, and only 12% are three or more years overage. In Quintile 5, a full 69% are not overage, and only 4% are 3 or more years overage.

Figure 13: Appropriate or overage status in Gr10, 2018



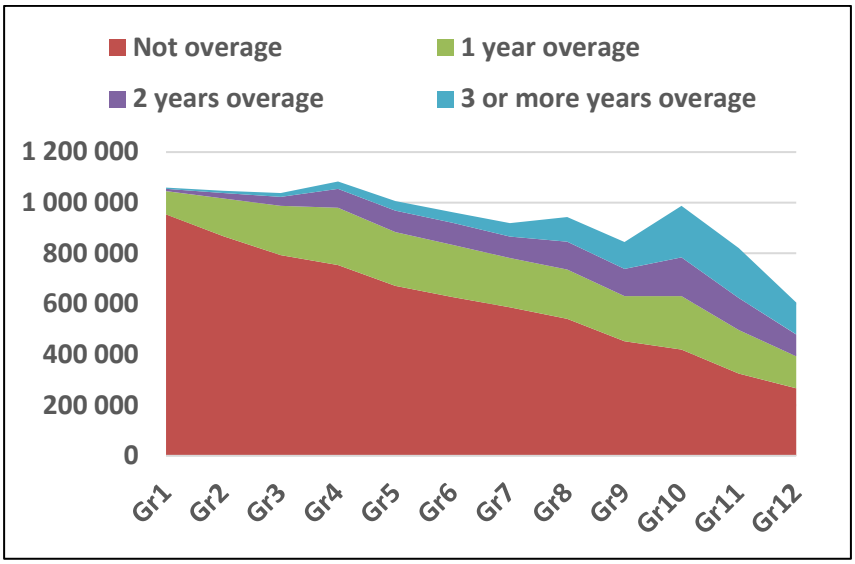
	EC	FS	GT	KZN	LP	MP	NC	NW	WC	SA	Q1	Q2	Q3	Q4	Q5	SA
3 or more years overage	25	23	10	23	27	23	23	22	8	21	28	26	22	12	4	21
2 years overage	17	19	14	14	15	16	18	18	14	16	17	17	17	15	8	16
1 year overage	22	23	23	20	20	21	22	22	24	21	21	21	22	24	19	21
Not overage	36	35	52	43	38	40	37	38	54	42	33	36	39	49	69	42

Source: Own calculations from LURITS 2018-19.

As one would expect, the overage proportion rises across the grades, at least until the last two grades. Figure 14 shows the decline in the number of learners that are appropriately aged across the grades,

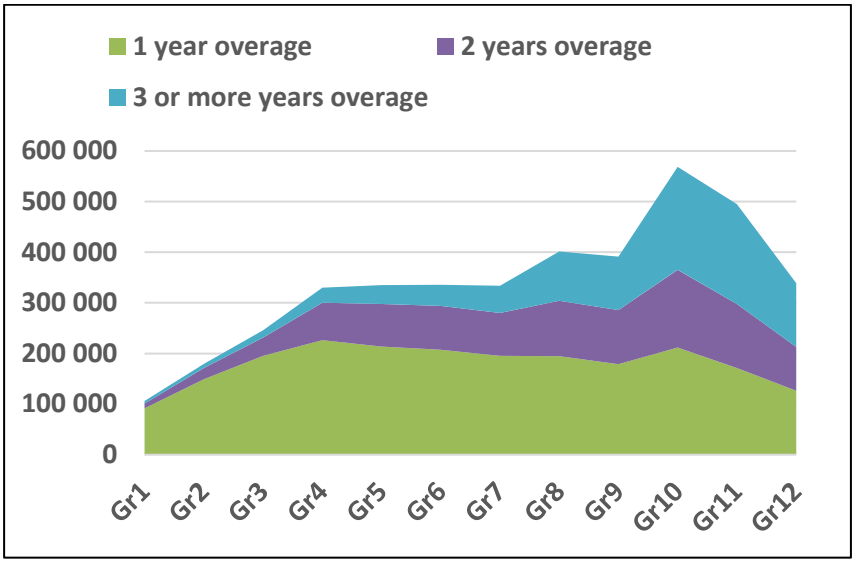
and a commensurate increase in the numbers overage, first those one year overage, then two years, and then finally three or more years. If one also considers Figure 15, though, that excludes those not overage, it is much clearer how the shift occurs. What also becomes clearer is that, after Grade 10, there is a drop in the overage numbers, as the overage learners are more likely to drop out, often after repeating again in Grades 9, 10 or 11. The table is also useful to consider these trends.

Figure 14: Appropriately aged and overage by grade in public schools, 2018



Source: Own calculations from LURITS 2018-19.

Figure 15: Overage by grade in public schools, 2018



Source: Own calculations from LURITS 2018-19.

Table 1: Overage by grade in public schools, 2018 (percentages)

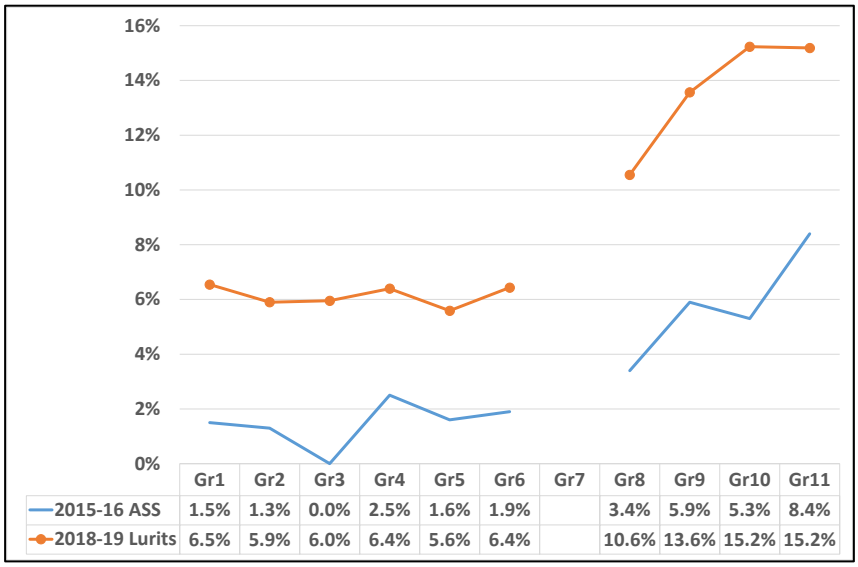
Grade	Not overage	1 year overage	2 years overage	3 or more years overage	All ages
Gr1	90%	9%	1%	0%	**100%**
Gr2	83%	14%	2%	1%	100%
Gr3	76%	19%	3%	1%	100%
Gr4	70%	21%	7%	3%	100%
Gr5	67%	21%	8%	4%	100%
Gr6	65%	22%	9%	4%	100%
Gr7	64%	21%	9%	6%	100%
Gr8	57%	21%	12%	10%	100%
Gr9	54%	21%	13%	13%	100%
Gr10	42%	21%	16%	21%	100%
Gr11	40%	21%	15%	24%	100%
Gr12	44%	21%	14%	21%	100%
Total	**64%**	**19%**	**9%**	**8%**	100%

Source: Own calculations from LURITS 2018-19.

3.5.3 DROPOUT

Unfortunately, the incompleteness or the fact that no all learners in LURITS can be matched across years due to deficiencies in their unique numbering means that LURITS data cannot be used to determine dropout with any degree of accuracy. Figure 16 shows the dropout rates implied by matching the data that could be matched between LURITS in 2018 and in 2019, as against the rates derived in an earlier study based on EMIS data from 7 provinces. As can be seen, there are substantial differences, and based on what we know, it is more likely that the ASS data, though a little dated, provides a more accurate picture of dropout.

Figure 16: Dropout rates for all grades derived from ASS 2015-16 and LURITS 2018-19



Note: Gr7 dropout cannot be derived accurately from either ASS or LURITS in its current form.
Source: 2015-16 ASS from Van der Berg et al. 2019, 2018-19 LURITS from own calculations.

One way to estimate the approximate numbers of learners dropping out of school each year is based on the relative demographic stability and the relatively stable patterns of enrolment by grade. If one considers that the matric-age cohort is approximately 1 million, and that around 620 000 full-time

matriculants write the matric examination every year, drop-out should be around 380 000 learners per year across all grades (1 million minus 620 000). Indeed, applying the dropout rates for the 2015-16 ASS to 2018 enrolment numbers (after interpolating a dropout rate for Gr7) leads to an estimate of 367 000, which is quite similar to the 380 000 estimated above. In contrast, applying the LURITS 2018-19 dropout rates would imply annual dropout of well over 1 million, which is clearly excessive and therefore confirms that the LURITS dropout data cannot be used.

3.5.4 A MULTIVARIATE LOOK AT REPETITION

Appendix A contains a set of regression equations (ordinary least squares linear probability models, i.e. OLS LMP) to 'explain' the likelihood of being captured in LURITS in Grade 10 in 2018 and again in LURITS in Grade 11 in 2019. The accuracy of these regressions on promotion is of course affected by the deficiencies in the LURITS data, as explained earlier, but as the overwhelming majority of learners could be tracked from Grade 10 to Grade 11, the regressions still provides a good perspective, albeit that they under-estimate promotion to Grade 11 somewhat. The first model applies to all Grade 10 learners in 2018. The constant term indicates that around 72% of learners in the reference category continue on to Grade 11 in 2019, the reference learner being female, from the Eastern Cape, in Quintile 1, and not overage. The negative gender dummy indicates that being male reduces the probability of promotion by about 5 percentage points. Quintile has a large effect: Being in a quintile 4 school increases the probability of promotion by just more than 3 points, but this is small compared to the strong effect of 15 points of attending a quintile 5 school. Overage is the variable that has the biggest correlation with outcomes, after considering other factors: Compared to an appropriately aged Grade 10 leaner, one who is one year overage is 12 points less likely to be promoted, a learner two years overage has a 21 percentage point lower likelihood, and one 3 or more years overage has a massive 31 percentage point lower likelihood to be observed in the LURITS2019 data in Grade 11. The Western Cape has a three percentage point advantage over the Eastern Cape, but interestingly Gauteng has a 5 point *disadvantage* once all the other explanatory variables have been taken into account, indicating that its relatively good promotion rates are more due to its student composition in terms of overage or its far more favourable SES profile. The second and third regression models in Appendix A show very similar results, for boys and girls separately.

Models 4, 5 and 6 investigate the situation in respectively Quintiles 1 to 3, Quintile 4, and Quintile 5. The constant terms (the likelihood of a reference person being observed in Grade 11 in the 2019 LURITS data) rises sharply across these three models, from 70% to 78% and finally to 98% in Quintile 5. One of the other most interesting result is that the coefficients on being overaged increase sharply in Quintile 4 and especially in Quintile 5 – learners that have fallen so far behind in such schools, where they would usually encounter better learning conditions, appear to have little chance of being promoted.

Overall, the multivariate analysis shows that all the variables seen to be associated with better promotion rates in the foregoing descriptive analysis are indeed still significantly associated with such better promotion, even when considering all of them simultaneously in multivariate regressions. Gender, province, age relative to grade and school quintile all play a role. Thus, any changes in promotion that we may see in the scenario exercises that follow will be influenced by these attributes of the learners and their schools. In particular, and this is a message that cannot be emphasised enough, learners who have failed often are at high risk of repeating and/or dropping out. The application of repetition policy in 2020 could have severe consequences for individuals' choices and futures, but also for education planning that is so severely influenced by enrolment planning, particularly in secondary schools.

4. SCENARIOS OF FUTURE ENROLMENT

4.1 The four scenarios considered

Various factors may play a role in the decisions of education policy makers that would influence promotion, dropout and repetition:

- The first is their response to a view, widely held in parts of the community, that having learners repeat in 2020 would be unfair, as they have not been given a realistic chance to master the curriculum, and had to endure very difficult circumstances during the lockdown and school closures, including in many cases stress or hunger.
- A second view that may also influence policy is a widespread one that it would be unfair to progress learners that did return to school since reopening, and that such learners should thus repeat.
- A third option that has gained some currency is that, for most grades, it may make sense to hold higher assessments back until the end of 2012. For instance, someone currently in grade 4 would then automatically be promoted to grade 5 in 2021 (where some of the work in the early part of the year may in fact still be part of the curriculum set for grade 4). At the end of 2021 then, this learner would be assessed in a way that also considers the foundation that had to be laid in grade 4. Should this be the case, repetition rates in 2021 may then go up somewhat, but that is still uncertain.

Considering what is known from NIDS-CRAM about the return to school (see Section 2 above), and also drawing from international experience, it is likely that 10% or maybe even 20% of learners may not return to school this year. As mentioned earlier, we do not know definitely why (and how many) learners drop out from the South African school system. The best explanations thus far include academic difficulties as the main factor, with pregnancy and financial (work-seeking) reasons being provided as lesser reasons (Gustafsson, 2011; Gustafsson, 2015; Branson et al, 2013). If learners are automatically progressed to the next grade at the end of 2020, academic difficulties may not be detected by learners, and may not result in dropout at the end of the year. Although little is known of the non-returners to school, it is unlikely that the majority have dropped out permanently as a result of academic difficulties – reasons such as health concerns are more likely for this non-return. On the other hand, the extended time away from school may have resulted in higher teenage pregnancies, while the economic hardship caused by the lockdown may have resulted in more learners needing to look for work to assist in helping their families. These two reasons would increase the number of non-returners that will not return to school in 2021.

Taking the above factors into account, we model a 40 percent drop-out rate among the non-returners to school, while the remaining 60 percent will return to school and repeat their grade in 2021. Under a scenario where 10 percent of learners do not return to school by the end of 2021, overall dropout under these assumptions in Grades 8 to 11 is lower than would be expected in a normal school year. In the event that 20 percent of learners do not return to school before 2021, overall dropout rates remain similar (or higher in some grades) than usual.To give an indication of possible enrolment in 2021, the following scenarios are modelled[6]:

[6] *In addition, linear probability models (LPMs) were applied to the data with outcome variables being repetition and dropout, and the coefficients on the explanatory variables were then used to predict the probability of dropout and repetition for each group of learners disaggregated by gender, school quintile, and overage status. By construction, the probability of promotion was set to equal 100% minus the probability of repeating or*

Scenario 1: Normal repetition and dropout rates applied in both 2020 and 2021
Scenario 2: Zero repetition or dropout in 2020, normal repetition and dropout in 2021
Scenario 3: 10% of learners do not return to school in 2020 and repeat or drop out, while the remaining 90% are promoted automatically. Of those who are not promoted, it is assumed that 40% would drop out of school and 60% would repeat next year. This assumes then a 6% repetition rate and a 4% dropout rate.
Scenario 4: 20% of learners do not return to school in 2020 and repeat or drop out, while the remaining 80% are promoted automatically; this is again followed by normal repetition and dropout in 2021. Again, as in Scenario 3, it is assumed that 40% of those who are not promoted, would drop out of school and 60% would repeat next year. This assumes then a 12% repetition rate and an 8% dropout rate.

The 2018 LURITS data was used as a starting point, and it is assumed that 2020 enrolment and repetition patterns are similar to that of 2018 as captured in LURITS[7]. The focus is on Grade 9 to 12, as this is where there are the largest differences in enrolment between grades, and also the highest repetition rates.

4.2 Results of applying the four scenarios

The total number of learners in secondary school will be affected considerably by the dropout rate. The dropout rate implied in Scenario 3 is lower than the current situation, while the 8% is higher. Under Scenario 3, around 110 000 more learners will have to be accommodated in secondary school in 2021 than currently, if we assume that only 5.2% of matriculants will repeat in 2021, as was the pattern in recent years.

dropping out. Owing to mistrust of the dropout percentages in the LURITS data, the predicted dropout probabilities were scaled down to give an overall dropout rate in 2018 equivalent to the dropout rates in the 2015/16 ASS (EMIS) data. The adjusted dropout probabilities were then used to calculate dropout in 2021, where changes in the underlying characteristics of the learners resulted in a slightly different overall dropout rate to the 2015/16 ASS. LURITS repetition rates were used for Scenario 1. Under Scenarios 3 and 4, it was assumed that learners who do not return to school will have to repeat or drop out. To determine what proportions of non-returners will repeat and drop out, the ratio of dropout probability to repetition probability was calculated for each group of learner characteristics. Since it is likely that learners who do not return to school in 2020 may be more likely to never return to school, as discussed earlier, this ratio of dropout to repetition was doubled. From this adjusted ratio, it could be calculated what proportion of the non-returners will drop out, and what proportion will repeat. This is how the 60:40 split between repeaters and dropouts was derived that formed part of Scenarios 3 and 4.

[7] *As indicated earlier, GHS data show 16% higher school enrolment than LURITS, largely because of incomplete data in LURITS.*

Table 2: Applying the four scenarios: Effect on secondary school enrolment in 2020

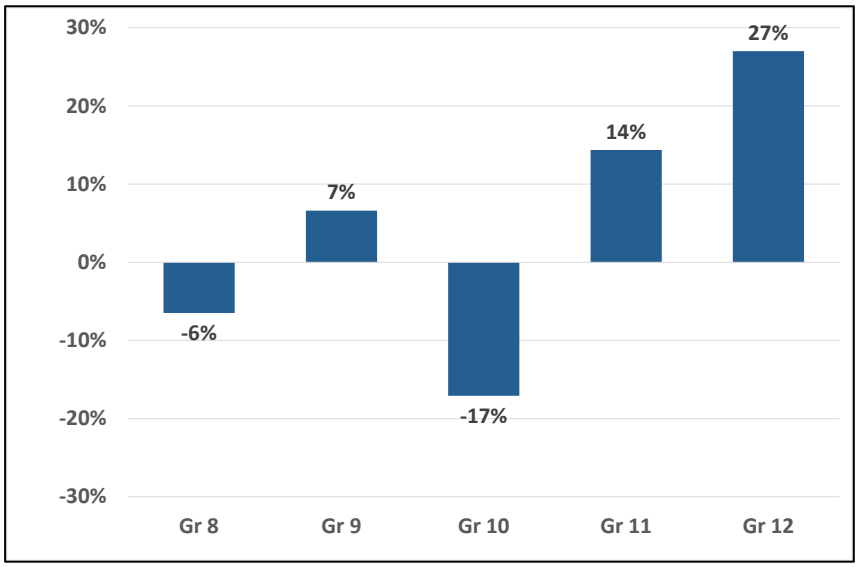
	Current	Scenario 1: Normal Repetition & Dropout	Scenario 2: No Repetition, No Dropout	Scenario 3: Moderate Repetition & Dropout	Scenario 4: Larger Repetition & Dropout
Enrolment:					
Gr 8	946 170	975 997	921 440	884 770	941 540
Gr 9	846 491	877 131	946 170	902 342	858 515
Gr 10	990 415	962 714	846 491	821 267	796 043
Gr 11	822 676	840 827	990 415	940 734	891 053
Gr 12	607 653	604 688	822 676	771 723	689 456
Total	**4 213 405**	**4 261 357**	**4 527 192**	**4 320 837**	**4 176 607**
Growth 2020-21:					
Gr 8		3%	-3%	-6%	0%
Gr 9		4%	12%	7%	1%
Gr 10		-3%	-15%	-17%	-20%
Gr 11		2%	20%	14%	8%
Gr 12		0%	35%	27%	13%

Note: 'Current' figures here are the 2018 enrolment numbers from LURITS, which were simply assumed to proxy for enrolment in 2020. It was shown earlier that GHS enrolment estimates are 16% higher than LURITS data in 2018. New enrolment from Grade 7 in Grade 8 in 2021 is assumed to be 828 000 in Scenarios 2, 3 & 4. The matric repetition rate of 5.2% is assumed to apply in 2021.
Source: Own calculations.

The real challenge for education planning may not be the overall numbers to be accommodated in secondary schools, but the changes in enrolment patterns across grades. In Scenarios 2, 3 and 4, there are considerable decreases in enrolment in Grade 10, which is not surprising: this is the grade where enrolment peaks because of very high repetition rates. Figure 17 shows growth in enrolment in 2021 compared to enrolment in 2020 under Scenario 3, which currently appears to be the most realistic scenario, though also the one that implies the greatest enrolment changes across grade, as well as a moderate increase of 107 000 in aggregate enrolment in secondary schools.[8] Because progression to Grade 11 and also Grade 12 is easier under this scenario, the large decline of 17% in enrolment in Grade 10 may occur in combination with a rise of 14% in Grade 11 and a disturbingly high 27% rise in Grade 12 enrolment.

[8] *It is pertinent to again note that the 2018 enrolment captured in LURITS is used as proxy for 2020 enrolment. It has been indicated earlier that this enrolment is an under-estimate of perhaps around 16% if the GHS is used as comparator, and there would have been some modest aggregate enrolment growth since, so all estimates of numbers might be a little too low.*

Figure 17: Growth in enrolment in Scenario 3 relative to 2020



Source: Table 3

5. IMPLICATIONS OF THE SCENARIOS

A number of implications derive from the scenario exercise above, and more particularly of a larger modelling exercise that also considered the gender, age and school quintile of learners. The implications are briefly summarised below.

1. **Shifts in enrolment, especially in Grades 10, 11 and 12:**

It is quite likely that Grade 12 pass rates will be much lower in 2020 than in the past. The examination papers were set some years ago and the DBE has emphasised maintaining the quality of the grade 12 certificate. It is quite likely that Grade 12 learners in 2020 will be less prepared for the examination than in previous years. The lockdown and school closures were, for children in particular, a mentally and sometimes physically stressful period.

If we ignore progressed learners[9], the matric cohort should be of similar ability and have had similar education up to 2019 as previous matriculants. Umalusi, the body that quality assures and certifies the examination results, usually analyses the distribution of marks in each subject and makes small to moderate adjustments to maintain standards of difficulty, based on comparisons of Ogive curves (cumulative histograms) of marks. But where the whole matric cohort has been subject to a negative shock, such adjustments cannot simply be based on previous patterns. Moreover, this year's circumstances would have increased inequalities, both within and between schools. Thus it is inevitable that fewer matrics will pass and that, even at the top end, there will be fewer distinctions. The pandemic will be claiming more victims.

Considering the circumstances in 2020, a strong case can be made that unsuccessful matriculants should be given a second chance, preferably by returning to school and again doing matric as full-time students (usually, only around 5% of matrics are able to return to school and make a second attempt at passing matric). In current economic circumstances, the labour market is also likely to offer few opportunities for unsuccessful matriculants. However, considering the increase in Grade 12 numbers

[9] *Progressed learners could write only some subjects at a time last year, but this year they will have to write all six subjects.*

that we are already expecting in 2020 under Scenario 3, substantially increasing repetition in Grade 12 will place a heavy burden on the school system.

2. Implications for resourcing:

Changed enrolment numbers require changes in resourcing at the school level. This has implications for textbooks and workbooks, classrooms and teachers. Insofar as a big part of the enrolment shifts are all within the FET phase, teachers could probably be 'redeployed' across grades without too great effort once the time tabling has been worked out for the new numbers. A bigger issue in terms of teacher resources may arise in fee-paying schools, where 2020 saw a sharp reduction in fee payment, partly in response to the reduced teaching that occurred, but partly also because many parents find it more difficult to pay school fees in the more difficult economic circumstances that accompanied the pandemic. A reduction in SGB (school governing body) teacher numbers is thus likely, with implications particularly in Quintile 4 and 5 schools. For related financial reasons, there is also some movement of children out of private schools and into public schools, further increasing public enrolment numbers.

3. Differentiated enrolment shifts:

More detailed modelling shows, as expected, that enrolment shifts would vary for different groups of learners. They are more likely to be large in Quintile 1, 2 and 3 schools, where Grade 10 repetition is usually quite large. Repetition and dropout amongst boys may, in the current circumstances, be less dissimilar to those of girls. Overage learners who were forced to repeat are a large share of dropouts, but automatic progression for those who return to school, as we assume in Scenarios 3 and 4, would reduce this dropout and thereby again contribute to greater heterogeneity in the classroom, as would initially be expected with any reduction in dropout and repetition (see the Working Paper by Hoadley (2020) that formed part of this study for greater attention to this issue). Provinces such as Limpopo, as well as schools that usually experience high dropout, would have the greatest adjustments to make in enrolment numbers across grades. This is of concern, as poorer schools may not have the flexibility, infrastructure and management skills to perform the required shift of resources between secondary school grades.

5.1 How realistic are these scenarios?

At the time of writing, provinces and even the DBE at national level have not yet thought through their policy responses regarding repetition to the abnormal events and circumstances of 2020. Thus some of the debates about repetition are only starting, and it will soon also start to dawn on policy makers, principals and teachers that these policies will have knock-on effects for enrolment in 2021. That process may lead to a consideration of the type of scenarios discussed here, and thereby also lead to reconsideration of views on repetition policy. It is thus quite possible that some deviation from the assumed policy responses mentioned in Section 3 will occur. However, there is a danger that much of these decisions will be left to individual schools and teachers, which may lead to confusion and discontent if there is no coordination in policies. The next few weeks will be important in this respect.

5.2 What about 2022 and beyond?

The changes in repetition and dropout that we may experience at the end of 2020 will disturb a type of equilibrium in patterns of enrolment, repetition and dropout that have become established over a long time responding to some of the policies adopted regarding limits on repetition, as well as to behaviour of learners and parents that have caused especially overaged learners to leave schools in Grades 9, 10 or 11 without completing matric. It is possible that this disturbance of the equilibrium will have longer term effects.

We can also expect that the greater heterogeneity in classrooms will lead to a strong reaction amongst many teachers that may cause repetition rates in many grades to increase in 2022. A possibility noted in Section 4 was that assessments in 2021 are considered to be for both the current and the previous grade or year. This in fact could happen, whether policy makers intend it to be the case or not.

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7. APPENDIX A: REGRESSION OF THE PROBABILITY OF BEING PROMOTED TO GRADE 11 IN 2019[10]

VARIABLES	(1) Male plus female	(2) Male	(3) Female	(4) Quintiles 1-3	(5) Quintile 4	(6) Quintile 5
Male (unknown excluded, Female=0)	-0.0483***			-0.0481***	-0.0561***	-0.0450***
	(0.000973)			(0.00117)	(0.00265)	(0.00223)
1 year overage	-0.119***	-0.114***	-0.121***	-0.105***	-0.127***	-0.157***
	(0.00127)	(0.00189)	(0.00173)	(0.00156)	(0.00327)	(0.00286)
2 years overage	-0.205***	-0.199***	-0.210***	-0.181***	-0.231***	-0.320***
	(0.00144)	(0.00202)	(0.00209)	(0.00169)	(0.00387)	(0.00418)
3 years overage	-0.313***	-0.305***	-0.325***	-0.295***	-0.341***	-0.468***
	(0.00135)	(0.00185)	(0.00202)	(0.00152)	(0.00422)	(0.00569)
Quintile 2	0.00555***	0.0116***	-0.000773			
	(0.00142)	(0.00202)	(0.00201)			
Quintile 3	0.00370***	0.00840***	-0.00118			
	(0.00136)	(0.00194)	(0.00191)			
Quintile 4	0.0348***	0.0333***	0.0359***			
	(0.00174)	(0.00251)	(0.00241)			
Quintile 5	0.148***	0.151***	0.146***			
	(0.00180)	(0.00262)	(0.00247)			
FS	-0.0146***	-0.0116***	-0.0174***	-0.0216***	0.0149	-0.0374***
	(0.00238)	(0.00345)	(0.00328)	(0.00262)	(0.0111)	(0.00707)
GT	-0.0503***	-0.0578***	-0.0430***	-0.0488***	-0.0863***	-0.117***
	(0.00181)	(0.00261)	(0.00251)	(0.00221)	(0.00651)	(0.00533)
KZN	-0.0335***	-0.0355***	-0.0316***	-0.0174***	-0.0196***	-0.227***
	(0.00164)	(0.00235)	(0.00229)	(0.00181)	(0.00665)	(0.00561)
LP	-0.0612***	-0.0614***	-0.0611***	-0.0568***	-0.0108	-0.0732***
	(0.00180)	(0.00257)	(0.00253)	(0.00188)	(0.0123)	(0.00846)
MP	0.00189	0.00419	-0.000719	0.0280***	-0.0468***	-0.139***
	(0.00209)	(0.00300)	(0.00292)	(0.00241)	(0.00730)	(0.00646)
NC	-0.0368***	-0.0349***	-0.0385***	-0.0263***	-0.0824***	-0.101***
	(0.00335)	(0.00486)	(0.00462)	(0.00411)	(0.00901)	(0.00904)
NW	0.00459**	0.0108***	-0.00145	-0.00191	0.0706***	-0.0961***
	(0.00224)	(0.00324)	(0.00310)	(0.00245)	(0.00789)	(0.0149)
WC	0.0313***	0.0305***	0.0322***	0.0623***	-0.00807	-0.0750***
	(0.00229)	(0.00336)	(0.00312)	(0.00329)	(0.00707)	(0.00556)
Constant	0.712***	0.657***	0.717***	0.696***	0.775***	0.980***
	(0.00172)	(0.00250)	(0.00230)	(0.00165)	(0.00629)	(0.00513)
Observations	983 812	493 050	490 762	720 726	131 313	131 773
R-squared	0.094	0.083	0.086	0.065	0.083	0.120

Standard errors in parentheses
**** p<0.01, ** p<0.05, * p<0.1*
Source: Calculated from LURITS data

[10] *As some learners not observed in 2019 may actually have moved school or could for some other reason not be linked to their unique learner number in grade 10, even though they did actually continue to grade 11, the regressions would under-estimate promotion.*