The impact of DEIS on the size of junior classes in urban primary schools in 2014/15 with comparative data from 2009/10

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Introduction

Since the mid-1950s in Ireland, the issue of class size (i.e., the number of students ordinarily in a classroom[1]) has been a regular feature on the educational agenda and reducing it a feature of educational policy (Weir, Archer, & McAvinue, 2010). Measures to reduce class size are based on the premise that smaller classes create an advantage for students that can narrow achievement gaps. Indeed, decades of research addressing the effects of smaller classes have produced evidence in favour of class size reduction at primary level as a means of improving student achievement outcomes, especially when such reductions are made in the context of efforts to tackle educational disadvantage (Glass & Smith, 1979; Schanzenbach, 2014; Zyngier, 2014).

Evidence from the literature on the impact of reducing class size

Policies addressing disadvantage through class size reduction are supported by a body of research (mainly from studies in the United States) on the effects of reduced class size. The evidence indicates that smaller classes (fewer than 20 students) in the early grades (the first four years) can have a positive and long-lasting impact on student achievement, and that benefits are greatest for students from disadvantaged and minority backgrounds (Glass & Smith, 1979; Schanzenbach, 2014; Zyngier, 2014). Much of the evidence for reducing class size has come from a randomised controlled trial of Project STAR (Student Teacher Achievement Ratio) conducted in Wisconsin in the 1980s. Findings from Project Star are consistent with findings from a previous meta-analysis by Glass and Smith (1979) and with subsequent reviews of the evidence on class size effects (Shin & Chung, 2009; Schanzenbach, 2014; Zyngier, 2014). Analysis of Project Star data demonstrated achievement gains in reading and maths for students in small classes that were 0.15 to 0.20 standard deviations above the achievements of students in standard classes (Word et al., 1990). For students from disadvantaged and minority backgrounds, smaller classes created an achievement advantage that was two to three times greater than that of other students (Finn & Achilles, 1999). Those who attended small classes in the early grades were also more likely to graduate from high-school (Finn, Gerber, & Boyd-Zacharias, 2005) and to enrol in college (Dynarski, Hyman, & Schanzenbach, 2013). It appears small class size may have an impact on achievement through effects on classroom behaviour (Zyngier, 2014). Students tend to be more engaged and less disruptive in small classes (Finn, Pannozzo, & Achilles, 2003), while teachers spend more time teaching and less time on behaviour management (Graue, Hatch, Rao, & Oen, 2007).

For class size reduction policies to be maximally beneficial, however, they must be well-planned and resourced (Biddle & Berliner, 2002; Archer & Weir, 2004; Zyngier, 2014). Lessons learned from universal class size reduction initiatives in the United States[2] indicate that poorly planned initiatives can have unintended negative effects (Chingos, 2013). Such effects include a reduction in the supply

[1] Class size is distinct from *student-teacher ratio*, which is a measure of the total number of students in a school at the end of the school year divided by the number of teaching posts in that school. Class size is a more accurate reflection of the everyday classroom context than is student-teacher ratio. For example, in 2014/15, average class size in primary schools in Ireland (24.9) differed from student-teacher ratio (16.2) by 9 students (Department of Education and Skills, 2015a).

[2] Florida's class size reduction programme and California's state-wide class size reduction initiative.

of quality teachers to disadvantaged schools (Jepsen & Rivkin, 2009), increased use of multi-grade classes, and increased pressure on facilities (Sims, 2008). Consequences such as these negatively impact on all students, but particularly students from disadvantaged and minority backgrounds (Ready, 2008). The research findings also suggest that for class size reduction benefits to be optimised, teachers must adapt their practice for smaller classes (Zyngier, 2014). Where this does not happen, for example, where teachers do not have the skills, experience or motivation to change, then the full potential of a reduced class size will not be realised (Hattie, 2005).

Taken together, the research findings suggest that class size reduction should be targeted where it can be most effective – in schools serving students from disadvantaged backgrounds. Educational inclusion measures should, therefore, ensure positive discrimination in terms of class size for schools with the highest concentrations of students in need. In addition, the evidence suggests that for the benefits to be maximised, support should be provided for teachers to adapt their practices to suit smaller classes.

The Irish context

Class size reduction as a measure to address educational disadvantage did not emerge as an explicit policy objective in Ireland until the 1980s (Weir et al., 2010). Initiatives affecting class size, including the allocation of concessionary teaching posts and the preferential assignment of remedial teachers to schools in disadvantaged areas, were introduced in the 1980s, and became more formalised through the *Disadvantaged Areas Scheme (DAS)* in the 1990s. Such measures marked a policy shift towards positive discrimination in terms of provision for students in schools in disadvantaged areas. Prior to this, government policy to reduce class size had been universally applied (Weir et al., 2010).

A comprehensive review of the DAS conducted by Kellaghan, Weir, Ó hUallacháin, and Morgan (1995), recommended the targeting of educational inclusion measures towards those experiencing the highest levels of disadvantage and the reduction of junior and senior class sizes in primary schools with the highest concentrations of students from disadvantaged backgrounds. These recommendations were implemented in the successor to the DAS – *Breaking The Cycle (BTC)* – which was launched as a pilot programme in 1996/1997. BTC provided extra teaching posts to permit the operation of maximum junior class sizes of 15 and senior class sizes of 27 in about 30 urban primary schools. *Giving Children an Even Break (GCEB)* followed BTC in 2001; it also provided for the allocation of additional concessionary teaching posts to achieve a maximum junior class size of 20 and senior class size of 27 in about 240 urban primary schools serving students from the country's most disadvantaged communities (Weir, 2010).

Previous analyses of class size in programmes involving reduced class sizes in Ireland

Previous analyses in the Irish context examined the extent to which maximum class sizes were implemented as intended in urban schools participating in other schemes aimed at addressing disadvantage. As part of the evaluation of the predecessor to DEIS, an analysis of class sizes in GCEB was undertaken using data from 2005/06 (Weir, Archer, Pembroke & McAvinue, 2007). Under GCEB, schools were allocated teaching posts to reduce junior class sizes to 20 or fewer students and senior class sizes to 27 or fewer. Average class sizes under GCEB appear to have been impacted by reductions achieved under previous schemes (i.e., DAS and BTC). Indeed, the analysis of the 2005/06 data demonstrated that urban schools that participated in all three schemes (DAS, BTC, and GCEB) had the lowest average class sizes (Weir et al., 2007). Analyses further demonstrated that the introductions of BTC and GCEB were associated with significant departures from trend at predictable points in time in the percentages of students in junior classes of 20 or fewer, suggesting that these

schemes had an impact on class sizes as intended. Positive discrimination towards urban GCEB participating schools was evidenced in a substantially lower average junior class size (18.25) in 2005/2006 than that found among urban schools outside GCEB (26.61). In addition, substantially more junior classes in urban GCEB schools (73.7%) had 20 or fewer students compared to junior classes in all urban schools (27%).

While the findings outlined above reflect very favourably on class sizes under GCEB, they may not accurately represent the actual class sizes in some schools in the school year in question. Not all urban schools participating in GCEB were allocated additional posts to enable them to achieve the maximum junior class size of 20. Some of these schools did not need additional posts to achieve the maximum class sizes (see Weir, 2004). However, more importantly, in some schools, students from the Traveller community and students with special educational needs were not counted in the student numbers for allocation of additional posts.[3] Hence, some urban GCEB schools would have had classes that were in effect larger than 20 (junior) and 27 (senior). Data on how many classes were affected in this way are not available (Weir, 2004), making it very difficult to accurately describe actual class sizes under GCEB.

The DEIS programme

DEIS (Delivering Equality of Opportunity in Schools), introduced in 2005/06, is the most recent action plan for educational inclusion (Department of Education and Science, 2005). Since it began about a decade ago, DEIS has provided support to around 676 primary schools in disadvantaged areas (342 urban and 334 rural). The urban dimension of DEIS includes around 198 primary schools with the highest concentrations of disadvantage, as assessed by a survey of principals regarding students' socioeconomic characteristics conducted by the Educational Research Centre (ERC) in 2005 [see Archer & Sofroniou (2008) for a detailed account of the identification process]. On the basis of the survey, schools were ranked according to their level of disadvantage; those with the highest rankings (i.e., schools with the highest concentrations of disadvantaged students) were subsequently designated by the DES as *Band 1* (198 schools), while the next 144 schools were designated as *Band 2*. Under DEIS, a range of supports are made available to participating schools. Like its predecessors, DEIS is characterised by positive discrimination towards schools serving students who are most in need.

While Band 1 and Band 2 schools both receive a variety of supports under DEIS, Band 1 schools are permitted to appoint additional teachers to allow for smaller class sizes than normally apply. This means that Band 1 schools can appoint extra teachers to operate "maximum class sizes of 20:1 in all junior classes (junior infants through 2nd class) and 24:1 in all senior classes (3rd class through 6th class)" (Department of Education and Science, 2005, p. 84). Under DEIS, Band 1 and Band 2 schools can also continue to benefit from class size reductions achieved with concessionary teaching posts allocated under previous schemes. Therefore, it has been possible for some Band 1 schools that participated in BTC to continue to operate junior classes of 15 or fewer students achieved under

[3] The rationale given was that resources had already been provided for these students (see Weir, 2004). Resource Teacher for Travellers (RTT) posts were cut in Budget 2011. Traveller students were counted in the general allocation of teachers from 2011/12 school year onwards (Dáil Debates, Written Answers, 29 June 2011, 17712/11).

BTC, and for some Band 2 schools to retain smaller classes (20 in junior classes and 27 in senior classes) achieved under GCEB[4].[5]

From the school year 2012/13, the DES has included a *Schedule of Enrolment of Pupils Governing the Appointment and Retention of Mainstream Class Teachers in DEIS Urban Band 1 National Schools* with its annual staffing circulars (see Appendix A and DES Staffing Circulars 2012/13 to 2016/17). The Schedule sets out the thresholds for the recruitment of mainstream class teachers in Urban Band 1 schools, enabling possible maximum class sizes of 20 students in schools with junior classes only, 24 in schools with senior classes only, and 22 in vertical schools (schools with junior and senior classes).[6] The Staffing Circulars state that all schools are encouraged to keep classes as small as possible, and to prioritise junior grades for smaller classes where possible (see DES Staffing Circulars 2012/13 to 2016/17).[7] It is important to note that vertical schools in DEIS Band 1 have had discretion in how they allocate teachers across junior and senior classes to achieve the maximum class sizes possible under DEIS (20 students in junior classes and 24 students in senior classes). It is also worth noting that the majority of DEIS schools are vertical schools, encompassing 'all-through' schools (which enrol students at all grades from junior infants to sixth class), as well as senior schools that have second classes.[8]

The implementation and impact of DEIS have been subject to evaluation by the ERC since 2007. The evaluation has been attempting to monitor the implementation of the programme and to assess its impact on students, families, schools, and communities at primary and post-primary levels. Data have been collected in important areas, such as the extent to which schools have engaged with planning for DEIS, and how well various elements of the programme are being implemented in schools and in the system as a whole. An important feature of the evaluation at both primary and post-primary levels is the monitoring of changes in achievement and other student outcomes. Such improvements have been noted at primary level (see Weir, Archer, O'Flaherty, & Gilleece, 2011; Weir & Denner, 2013) and at post-primary level (McAvinue & Weir, 2015). As part of the ongoing monitoring of student achievement, another round of testing was carried out in a sample of 120 primary schools in 2016 (Kavanagh, Weir, & Moran, forthcoming).

Implementation studies represent important aspects of the evaluation of DEIS. The current study examines the implementation of DEIS in terms of the extent to which the maximum class sizes made

[4] Some Band 2 schools participated in GCEB, but no Band 2 schools participated in BTC.
[5] The phased withdrawal of concessionary teaching posts allocated under schemes preceding DEIS commenced in the school year 2012/13.
[6] Non-DEIS primary schools, in comparison, were permitted to operate a maximum class size of 28 in larger schools and 27 in smaller schools. In the school year 2016/2017, this became 27:1 in larger, and 26:1 in smaller, non-DEIS primary schools (Department of Education and Skills, 2015b). The 2016/17 Staffing Circular (0007/2016) also sets out changes to the thresholds for appointment of the first teacher and retention of the second teacher in DEIS Band 1 schools (DES, 2015b).
[7] For example, the 2016/17 Staffing Circular (0007/2016) states the following: "School authorities are requested to ensure that the number of pupils in any class is kept as low as possible, taking all relevant contextual factors into account (e.g. classroom accommodation, fluctuating enrolment etc.). However, school authorities should, where possible, use their autonomy under the staffing schedule to implement smaller class sizes for junior classes" (p. 6).
[8] The DES Annual Statistical Report 2014/15 states that: "junior schools normally enrol pupils up to first standard only. Senior schools normally enrol pupils from second standard only. All-through schools normally enrol pupils in all grades from junior infants to sixth standard. The definition of junior schools which enrol to first standard only should not be confused with the definition of junior standards which included second standard' (Table 2.10).

possible by DEIS (20 students in junior classes and 24 students in senior classes) have been achieved in junior and senior classes in the most disadvantaged urban primary schools (Band 1) participating in the scheme. This follows an earlier study carried out as part of the evaluation that investigated the same issue (Weir & McAvinue, 2012).

Previous analysis of class size in DEIS schools

Analyses of class size data for 2009/10 revealed that the recommended class sizes in Band 1 schools under DEIS (maxima of 20 students in junior classes and 24 in senior classes) were achieved for the majority of junior classes (79.3% had 20 or fewer students) and senior classes (86.8% had 24 or fewer students) (Weir & McAvinue, 2012). Positive discrimination was evident for Band 1 schools when the percentage of smaller junior classes in Band 1 (79.3%) and urban non-DEIS schools (8.9%) were compared, and when the percentage of smaller senior classes in Band 1 (86.8%) and urban non-DEIS (22.7%) schools were compared. There was also some evidence of favourable class sizes in Band 2 junior (43.6%) and senior (51.7%) classes when compared to classes in non-DEIS schools, even though the policy of positive discrimination in relation to class size does not apply to Band 2 schools. Overall, there appeared to be slightly more positive discrimination among Band 1 junior classes than was observed among junior classes in urban schools participating in the preceding scheme, GCEB (Weir, Archer, Pembroke, & McAvinue, 2007)[9]. The analyses further revealed a class size advantage for DEIS schools that had participated in previous schemes (DAS, BTC, and GCEB) over those that had not participated in any scheme. Specifically, a lower average class size was found among schools that had participated in previous schemes than those that had not, and this was observed for both Band 1 and Band 2 schools.

In summary, the analyses described above provide evidence for positive discrimination towards urban schools participating in DEIS, and schools participating in earlier schemes addressing disadvantage, thereby creating an intentional class size advantage for students in these schools. It also provides evidence of a cumulative advantage for schools that had participated in more than one scheme, with lower average class sizes being observed for those that had participated in previous schemes compared to those that had not (Weir et al., 2010; Weir & McAvinue, 2012).

The current study

The overall aim of this study was to continue the examination of the implementation of recommended maximum class sizes in primary schools under DEIS. This study was intended to replicate and extend previous analyses undertaken to investigate how one of the main features of the SSP under DEIS – reduced class sizes in Band 1 schools – was being implemented in participating schools in 2014/15.[10] Firstly, the aim of this study was to examine the extent to which the recommended maximum junior class size (20 students) was implemented in DEIS Band 1 schools in 2014/15. Secondly, the study aimed to investigate if evidence exists for positive discrimination in 2014/15 with regard to junior class size in DEIS Band 1 schools compared to schools not participating in DEIS. Thirdly, the study sought to determine the extent to which positive discrimination in terms of junior class size in DEIS schools was maintained between 2009/10 and 2014/15. In other words, the aim was to determine whether the gap in junior class sizes between DEIS Band 1 and non-DEIS

[9] Weir et al. (2007) did not examine the extent of positive discrimination towards senior classes in schools participating in GCEB.

[10] This report concerns junior classes in Band 1 schools. Findings regarding senior classes in Band 1 schools and junior and senior classes in Band 2 schools are summarised in separate annexes, which are available on request.

schools had widened, stayed the same, or narrowed, since comparable analyses were reported by Weir and McAvinue (2012).

The previously described policy changes (see Footnote 3) which occurred during the period 2009/10 to 2014/15 complicated the planned analyses and necessitated some adjustments. Specifically, in order to determine if positive discrimination towards Band 1 schools between 2009/10 and 2014/15 was maintained, it was necessary to re-analyse the 2009/10 data with the inclusion of data for students from the Traveller Community who are in mainstream classes and students in mainstream classes who have special educational needs. Since 2011/12, these students have been counted in enrolment numbers for the allocation and retention of teachers. Consequently, the annual class size data made available from the DES now include these students, and hence provide a more accurate picture of mainstream class size in primary schools.[11]

A further consideration arose from the distinction between school types (schools with junior classes only, schools with senior classes only, and schools with vertical classes) made on the staffing schedule for urban primary schools in DEIS Band 1 from 2012/13. This highlighted an aspect of implementation that has not previously been studied, which is the implementation of the maximum junior class size across schools of different types. On this basis, a fourth aim was added to the current study: to examine whether or not any differences exist in the implementation of the maximum class sizes in schools with only junior classes and schools with both junior and senior classes (vertical schools).

Data on the number of students in every individual class (single-grade and multi-grade) in the 3,137 primary schools nationally were obtained from the DES for the school year 2014/15. Roll numbers were used to classify individual schools and classes according to DEIS status. Only urban, single-grade, ordinary, classes were used in the current analysis.[12] The majority [90.8% (10,311)] of urban classes were single-grade. Among these were 1,969 DEIS Band 1 classes (19.1%), and 6,972 non-DEIS classes (67.6%). A description of the number of Band 1 single-grade classes by school type (junior, senior only and vertical) is provided in Table 1. Classes for which location data were missing (*n*=2,006) were excluded from the analysis.[13] [14]

[11] Class-level data on the numbers of students in mainstream classes who are from the Traveller Community and students in mainstream classes who have special educational needs are no longer made available by the DES.
[12] This was to ensure consistency with previous similar analyses (i.e., Weir et al., 2007; Weir et al., 2010; Weir & McAvinue, 2012), which used single-grade ordinary classes in urban schools because the class size reductions under DEIS are targeted at these classes. Also, special classes tend to be small and may contain a mixture of grade levels.
[13] Further details on the data, data sources and data analysis are available from the authors on request.
[14] Location data were provided by principals in the 2005 survey referred to earlier in this report. Location data are missing where no survey was returned, or where the location was not indicated by the principal.

Table 1: The number and percentage of Band 1 single-grade classes in 2014/15 by school type (junior, senior only, and vertical)

School Type		Schools (*N*=187)		Classes (*N*=1,969)	
		n	%	n	%
All Junior Schools	Junior with Second Classes	19	10.0%	61	18.0%
[N=30 (16.0%)]	Junior without Second Classes	11	6.0%	271	82.0%
Senior Schools (without second classes)		19	10.2%	214	10.9%
All Vertical Schools	Senior with Second Classes	25	13.4%	158	8.0%
[N=138 (73.8%)]	'All-through' Schools	113	60.4%	1,265	64.2%

Findings

Findings are presented in accordance with the main aims of the study outlined earlier. Firstly, findings relating to the recommended maximum junior class size for DEIS Band 1 schools are presented, alongside the evidence for positive discrimination with regard to junior class size for Band 1 schools in 2014/15. Secondly, junior class sizes in Band 1 schools in 2014/15 are compared to those in 2009/10 to determine if the positive discrimination observed in the earlier study was maintained. In all analyses, classes are examined by school type (junior and vertical) in order to fulfil the fourth aim of the study, which is to examine whether or not any differences exist in the implementation of the maximum junior class size across junior schools and vertical schools. In order to gain a more complete picture of junior class size across these school types, the percentages of classes of 20 or fewer and 22 or fewer students are examined, reflecting the ratio of students to mainstream classroom teachers necessary for the appointment and retention on teachers in each school type.

To what extent was the maximum junior class size implemented in DEIS Band 1 schools in 2014/15, and to what extent was positive discrimination towards DEIS Band 1 schools evidenced in junior class size in the same year?

Table 2 presents average single-grade junior class sizes in 2014/15 for DEIS Band 1 and non-DEIS schools by school type - junior, vertical, and all schools combined (junior and vertical). The average junior class size in all Band 1 schools was 19.2 students, and was therefore just below (by 0.8) the maximum class size of 20 students recommended under DEIS. This figure compares favourably to the average class size of 27 students in urban non-DEIS junior classes, indicating positive discrimination towards Band 1 schools in terms of junior class size in 2014/15.

Table 2 also shows that average junior class sizes in both junior and vertical Band 1 schools were below the maximum of 20 recommended under DEIS. Indeed, classes in Band 1 junior schools, having an average size of 18.4 students, were more than one student (1.6) smaller than the recommended maximum class size of 20. Among Band 1 vertical schools, the average junior class size of 19.6 students was marginally smaller (by 0.4) than the recommended maximum size. As can also be seen, junior classes in Band 1 vertical schools were 1.2 students larger on average than classes in Band 1 junior schools in 2014/15. Table 2 further shows that classes in urban Band 1 junior schools were 9 students smaller on average than classes in urban non-DEIS junior schools (18.4 for Band 1 versus 27.4 for non-DEIS junior schools). The difference was 7.3 students for Band 1 vertical schools and urban non-DEIS vertical schools (19.6 for Band 1 versus 26.9 for non-DEIS vertical schools).

Findings thus far indicate positive discrimination in terms of junior class size for Band 1 schools in 2014/15, which is evidenced for both Band 1 junior and Band 1 vertical schools in that year. The findings also reveal a slightly lower average junior class size in junior schools compared to vertical schools, and a greater difference in junior class size between Band 1 and non-DEIS junior schools than between Band 1 and non-DEIS vertical schools. This suggests greater positive discrimination towards junior class size in junior schools than in vertical schools in Band 1 in 2014/15.

Table 2: Average class size of urban, single-grade, junior classes, in junior schools, vertical schools, and all schools (junior and vertical), and minimum and maximum values, for DEIS Band 1 schools and non-DEIS schools in 2014/15

	DEIS Status	N	Average (SD)	Min	Max
Junior Schools	**Band 1**	332	18.4 (2.9)	9	24
	Non-DEIS*	567	27.4 (2.6)	19	36
	DEIS Status	**N**	**Average (SD)**	**Min**	**Max**
Vertical Schools	**Band 1**	755	19.6 (4.0)	5	33
	Non-DEIS*	3,149	26.9 (3.8)	12	38
	DEIS Status	**N**	**Average (SD)**	**Min**	**Max**
All Schools (Junior and Vertical)	**Band 1**	1,087	19.2 (3.7)	5	33
	Non-DEIS*	3,716	27.0 (3.6)	12	38

* Calculations were based on urban, single-grade, junior, non-DEIS classes for which location data were available (*n*=3,716). [All non-DEIS classes = 14,723, of which urban = 7,745; rural = 6,978; and missing location = 2,006].

The extent to which the recommended junior class size was implemented in classes in Band 1 schools in 2014/15 can be examined in more detail using the data in Table 3. This shows that a junior class size of 20 or fewer was achieved for 63.5% of junior classes in all Band 1 schools (junior and vertical). In comparison, junior classes of 20 or fewer students occurred in just 5.9% of urban non-DEIS schools (Table 4). These findings demonstrate a high degree of implementation of the junior class size maximum in Band 1 schools in 2014/15, as well as providing evidence of positive discrimination towards Band 1 schools. This positive discrimination is also observed across school types. Classes of 20 or fewer students occurred in almost three quarters (73.2%) of classes in Band 1 junior schools (Table 3), compared to just 1.2% of urban non-DEIS junior schools (Table 4). In addition, the maximum junior class size of 20 was achieved for around three fifths (59.2%) of junior classes in Band 1 vertical schools (Table 3), compared to 6.8% in urban non-DEIS vertical schools (Table 4). Overall, smaller junior classes (20 or fewer students) were around 11 times more common in Band 1 schools than urban non-DEIS schools, 61 times more common in Band 1 junior schools than urban non-DEIS junior schools, and 8.7 times more common in Band 1 vertical schools than urban non-DEIS vertical schools.

Table 3 also reveals that Band 1 junior schools had a larger percentage of classes of 22 or fewer students than Band 1 vertical schools in 2014/15 (Table 3). Indeed, 94.6% of classes in Band 1 junior schools had 22 students or fewer, compared to 76.6% of junior classes in Band 1 vertical schools. Also, no Band 1 junior school had a class of 25 or more students, whereas one-in-ten (10.9%) junior

classes in Band 1 vertical schools were comprised of 25 or more students. Therefore, Band 1 vertical schools had a lower percentage of smaller junior classes (20 or fewer students, and 22 or fewer students) and a greater percentage of larger junior classes (25 or more students) than Band 1 junior schools in 2014/15. This suggests that positive discrimination towards junior classes in Band 1 favoured junior classes in junior schools over junior classes in vertical schools.

The implementation of the maximum junior class size under DEIS can be considered in more detail by examining the data across junior grades in Band 1 schools in 2014/15 (Table 3). This shows that 71.5% of Band 1 junior infants classes had a maximum class size of 20, compared to 62.9% of senior infants classes, 58.5% of first classes, and 59.5% of second classes. Hence, among Band 1 schools, the maximum class size was most commonly applied in the junior infants grade. Additionally, the proportion of classes achieving a maximum of 20 or fewer students was not similar across grades, but rather decreased as grade level increased to first class, then increased marginally in second class.

Examining the data by school type reveals that the maximum class size was not applied consistently across junior grades in junior schools or vertical schools in Band 1 in 2014/15 (Table 3). Among junior schools, the maximum class size was most commonly applied to the junior infants grade (78.1%) and least commonly to second class (63.9%). Junior infants classes were similarly prioritised for the smaller class size in vertical schools (68.4%), while first classes (50%) were least prioritised. Across all junior infants grades, greater percentages of smaller classes (20 or fewer students) occurred in Band 1 junior schools than Band 1 vertical schools. The biggest difference by school type is observed for first classes; 76.2% of first classes in junior schools were comprised of 20 or fewer students in 2014/15 compared to 50% of first classes in vertical schools.

Further differences in class size across school types are evident when the percentages of classes of 22 or fewer students are examined (Table 3). In Band 1 junior schools, 94.6% of classes were comprised of 22 or fewer students in 2014/15, compared to 76.6% of classes in Band 1 vertical schools. In Band 1 vertical schools, a greater percentage of junior infants classes (82.5%) were comprised of 22 or fewer students, compared to senior infants (76.6%), first (72.7%), and second (73.5%) classes. The opposite pattern in observed in Band 1 junior schools, with a slightly greater percentage of classes of 22 or fewer students in second class (96.7%), compared to first class (94%), senior infants (94.5%) and junior infants (93.8%). As can be seen, junior schools in Band 1 had considerably greater percentages of junior classes of 22 or fewer students than did vertical schools in Band 1 across all grade levels.

It is noteworthy that in Band 1 vertical schools, second classes appear to have been prioritised over first classes for a reduced class size (20 or fewer students and 22 or fewer students) (see Table 3). This may reflect the prioritisation of *the most junior grades* in some schools. Indeed, an analysis of class sizes across all grades in Band 1 vertical schools by school type (all-through schools and senior schools enrolling second classes) shows a clear prioritisation of second classes in senior schools that enrol second classes (see Appendix B). Among vertical all-through schools, second classes were prioritised slightly over first classes for classes of 20 or fewer students, but not for classes of 22 or fewer. However, in all-through schools, third classes were prioritised over both first and second classes for reduced class sizes. In all-through schools, third classes are the most junior senior grade. It is possible that third classes were targeted over second classes (and first classes) for reduced class sizes in these schools in order to concentrate supports in the first senior year, in which demands on students are intensified.

In summary, Band 1 schools had a considerably higher percentage of smaller classes (20 or fewer students) overall and at all junior grades than did urban non-DEIS schools. In addition, junior infants classes appear to have been prioritised over other grades for the reduced class size in Band 1 schools (junior and vertical) in 2014/15. Greater implementation of the recommended class size occurred in Band 1 junior schools compared to Band 1 vertical schools, and this was evident at all grade levels. Overall, these findings provide additional evidence for positive discrimination towards Band 1 schools in terms of junior class size in 2014/15. Furthermore, these findings suggest more favourable class size conditions (as evidenced by greater percentages of smaller classes) in junior schools in Band 1 compared to vertical schools in Band 1.

Table 3: The number and percentage of single-grade junior classes in Band 1 junior schools, Band 1 vertical schools, and in all Band 1 schools (junior and vertical), that had 20 or fewer students, 22 or fewer students, and 25 or more students in 2014/15

	Number in class	**All junior classes (*n*=332)**	**Junior infants (*n=96*)**	**Senior infants (*n=91*)**	**First class (*n=84*)**	**Second class (*n=61*)**
Band 1 Junior Schools	≤ 20	243 (73.2%)	75 (78.1%)	65 (71.4%)	64 (76.2%)	39 (63.9%)
	≤ 22	314 (94.6%)	90 (93.8%)	86 (94.5%)	79 (94.0%)	59 (96.7%)
	≥ 25	-	-	-	-	-
	Number in class	**All junior classes (*n*=755)**	**Junior infants (*n=206*)**	**Senior infants (*n=192*)**	**First class (*n=176*)**	**Second class (*n=181*)**
Band 1 Vertical Schools	≤ 20	447 (59.2%)	141 (68.4%)	113 (58.9%)	88 (50.0%)	105 (58.0%)
	≤ 22	578 (76.6%)	170 (82.5%)	147 (76.6%)	128 (72.7%)	133 (73.5%)
	≥ 25	82 (10.9%)	19 (9.2%)	17 (8.8%)	23 (13.1%)	23 (12.8%)
	Number in class	**All junior classes (*n*=1,087)**	**Junior infants (*n*=302)**	**Senior infants (*n*=283)**	**First class (*n*=260)**	**Second class (*n*=242)**
All Band 1 Schools (Junior and Vertical)	≤ 20	690 (63.5%)	216 (71.5%)	178 (62.9%)	152 (58.5%)	144 (59.5%)
	≤ 22	892 (82.1%)	260 (86.1%)	233 (82.3%)	207 (79.6%)	192 (79.3%)
	≥ 25	82 (7.6%)	19 (6.3%)	17 (6.1%)	23 (8.8%)	23 (9.5%)

Table 4: The number and percentage of single-grade junior classes in urban non-DEIS junior schools, urban non-DEIS vertical schools, and all urban non-DEIS* schools (junior and vertical), that had 20 or fewer students, 22 or fewer students, and 25 or more students in 2014/15

	Number in class	All junior classes (*n=567*)	Junior infants (*n=161*)	Senior infants (*n=153*)	First class (*n=156*)	Second class (*n=97*)
Urban Non-DEIS Junior Schools	≤ 20	7 (1.2%)	1 (0.6%)	1 (0.7%)	2 (1.3%)	3 (3.1%)
	≤ 22	30 (5.3%)	6 (5.6%)	9 (5.9%)	4 (2.6%)	8 (8.2%)
	≥ 25	498 (87.8%)	136 (84.5%)	138 (90.2%)	139 (89.1%)	85 (87.6%)
	Number in class	**All junior classes (*n=3,149*)**	**Junior infants (*n=848*)**	**Senior infants (*n=797*)**	**First class (*n=745*)**	**Second class (*n=759*)**
Urban Non-DEIS Vertical Schools	≤ 20	213 (6.8%)	116 (13.7%)	45 (5.6%)	20 (2.7%)	32 (4.2%)
	≤ 22	417 (13.2%)	194 (22.9%)	94 (11.8%)	55 (7.4%)	74 (9.7%)
	≥ 25	2,394 (75.5%)	567 (66.9%)	623 (78.1%)	610 (81.9%)	576 (75.9%)
	Number in class	**All junior classes (*n*=3,716)**	**Junior infants (*n*=1,009)**	**Senior infants (*n*=950)**	**First class (*n*=901)**	**Second class (*n*=856)**
All Urban Non-DEIS Schools (Junior and Vertical)	≤ 20	220 (5.9%)	117 (11.6%)	46 (4.8%)	22 (2.4%)	35 (4.1%)
	≤ 22	447 (12.0%)	203 (20.1%)	103 (10.8%)	59 (6.5%)	82 (9.6%)
	≥ 25	2,874 (77.3%)	703 (69.7%)	761 (80.1%)	749 (83.1%)	661 (77.2%)

*Calculations were based on urban, single-grade, junior, non-DEIS classes for which location data were available (*n*=3,716). [All non-DEIS classes = 14,723, of which urban = 7,745; rural = 6,978; and missing location = 2,006].

To what extent was positive discrimination maintained for DEIS Band 1 schools in terms of junior class size between 2009/10 and 2014/15?

The findings of the current study thus far indicate a positive impact of the maximum class size recommendation under DEIS for junior classes in Band 1 schools, and provide clear evidence of positive discrimination towards these schools in 2014/15. However, another aim of this study was to determine if the positive discrimination that was observed in the data from 2009/10 for junior classes in Band 1 schools was maintained. To investigate this, class size data for 2009/10 and 2014/15 were compared.[15]

Average class sizes in 2009/10 and 2014/15

Between 2009/10 and 2014/15, the average junior class size in Band 1 schools increased by 4.4% (or 0.8 students) from 18.4 to 19.2 students (Figure 1). Hence, on average, junior classes in Band 1 schools were about one student larger in 2014/15 than in 2009/10. Over the same period, average junior class size in urban non-DEIS schools increased from 26.7 to 27, an increase of about 1% (or 0.3 students) (Figure 1).

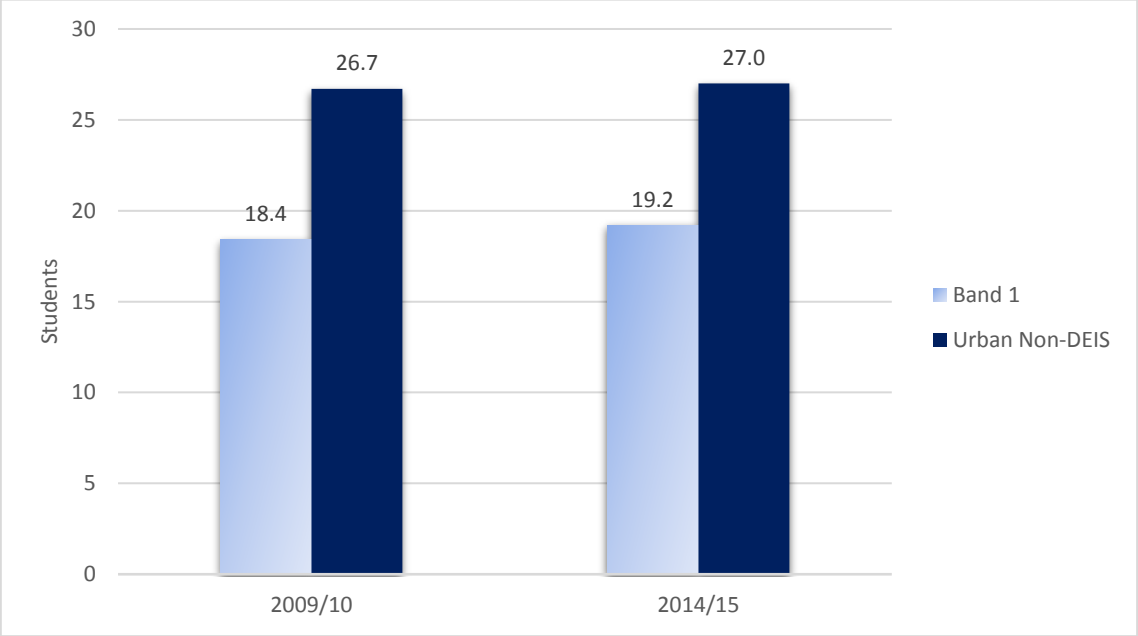


Figure 1: Average number of students in junior classes in 2009/10 and 2014/15 in Band 1 and urban non-DEIS schools

The largest increase in average junior class size between 2009/10 and 2014/15 was observed among Band 1 vertical schools (Figure 2). Average junior class size in Band 1 vertical schools increased by 6% (or 1.1 students), as compared to an increase of 0.8% (or 0.2 students) in urban non-DEIS vertical schools. In comparison, average class size in Band 1 junior schools increased by 1.1% (or 0.2 students), a slightly smaller amount than observed for junior class size in urban non-DEIS junior schools (2.2%, or 0.6 students).

[15] As previously described, data for 2009/10 were re-analysed with the data for students in mainstream classes who are from the Traveller community and students in mainstream classes who have special educational needs included. This means that the figures reported here differ from those reported by Weir and McAvinue (2012).

Examining the difference in average junior class sizes between Band 1 and urban non-DEIS schools in each year in question further highlights the change over time for Band 1 schools, and particularly Band 1 vertical schools (Figures 1 and 2). While in 2009/10, junior classes in Band 1 schools were smaller on average by 8.3 students than junior classes in urban non-DEIS schools, this difference narrowed (by 0.4) to 7.8 students in 2014/15 (Figure 1). Similarly, in 2009/10 the difference in average junior class size between Band 1 and urban non-DEIS *vertical* schools was 8.2 students, but this difference narrowed by one student (0.9) to 7.3 students in 2014/15. However, the difference in average junior class size between Band 1 *junior* schools and urban non-DEIS *junior* schools increased to 9 students, from a difference of 8.6 students in 2009/10 (Figure 2). These findings suggest that Band 1 schools experienced some erosion of positive discrimination over the period in question, and that this affected Band 1 vertical schools to a greater extent than Band 1 junior schools.

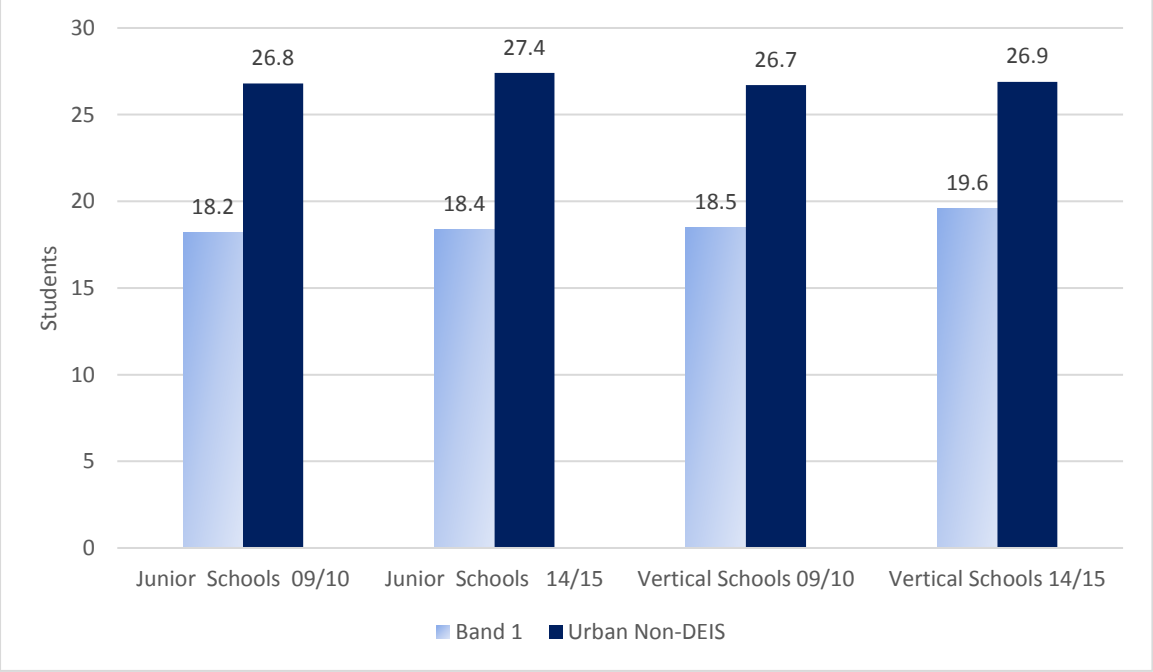
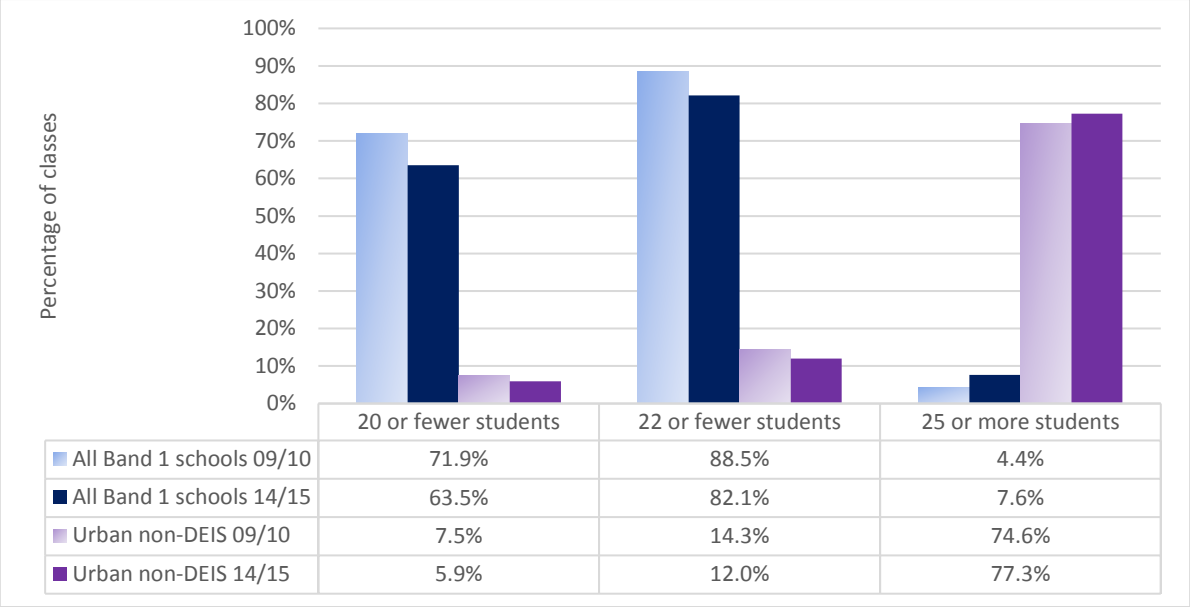


Figure 2: Average number of students in junior classes in 2009/10 and 2014/15 in Band 1 and urban non-DEIS schools, by school type (junior and vertical)

The percentages of smaller junior classes in 2009/10 and 2014/15

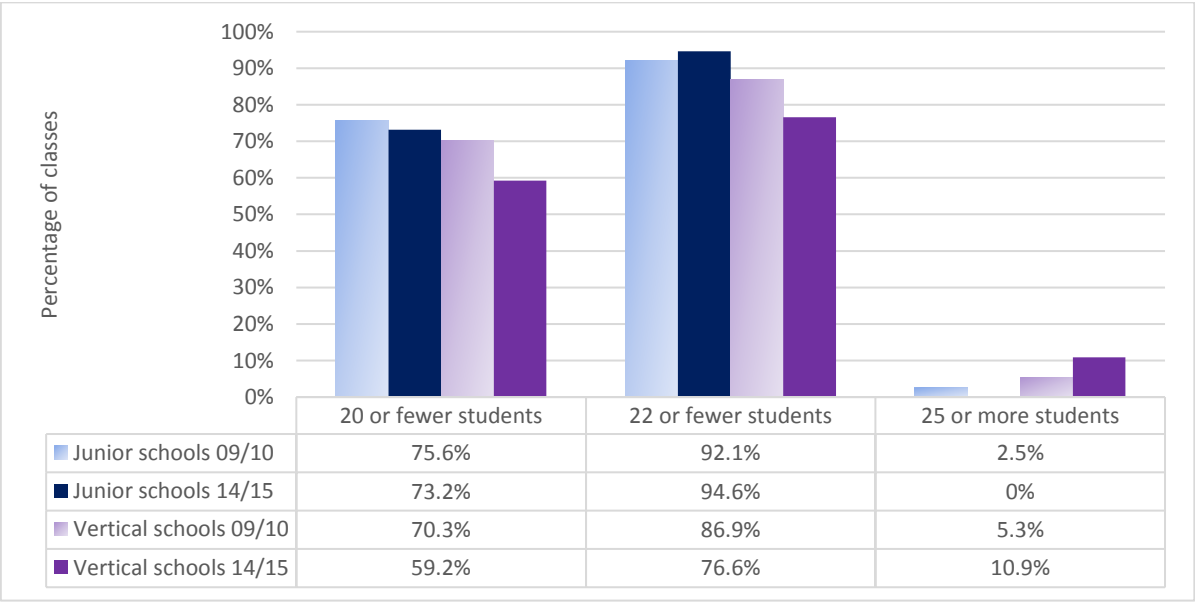
In order to further explore the level of positive discrimination for Band 1 schools between 2009/10 and 2014/15, data are presented in Figure 3 by school type (junior and vertical) and across the class size categories 20 or fewer students, 22 or fewer students, and 25 or more students. In 2009/10, 71.9% of junior classes in Band 1 schools had 20 or fewer students, compared to 63.5% in 2014/15 (a difference of 8.4). The percentage of junior classes of 22 or fewer also decreased over time in Band 1 schools (82.1% in 2014/15 versus 88.5% in 2009/01), while the percentage of larger classes (25 or more students) increased (from 4.4% in 2009/10 to 7.6% in 2014/15). Urban non-DEIS schools, in comparison, experienced marginal decreases in the percentages of junior classes of 20 or fewer students (from 7.5% to 5.9%) and 22 or fewer students (14.3% to 12%), and a small increase in the percentage of junior classes of 25 or more students (74.6% to 77.3%). These findings provide further evidence of some erosion of positive discrimination over time for Band 1 schools.



	20 or fewer students	22 or fewer students	25 or more students
All Band 1 schools 09/10	71.9%	88.5%	4.4%
All Band 1 schools 14/15	63.5%	82.1%	7.6%
Urban non-DEIS 09/10	7.5%	14.3%	74.6%
Urban non-DEIS 14/15	5.9%	12.0%	77.3%

Figure 3: The percentages of junior classes with 20 or fewer students, 22 or fewer students, and 25 or more students in 2009/10 and 2014/15 in all Band 1 schools and all urban non-DEIS schools

When the data are compared by school type, the erosion of positive discrimination for all Band 1 schools is evident, and suggests a greater impact on Band 1 vertical schools (Figure 4). Between 2009/10 and 2014/15, the percentage of junior classes with 20 or fewer students decreased substantially in Band 1 vertical schools (from 70.3% to 59.2%), as did the percentage of classes with 22 or fewer students (86.9% to 76.6%). Also, the percentage of larger junior classes (25 or more students) in Band 1 vertical schools doubled (from 5.3% to 10.9%) between 2009/10 and 2014/15. Junior schools, in comparison, experienced a slight decrease over time (from 75.6% to 73.2%) in the percentage of classes of 20 students or fewer. However, there was also an increase over time in the percentage of classes of 22 or fewer students in junior schools (from 92.1% to 94.6%), while the percentage of larger classes decreased to zero (from 9 classes in 2009/10 to zero classes in 2014/15).



	20 or fewer students	22 or fewer students	25 or more students
Junior schools 09/10	75.6%	92.1%	2.5%
Junior schools 14/15	73.2%	94.6%	0%
Vertical schools 09/10	70.3%	86.9%	5.3%
Vertical schools 14/15	59.2%	76.6%	10.9%

Figure 4: The percentages of Band 1 junior classes with 20 or fewer students, 22 or fewer students, and 25 or more students in 2009/10 and 2014/15 by school type (junior and vertical)

In 2014/15, as in previous years, Band 1 vertical schools had autonomy in the allocation of teachers across junior and senior grades (based on an allocation of 22 students to each mainstream teacher) to achieve the recommended class sizes under DEIS. It is possible that this has contributed (at least in part) to the erosion of positive discrimination evidenced for junior classes in vertical schools in 2014/15. To explore this further, class sizes were examined across grades in Band 1 vertical schools in 2014/15. Data were first examined between all junior grades and between all senior grades for all vertical schools, vertical 'all-through' schools, and vertical senior schools (senior schools enrolling second classes) (Table 5). This suggests that in vertical schools, junior classes (junior infants through second) were prioritised to some extent over senior classes (third through sixth) for smaller classes. There was a slightly higher percentage of classes of 22 or fewer in junior grades combined (76.6%) than in senior grades combined (73.2%) in all vertical Band 1 schools. The same pattern applies for Band 1 'all-through' schools (76.2% of junior classes and 71.9% of senior classes), and for Band 1 senior schools enrolling second classes (83.8% of second classes and 79.3% of senior classes).

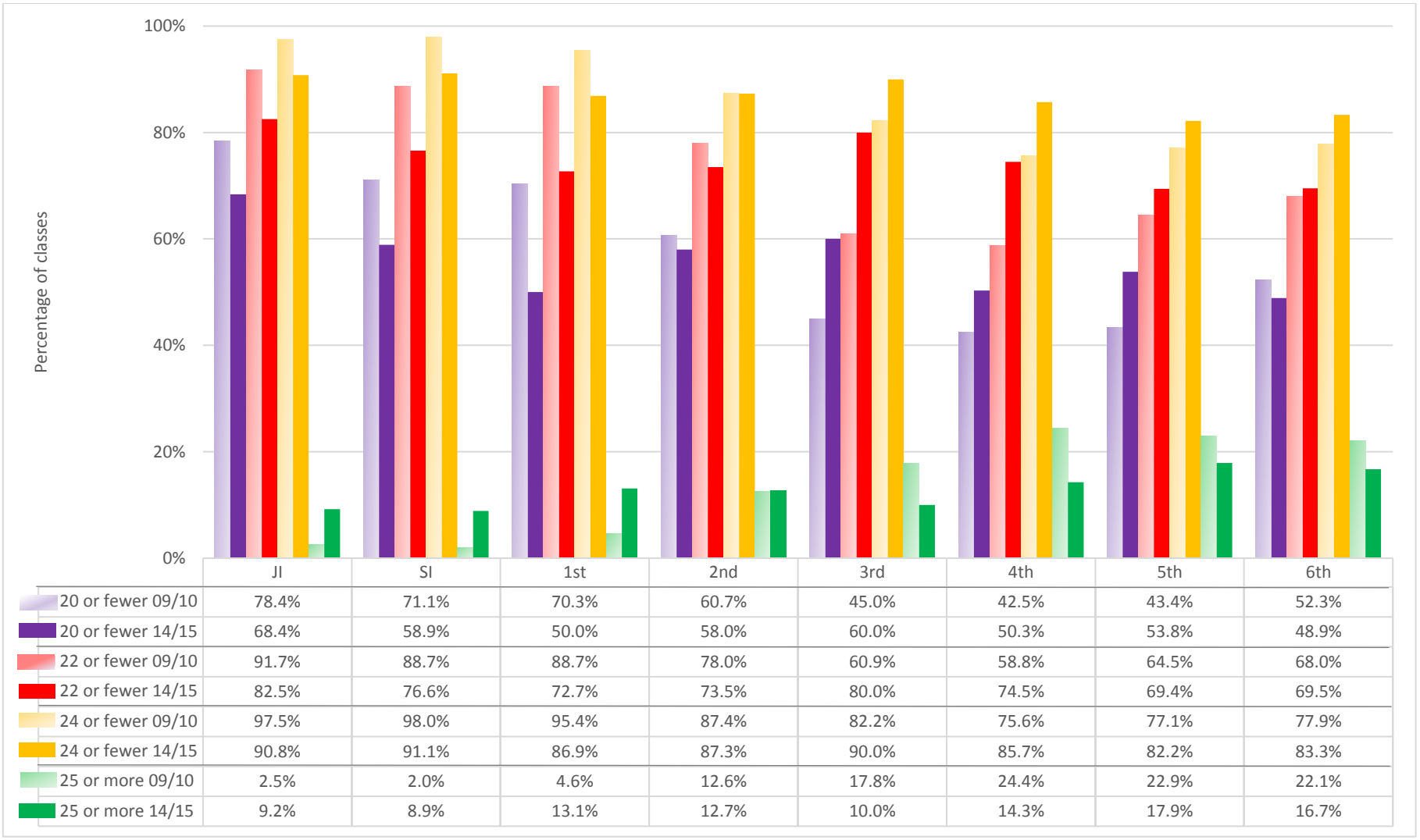
Table 5: The number and percentage of junior and senior single-grade classes in Band 1 vertical schools, 'all-through' schools, and vertical senior schools (senior schools with second classes) that had 22 or fewer students in 2014/15*

All Band 1 Vertical Schools			
No in class	**Total** ***n*=1,423**	**Junior** ***n*=755**	**Senior** ***n*=688**
≤ 22	1,067 (75.0%)	578 (76.6%)	489 (73.2%)
Band 1 Vertical 'All-through' Schools			
No in class	**Total** ***n*=1,265**	**Junior** ***n*=718**	**Senior** ***n*=547**
≤ 22	940 (74.3%)	547 (76.2%)	393 (71.9%)
Band 1 Vertical Senior Schools (Senior Schools with Second Classes)			
No in class	**Total** ***n*=158**	**Junior** ***n*=37**	**Senior** ***n*=121**
≤ 22	127 (80.4%)	31 (83.8%)	96 (79.3%)

*Calculations were based on single grade classes in all Band 1 schools (*n*=1,969). [Junior classes = 332 (16.9%); classes in senior schools without second classes = 241 (10.9%); classes in senior schools with second classes = 158 (8.0%); and classes in 'all-through' schools = 1,265 (64.2%)].

Next, to gain further insight into the changes in positive discrimination for Band 1 vertical schools between 2009/10 and 2014/15, the pattern of class size distribution across grades in both years is compared in Figure 4. The data show that class size conditions among the junior grades were considerably less favourable in 2014/15 than in 2009/10. The percentage of junior classes with 20 or fewer students, 22 or fewer students, and 24 or fewer students decreased in Band 1 vertical schools between 2009/10 and 2014/15, while the percentage of junior classes of 25 or more students increased. This decline affected first classes more than any other junior grade. Indeed, 70.3% of first classes in 2009/10 had 20 or fewer students compared to 50% in 2014/15, while the percentage of first classes with 25 or more students rose from 4.6% to 13.1%. The percentage of first classes with 22 or fewer students also declined between 2009/10 and 2014/15 (from 88.7% to 76.6%). The most junior grades (junior infants and senior infants) also evidenced substantial declines in smaller classes. For example, 68.4% of junior infants classes had 20 or fewer students in 2014/15 compared to 78.4% in 2009/10, while 82.5% of junior infants classes had 22 or fewer students in 2014/15 compared to

91.7% in 2009/10. Furthermore, the percentage of larger classes (25 or more students) increased from 2.5% to 9.2% for junior infants classes and from 2.0% to 8.9% for senior infants classes. Second classes experienced the least amount of change among junior classes between the two years, but the percentage of smaller second classes (20 or fewer students and 22 or fewer students) still declined between 2009/10 and 2014/15. The findings thus show that the erosion of positive discrimination for Band 1 vertical schools impacted most on the most junior classes, and on first classes in particular. It is also worth noting that the percentage of smaller senior classes increased at all grade levels between 2009/10 and 2014/15, while the percentage of larger senior classes declined at all grade levels (Figure 4). Taken together, the findings suggest that over time there has been a deterioration of class size conditions for junior classes in vertical schools, but an improvement in conditions among senior classes in vertical schools. The majority of Band 1 schools [73.8% (138)] in 2014/15 were vertical schools and the majority of Band 1 classes were in these schools [72.2% (1,423)].



	JI	SI	1st	2nd	3rd	4th	5th	6th
20 or fewer 09/10	78.4%	71.1%	70.3%	60.7%	45.0%	42.5%	43.4%	52.3%
20 or fewer 14/15	68.4%	58.9%	50.0%	58.0%	60.0%	50.3%	53.8%	48.9%
22 or fewer 09/10	91.7%	88.7%	88.7%	78.0%	60.9%	58.8%	64.5%	68.0%
22 or fewer 14/15	82.5%	76.6%	72.7%	73.5%	80.0%	74.5%	69.4%	69.5%
24 or fewer 09/10	97.5%	98.0%	95.4%	87.4%	82.2%	75.6%	77.1%	77.9%
24 or fewer 14/15	90.8%	91.1%	86.9%	87.3%	90.0%	85.7%	82.2%	83.3%
25 or more 09/10	2.5%	2.0%	4.6%	12.6%	17.8%	24.4%	22.9%	22.1%
25 or more 14/15	9.2%	8.9%	13.1%	12.7%	10.0%	14.3%	17.9%	16.7%

Figure 5: The percentage of classes of 20 or fewer students, 22 or fewer students, 24 or fewer students, and 25 or more students in vertical schools in 2009/10 and 2014/15

Summary and Conclusion

Research examining the impact of class size on achievement indicates that class size reduction is most effective in the first four years of schooling, that children from disadvantaged backgrounds benefit most, and that beneficial effects decrease as grade level increases (e.g., Shin & Chung, 2009). In Ireland, there is a history of positive discrimination towards schools serving disadvantaged communities through policies that have provided for the reduction of primary class size, with the targeting of junior grades for smaller classes prioritised. Previous analyses have shown that maximum class size policies under schemes addressing disadvantage have been successful in achieving reductions in class sizes in participating urban schools. The current study sought to assess the extent to which the recommended junior class sizes under DEIS were achieved in Band 1 schools in 2014/15. It also sought to determine if there is any evidence of a change in the level of positive discrimination towards junior classes in Band 1 DEIS schools noted in Weir and McAvinue's study in 2012, in which comparable data for 2009/10 were described.

In summary, the analyses of junior class sizes revealed a high level of implementation of the maximum class size policy under DEIS in 2014/15. The analyses also indicated a class size advantage for junior classes in Band 1 schools over junior classes in urban non-DEIS schools, and this was most evident for classes in junior schools (i.e., schools enrolling from junior infants through first or second class only). The study further revealed that the very junior grades were prioritised to some extent for smaller classes in Band 1 schools in 2014/15. This was evidenced in the higher percentage of small classes (20 or fewer students) at junior infants grade in both junior schools and vertical schools (i.e., schools with both junior and senior classes) in Band 1, and also in the percentage of smaller second classes in some vertical schools (i.e., senior schools enrolling second class through sixth class) in Band 1. Second class is *the most junior grade* in senior schools that enrol second classes, which in 2014/15 represented 13.4% (25) of schools in DEIS Band 1 (Table 1). In vertical 'all-through' schools (i.e., schools enrolling junior infants through sixth class), which represented 60.5% (113) of all urban Band 1 schools in 2014/15, although the greatest percentage of smaller classes were found at junior infant level, analyses revealed that third classes were targeted over second classes (and first classes) for reduced class sizes.

While there was clear evidence of positive discrimination towards Band 1 schools in terms of junior class size in 2014/15, a comparison of the data between 2009/10 and 2014/15 revealed some erosion of positive discrimination over time. Specifically, average junior class sizes in Band 1 schools increased between 2009/10 and 2014/15, particularly in vertical schools compared to vertical urban non-DEIS schools. Also, the percentage of smaller junior classes (20 or fewer students and 22 or fewer students) decreased in all Band 1 schools over time, with the very junior classes, particularly first class, most affected. Again, vertical schools in Band 1 were more adversely impacted than junior schools in Band 1. It is important to note that the decrease in the percentage of smaller junior classes over that period in vertical schools in Band 1 was accompanied by an increase in the percentage of smaller senior classes at all grade levels in these schools. This reflects schools' allocation of teachers across junior and senior classes in light of the maximum class sizes possible under DEIS (20 students in junior classes and 24 students in senior classes). It should also be noted that it is relatively easy to reduce average class size in the context of falling enrolments, but more difficult to do so when enrolments are rising as has been the case since 2009/10 (DES, 2010-2015).

In conclusion, junior classes in Band 1 schools were substantially smaller than junior classes in non-DEIS schools in 2014/15, confirming the positive impact of class size policy under DEIS. However,

there is evidence of some erosion of positive discrimination since comparable analyses were undertaken on the size of classes in Band 1 schools in 2009/10. Ongoing monitoring of schools' implementation of various aspects of DEIS, including class size, is recommended.

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Appendix A

Schedule of Enrolment of Pupils Governing the Appointment and Retention of Mainstream Class Teachers in **DEIS Urban Band 1 National Schools** for the 2012/13 school year

(The figures required for these purposes are enrolments on 30th September 2011) **STAFFING SCHEDULE FOR 2012/2013 SCHOOL YEAR**			
Principal plus mainstream classroom teachers (MCT) as follows:	**Schools with Junior Classes only (20:1)** Appointment & Retention	**Schools with Senior classes only (24:1)** Appointment & Retention	**Schools with Vertical classes (22:1)** Appointment & Retention
P+1	14*	14 *	14*
P+2	41	49	45
P+3	61	73	67
P+4	81	97	89
P+5	101	113	111
P+6	116	116	116
P+7	121	145	133
P+8	141	169	155
P+9	161	193	177
P+10	181	217	199
P+11	201	241	221
P+12	221	265	243
P+13	241	289	265
P+14	261	313	287
P+15	281	337	309
P+16	301	361	331
P+17	321	385	353
P+18	341	409	375
P+19	361	433	397
P+20	381	457	419
P+21	401	481	441
P+22	421	505	463
P+23	441	529	485
P+24	461	553	507
P+25	481	577	529
P+26	501	601	551
P+27	521	625	573
P+28	541	649	595
P+29	561	673	617
P+30	581	697	639

Note 1: The appointment and retention figures in respect of the first, second and third MCTs that are marked with an asterisk above will increase further for the 2013-2014 and 2014-2015 school years as follows:

Number of Mainstream Classrooms 2013-2014 2014-2015
Principal and 1 17 20
Principal and 2 54 56
Principal and 3 85 86

Note 2: For the 31st MCT and upward, add an additional 28 validly enrolled pupils for Ordinary schools, Gaelscoileanna and Gaeltacht national schools.

Reproduced from Department of Education and Skills (2012).

Appendix B

Table A1: The number and percentage of single-grade classes in Band 1 vertical schools, 'all through' schools, and vertical senior schools (senior schools with second classes) that had 20 or fewer students, 22 or fewer students and 24 or fewer students in 2014/15*

All Band 1 Vertical Schools

No in class	Total *n*=1,423	Jnr I *n*=206	Snr I *n*=192	First *n*=176	Second *n*=181	Third *n*=160	Fourth *n*=161	Fifth *n*=173	Sixth *n*=174
≤ 20	802 (56.4%)	141 (68.4%)	113 (58.9%)	88 (50.0%)	105 (58.0%)	96 (60.0%)	81 (50.3%)	93 (53.8%)	85 (48.9%)
≤ 22	1,067 (75.0%)	170 (82.5%)	147 (76.6%)	128 (72.7%)	133 (73.5%)	128 (80.0%)	120 (74.5%)	120 (69.4%)	121 (69.5%)
≤ 24	1,242 (87.3%)	187 (90.8%)	175 (91.1%)	153 (86.9%)	158 (87.3%)	144 (90.0%)	138 (85.7%)	142 (82.2%)	145 (83.3%)

Band 1 Vertical 'All Through' Schools

No in class	Total *n*=1,265	Jnr I *n*=206	Snr I *n*=192	First *n*=176	Second *n*=144	Third *n*=133	Fourth *n*=131	Fifth *n*=141	Sixth *n*=142
≤ 20	707 (55.9%)	141 (68.4%)	113 (58.9%)	88 (50.0%)	79 (54.9%)	81 (60.9%)	63 (48.1%)	74 (52.5%)	68 (47.9%)
≤ 22	940 (74.3%)	170 (82.5%)	147 (76.6%)	128 (72.7%)	102 (70.8%)	106 (79.7%)	94 (71.8%)	96 (68.1%)	97 (68.3%)
≤ 24	1,103 (87.2%)	187 (90.8%)	175 (91.1%)	153 (86.9%)	125 (86.8%)	120 (90.2%)	110 (84.0%)	114 (80.9%)	119 (83.8%)

Band 1 Vertical Senior Schools (Senior Schools with Second Classes)

No in class	Total *n*=158	Jnr I *n*=0	Snr I *n*=0	First *n*=0	Second *n*=37	Third *n*=27	Fourth *n*=30	Fifth *n*=32	Sixth *n*=32
≤ 20	95 (60.1%)	-	-	-	26 (70.3%)	15 (55.6%)	18 (60.0%)	19 (59.4%)	17 (53.1%)
≤ 22	127 (80.4%)	-	-	-	31 (83.8%)	22 (81.5%)	26 (86.7%)	24 (75.0%)	24 (75.0%)
≤ 24	139 (88.0%)	-	-	-	33 (89.2%)	24 (88.9%)	28 (93.3%)	28 (87.5%)	26 (81.3%)

*Calculations were based on single grade classes in all Band 1 schools (*n*=1,969). [Junior classes = 332 (16.9%); classes in senior schools without second classes = 241 (10.9%); classes in senior schools with second classes = 158 (8.0%); and classes in 'all through' schools = 1,265 (64.2%)].