Analysis of School Attendance Data in Primary and Post-Primary Schools, 2006/7 and 2007/8

Report to the National Educational Welfare Board

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Executive Summary

Response of Schools to NEWB *Annual Attendance Report* have levelled off

- The response rates, while remaining high, have levelled off at both primary (95.0%) and post-primary (91.0%).

Reliability of Data for National and School Level Analyses

- The data provided by the *Annual Attendance Report* continue to provide information that can be used to monitor non-attendance, expulsion, and suspension in all primary and post-primary schools at a national level.

- Procedures set in place to improve the quality of data by NEWB appear to be working, particularly for the 2007/8 data.

Figures for General Non-Attendance Stable

- The percentage of student/days lost through absence is running at over 6% in primary schools and around 8% in post-primary schools. These figures have remained quite stable over the period 2003/4 to 2007/8. Across the five years the range of values for primary is 0.3% and for post-primary 0.6%. However, in the post-primary sector this variation has been less in the last three years (0.2%), when school response rates to the *Annual Attendance Report* have been higher.

- Over 57,000 students miss school each day, consisting of approximately 31,500 primary and 26,000 post-primary students. This is a loss of 12 school days per student per year in primary school and 13 days per year in post-primary school.

Figures for Twenty-Day Absences Stable

- The figures for twenty-day absence have remained fairly stable over the past five years. The year-to-year variability in twenty-day absences is greater than for general non-attendance.

- About 12% of primary school students and 17% of post-primary students were absent for 20 days or more during the school year. This is approximately 58,000 primary school students, and 57,000 post-primary students.

Non-Attendance higher in Special Schools

- In the primary school sector non-attendance is substantially higher in special schools and in ordinary schools with special classes.

Non-Attendance in Primary School Higher in Urban Areas

- Rates of general non-attendance in primary schools are higher in towns and cities than they are in rural areas. Absences of 20 days or more are almost twice as high.

Expulsions Still Rare

- Only 12 expulsions were reported in primary schools in 2006/7 and 15 in 2007/8. The corresponding figures at in post-primary schools were 151 and 136, accounting for just 0.05% of students.

Suspensions Occur Mostly in Post-Primary Schools

- Just over 5% of post-primary students were suspended in 2006/7 or 2007/8. The figures for primary schools were 0.3% in 2006/7 and 0.2% in 2007/8

Highest Non-Attendance in Vocational and Community/Comprehensive Schools

- Rates of non-attendance are higher in vocational and community / comprehensive schools than in secondary schools.

Irish non-attendance figures similar to those in Northern Ireland and the UK

- Non attendance in Irish primary schools was 5.7% of student/days in 2007/8 (removing data for special schools) compared to between 4.9% and 6.7% for Northern Ireland, England, Scotland and Wales. Non-attendance for post-primary schools was 7.7% of student days, compared to between 7.3% and 9.1%.

Year on year variability in absences within schools

- High variability in reported non-attendance at the school level (either due to errors in measuring or reporting, or due to true year-on-year variability) means that non-attendance at the school level is best measured by an average of recent years' returns.

Annual Attendance Reports 2006/7 and 2007/8: Main Statistics

Response Rate of Schools to the Annual Attendance Report

	2006/7	*2007/8*
Primary	**96.1%**	**95.0%**
Post-Primary	**91.9%**	**91.0%**

Non-Attendance

	2006/7	*2007/8*	
Primary	**6.2%**	**6.5%**	*Student-level*[1]
Post-Primary	**7.6%**	**7.7%**	

Twenty-Day Absences

	2006/7	*2007/8*	
Primary	**10.9%**	**12.0%**	*Student-level*
Post-Primary	**17.8%**	**16.9%**	

Expulsions

	2006/7	*2007/8*
Primary	12	15
	0.003%	**0.003%**
Post-Primary	151	136
	0.050%	**0.045%**

Suspensions

	2006/7	*2007/8*
Primary	1,146	1,143
	0.3%	**0.2%**
Post-Primary	15,857	15,915
	5.2%	**5.3%**

[1] Student-level figures, directly interpretable as percentages of students, are used in Section 1 2006/7 and 2007/8 report.

Introduction

This is the fourth in a series of reports based on data collected by NEWB on non-attendance in primary and post-primary schools. Data for the years 2003/4 through to 2005/6 are the focus of the earlier reports (Weir (2004), Ó Briain (2006), and Mac Aogáin (2008)).

Mac Aogáin (2008) reported on data from 2005/6 and integrated this with data covered by Weir (2004) and Ó Briain (2006) for 2003/4 and 2004/5. Over the three years response rates rose from 79% (in 2003/4) to 95% in primary schools, and in post-primary schools, from 71% to 88%. The high response rate in 2005/6 prompted Mac Aogáin (2008) to conclude that "This means that data provided by the *Annual Attendance Report* now constitute a national data base that can be used to monitor non-attendance, expulsion, and suspension in all of the country's primary and post-primary schools" (p. i).

Figures for non-attendance remained stable despite the increase in the number of schools responding over the period. Student days lost were over 6% in primary and around 8% in post-primary schools. Twenty-day absences were running at 11% for primary school pupils and 17% of post-primary students. Expulsions were rare in primary schools and while there were a greater number of suspensions these were still comparatively rare. The number of suspensions in post-primary schools was 20 times higher than the primary schools figure.

The three previous reports looked at the relationship between absenteeism and a number of background variables. At primary level the rates of general non-attendance were found to be higher in towns and cities than in rural areas. Similar analysis was not conducted at post-primary level as practically all post-primary schools are situated in a town or city.

In post-primary schools rates of non-attendance and 20-day absences were higher in vocational schools, next highest in community/comprehensive schools and lowest in secondary schools.

NEWB data were matched to data collected and held by the Educational Research Centre (ERC) relating to social exclusion. The ERC data relate to the general setting in which the schools operate, including various forms of educational disadvantage, and the academic achievement of their students. Absence from school, particularly in terms of suspensions or missing more than 20 days or more schooling, have been a central feature of social exclusion as measured in school surveys at national level.

The analysis of the matched data revealed that in the primary sector schools with high levels of non-attendance are more likely to have higher proportions of pupils living in local authority accommodation, more lone-parent families, and more families where the main earner in unemployed. Higher levels of non-attendance are also associated with lower academic performance. The same broad pattern is found in post-primary schools. High levels of non-attendance are linked to higher rates of poverty, with higher dropout rates, and with poorer performance in the Junior Certificate Examination.

The Current Report

This report deals with data for the academic years 2006/7 and 2007/8 and links to the data reported previously.

The report is in three sections:

1 *Non-Attendance in 2003/4 to 2007/8,* integrating all of the NEWB data so far, with summary statistics for the period, and a discussion of issues relating to the data set as a whole.

2 *Non-Attendance in Primary Schools in 2006/7 and 2007/8,* which provides data for non-attendance by school location (urban / rural) and county by county figures.

3 *Non-Attendance in Post-Primary Schools in 2006/7 and 2007/8,* which provides data for non-attendance by school type (community / comprehensive, secondary, vocational) and county by county figures.

Methodology

Data from NEWB was linked to school data from the Department of Education and Science (DES) listing of primary and post-primary schools for all five years (2003/4 to 2007/8). Rather than simply providing a 'snap-shot' of absenteeism data this approach allows for a longitudinal view of year-on-year variability in non-attendance within each school, even where data was unavailable for one or more years. In addition, the linking of DES data across years can allow for analysis of where schools have recently opened or amalgamated, or where schools are in the process of being wound down – something which might be associated with a year-on-year increase or decrease in absenteeism as total pupil numbers increase or decrease. Such a pattern might otherwise be interpreted as the result of some other school baseds factor.

Data for all years are used to calculate a measure of the year-on-year variability of reported non-attendance (appendix). These statistics can be for to improve the quality of data in future years.

Section 1

Non-Attendance Data, 2003/4 to 2007/8

1.1 Response Rate

Table 1.1 provides a national context for the tables to follow. It shows the number of primary and post-primary schools in the state, together with the number of pupils in those schools for the years 2003/4 to 2007/8. Data for the first three years are taken from the DES *Tuarascáil Staitistiúil* for these years (DES, 2005, 2006, 2007). Data for 2006/7 and 2007/8 were provided directly to the Educational Research Centre (ERC) by DES Statistics Section.

Table 1.1
Number of Primary and Post-Primary Schools and Students, 2003/4 to 2007/8

Primary		*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
	Schools	3,278	3,284	3,284	3,284	3,282
	Students	446,029	449,298	457,889	471,519	486,444
Post-Primary						
	Schools	743	742	735	732	731[2]
	Students	337,851	335,162	332,407	333,718	335,123

There has been an increase of just over 40,000 pupils (9.1%) in the primary school sector since 2003/04. In post-primary schools the numbers of pupils have been more stable over the period, with the numbers in 2007/8 down 0.8% on the 2003/4 figures.

Numbers of schools responding to the *Annual Attendance Report* and response rates in 2006/7 and 2007/8 are presented in Table 1.2. The corresponding figures for 2003/4 to 2005/6 (Mac Aogáin, 2008) are included.

Table 1.2
Response to the Annual Attendance Report, 2003/4 to 2007/8

Primary	*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
Schools	3,278	3,284	3,284	3,284	3,282
Schools Responding	2,601	2,664	3,108	3,156	3,117
Response Rate	**79.3%**	**81.1%**	**94.6%**	**96.1%**	**95.0%**
Post-Primary					
Schools	743	742	735	732	730
Schools Responding	527	562	648	673	664
Response Rate	**70.9%**	**75.7%**	**88.2%**	**91.9%**	**91.0%**

[2] Although the DES data lists 731 schools, enrolment data is only available for 730. In all later tables 730 is taken as the base.

Response rates appear to be levelling off in the low 90s percent for post-primary and mid 90s for primary schools. Indeed, there was a slight fall (about 1%) in the numbers of schools responding in 2007/8 when compared with the previous year.

Data for non-attendance was unavailable for 165 primary schools for 2007/8. Twenty-nine of these schools had however returned data on all previous occasions. Thirty-five primary schools have never returned data on non-attendance for any of the five years. Eighteen of these schools are special schools. Of the remaining 17, five are new schools (opened since 2004/5 or more recently).

Sixty-six post-primary schools failed to return data for the school year 2007/8. Four of these are new schools (opened since 2004/5 or more recently) but the remaining 62 schools have been in existence since at least 2002/3, the year before which NEWB began collecting data on absenteeism. Twenty-four schools have never returned data The majority of these schools (22) are vocational schools catering for older post-primary students. Seventeen of these vocational schools did not have any students listed under the Junior or Leaving Certificate programme for the year 2007/8 according to DES data. Under the reporting guidelines that operate for the *Annual Attendance Report* schools are to exclude post-Leaving Certificate students but include data on students over 16. Thirteen schools that failed to provide information for 2007/8 returned data on all previous occasions.

The pattern of responding outlined above suggests that the *Annual Attendance Report* is effectively a census at both primary and post-primary level. However, at post-primary there appears to be a small core of schools that are not participating. Perhaps the particular circumstances of these schools, mostly identified as senior colleges or colleges of further education, needs to be considered by the NEWB staff tasked with coordinating with schools in the collection of data. It seems likely that the lack of data is due to the nature of the student intake. If so, it should be considered whether or not these schools should be included in future reports since their inclusion falsely lowers the response rate[3].

1.2 Results of the *Annual Attendance Report*

The core of the NEWB data-set consists of four variables. They record

(1) 'total number of days lost through student absence in the entire school year',

(2) 'number of students who were absent for 20 days or more in the school year',

(3) 'total number of students expelled in respect of whom all appeal processes have been exhausted', and

(4) 'total number of students who were suspended'.

[3] Twenty-two vocational schools on the DES post-primary database had only post-Leaving Certificate students in the year 2007/8. If these schools are removed, since they are not in the target population for the *Annual Attendance Report*, the response rate for post-primary schools becomes 664/708 = 93.4%.

The numbers of schools listed in the tables below sometimes differ slightly from one table to the next. This is because schools providing data for one form of non-attendance may have had missing or unusable data for another.

1.2.1 Non-Attendance

The data provided by the first item *Annual Attendance Report* is referred to as 'non-attendance' in this report, in order to distinguish it from the more specific forms of non-attendance associated with 20-day absences, expulsions and suspensions. It is always expressed as the percentage of available student/days that are lost through absence. Non-attendance figures for 2003/4 to 2007/8 are presented in bold type in Table 1.3. Above them, are the numbers of students, student/days, days in the school year, and student/days lost, from which they are calculated, together with the number of schools providing data.

Table 1.3 Non-Attendance, *2003/4 to 2007/8*

Primary	*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
Schools	2,427	2,606	3,016	3,152	3,116
Students	334,720	365,011	424,138	456,589	464,951
School Days per Year	183	183	183	183	183
Student/Days	61,253,760	66,796,013	77,617,254	83,555,787	85,086,033
Student/Days Lost	3,880,465	4,163,321	4,901,703	5,155,060	5,497,895
	6.3%	**6.2%**	**6.3%**	**6.2%**	**6.5%**
Post-Primary					
Schools	383	539	637	669	664
Students	164,417	233,331	283,187	301,787	301,204
School Days per Year	167	167	167	167	167
Student/Days	27,457,639	38,966,277	47,292,229	50,398,429	50,301,068
Student/Days Lost	2,225,792	3,075,797	3,536,414	3,831,729	3,895,214
	8.1%	**7.9%**	**7.5%**	**7.6%**	**7.7%**

The information contained in the rows of the table is as follows:

Schools refers to the number schools providing usable data. The figure is therefore slightly smaller than the figure for *Schools Responding* (to the questionnaire) in Table 1.2. Note that the latter, in turn, is smaller than the *Schools* figure reported in Table 1.1, which refers to every school in the country.

Students gives the official DES enrolment figures for the schools in question, in the year in question.

School Days per Year is 183 in primary schools and 167 in post-primary schools.

Student/Days is the product of *Number of Students* and *School Days per Year*. In a primary school with 100 students it would be 18,300. It gives the maximum

number of daily attendances that could be recorded in the school for the year. This figure would be achieved only if every student was present on every school day. *Student/Days Lost* is the figure requested by the first item on the *Annual Attendance Report*, 'individual student absences'. Ideally, it would correspond to the number of zeros recorded in an error-free roll-book for that year.

Non-Attendance is the same as *Student/Days Lost*, except that it is now expressed as a percentage of *Total Student/Days*, the maximum attendance that is possible. Thus *Non-Attendance* is *Student/Days Lost* divided by *Total Student/Days*, multiplied by 100 to convert the resulting proportion to a percentage.

The data show non-attendance was 6.5% in primary schools in 2007/8 and just over one percentage point higher for post-primary schools (7.7%). Across the five years the range of values for primary is 0.3% (between a minimum of 6.2% and a maximum of 6.5%) and for post-primary 0.6% (between 7.5% and 8.1%). However, in the post-primary sector this variation has been less in the last three years (0.2%), when school response rates to the *Annual Attendance Report* have been higher. The degree to which variation in the data is due to continuing issues with data quality and the continuing 'bedding-down' of the reporting and follow-up procedures or due to underlying fluctuations is unclear.

1.2.2 Twenty-Day Absences

Figures provided by schools for 'students who were absent for 20 days or more' during the 2006/7 and 2007/8 school years are summarised in Table 1.4, with corresponding figures from 2003/4 to 2005/6.

Table 1.4
Twenty-Day Absences, 2003/4 to 2007/8

Primary	*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
Schools	2,572	2,656	3,104	3,156	3,117
Students	358,853	373,082	435,158	456,866	465,047
20-Day Absences	42,085	41,365	50,251	49,982	55,795
	11.7%	**11.1%**	**11.5%**	**10.9%**	**12.0%**
Post-Primary					
Schools	512	558	648	673	662
Students	221,705	241,758	288,135	303,468	300,401
20-Day Absences	38,107	41,566	46,238	54,005	50,893
	17.2%	**17.2%**	**16.0%**	**17.8%**	**16.9%**

The percentage of twenty-day absences continues in the range of approximately 11-12% in primary schools and 16-18% in post primary schools. The 2007/8 figure for primary schools is at the top of the range, while for post-primary the figure is lower for 2007/8 than for the previous year.

1.2.3 Expulsions

The numbers of expulsions reported for 2006/7 and 2007/8 are shown in Table 1.5, along with equivalent figures for 2003/4 to 2005/6. Expulsions remain rare across the period, particularly in primary schools. Although rare, the figures in post-primary schools are comparatively higher in 2006/7 and 2007/8. This may be related to higher response rates from schools to the *Annual Attendance Report* in more recent years.

Table 1.5
Expulsions, 2003/4 to 2007/8

Primary	*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
Schools	2,568	2,650	3,106	3,155	3,117
Students	357,856	371,984	435,208	456,643	465,124
Expulsions	10	5	15	12	15
	0.003%	**0.001%**	**0.003%**	**0.003%**	**0.003%**
Post-Primary					
Schools	512	560	648	672	664
Students	221,130	246,060	288,135	302,967	301,204
Expulsions	59	93	118	151	136
	0.027%	**0.038%**	**0.041%**	**0.050%**	**0.045%**

1.2.4 Suspensions

The numbers of suspensions reported for 2006/7 and 2007/8 are shown in Table 1.6, with equivalent figures for 2004/5 and 2005/6. No data on suspensions were gathered in 2003/4. Suspensions are comparatively rare in primary schools compared to post-primary schools (0.2% in primary and 5.3% in post-primary for the population of pupils in schools that made returns for 2007/8). In percentage terms these figures have remained fairly constant over the four-year period for which data has been gathered. Suspensions are far more common than expulsions in both primary and post-primary.

Table 1.6 *Suspensions, 2003/4 to 2007/8*

Primary	*2003/4*	*2004/5*	*2005/6*	*2006/7*	*2007/8*
Schools	No data	2,650	3,106	3,156	3,117
Students		371,626	435,208	456,866	465,124
Suspensions		908	1,135	1,146	1,143
		0.2%	**0.3%**	**0.3%**	**0.2%**
Post-Primary					
Schools	No Data	557	648	673	664
Students		239,617	288,135	303,468	301,204
Suspensions		11,746	14,294	15,857	15,915
		4.9%	**5.0%**	**5.2%**	**5.3%**

1.3 Aspects of Non-Attendance

Non-attendance, defined as the percentage of all student/days lost through absence, needs to be discussed briefly. Twenty-day absences do not require any further discussion here, and neither do expulsions and suspensions.

1.3.1 Non-Attendance in the Population and in Schools

Firstly, non-attendance for the entire population of students, which has just been reported on, needs to be distinguished from non-attendance in a particular school. In this section of the report, non-attendance has in all cases been treated as feature of the population of students nationally, and the statistic is computed and presented accordingly, as shown above in Table 1.3. Schools don't enter the picture, except for their role in providing the data. Numbers of student/days lost through non-attendance are added up school by school, and only when the total number of student/days lost nation-wide has been calculated is non-attendance expressed as a percentage, by dividing through by the maximum student/days achievable nationwide in the year in question.

In Sections 2 and 3 of the report, on the other hand, non-attendance is given as a separate figure for each school. These figures are close to 0% in some schools and can be 20% or more in others. This rescaling, relative to the size of the school, provides an index that shows to what extent each school is affected by the phenomenon of non-attendance. Such school-based indices of non-attendance are essential in establishing relationships between non-attendance and other school-based measures of educational disadvantage, such as retention rates and academic achievement. They are also needed to link non-attendance to aspects of disadvantage described only at school level, as will be done in the following two sections of this report. In this Section, however, non-attendance refers to the percentage of students absent from school each day.

1.3.2 Precision of Non-Attendance Figures

Non-attendance is rounded to one decimal place in this report. This is the usual practice in the international literature, consistent with the view that two decimal places would overstate the level of precision that is to be expected in national non-attendance data. Nonetheless, Table 1.7 shows that a difference of even one tenth of one percent in non-attendance nationally amounts to a very substantial numbers of student/days saved or lost. Thus the reported figure of 6.5% for non-attendance in primary schools in 2007/8 suggests an increase of 0.3% in the figure of 6.2% reported for 2006/7, implying a loss of 255,000 additional student days.

Table 1.7
Differences in Percentage Non-Attendance Nationally, Expressed as Changes in Numbers of Student/Days, 2007/8

	Primary	*Post-Primary*
Non-Attendance (NA)	6.5	7.7
Population of Students	464,951	301,204
School Days	183	167
Student/Days	85,086,033	50,301,068
0.1% gain/loss in NA as Student/Days	85,086	50,301

This is the equivalent of .6 of one student day lost for every student in the country. The question arises whether the data are accurate enough to be interpreted in this way, or whether changes of the magnitude of 0.3% should be treated as random fluctuations due to error in the data. This is the question that is addressed next.

1.3.3 Other Formulations of Non-Attendance Rates

Since non-attendance is reported as a percentage of student/days, where the latter is the product of Total Students and Total School Days, it can be applied directly to either of these figures, as is done in Table 1.8 for the 2007/8 data. When applied in this way, the non-attendance percentage returns figures for

(1) students absent per day, and

(2) days lost per student per year .

Table 1.8
Re-Expressions of Non-Attendance, 2007/8

	Primary	Post-Primary
Non-Attendance	6.5	7.7
Total Students	486,444	335,125
Students Absent per Day	31,500	26,000
Total School Days	183	167
Days Lost per Student	12	13

Section 2

Non-Attendance in Primary Schools, 2006/7 and 2007/8

2.1. Non-Attendance by School Type

The treatment of special schools (which are formally part of the primary school sector) has varied across the reports prepared for NEWB based on non-attendance data from the *Annual Attendance Report*. Weir (2004) and Ó Briain (2006) did not include data from special schools when reporting on primary school non-attendance. Mac Aogáin (2008) included data from special schools but did not distinguish between special schools and other primary level schools.

Irish pupils with special educational needs may attend special schools or special classes within 'mainstream' schools. Table 2.1 shows the percentage of available student/days lost through absence for mainstream schools, mainstream schools with special classes, and special schools. The total figures are directly comparable to those shown in Table 1.3, above.

Table 2.1
Percentage of available student/days lost through absence by school type, 2006/7 and 2007/8

	2006/7		*2007/8*	
	Non-Attendance	*Schools*	*Non-Attendance*	*Schools*
Ordinary	5.4	2,480	5.7	2,435
Ordinary with special classes	7.5	572	7.8	584
Special	11.3	100	11.0	97
Total	6.2	3,152	6.5	3,116

It is apparent that schools with pupils with special educational needs have higher levels of non-attendance. The rate of non-attendance in special schools is about twice the rate in mainstream schools.

2.2. Non-Attendance in Urban and Rural Schools

NEWB non-attendance data gathered from primary schools were merged with data maintained by the ERC on the same schools. The ERC data is based on a nationwide survey of disadvantage in all mainstream primary schools conducted in 2005. The ERC data includes details on school location and level of disadvantage. As noted above, special schools were not included in the survey and these schools are not included in the following analysis. A total of 2,967 schools (94.0% of the schools that returned *AAR* data) were matched for 2006/7 and 2,897 schools (92.9% of the schools that returned *AAR* data) for 2007/8. Table 2.2 gives averages for non-attendance, 20-day absences, and suspensions in urban and rural primary schools. Expulsions have not been included because of the low numbers.

Table 2.2
Non-Attendance in Urban and Rural Primary Schools, 2006/7 and 2007/8

	2006/7			*2007/8*		
Non Attendance	*Mean*	*N Schools*	*SD*	*Mean*	*N Schools*	*SD*
Rural Schools	4.90	1,923	1.80	5.21	1,885	1.74
Urban Schools	6.95	1,044	3.45	7.26	1,012	3.16
Total	5.62	2,967	2.69	5.93	2,897	2.53
20-Day Absences	*Mean*	*N Schools*	*SD*	*Mean*	*N Schools*	*SD*
Rural Schools	7.14	1,923	6.08	8.38	1,885	12.12
Urban Schools	13.86	1,044	9.95	15.06	1,012	9.74
Total	9.51	2,967	8.16	10.71	2,897	11.79
Suspensions	*Mean*	*N Schools*	*SD*	*Mean*	*N Schools*	*SD*
Rural Schools	.06	1,923	.45	.07	1,885	.54
Urban Schools	.37	1,044	1.18	.34	1,012	.96
Total	.17	2,967	.80	.16	2,897	.72

Non-attendance in all forms is higher in urban schools. This is in line with the findings for previous years. Twenty-day absences distinguish urban from rural schools much more sharply than general non-attendance does. Suspensions, while uncommon in either school type, are more common in urban schools.

In looking at table 2.2 it should be remembered that data on absenteeism is here reported at the school level (see section 1.3.1 above). For example, for the 2,897 matched schools in 2007/8 the percentage of days lost was calculated for *each* school. Then the mean and standard deviation for all schools was calculated. Thus for the 1,885 schools the mean percentage of student days lost per school was 5.21%. The mean percentage of school days lost for the 1,012 urban schools was higher, 7.26%. However, there was some variation within each school type (as measured by the standard deviation), with this spread being greater for urban schools. Much the same is true for the twenty-day absences and suspensions. For the 2,897 schools in 2007/8, the mean school figure for the percentage of pupils missing twenty days' schooling was almost 11% (10.7%). However, there were considerable differences between schools as shown by the large standard deviation (11.89). This means that some schools will have had no pupils absent for twenty or more days while others will have more than one fifth (20%) of pupils missing this number of days.

2.3 DEIS Categories and Non-Attendance

In addition to information on school location, the ERC data provides information on levels of disadvantage in schools. The DEIS categories can be equated with the amount of assistance received by schools in the School Support Programme (SSP). This yields five categories: (1) Rural not in SSP, (2) Rural in SSP, (3) Urban not in SSP, (4) Urban in SSP Band 2, and (5) Urban in SSP Band 1. SSP schools experience higher levels of disadvantage than non-SSP schools. For urban schools there are two SSP bands, with schools in band 1 experiencing greater levels of disadvantage.

Figures for non-attendance in the DEIS classification of schools are presented in Tables 2.3, 2.4 and 2.5.

Table 2.3
Non-Attendance and DEIS Categories

		2006/7			*2007/8*		
		Mean	*Schools*	*SD*	*Mean*	*Schools*	*SD*
Rural	Not in SSP	4.79	1,605	1.65	5.12	1,572	1.54
Rural	In SSP	5.43	318	2.37	5.68	313	2.46
Urban	Not in SSP	6.03	729	2.31	6.33	701	2.04
Urban	In SSP Band 2	7.88	129	3.70	8.27	130	3.29
Urban	In SSP Band 1	9.94	186	4.87	10.12	181	4.45
	Total	5.62	2,967	2.69	5.93	2,897	2.53

Table 2.4
Twenty-Day Absences and DEIS Categories

		2006/7			*2007/8*		
		Mean	*Schools*	*SD*	*Mean*	*Schools*	*SD*
Rural	Not in SSP	6.77	1,605	5.62	8.01	1,572	12.63
Rural	In SSP	9.03	318	7.76	10.25	313	8.95
Urban	Not in SSP	10.26	729	7.05	11.53	701	7.08
Urban	In SSP Band 2	18.50	129	8.02	19.09	130	8.25
Urban	In SSP Band 1	24.78	186	9.62	25.82	181	10.61
	Total	9.51	2,967	8.16	10.71	2,897	11.79

A comparison of the first two tables (Tables 2.3 and 2.4), for non-attendance and 20-day absences, shows that it is 20-day absences that are most closely linked to DEIS categories. Table 2.3 shows that *Urban Not in SSP* in both 2006/7 and 2007/8 actually has higher non-attendance than *Rural in SSP*. Table 2.4, on the other hand, shows a substantial difference in twenty-day absences between the lowest and the highest DEIS categories. It also places schools, from lowest to highest-scoring for 20-day absences, in the same order as their DEIS rankings, which is not the case for non-attendance, in Table 2.3. The figures and pattern of returns for both non-attendance and are similar to those reported in 2005/6 20-day absences (Mac Aogáin, 2008).

Table 2.5
Suspensions and DEIS Categories

		2006/7			*2007/8*		
		Mean	*Schools*	*SD*	*Mean*	*Schools*	*SD*
Rural	Not in SSP	0.05	1,605	0.41	0.06	1,572	0.49
Rural	In SSP	0.11	318	0.63	0.12	313	0.74
Urban	Not in SSP	0.15	729	0.50	0.14	701	0.50
Urban	In SSP Band 2	0.56	129	1.67	0.38	130	0.86
Urban	In SSP Band 1	1.09	186	2.06	1.07	181	1.72
	Total	0.17	2,967	0.80	0.16	2,897	0.72

The figures for suspensions and DEIS categories are given in Table 2.5.
As noted above, suspensions are probably still too infrequent in primary schools to give this variable a substantial correlation with other disadvantage variables. The figures for 2006/7 and 2007/8 are again very similar to those reported for 2005/6.

2.4. Non-Attendance by Province and County

Tables 2.6 and 2.7 show the data from the *Annual Attendance Report* for 2006/7 and 2007/8. The data for non-attendance, 20-day absences, expulsions and suspensions are calculated in each area in the same way as reported for tables 1.3 to 1.6 above. This means that absenteeism data are directly comparable although the absolute numbers of pupils differ between regions and counties.

As elsewhere in this section, the data in tables 2.6 and 2.7 are calculated at the school level and then the average non-attendance is reported for all schools in a particular category. Thus in table 2.6 the mean percentage of school days lost is 6.4 in Leinster schools and 5.4 in schools in Ulster (Part of). This one percent difference represents almost 2 school days per year per child. Again from table 2.6 we see that the mean percentage of pupils per school who are absent twenty-days or more (Abs20) was 12.0% for Leinster and 8.7% for Ulster.

From tables 2.6 and 2.7 it is apparent that expulsions (Exp.) and suspensions (Sus.) are very unlikely for any particular school. This reflects the data reported earlier which showed that the number of expulsions and suspensions in primary schools was very low.

Table 2.6*Non-attendance by county for Primary schools 2006/7*

	Abs.	Abs20	Exp.	Sus.
LEINSTER	6.4	12.0	0.004	0.3
Carlow	5.6	12.3	0.017	0.1
Dublin	6.9	13.9	0.022	0.5
Kildare	6.5	10.1	0.000	0.2
Kilkenny	4.6	7.9	0.011	0.2
Laois	5.9	10.8	0.000	0.3
Longford	6.1	11.9	0.000	0.2
Louth	6.6	12.2	0.000	0.2
Meath	5.3	8.4	0.000	0.1
Offaly	5.8	11.2	0.011	0.2
Westmeath	5.8	10.7	0.000	0.2
Wexford	6.5	12.2	0.000	0.3
Wicklow	6.1	9.9	0.000	0.3
MUNSTER	5.9	9.7	0.002	0.2
Clare	5.7	9.9	0.000	0.1
Cork	5.6	8.8	0.002	0.2
Kerry	6.2	11.1	0.000	0.1
Limerick	6.6	11.2	0.000	0.3
Tipperary N.R.	5.4	9.0	0.000	0.1
Tipperary S.R.	6.4	9.6	0.010	0.0
Waterford	6.0	10.0	0.000	0.2
CONNACHT	6.1	10.3	0.002	0.1
Galway	6.6	10.7	0.000	0.1
Leitrim	5.6	9.6	0.000	0.1
Mayo	5.5	9.9	0.008	0.1
Roscommon	5.8	9.4	0.000	0.1
Sligo	6.1	11.0	0.000	0.0
ULSTER (part of)	5.4	8.7	0.000	0.1
Cavan	5.3	9.5	0.000	0.1
Donegal	5.5	8.5	0.000	0.1
Monaghan	5.5	8.2	0.000	0.0
STATE	6.2	10.9	0.003	0.3

Table 2.7 *Non-attendance by county for Primary schools 2007/8*

	Abs.	Abs20	Exp.	Sus.
LEINSTER	6.7	13.2	0.004	0.3
Carlow	6.0	12.5	0.017	0.3
Dublin	7.1	14.8	0.005	0.5
Kildare	6.8	11.8	0.000	0.1
Kilkenny	5.3	9.1	0.000	0.1
Laois	6.2	10.9	0.000	0.4
Longford	6.7	13.1	0.000	0.3
Louth	7.1	12.9	0.007	0.2
Meath	6.2	9.7	0.000	0.1
Offaly	6.3	16.6	0.010	0.2
Westmeath	6.3	11.7	0.000	0.2
Wexford	6.4	13.2	0.000	0.3
Wicklow	6.5	11.6	0.007	0.3
MUNSTER	6.2	10.8	0.003	0.2
Clare	6.2	9.4	0.000	0.1
Cork	5.9	9.6	0.002	0.2
Kerry	6.5	12.2	0.000	0.1
Limerick	7.2	12.9	0.010	0.3
Tipperary N.R.	5.8	9.7	0.000	0.1
Tipperary S.R.	6.2	11.3	0.011	0.2
Waterford	6.0	12.1	0.000	0.2
CONNACHT	6.2	11.6	0.002	0.2
Galway	6.4	12.1	0.000	0.2
Leitrim	5.9	9.6	0.000	0.0
Mayo	5.8	11.1	0.008	0.2
Roscommon	5.8	10.0	0.000	0.1
Sligo	6.6	13.0	0.000	0.2
ULSTER (part of)	5.8	9.7	0.000	0.0
Cavan	5.7	10.8	0.000	0.1
Donegal	6.0	9.8	0.000	0.0
Monaghan	5.7	8.1	0.000	0.0
STATE	6.5	12.1	0.003	0.2

Section 3

Non-Attendance in Post-Primary Schools, 2006/7 and 2007/8

3.1. Secondary, Vocational, and Community/Comprehensive Schools

Non-Attendance data for secondary, vocational, and community/comprehensive schools are shown in Table 3.1. All forms of non-attendance are generally lowest in secondary schools and higher in vocational schools and community/comprehensive schools.

Table 3.1
Non-Attendance and Type of School

	2006/7			*2007/8*		
Type of School	*Mean*	*Schools*	*SD*	*Mean*	*Schools*	*SD*
Non-Attendance						
Secondary	7.18	372	2.93	7.18	371	3.43
Comm. / Comp.	8.74	88	3.73	8.87	86	3.34
Vocational	8.98	209	3.54	9.17	207	4.10
Total	7.95	669	3.35	8.02	664	3.76
20-Day Absences						
Secondary	14.92	374	10.99	14.13	370	10.24
Comm. / Comp.	20.59	88	12.55	23.27	86	12.80
Vocational	21.43	210	11.78	22.96	206	13.35
Total	17.70	672	11.65	18.07	662	12.43
Expulsions						
Secondary	.07	375	.44	.04	371	.14
Comm. / Comp.	.04	88	.16	.06	86	.20
Vocational	.11	210	1.02	.08	207	.23
Total	.08	673	.66	.05	664	.18
Suspensions						
Secondary	4.72	375	5.16	4.50	371	4.93
Comm. / Comp.	6.96	88	6.77	6.57	86	6.47
Vocational	6.80	210	6.80	7.40	207	7.01
Total	5.66	673	6.02	5.67	664	6.00

3.2 DEIS and Non-Attendance

Non-attendance data in DEIS and all other schools are summarised in Table 3.2. The numbers of schools providing data are given in brackets.

Table 3.2
Non-Attendance in DEIS Schools

	2006/7		*2007/8*	
	DEIS	*Other*	*DEIS*	*Other*
Non-Attendance	9.88 (186)	7.16 (486)	10.14 (188)	7.18 (476)
20-Day Absences	25.89 (186)	14.57 (486)	26.54 (187)	14.76 (476)
Expulsions	0.09 (185)	0.04 (487)	0.12 (188)	0.03 (476)
Suspensions	9.93 (185)	4.03 (487)	9.94 (188)	3.99 (476)

DEIS schools show higher figures for all forms of non-attendance. 20-day absences are about twice the rate in DEIS schools compared to non-DEIS schools. A similar pattern is shown for expulsions and suspensions.

3.3. Non-Attendance by Province and County

Tables 3.3 and 3.4 show the data from the *Annual Attendance Report* for 2006/7 and 2007/8. The data for non-attendance, 20-day absences, expulsions and suspensions are calculated in each area in the same way as reported for tables 1.3 to 1.6 above. This means that absenteeism data are directly comparable although the absolute numbers of students differ between regions and counties.

As with the other tables in this section, the data in tables 3.2 and 3.3 are calculated at the school level and then the average non-attendance is reported for all schools in a particular category. Thus in table 3.2 the mean percentage of school days lost is 7.7 in Leinster schools and 8.2 in schools in Ulster (Part of). Again from table 3.2 we see that the mean percentage of pupils per school who are absent twenty-days or more (Abs20) was 16.9% for Leinster and 18.8% for Ulster.

Table 3.3 *Non-attendance by county for post-primary schools 2006/7*

	Abs.	Abs20	Exp.	Sus.
LEINSTER	7.7	16.9	0.064	6.1
Carlow	7.7	17.2	0.086	3.3
Dublin	7.9	18.3	0.160	6.6
Kildare	7.9	15.6	0.041	5.5
Kilkenny	6.7	14.4	0.307	3.1
Laois	7.6	19.4	0.093	5.7
Longford	8.0	18.4	0.058	7.4
Louth	8.0	18.3	0.021	4.4
Meath	7.1	11.6	0.022	5.9
Offaly	8.0	17.7	0.000	5.3
Westmeath	6.8	10.9	0.069	6.7
Wexford	7.4	15.5	0.036	7.7
Wicklow	7.8	16.1	0.052	5.9
MUNSTER	7.0	14.3	0.035	4.1
Clare	7.6	11.8	0.000	3.7
Cork	6.8	14.7	0.025	4.1
Kerry	8.2	18.3	0.022	3.8
Limerick	6.5	13.9	0.072	4.3
Tipperary N.R.	7.5	16.3	0.077	3.4
Tipperary S.R.	7.1	11.2	0.065	4.7
Waterford	6.4	10.5	0.000	4.1
CONNACHT	8.1	18.6	0.025	4.2
Galway	8.0	19.0	0.018	4.1
Leitrim	9.5	22.5	0.043	4.0
Mayo	8.7	18.5	0.031	3.1
Roscommon	7.9	17.6	0.000	6.3
Sligo	6.5	14.6	0.047	5.7
ULSTER (part of)	8.2	18.8	0.048	5.9
Cavan	8.5	22.4	0.077	7.6
Donegal	8.3	17.3	0.033	5.9
Monaghan	7.6	19.5	0.058	4.4
STATE	7.6	17.8	0.050	5.2

Table 3.4 *Non-attendance by county for post-primary schools 2007/8*

	Abs.	Abs20	Exp.	Sus.
LEINSTER	7.8	18.1	0.052	6.3
Carlow	6.9	14.1	0.036	3.9
Dublin	8.0	19.6	0.067	6.8
Kildare	7.7	15.3	0.025	7.1
Kilkenny	6.9	13.4	0.057	4.2
Laois	7.7	23.6	0.071	5.2
Longford	7.9	21.9	0.058	7.1
Louth	7.6	16.8	0.000	6.0
Meath	6.9	13.2	0.029	5.6
Offaly	8.5	20.7	0.039	6.1
Westmeath	7.6	16.2	0.028	5.6
Wexford	8.2	19.1	0.063	6.2
Wicklow	7.7	17.8	0.051	6.3
MUNSTER	7.3	14.8	0.035	4.1
Clare	7.6	12.8	0.015	4.5
Cork	7.2	14.9	0.022	3.9
Kerry	8.3	19.2	0.000	3.5
Limerick	7.2	14.6	0.077	4.9
Tipperary N.R.	6.7	16.7	0.115	2.2
Tipperary S.R.	7.2	11.9	0.038	5.0
Waterford	7.3	10.6	0.028	4.8
CONNACHT	8.0	18.4	0.030	3.8
Galway	7.8	18.2	0.064	4.1
Leitrim	9.6	21.3	0.000	3.6
Mayo	8.5	20.1	0.010	2.8
Roscommon	7.5	18.9	0.000	5.3
Sligo	6.9	13.5	0.000	3.7
ULSTER (part of)	8.9	21.2	0.057	5.1
Cavan	9.3	23.5	0.197	7.2
Donegal	9.3	20.7	0.034	4.7
Monaghan	7.7	20.7	0.000	4.2
STATE	7.7	19.2	0.045	5.3

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Appendix

Comparison with Northern Irish and British Rates of Non-attendance

Table 1 shows data non-attendance in Ireland and the nations of the UK for 2007/8.

Table 1 *Total Absence in Primary and Secondary Schools in Ireland and the UK 2007/8*

	Primary		Post-primary	
	Unauthorised	Overall	Unauthorised	Overall
Ireland	-	6.5%	-	7.7%
Northern Ireland	1.1%	5.2%	2.6%	7.8%
England	0.6%	5.3%	1.4%	7.3%
Scotland	-	4.9%	-	8.9%
Wales	0.9%	6.7%	1.8%	9.1%

Non-attendance rates for 2007/8 are over one percentage point higher in Irish primary schools than schools in Northern Ireland, England and Scotland, and about the same as for Wales. At post-primary only England has a lower rate of non-attendance.

Two things are worth noting when comparing the data. First, Northern Ireland England and Wales provide data on unauthorised (and authorised) absences. As noted by Mac Aogáin (2008), there are obvious difficulties with the notion of unauthorised absence as a variable in a national data-base. Subjective judgments about the reasons for absence are inevitably involved in deciding whether or not it is authorised. In addition, authorisation may be easier to get in some schools than in others. And even if reasonably objective criteria for unauthorised absence could be established and implemented nation-wide, it does not follow, in any case, that fully authorised absence, complete with letters, certificates, etc., can be treated as if it were not a problem. On the other hand, the UK data on authorised and unauthorised absences is quite detailed (Northern Ireland Statistics and Research Agency, 2009) and lists eight reasons for authorised and four for unauthorised absence. If such level of detail were of interest to NEWB then perhaps the UK model of data collection could provide a template.

The second point to be taken into consideration is that the UK data differentiates between special schools and 'ordinary' schools in the primary sector. The Irish data in Table 1 and in previous tables treat special and ordinary primary schools together. This approach is in line with that taken by Mac Aogáin (2008) but differs from the two previous NEWB attendance reports (Weir, 2004; Ó Briain, 2006) where data for special schools was not reported on at all. Table 2 shows Irish primary data by school type together with Northern Irish data

Table 2
Total Absence in Primary, Special and Secondary Schools in Ireland and Northern Ireland 2007/8

	Ireland	Northern Ireland
Primary	5.7%	5.2%
Primary with special class(es)	7.8%	-
Special	11.0%	11.7%

Two things can be taken from Table 2. First, while non-attendance in primary schools is still higher in Ireland than in Northern Ireland, the difference is in the order of half a percentage point rather than 1.3%. Second, the rate of non-attendance is higher in primary schools with special classes and special schools. Indeed, the rate of absenteeism in special schools is almost twice the figure for ordinary schools. Given this, and given the desire to understand and deal with certain aspects of non-attendance, it is perhaps not the best policy to treat the primary school sector as an homogenous whole. This is not done in other jurisdictions. Neither is data at post-primary taken as a whole, either in previous NEWB reports or here. In the case of post-primary schools mention has previously been made of higher rates of non-attendance in vocation schools compared to secondary schools (Weir, 2004; Ó Briain, 2006 and Mac Aogáin, 2008).

Measurement error

Measurements of non-attendance within schools will not be the same year to year. This will be due to natural variations in attendance, variation in how accurately attendance is recorded, or a combination of both. The variation in figures from year to year from the same school allows us to estimate the school level measurement error. We can do this by calculating the within-school standard deviation (Bland and Altman, 1996). This can be done for all schools where we have at least two years' measurement of non-attendance. As the number of years for which we have data for each school increases, even if the absolute rates of return for the *Annual Attendance Report* do not increase, we should be able to produce better and better estimates to allow us to determine where changes from year to year within schools, actually represent real trends as opposed to random fluctuation.

The within school standard deviation (SDw), that is the year on year variability in reported rates of non-attendance, may be used and interpreted in two important ways. First, the difference between the reported rate of non-attendance and the true value for non-attendance in a particular school should be less than twice the SDw for 95% of schools. Second, the year to year difference in non-attendance should be less that 2.77 times the SDw for 95% of schools (Bland and Altman, 1996).

The SDw for primary schools is 2.33% of pupil days (based on 3185 schools, 97.0% of those open in 2007/8). This means that for any particular primary school the 'true' value for non-attendance in 2007/8 should ±4.7% of student days. When we consider that (from Table 1.3) the overall average non-attendance is 6.5% of student days it is apparent that the year-on-year data at the school level are very variable. If a particular primary school reported non-attended at about the student-level national average then the 95% confidence limits would be 1.8% and 11.2%. In practical terms this means

that it would be unwise to use the data as a valid measure of non-attendance at the school level for a particular year. If analysis of the data is to be done at school level it would be better to use the average figures for the two or three most recent returns.

The second interpretation of the SDw (that the year to year difference in non-attendance should be less that 2.77 times the SDw for 95% of schools) is useful for checking on data quality at the input stage. It would be relatively simple to produce an automated system to flag an entry for a school that was greater (or less) than would be expected. This would allow the persons tasked with data entry to immediately detect any key punch error that they might have made. If the school data was accurately input at the NEWB end then the school could be flagged for contact in order to check that the data sent was correct. If the data was correct then the school liaison might be in a position to explain the change. If incorrect, then the correct figure could be collected. Such a scheme would improve the situation in four ways. First, data could be checked and corrected in a timely manner. Second, reasons for substantial fluctuations within particular schools could be ascertained, thus improving the understanding of some of the within school factors influencing non-attendance. Third, the use of a fixed method and figure for defining what exactly constitutes a dubious return would reduce the ad hoc process of data cleaning. Fourth, as random error was removed from the data the year on year data will become more reliable an accurate and the confidence intervals will shrink.

The SDw for post-primary schools is 2.87% of pupils days (based on 687 schools, 94.1% of those open in 2007/8). This means that for any particular school the true percentage student days lost is likely to be in the range ±5.7% of student days. For data entry schools with figures ±7.9% of the previous year's attendance figures would be highlighted for checking.