A REPORT ON THE EVALUATION OF DEIS AT SECOND LEVEL

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PREFACE

The DEIS programme (Delivering Equality of Opportunity in Schools) has been operating in just under 200 second level schools since 2006/2007. An evaluation of the programme has been ongoing since that time, and this report is designed to describe a range of evaluation activities and outcomes between 2007 and 2013.

What is DEIS, and how were second level schools selected to participate?

DEIS is the most recent programme aimed at addressing the educational needs of children and young people from disadvantaged communities. DEIS was introduced in 2006/2007 by the Department of Education and Science, now renamed the Department of Education and Skills (DES). About 340 urban primary, 340 rural primary, and about 200 second level schools that were assessed as having the highest levels of disadvantage were invited to participate in the School Support Programme (SSP)[1] component of DEIS. Under the SSP, existing interventions for schools and school clusters/communities with concentrated levels of educational disadvantage were consolidated (DES, 2005). The Educational Research Centre (ERC) is conducting an evaluation of the SSP under DEIS for the Department of Education and Skills. Accounts of the evaluation at primary level are contained in Weir, Archer & Millar, 2009; Weir & Archer, 2011, Weir & McAvinue, 2012; Weir & McAvinue, 2013, and Weir & Denner, 2013).

While primary schools were identified for the programme based on a survey of principals about the socioeconomic characteristics of their pupils, second level schools were identified using data provided to the ERC by the DES. The ERC was provided with a variety of post-primary databases containing various educational and socioeconomic data and asked that schools be ranked on the basis of levels of disadvantage for consideration for the post-primary dimension of DEIS. The development of an index by which schools could be rank ordered was guided by the wording in Section 32 (9) of the Education Act (1998), in which disadvantage is defined in

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[1] The current report relates to second level schools in the 'SSP' (i.e., DEIS schools assessed as having the highest levels of disadvantage), although in common parlance - and occasionally in the current report - SSP schools are referred to as DEIS schools.

terms of both learning outcomes and social and economic factors (i.e., educational disadvantage exists when poor educational outcomes are related to student background factors). On this basis, it was felt that, for a school to be eligible for extra resources under DEIS, there ought to be evidence that the school was experiencing educational problems (e.g., it was below average on the percentage of students retained to Junior Certificate) **and** had above average percentage enrolment of students from poor backgrounds (e.g., large percentages of medical card holders). Therefore, the index needed to contain at least one educational measure and at least one socioeconomic measure. Following a try-out of different combinations of variables, the final index was based on adding the percentage of medical cards at Junior Cycle and the percentage of students that dropped out prior to completing Junior Cycle to the following variables: the percentage retention rate to Junior Cycle; an examination or Overall Performance Score (OPS) based on the average Junior Certificate Examination performance of all students in the school; and the percentage retention rate to Senior Cycle. In the case of each of the variables, averages for several years were used in the ranking process (see Weir, 2006 for more detail on the ranking process).

At second level, there are currently 194 schools nationwide in receipt of additional resources under DEIS. In the current school year, participating schools receive some or all of the following measures under the SSP:

- From the 2012/13 school year, all DEIS post-primary schools will be targeted for additional support through an improved staffing schedule of 18.25:1. This is a 0.75 point improvement compared to the existing standard 19:1 which applied in non-fee charging schools. Circular 0009/2012
- DEIS grant paid based on level of disadvantage and enrolment - DEIS Funding Guidelines
- Access to Home School Community Liaison services
- Access to Schools Meals Programme
- Access to a range of supports under School Completion Programme
- Access to Junior Certificate Schools Programme (JCSP)
- Some JCSP schools have a library
- Access to Leaving Certificate Applied Programme (LCA)
- Access to planning supports
- Access to a range of professional development supports
- Additional funding under School Books Grant Scheme

(Source: DES, 2014)

This report focuses in particular on schools' implementation of particular measures in the list above. Among these are educational programmes aimed at disadvantaged students, the uptake of which varies depending on the circumstances of individual schools. While all schools have access to HSCL and School Completion, there are lower levels of uptake of alternatives to traditional second level educational programmes such as the JCSP and the LCA (uptake of these is examined in Chapter 2). The JCSP, introduced in 1996, is a national programme sponsored by the DES and the National Council for Curriculum and Assessment (NCCA). It is particularly targeted at junior cycle students who are identified as being at risk of early school leaving. The programme is designed to offer schools and teachers a more flexible approach to the Junior Cycle curriculum for students who have diverse learning needs. On completion of the programme, students receive a profile which is an official record of their achievements from the DES. The JCSP Demonstration Library Project which began in 2001, was a development of the JCSP Literacy and Numeracy Strategy. From the outset, each library was staffed by a full-time professionally qualified librarian. Each of the librarians received training by the JCSP in literacy and language development specifically aimed at underachieving disadvantaged teenagers. Since the start of DEIS, access to JCSP libraries is confined to SSP schools, with priority being assigned to those with the greatest levels of disadvantage.

The LCA programme is an alternative to the longer established traditional Leaving Certificate. It is a self-contained two year programme which places more emphasis on personal development and recognition of individual students' talents than the traditional alternative. The LCA programme aims to meet the needs of students who may not benefit from the traditional Leaving Certificate programme, and to prepare them for adult and working life. On successful completion of the course, students receive a Leaving Certificate from the State Examinations Commission (SEC) which details all credits awarded over the two years (for more information visit www.lca.slss.ie).

Another aspect of programme implementation that receives a lot of attention later in this report is the establishment of targets (e.g., in relation to literacy, numeracy, and retention) in the context of a school action plan for DEIS. Section 5 of the DEIS Action Plan for Educational Inclusion (DES, 2005) described the requirement for the development of an action plan for schools in the DEIS programme. The DES (2005) outlined a range of possible appropriate target areas/key indicators to be included in the plan: pupil attendance, pupil retention, literacy

and numeracy progression/attainment, educational progress /examination attainment for second-level students, parent and community partnership, partnership between schools (including in relation to transfer programmes), and links with external agencies. Implementation of the DEIS action plan focuses on these key planning areas, and there is an emphasis on target-setting and the monitoring and review of targets. To assist schools, the School Development Planning Initiative (SDPI) prepared a range of supports to help guide schools in their planning.

The SDPI was established by the DES to support school development planning at second level. The SDPI provided planning, advisory and facilitation services for individual schools as well as continuing professional development and professional development courses on school planning and self-evaluation. As part of the *DEIS Action Plan for Educational Inclusion,* the SDPI supported schools in planning to address educational disadvantage. The SDPI provided planning support for DEIS in several ways: through cluster meetings for school planning coordinators; regional seminars for school leaders; and school-based advisory and facilitation services, as well as through tailored services. School-based support was tailored to meet the needs and suit the circumstances of individual DEIS schools. This approach allowed schools to access information and advice on planning issues; receive support for planning committees within the school; utilise facilitation services for whole-staff and group planning sessions; and receive guidance with monitoring and evaluation. The SDPI developed a planning framework (including templates) to assist DEIS schools in establishing their base-line data on the areas of activity specified in the *DEIS Action Plan* (p.55) and setting targets for their three-year action plans. To advance the integration of support for DEIS schools, the SDPI has cooperated with the JCSP Support Service in the drawing up of sample literacy and numeracy targets for schools and in the design of a planning process for whole-school literacy and numeracy strategies. The SDPI liaised with the coordinators of the Home-School-Community Liaison Scheme (HSCL) and the School Completion Programme (SCP). Special cluster meetings for DEIS schools were organised, at the request of groups of schools in some areas, often in collaboration with the local VEC (see www.SDPI.ie).

The Evaluation of the SSP under DEIS

The ERC evaluation at post-primary level has involved the collection of a variety of data from schools, teachers, and students over the first six years of the operation of the scheme (2007-2013). For example, all participating schools were asked to facilitate a questionnaire survey of

all students in first year and third year in 2007/2008. The questionnaire covered a number of issues, including students' experience of transition from primary to post-primary school, their attitudes to school, their leisure activities, and their educational aspirations. Questionnaires were returned from 187 of the 202 SSP schools at the time (about 8,500 first year and almost 8,000 third year students). There might be merit in repeating this exercise in the near future with a view to assessing the extent to which the attitudes and experiences of students have changed.

The current report is concerned with recent evaluation activities designed to shed light on levels of implementation of the programme and on educational outcomes over the early years of its operation at second level. The report has three main chapters and a conclusion, and deals with the following issues:

1. Principals' views of the DEIS programme, and accounts of school planning for DEIS
2. Uptake of programmes under DEIS
3. Trends in performance in the Junior Certificate examination and retention rates in participating schools
4. Overall Conclusion

Data for Chapter 1 were collected using a questionnaire which was sent to all principals in the SSP in November 2012 to obtain information about implementation activities. Data for Chapter 1 were also collected in the course of visits to all participating schools in the 2012/2013 school year. An interview with the principal was an important element of these visits. As the evaluation team had access to relevant data from the DES on educational outcomes in participating schools (Chapter 3), a decision was made to put most of the evaluation effort into visiting each of the 195 participating second-level schools that were in existence in 2012/2013. Data for Chapters 2 and 3 were provided to the ERC by the Professional Development Service for Teachers (PDST), the DES, and the State Examinations Commission (SEC).

The content of each chapter varies depending on the aspect of DEIS being examined. With this diversity in mind, the different chapters have been written to be self-contained and each has its own conclusion. An overall conclusion is, however, provided at the end.

CHAPTER 1: Principals' and School Characteristics, and Principals' Views of School Planning and Resourcing Under DEIS

METHOD

A specially recruited team of fieldworkers assisted staff from the ERC in visiting each of the schools in the programme. Thirty-six of the visits were conducted by ERC staff. All of the fieldworkers were retired school principals themselves. While two had worked in second level schools, most had been principals of primary schools. However, most fieldworkers had the advantage of having engaged in a similar exercise the previous year in which they visited primary schools participating in DEIS and conducted interviews with principals. It was hoped that they would be able to point out some commonalities and differences in the two sets of schools. A brief commentary on the experiences and insights of fieldworkers and ERC staff will be described later in this report.

The visit to each school included the following: the collection of a DEIS evaluation questionnaire on planning and implementation which had been posted to principals in November 2012 and which principals were advised to have completed by the day of the visit; the confirmation of some details regarding the school's participation in other schemes; an interview with the school principal using a standardised interview schedule; possible meetings with other members of staff at the suggestion of the principal (e.g., a teacher with special responsibility of particular relevance to DEIS); and the return of all completed questionnaires and interview booklets to the ERC. The interviews with principals took a minimum of an hour, but sometimes took much longer, to complete. Most fieldworkers had a caseload of six to eight schools to visit, and they usually spent half of a school day in each school. A large proportion of the visits were completed before Christmas 2012, although some visits were completed during the first half of 2013. The last couple of schools were visited by ERC staff in May 2013. Both the questionnaire and the interview provided data on principals' views of the programme, and of details of the school's DEIS plan, the development of the latter being an explicit requirement of all participating schools.

RESULTS

Response rates

All 194 eligible[2] SSP post primary schools participated in the principal interviews, yielding a 100% response rate. Implementation questionnaires were completed and returned for 191 out of 194 principals in these SSP post-primary schools, yielding a response rate of 98.5%.

The questionnaire and principal interview covered a range of topics, including: principals' background, principals' assessments of various obstacles to achievement, principals' assessments of changes in student characteristics, principals' assessments of the impact of various measures under the DEIS programme, and principals' views on staffing issues in the school. Data on these areas are described below.

School Characteristics

Principals' Background

Of the principals interviewed, all had been appointed to the position of principal between 1980 and 2013. A small number of principals were appointed in the period 1980 -1990 (*n*=3). Approximately 1 in 7 principals (13.7%) were appointed in the period 1991-2001. The vast majority (84.7%) of principals were appointed in their current position from 2002 onwards. The most frequent year of appointment was 2009, when 16.5% (*n*=32) of principals in the SSP were appointed. Indeed the majority of appointments occurred from this year onwards, with over half of principals indicating that they were appointed principal during the period 2009 to 2013 (57.8%). This highlights the degree of turnover within SSP post-primary schools, as for example, almost 16% of principals were in their first year as principal when the data presented here were collected. However, approximately half (56.4%) of the principals had worked in the school prior to their appointment as principal. This is important, as it means that more than three-quarters of principals had some input into the development of the school plan.

School profile

Various pupil, family, school, and community descriptors were presented to principals and they were asked to indicate whether they posed a problem for their school (Table 1.1). The following were cited by the majority of principals (over 50% in each case) as being a 'major problem' for their school: unemployment in the community (85.7%); lack of parental involvement in child's

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[2] Although there were 195 SSP schools in the programme at second level, one school did not participate in the principal interview as it was in the processing becoming a provider of education for adults only. Therefore, it was deemed ineligible to participate.

education (58.0%); emotional and behavioural problems of pupils (56.5%); and effects of dysfunction among pupils' families (51.1%).

Several other pupil and family characteristics were seen by smaller percentages of principals to be a 'major problem' for the school: poor achievement levels of incoming pupils (47.1%), poor social skills of children and parents (42.2%), unrealistic expectations from parents (21.2%), pupil absenteeism (28.7%), and substance abuse among families (29.3%).

Table 1.1. The percentage of principals indicating that various pupil, family, school and community obstacles to achievement were 'no problem', 'a small problem' or 'a major problem' for their school.

	No problem (%)	Small problem (%)	Major problem (%)
Poor achievement levels of incoming pupils (*N*=189)	4.2	48.7	47.1
Poor social skills of children and parents (*N*=187)	7.0	50.8	42.2
Unemployment in the community (*N*=189)	-	14.3	85.7
Lack of parental involvement in child's education (*N*=181)	6.1	35.9	58.0
Emotional and behavioural problems of pupils (*N*=177)	2.8	40.7	56.5
Difficult learning environment (*N*=181)	51.4	29.8	18.8
Poor staff morale (*N*=188)	78.7	18.6	2.7
Poor communication among staff (*N*=187)	82.4	16.6	1.1
Unrealistic expectations from parents (too high or too low) (*N*=184)	29.9	48.9	21.2
Unrealistic expectations from teachers (too high or too low) (*N*=181)	54.1	42.0	3.9
Ongoing pupil absenteeism (*N*=181)	16.6	54.7	28.7
Poor quality of housing (*N*=178)	38.8	40.4	20.8
Organised crime (*N*=183)	53.6	26.8	19.7
Youth/petty crime (e.g., vandalism) (*N*=184)	44.6	38.6	16.8
Ethnic conflict (*N*=188)	76.1	22.3	1.6
Effects of dysfunction among pupils' families (*N*=186)	4.8	44.1	51.1
Effects of substance abuse among pupils' families (*N*=181)	17.7	53.0	29.3

The data in Table 1.1 highlight the very challenging environments that existed for a minority of SSP schools, with some facing significant challenges in their wider community in addition to those in their schools. Just over half of principals (53.6%), indicated that organised crime was not a problem for the school; although one in five principals (19.7%) admitted that this characteristic was a 'major problem' and approximately one in four (26.8%) agreed that it was a 'small problem' for the school. Ethnic conflict was deemed not to be a problem in the majority of schools (76.1%), although approximately one in five principals (22.3%) agreed that it was a 'small problem'. Approximately two fifths of principals (38.6%) reported that youth/petty crime was a 'small problem' and almost 17% of principals viewed this as a 'major problem' for the school. Poor quality of housing was a 'small' or 'major problem' in the majority of schools (61.2%).

Issues regarding communication among staff, and staff morale were unproblematic for the majority of principals. However, unrealistic expectations from teachers were deemed to be a 'small problem' for approximately two-fifths (42%) of principals. Furthermore, a difficult learning environment was considered to be an issue in some SSP schools: approximately a third of principals (29.8%) indicated that a difficult learning environment was a 'small problem', and approximately a fifth of principals (18.8%) indicated that this characteristic was a 'major problem'.

Principals were also questioned about staffing levels in the school and how they compared with the levels before DEIS was introduced. A majority of principals were critical of current general staffing levels in the school. Approximately half of the respondents (54.9%) indicated that staffing levels were either 'much less favourable' or 'slightly less favourable' than before DEIS started. However, 28% of principals indicated that staffing levels were either 'slightly more favourable' or 'much more favourable' currently. Concern amongst principals regarding staffing levels in the school may reflect, among other things, the loss of a general allocation for guidance counsellors in 2012.

Student characteristics

Principals were also asked to assess the extent to which certain student characteristics had changed since DEIS began in 2007 (Table 1.2). With one exception, principals overwhelmingly agreed that there had been improvements since DEIS began. Almost 90% of principals agreed that 'Retention rates to Junior Certificate' and 'Retention rates to Leaving Certificate' had improved. Principals also felt that students' performance in state

examination had improved since DEIS began. Large majorities indicated that 'performance in the Junior Certificate' (84.9%) and 'performance in the Leaving Certificate' (77.7%) exams have improved, although one in five principals (19.6%) indicated that there has been no change in Leaving Certificate examination performance.

Table 1.2. Percentage of principals indicating how various student characteristics have changed since DEIS began in 2007.

	Change for the better (%)	No change (%)	Change for the worse (%)
Family socioeconomic background (*N*=189)	2.6	11.1	86.2
Retention rates to Junior Certificate (*N*=186)	87.1	12.4	0.5
Retention rates to Leaving Certificate (*N*=189)	87.8	10.1	2.1
Performance in the Junior Certificate exam (*N*=185)	84.9	13.0	2.2
Performance in the Leaving Certificate exam (*N*=184)	77.7	19.6	2.7
Transfer to third level (*N*=184)	86.4	11.4	2.2

Finally, 'Transfer to third level' also improved since DEIS began, according to principals, with over four-fifths (86.4%) noting an improvement in this area. The one exception to the improvements was 'Family socioeconomic background' where, unsurprisingly, given the difficult economic climate in recent years, the vast majority of principals (86.2 %) agreed that there had been a change for the worse.

Teacher characteristics

Principals were asked to describe their teachers under various headings (Table 1.3). It is worth noting that all teacher characteristics were assigned largely positive ratings. In particular, almost nine in ten principals rated 'teachers' understanding of the school's curricular goals' and 'teachers' degree of success in implementing the school's curriculum' as 'very high' or 'high'.

Table 1.3. Percentage of principals assessing various teacher characteristics in their school.

	Very high (%)	High (%)	Medium (%)	Low (%)	Very low (%)
Teachers' job satisfaction (*N*=184)	30.4	53.8	13.6	2.2	-
Teachers' understanding of the school's curricular goals (*N*=189)	56.6	36.5	6.3	0.5	-
Teachers' degree of success in implementing the school's curriculum (*N*=185)	50.8	40.5	8.6	-	-
Teachers' expectations for pupil achievement (*N*=180)	32.2	48.9	15.6	3.3	-

One characteristic, 'teachers' job satisfaction' attracted less positive ratings as almost 13.6% of principals assigned a rating of 'medium' to this characteristic, and in a minority of cases (2.2%) a 'low' rating was applied. The picture is similar for 'teachers' expectations for pupil achievement', as 15.6% of principals assigned a 'medium' rating to this characteristic and a minority of schools rated this characteristic as being 'low' (3.3%). It should be noted, however, that both 'teachers' job satisfaction' and 'teachers' expectations for pupil achievement' did achieve high ratings by the majority of principals.

Principals' Views of DEIS

The impact of resources under DEIS

Principals were generally positive about the impact of measures under DEIS (Table 1.4). Some measures were not available in a sizeable number of schools; for example, approximately half of the respondents (51.4%) indicated that the 'JCSP library' was 'not applicable'. Likewise, over a

quarter of principals stated that the 'enhanced guidance counselling service' was 'not applicable' (26.8%), and the 'Leaving Cert Applied' was not available in almost a third of schools (29.4%)[3]. Overall though, these measures received largely positive ratings by school principals.

Table 1.4. The percentage of principals assessing the impact of various measures of the DEIS programme.

	Very Positive (%)	Somewhat Positive (%)	None/ Unsure (%)	Somewhat Negative (%)	Very Negative (%)	Not applicable (%)
JCSP Library (*N*=179)	38.0	7.3	3.4	-	-	51.4
Enhanced Guidance Counselling service (*N*=168)	51.2	11.9	5.4	1.8	3.0	26.8
JCSP programme (*N*=192)	82.8	9.4	1.0	-	-	6.8
Leaving Cert applied (*N*=187)	56.7	10.2	2.7	1.1	-	29.4
Additional funding under DEIS (*N*=193)	86.0	12.4	1.0	0.5	-	-
Access to Book Grant Scheme (*N*=190)	95.8	3.7	0.5	-	-	-
Access to School Meals (*N*=180)	81.1	8.3	1.1	0.6	-	8.9
Access to HSCL service (*N*=191)	91.1	6.8	1.6	0.5	-	-
After School and Holiday time supports under SCP (*N*=184)	76.1	19.0	2.2	1.6	1.1	-
Access to Planning Support for DEIS (*N*=181)	34.3	36.5	21.0	5.0	1.7	1.7
Transfer programmes (primary to post-primary level) (*N*=183)	62.3	23.5	6.6	2.2	0.5	4.9
Opportunities for Professional Development (*N*=181)	37.0	32.0	27.1	2.2	0.6	1.1

Almost all reported receiving the following measures: 'additional funding under DEIS'; 'access to Book Grant Scheme'; 'access to Home School Community Liaison (HSCL) service'; and

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[3] Actual rates of uptake of Leaving Certificate Applied as provided to the evaluators by the DES, and actual numbers of schools that have a staffed JCSP library, are given in Chapter 2 of this report). Discrepancies between principals' accounts and the official numbers may have resulted from principals rating resources in general terms, rather than as they applied to their own school.

after school and holiday time supports under School Completion Programme (SCP)'. Of these measures, over 90% of principals agreed positive ratings of 'very positive' or 'somewhat positive' to 'additional funding under DEIS' (98.4%; N=193), 'access to Book Grant Scheme' (99.5%; N=190), 'access to HSCL service' (97.9%; N=191), and 'after school and holiday time supports under SCP' (95.1%; N=184).

Almost all principals indicated that they had received: 'opportunities for professional development', and 'access to planning support for DEIS'. A sizable majority of principals gave positive ratings to 'opportunities for professional development' and 'access to planning support for DEIS'. In the case of 'access to planning support for DEIS', 71% (N=181) of principals gave a positive rating, whereas a fifth of principals (21%) stated that they were 'unsure' about the impact of this measure. A similar percentage of principals (69%) were positive about the impact of 'opportunities for professional development', although over a quarter of principals (27.1%) were unsure about the impact of this measure. However, 'access to planning support for DEIS' received the highest, albeit small, negative rating out of all the measures: 6.7% of principals stated that the impact of this particular measure was 'somewhat negative' or 'very negative'.

Of the remaining measures, the 'JCSP programme' and 'access to school meals' received positive ratings by the majority of principals (92.2% and 89.4% respectively). The impact of 'transfer programmes' also received a positive rating from most (85.8%).

Finally, it is worth noting that, overall, principals were very positive about the DEIS programme. In response to the question 'Is there anything that is currently working well in your school – something that you are proud of perhaps, and that may not have been possible without DEIS?' – an overwhelming majority of principals (98.7%) who responded agreed that there was an example of this in their school.

Some examples provided by principals include:
- *'The retention of students at school with the aid of the HSCL (Home School Community Liaison), the SCP (School Completion Programme) and the LCA (Leaving Cert Applied)'.*
- *'Attendance levels dramatically improved'.*
- *'Availability in school of resources which directly and positively enhances pupil's life'.*
- *'Book scheme working well'.*
- *'Level of progression to 3rd level and a major swing towards university'.*

- *'Able to provide children with food and books. The creation of an environment where children feel understood and accepted'.*
- *'A number of settled travellers completed the Leaving Certificate'.*
- *'Level of extra-curricular activities and trips for students'.*

School planning for DEIS

A questionnaire that was sent to all second-level schools in the SSP in late 2012 had a particular focus on planning in the context of DEIS. The questionnaire provided the principal with an opportunity to describe their experience of the planning process, as well as describing some of the targets that had been set in target areas. Questionnaire data was complemented by interview data collected during visits to schools, when information was sought on areas of school planning not covered by the questionnaire. In this section, the planning process is described: when planning began, and how the plan was developed for the key target areas. The involvement of staff and parents in developing the plan is outlined, along with the involvement of various providers of support. Finally some factors affecting the planning process are outlined, along with principals' views of the planning process.

When planning began. Approximately 60% of principals reported beginning the planning process during the school years 2008/2009 (31.4%) and 2009/2010 (31.9%). Almost one fifth of principals (18.9%) began the planning process during the year 2007/2008 and approximately one eighth of principals (13%) began the process in 2010/2011. Nine out of 185 principals (4.9%) began the process during the year 2011/2012. Once planning started, the majority of principals (82.1%) devoted all, or part, of a school day to the development of the DEIS 3-year plan. However, in approximately one fifth of schools (17.9%) this did not happen.

Key target areas of the plan. DEIS schools are expected to set targets in a range of areas, and to establish a system for monitoring and reviewing progress towards targets. Table 1.5 lists the key target areas and the actions taken by the school regarding the development of the plan. For seven out of nine areas, developing a new plan was the most popular course of action (50% or higher). For the remaining two areas (partnership with parents, and partnership with others) almost half of the principals (49.5% and 46.9% respectively) indicated that a new plan was developed.

Table 1.5. Percentage of principals indicating that various courses of action were taken by the school regarding the development of a three-year plan for DEIS in each of the key target areas.

	A new plan was developed (%)	An existing plan was modified (%)	Decided that an existing plan was sufficient (%)	No action has been taken yet (%)
Retention of students (*N*=183)	54.1	37.7	6.6	1.6
Attendance (*N*=185)	52.4	43.8	3.8	0.0
Literacy (*N*=183)	62.8	35.5	0.5	1.1
Numeracy (*N*=179)	65.4	29.6	1.7	3.4
Examination attainment (*N*=183)	60.1	35.5	2.2	2.2
Educational progression (*N*=182)	52.2	35.7	9.3	2.7
Partnership with parents (*N*=184)	49.5	39.7	10.3	0.5
Partnership with others (*N*=179)	46.9	35.2	12.3	5.6
Other areas (*N*=16)	50.0	18.8	18.8	12.5

Modifying a plan that was already in existence was also common. Approximately one third of principals stated that an existing plan was modified in relation to: Literacy (35.5%), Numeracy (29.6%), Examination attainment (35.5%), Educational progression (35.7%) and Partnership with others (35.2%). About two-fifths of principals stated that an existing plan was modified for Retention of students (37.7%), Attendance (43.8%) and for Partnership with parents (39.7%).

The use of an existing plan in a target area was generally not common, although one in ten principals agreed that an existing plan was used in the case of Educational progression (9.3%), and Partnership with parents (10.3%). One in eight principals agreed that an existing plan was sufficient in the case of Partnership with others (12.3%). Partnership with others was the target area which was least likely to have been acted upon yet: 5.6% of principals indicated that no action had been taken yet in this target area.

Involvement of staff and parents in planning. Various members of staff had high degrees of involvement in the planning process (Table 1.6).   The majority of principals agreed that the following members of staff were 'very involved' in the process: the Principal (90.5%), the Deputy Principal (81.1%), the Guidance Counsellor (78.0%), the JCSP Coordinator (77.5%), the HSCL Coordinator (89.2%), the Learning Support Teacher (73.8%) and the School Planning Coordinator (76.3%). Librarians tended to have lower levels of involvement, with over 50% of

principals indicating that librarians were not involved in the planning process. Visiting Teachers for Travellers were generally not involved, according to the majority of principals (84.1%) who answered the question. It should be noted that fewer than half of principals answered the question on 'Visiting Teacher for Travellers' (*N*=82) and 'Librarian' (*N*=81).

In approximately half of post-primary schools in the SSP (49.2%), principals indicated that parents also had some input into the planning process. The mean number of parents involved per school was 22.5 (*S.D.* 59.1; Range 2-400).

Table 1.6. Percentage of principals indicating the degree of involvement of various types of staff in the planning process.

	Very involved (%)	Somewhat involved (%)	Not involved (%)
Principal (*N*=190)	90.5	8.9	0.5
Deputy Principal (*N*=185)	81.1	15.7	3.2
Assistant Principal (*N*=158)	57.6	34.2	8.2
Guidance Counsellor (*N*=186)	78.0	20.4	1.6
JCSP Coordinator (*N*=178)	77.5	19.7	2.8
HSCL Coordinator (*N*=185)	89.2	9.7	1.1
SCP Coordinator (*N*=178)	59.6	30.9	9.6
Year Head (*N*=149)	36.2	48.3	15.4
Subject Teacher (*N*=165)	27.9	60.0	12.1
Learning Support Teacher (*N*=172)	73.8	25.0	1.2
School Planning Coordinator (*N*=135)	76.3	10.4	13.3
Visiting Teacher for Travellers (*N*=82)	7.3	8.5	84.1
Librarian (*N*=81)	22.2	23.5	54.3

Sources of support for planning. A range of different providers of support assisted schools with the development of their plan (Table 1.7). Support from the SDPI/PDST team occurred most frequently, with 85.6% of principals indicating that they received such support. About half of principals indicated that the SDPI/PDST team were involved with 'facilitation/input to a school planning day' (51.9%), 'consultation with individuals or small groups' (47.5%), 'informal consultation' (44.4%), 'in-service training' (54.3%), and with 'DEIS cluster meetings' (48.1%).

The next most frequently utilised provider of support was the School Completion team: with 67.4% of principals indicating that they received support from this source. When the School

Completion team was involved with schools, a majority of principals reported that this provider was involved with 'consultation with individuals or small groups' (62.6%). The School Completion team was also frequently involved with 'informal consultation' (46.3%) and 'attendance at staff meetings' (37.4%).

Support from the National Coordination team of the HSCL Scheme also occurred fairly frequently, with approximately two-fifths of principals (43.2%) indicating that they received support from the HSCL team. Where schools received such support, approximately two-fifths of principals reported that the HSCL team was involved with 'consultation with individuals/small groups (37.3%), 'informal consultation' (43.4%), 'in-service training' (42.7%), and 'DEIS cluster meetings' (44.0%).

Individual consultants were the least common provider of support, with just 15.2% of principals reporting that this provider was utilised. Also, approximately a quarter of principals (24.6%) reported that the Inspectorate was involved with providing support in planning to the school.

Table 1.7. Principals' reports (percentages) of the involvement of various providers of support, and the types of supports received, in developing the DEIS school plan.

	SDPI/PDST Team (*N*=184) (%)	National Coordination team of the HSCL Scheme (*N*=176) (%)	School Completion team (*N*=178) (%)	The Inspectorate (*N*=175) (%)	Individual consultant (*N*=165) (%)
Support Received	85.6	43.2	67.4	24.6	15.2
Facilitation/input to a school planning day	51.9	9.9	22.0	10.6	56.7
Attendance at a staff meeting	24.8	13.4	37.4	17.0	27.6
Consultation with individuals or small groups	47.5	37.3	62.6	51.1	44.8
Informal consultation	44.4	43.4	46.3	36.7	34.5
In-service training	54.3	42.7	18.2	10.6	27.6
DEIS cluster meetings	48.1	44.0	19.0	4.3	7.4

Factors that affected the planning process. Principals were asked to indicate the extent to which a range of factors might have affected the planning process for DEIS (Table 1.8). The majority of factors listed were deemed to have 'contributed somewhat' or 'contributed greatly' to the planning process. In particular, principals indicated that the 'level of engagement among staff '(57.2%), and the 'quality of written guidelines' (50.0%) 'contributed greatly' to the planning process. However, when explicitly asked during an interview whether there were any obstacles met during the planning process, a large majority of principals agreed (78.8%) that there were obstacles. One obstacle that emerges from the questionnaire is the factor related to time constraints (i.e., the 'amount of time available'). This factor was deemed by almost two-thirds of principals (65.2%) to be either 'somewhat of a hindrance' or a 'great hindrance' to the planning process. Also, whilst the majority of principals were positive about the level of support from Board of Management, a sizeable minority of principals (26.5%) indicated that this factor had 'no effect' on the planning process.

Table 1.8. Principals' assessments (percentages) of the extent to which a range of factors affected the DEIS planning process.

	Contributed greatly (%)	Contributed somewhat (%)	No effect (%)	Hindered somewhat (%)	Hindered greatly (%)
Level of engagement among staff (*N*=187)	57.2	39.0	2.7	1.1	-
Level of support from Board of Management (*N*=185)	22.7	50.8	26.5	-	-
Quality of written guidelines (*N*=188)	50.0	42.0	2.7	4.3	1.1
Amount of time available (*N*=187)	13.4	16.0	5.3	43.3	21.9
Quality of external advice/support (*N*=190)	27.9	55.8	11.1	3.2	2.1

Principals' views of the DEIS plan. The planning process has been described in stages, beginning with an outline of when the process began, how the development of the plan occurred for the key target areas, the degree of involvement of staff members and parents, as well as the involvement of different providers of support and in what capacity. Factors that may have contributed to the planning process have also been outlined. To supplement this, it is worth examining principals' opinions of the process itself and of the merits of the DEIS plan.

Principals' views of the planning process and target-setting were markedly positive. An overwhelming majority of principals (98.4%) agreed that the planning and target-setting process for the school was beneficial, with nearly all principals indicating that the plan had a positive impact on the school (98.4%). When asked about the influence of the DEIS plan in guiding the day-to-day work of the school, most principals agreed that the plan had a 'great' (78.9%) or a 'small' (20.6%) influence. However, approximately two-thirds of principals (64.2%) responded that they would approach the planning in a different way if they were to start the process again, with the benefit of hindsight. A large majority of principals (86.7%) responded that there were drawbacks to planning and target-setting (e.g., increased administrative burden, time constraints).

Principals' responses to two open-ended questions were subjected to a content analysis.

> *"In general, what do you think of the whole idea of planning and target-setting for schools? Is it beneficial?"*

> *"Has the DEIS plan had an impact on your school?"*

Six broad themes emerged from the analysis. These were – direction and awareness of goals, good practice and positive impact, involvement of all staff, self-evaluation and measurement of progress, structure/template for planning, and focus on the student. The following describes briefly the nature of these themes.

- Planning and target-setting creates a sense of *direction* for the staff in terms of school planning and the monitoring of progress, helps staff to focus on key target areas, and serves as a guide to staff in setting clear goals and teaching objectives. Likewise, the DEIS plan creates an *awareness of goals*, builds staff awareness, enables sharing of data, creates a focus on priorities, and fosters cooperation among staff with a shared sense of responsibility.

- Principals made many general comments about planning and target-setting representing *good practice* for the school. The DEIS plan was said to generally have a *positive impact*, such as the DEIS programme addressing disadvantage and fostering equality. A common theme which emerged was the positive impact of the DEIS plan on the key target areas of attendance, literacy, numeracy, and retention.

- Planning and target-setting employs the *involvement of all staff*. Discussion among staff is facilitated, staff members are engaged, and there is a coordinated approach to teaching and learning.

- Planning and target-setting aids in *self-evaluation*, helps teachers recognise success, was said to be very affirming for staff and ensures that targets are consistent across staff. The DEIS plan is of benefit in terms of the *measurement of progress* towards targets, evaluation and review.

- Through the practice of planning and target-setting, a *structure or template* for these processes is put in place for the school. Many principals expressed the view that implementing the programme requires the discipline of targets. However, setting realistic targets can be challenging, with time being an important factor. There is a belief that targets are a basic requirement of a successful school.

- The DEIS plan emphasises a positive *focus on the student*, with a general benefit to students and a focus on educational outcomes such as improved exam performance and progression to 3rd level.

Principals were also asked if they thought the planning process for DEIS differed from previous planning exercises carried out in the school. Approximately half of the principals (52.4%) indicated that the DEIS planning 'differed greatly', almost two-fifths (39%) indicated that the process 'differed somewhat', and approximately 1 in 12 principals (8.6%) indicated that there was 'no difference' between the DEIS planning and previous planning exercises in the school. Principals were also asked, if applicable, which factors differentiated the DEIS planning process (Table 1.9). Almost all principals stated that there was a greater emphasis on setting specific targets (98.8%) and on monitoring and evaluation (95.9%).

Table 1.9. Percentage of principals indicating the extent to which various factors contributed to differentiating the DEIS planning exercise from previous planning exercises.

Greater emphasis on setting specific targets (*N*=173)	98.8%
Greater emphasis on monitoring/evaluation (*N*=172)	95.9%
Greater proportion of school staff involved (*N*=168)	67.3%

Key target areas in the plan. Table 1.10 describes the areas in which targets were reported as being set by principals. In seven out of eight key areas, over 90% of principals indicated that targets had been set. Attendance, Literacy and Retention were the three most cited areas for setting targets. Virtually all principals who answered the question (99.5%) reported that

schools set targets in the area of Attendance, followed closely by Literacy (97.8%), and Retention (95.0%). Although 'Partnership with others' was the target area in which the fewest schools had targets set, almost nine out of ten principals (87.9%) had set targets in this area. On average, approximately three targets were set in each key area, with the exception of Literacy, where the average number of targets set was almost five.

Table 1.10. The percentage of principals reporting that targets were set in a range of key areas, along with the mean number of targets set (and standard deviation, and range.

	Yes (%)	Mean	*SD*	Range
Retention of students (*N*=181)	95.0	2.91 (*N*=151)	2.34	1-20
Attendance (*N*=184)	99.5	3.18 (*N*=160)	2.25	1-16
Literacy (*N*=182)	97.8	4.73 (*N*=153)	2.76	1-18
Numeracy (*N*=177)	96.0	3.35 (*N*=143)	1.83	1-12
Exam attainment (*N*=176)	94.3	3.42 (*N*=141)	2.91	1-27
Educational progression (*N*=175)	90.9	2.74 (*N*=128)	1.77	1-10
Partnership with parents (*N*=175)	93.7	3.54 (*N*=136)	2.38	1-15
Partnership with others (*N*=165)	87.9	3.20 (*N*=121)	2.74	1-21

Retention, Attendance and Literacy. Targets in the areas of Retention, Attendance and Literacy were of particular interest. Each of these planning areas had a table at the end of the implementation questionnaire for principals to record, in a standardised way, details of two targets set in each of these areas. An important distinction is drawn between targets that are **outcomes** and those that are **actions** or **measures**. **Outcomes** refer to change that it is hoped the plan will help to bring about. For example, in the case of pupils, the changes might relate to attendance or achievement (outcomes), while in the case of parents they might relate to level of contact with the school. **Actions**, in contrast, refer to actions that it is planned to take as part of the effort to achieve the desired outcome and typically refer to changes in school policy or practice. The distinction between outcome and action is of course, not always clear-cut, and

sometimes a target can be a combination of both outcome and action. Some examples of outcome and action targets are as follows:

- **Outcomes:** By the end of year 3 Junior Cycle, increase retention from 94% to 97%; Reduce the percentage of students absent for more than 10% of school days by 5%; Reduce the number of students leaving 3rd year with a reading age of less than 11.

- **Actions:** Provide additional academic support for students at risk of early school leaving; HSCL co-ordinator to visit homes of students with poor attendance; Create an in-school literacy centre.

Principals were asked to describe two targets each in the areas of Retention, Attendance and Literacy. Only the first target in each of the three areas is described here. Principals used the rest of the table to provide additional details relating to various properties of the target. While the specific targets identified by principals are not listed in detail here (although examples of some targets are provided above), the properties of the targets are described. Firstly, principals were required to indicate whether the target was an outcome, an action, or a combination of both (see Table 1.11). They then indicated which group the target was aimed at, whether a small group, a whole class, a year group, or the whole school (see Table 1.12). Principals then indicated how much progress had been achieved on achieving the target so far (Table 1.13). Finally, principals were asked about targets which were not yet fully achieved. Specifically, they were asked to indicate whether they were continuing to pursue that target with the same or a different approach, choosing to adopt a revised target, or abandoning the target altogether (Table 1.14).

Type of target. In each of the three key areas, about half of principals indicated that the target identified was an outcome target (Table 1.11). Action targets were less common, with for example, 10% of principals indicating that the retention target was an action target. In many instances the target specified was a combination of both, with approximately 40% of principals indicating that the target identified was a combination target in each of the three key areas.

Table 1.11. Principals' assessments (percentages) of the type of target for each of the three target areas.

	Outcome (%)	Action (%)	Both (%)
Retention (*N*=161)	47.2	9.9	42.9
Attendance (*N*=164)	52.4	11.0	36.6
Literacy (*N*=159)	47.2	13.2	39.6

The target group. Various groupings within the school can be the focus of specific targets, for example, small groups, the whole class, the year group, or the whole school (Table 1.12). The majority of principals took a 'whole school' approach in relation to the three target areas. This was particularly the case in relation to attendance, where four-fifths of principals indicated that the whole school was the target group (79.4%). Half of principals indicated that the whole school was the target group for Retention (50.0%), and two-fifths of principals identified the whole school as the target group for Literacy (41.1%). The year group was stated to be the target group by approximately one-third of principals in relation to Retention (35.9%) and by almost two-fifths of principals in relation to Literacy (38.6%). A whole class approach was generally not adopted, although in Literacy, approximately 1 in 11 principals (8.9%) indicated that the whole class was the target group. Small groups sometimes represented the target group: 1 in 9 principals indicated that small groups were the target for Retention (11.5%) and Literacy (11.4%).

Table 1.12. Principals' assessments (percentages) of the target group for each of the three areas.

	Small Group (%)	Whole Class (%)	Year Group (%)	Whole School (%)
Retention (*N*=156)	11.5	2.6	35.9	50.0
Attendance (*N*=175)	7.4	1.1	12.0	79.4
Literacy (*N*=158)	11.4	8.9	38.6	41.1

Progress on targets to date. Progress that had been achieved by schools towards targets in relation to the three planning areas of Retention, Attendance and Literacy was also assessed (Table 1.13). With respect to Retention, almost 99% of principals indicated that either some progress or a lot of progress was made, or that the target was fully achieved. An equally high percentage of principals (approximately 98%) indicated this level of progress with Attendance. The target area of Literacy was also agreed upon by the vast majority of principals (97.6%) as

having demonstrated some progress, a lot of progress, or full achievement of the target. Of all three target areas, the greatest progress was made in the area of Retention, where 16% of principals indicated that the target was 'fully achieved'. Only a tiny percentage of principals (two, three and four individuals respectively) indicated that 'little or no progress' was made in relation to targets in each of the three areas.

Table 1.13. Percentage of principals indicating progress to date towards targets in three areas.

	Fully achieved (%)	A lot of progress (%)	Some progress (%)	Little/no progress (%)
Retention (*N*=168)	16.1	58.9	23.8	1.2
Attendance (*N*=172)	14.0	54.7	29.7	1.7
Literacy (*N*=167)	14.4	52.1	31.1	2.4

Approach adopted in pursuing targets. Finally, principals were asked about targets which were not yet fully achieved. Specifically, they were asked to indicate whether they were continuing to pursue the target with the same or a different approach, had chosen to adopt a revised target, or abandoned the target altogether (Table 1.14). Pursuing the target with the 'same approach' was the most common option across all three planning areas, with approximately three-fifths of principals indicating that this was the case in the areas of Attendance (60.2%), Literacy (61.3%), and Retention (67.6%). One in nine principals in the area of Literacy (11%) and approximately one in eight principals in the area of Attendance (12%) indicated that they would adopt a 'revised target'.

Table 1.14. Percentage of principals indicating how they are pursuing targets in cases where targets have not been fully achieved.

	Yes, with same approach (%)	Same target, new approach (%)	Revised target (%)	Abandoned target (%)
Retention (*N*=148)	67.6	24.3	6.8	1.4
Attendance (*N*=166)	60.2	26.5	12.0	1.2
Literacy (*N*=155)	61.3	26.5	11.0	1.3

Comparison of Primary and Post-Primary SSP Schools

The planning process in both urban primary and post-primary schools are compared in this section, using data from the implementation questionnaire and the principal interview. A note of

caution is warranted in comparing the primary and post-primary data. There is a time-lag between the completion of the urban primary and post-primary implementation questionnaires and there is a large difference in response rates: the urban primary implementation survey was carried out during 2008 and the response rate was low at 68.2% (*n*=229). However, the post-primary implementation survey was carried out during 2012 and the response rate was high at 98.5%. Due to these methodological issues, caution is advised when making comparisons between these two data sources. The data from the principal interview may be a better source of planning information for comparison purposes. With respect to the principal interviews, the urban primary school interviews occurred during 2011, and the response rate was 99.16% (*n*=118[4]). The post-primary principal interviews were completed during 2012-2013, and the response rate was 100%.

The planning areas of Literacy, Numeracy and Parental Involvement are described here, as these planning areas are common to both primary and post-primary schools.   Firstly, principals were asked about various approaches taken in respect of the development of a 3-year plan for DEIS. Modifying an existing plan occurred most frequently in urban primary schools in these key areas (50.2%, 50.2%, and 42.5% of schools for Literacy, Numeracy and Parental Involvement, respectively). However, while modifying an existing plan was also common in post-primary schools, developing a new plan was the most frequent course of action (62.8%, 65.4%, and 49.5% of schools for Literacy, Numeracy, and Parental Involvement, respectively).

Schools were asked to indicate the school year in which the planning process for DEIS began. In urban primary schools, three fifths of principals (60.5%) indicated that they started planning in the year 2006/2007, and over a third (37.7%) started in the year 2007/2008. In the majority of cases, the planning process began later in post-primary schools, with approximately 60% of post-primary principals reporting the beginning of the planning process during the school years 2008/2009 (31.4%) and 2009/2010 (31.9%).

Primary and post-primary principals' views of the planning process were compared. All primary school principals interviewed agreed that the idea of planning and target setting for schools was beneficial. All indicated that the DEIS plan had a positive impact on their school, with 97.4% saying that it had a 'great' influence on the day to day running of the school. Similarly, the majority of post-primary principals (98.4%) agreed that the planning and target-setting process for the school was beneficial, and that the plan had a positive impact on the school (98.4%). Slightly fewer post-primary principals indicated that the DEIS plan had a

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[4] This is based on a sample of 119 primary schools out of a total of 336 urban primary schools in the SSP under DEIS

'great' influence in guiding the day-to-day work of the school (78.9%), although a fifth (20.6%) of post-primary principals indicated that the plan had a 'small' influence.

With respect to target setting, almost all urban primary school principals indicated that their school had set targets in relation to Literacy and Numeracy (both 98.3%). Similar percentages of post-primary principals set targets in the area of Literacy (97.8%) and Numeracy (96%). The picture is again very similar for Parental Involvement, where almost 90% of primary principals and 93.7% of post-primary principals indicated that they had set targets in this area.

SCHOOL VISITS

Insights from fieldworkers and ERC staff

As mentioned earlier, a team of 11 fieldworkers assisted staff from the ERC in visiting each of the post-primary schools in the programme. These external fieldworkers carried out 161 of the school visits between them. Following completion of the school visits the fieldworkers were invited to the ERC to take part in a debriefing session organised by ERC staff. Two such sessions took place in January 2013. Each session lasted about two hours, and consisted of time for fieldworkers to complete a short feedback questionnaire followed by a structured discussion relating to various aspects of the visits. These sessions were also attended by ERC staff involved in the visits.

The fieldworker's questionnaire consisted of questions designed to give the evaluators some insight into impressions of the schools visited. Those present were also asked to give their impressions of the DEIS programme in general.

Fieldworkers indicated that they were impressed by over two-thirds of the schools they had visited (in terms of utilising resources, organisation, enthusiasm of staff, general atmosphere, etc.). The most commonly mentioned features of impressive schools related to characteristics of the principal and the school staff. The openness of the principal, leadership skills, levels of organisation and good management were highlighted. Enthusiasm of the staff and how well they cooperated with the visit were also mentioned. Awareness and appreciation of the DEIS initiative and how best to utilise programme supports were seen as huge positives by the visiting fieldworkers. Schools displaying a sense of real engagement with on-going planning and with the available resources and programmes also impressed. Some fieldworkers commended the level of pastoral care in schools catering for large numbers of students with a variety of needs and also the genuine and sensitive nature of this care. Other areas that

impressed the visiting fieldworkers were the levels of extra-curricular provisions for students (e.g., homework clubs, breakfast clubs, sports etc.), the facilities available in some schools and the desire to engage parents to become involved more in the education process.

An open discussion was led by ERC staff, who had formulated questions to guide a discussion under the following general headings: principals' awareness of the visits, general impression during visits, impressions of the school and atmosphere, success of DEIS, impressions of the resources and staff concerns, the benefits and disadvantages of DEIS, and any additional comments. The following is a summary of the discussions based on contemporaneous notes taken at the debriefing sessions.

Principals' awareness of the visits. Most principals had received the information letter that had been sent in advance and were fully aware of the reason for the visit, although some confused the evaluation of DEIS with another survey. Scheduling of the interview was considered difficult by fieldworkers, especially those who had previously experienced similar work with primary schools as part of the evaluation. It was, however, noted that the end of the calendar year was a busy time for schools.

Impressions of the visits generally. Overall, fieldworkers said that visits were generally positive experiences. Most principals were enthusiastic about engaging in dialogue on the topic of DEIS in their school. Principals provided excellent examples of the challenges faced by schools. In the most impressive schools, additional staff were present for the interview though some principals had collated feedback from various staff in advance of the interview. There was a sense that school staff appreciated the opportunity to talk to someone who was interested in the DEIS programme and its impact in their school. Some fieldworkers noted a "feel-good factor" associated with staff being given an opportunity to describe their achievements to an external party.

Most principals had completed the implementation questionnaire (the results of which were described earlier) in advance of the visit. Some also provided hard copies of their DEIS plans or outlines of school plans.

Impressions of the school and atmosphere. The most impressive schools were open and welcoming. The less impressive schools tended to involve interviews with principals only, some of whom appeared to be under stress and working in isolation. Some fieldworkers pointed out that, when meeting with the principal only, it was difficult to assess the school

atmosphere. Most principals took great pride in their school, and fieldworkers indicated they were often walked through the school where they witnessed positive interactions among students and staff. Some interviewers were struck by the levels of deprivation in some schools, with some schools clearly manifesting much higher levels of disadvantage than others. In terms of education, fieldworkers felt that teaching at second level happens in terms of programmes (Junior Certificate, Leaving Certificate, etc.), while at primary level there is more emphasis on teaching and learning generally. They were most impressed by schools where they were told of a shift from teaching "subjects" to enhancing literacy and numeracy through those subjects. It was noted that schools participating in JCSP seemed to be more likely to use keywords across subjects to enhance literacy.

Success of DEIS. Interviewers were impressed by the sharing of the workload among staff in terms of implementation of aspects of the DEIS programme. It was felt that using a cooperative planning strategy was more successful than working on one's own which appeared to result in an increase in stressors. The interactions with students outside of the classroom (e.g., breakfast clubs, homework clubs, etc.) were viewed as important in creating a vibrant atmosphere. Underpinning all of these things were the principal's vision for the school, a factor cited by visitors as being critical for success. Many fieldworkers felt that DEIS had become part of the fabric of some schools, although in other cases, fieldworkers suspected that this was not the case.

Sources of concerns for staff. Loss of staff was considered a major problem in DEIS schools particularly as it impacted on the most disadvantaged students (e.g., those from the Traveller community). The cuts to guidance counselling provision and psychological services were viewed as detrimental because emotional, rather than behavioural, problems were of particular concern in many schools. The lack of an "onsite" counselling presence was having a negative impact on staff, who now had to deal with emerging problems themselves. Many of those interviewed mentioned the role of the HSCL coordinator, which was seen to be of critical importance.

The removal of posts of responsibility and the introduction of 'Croke Park hours'[5] were viewed as having increased the workload of staff. This resulted in reduced time for planning

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[5] The term 'Croke Park hours' is commonly used to describe additional hours provided to teachers under the Croke Park Agreement. School management may allocate these additional hours to deal with matters such as school planning and staff meetings among other things, allowing them to take place without reducing class contact or tuition time (Department of Education and Skills, 2014).

and for providing induction to newer staff. Lack of parental involvement was highlighted as a problem.

When asked to put a figure on the percentage of schools maximising the available DEIS resources, fieldworkers estimated the figure to be in the region of 90%.

Benefits of DEIS. There was a sense that the school planning and self-evaluation elements of the SSP meant that DEIS schools were ahead of their non-DEIS counterparts in these areas. There were attempts to portray participation in DEIS in a more positive light with many schools conscious of "image management" within the community. Some schools reported using DEIS resources to attract pupils from more affluent backgrounds to their school, and these schools now have a more mixed intake than previously. Fieldworkers also formed the impression that there is a good emphasis on literacy in DEIS schools which was something that most of them had previously associated more with primary schools.

Also principals felt empowered by having access to information gained from baseline data collected as part of the planning for DEIS. Often this information contradicted what may have been accepted anecdotally within the school, and provided staff with an objective picture of the situation.

Disadvantages of DEIS. The main problem encountered among schools regarding the DEIS programme was not having enough time to dedicate to planning. Some schools reported that the introduction of 'Croke Park hours' had stifled the volunteerism of staff. Also some felt (initially at least) that eight areas of planning were too many. Even though having targets was viewed as a positive, failure to reach these targets could have a demoralising effect on staff.

While not undermining the benefits or importance of DEIS at second level, earlier intervention (i.e., at primary level) was considered crucial, particularly in achieving parental involvement and in the provision of appropriate learning support. Some schools found coordinating the activities of various external agencies involved in students' welfare very challenging. A desire for more flexibility in expenditure of DEIS funding was favoured by some.

Additional comments. It was noted that the implementation of DEIS brings additional challenges to staff and that there is no allowance made for the stress and difficulties that come with additional initiatives. It was also noted that life experience was critical to successful teaching and to the role of principal and that this should be considered during teacher training. There was a feeling that some principals were experiencing 'burnout' and that the option of a career break where they might (a) act as mentors to other new principals in DEIS schools or (b)

share their experiences in achieving success in various ways (e.g., parental engagement) with other principals and teachers would be worthwhile.

Many additional comments related to principals' accounts of the difficulties of working in a disadvantaged area with large numbers of marginalised families experiencing a multiplicity of problems (e.g., crime and addiction). This was highlighted by some fieldworkers recalling cases where a school visit was disrupted by the principal having to deal with a crisis in the family of a student on the day of the visit (e.g., taking a call from a social worker or the HSE or, in one case, the Gardaí).

Another issue that arose in the debriefing sessions was the way that the problems being experienced by a school can be exacerbated by enrolment patterns in an area. In particular, several principals reported that they believed that the enrolment policies and practices of other schools resulted in their school being attended by disproportionate numbers of students from marginalised backgrounds. There were some accounts of well-established enrolment patterns being affected by developments such as the building of private housing estates adjacent to areas with vary large numbers of local authority houses and two, three, four or more post-primary schools. In these cases, it was felt that the way parents exercised their choice of school interacted with school policy to improve the circumstances of some schools at the expense of others. In the discussion of these issues at the debriefing sessions, it was acknowledged that an initiative like DEIS was unlikely to impact on such aspects of educational disadvantage.

CONCLUSION

Principals considered several potential obstacles to achievement to represent a 'major problem' in their school including 'unemployment in the community' and 'lack of parental involvement in child's education'. However, principals noted improvements across several areas since DEIS began, such as in retention rates to Junior Certificate and Leaving Certificate, performance in the Junior Certificate and Leaving Certificate exams, and transfer to third level. Unsurprisingly, the family socioeconomic background of students enrolled was considered to have disimproved since DEIS began.

Various measures under DEIS received largely positive ratings by principals including additional funding under DEIS, access to the Book Grant Scheme, access to the HSCL service, and after school and holiday time supports under the SCP.

Teacher characteristics were rated highly by principals, including teachers' understanding of the school's curricular goals and teachers' degree of success in implementing the school's curriculum. However, over half of principals indicated that staffing levels were less favourable currently than was the case when DEIS began. In general, there was great positivity about the DEIS programme, and almost all principals responded that there was something working well in their school that may not have been possible without DEIS.

In the majority of cases, the planning process began during the school years 2008/2009 and 2009/2010. Across the main target areas, developing a new plan was the most common course of action, although the modification of an existing plan was also common. The areas of Attendance, Literacy and Retention were the three most cited areas by principals for setting targets. According to principals, outcome targets were most common – almost half of the principals indicated that the target identified in each of the three planning areas was an outcome target. Schools mainly adopted a 'whole school' approach in relation to the three planning areas, particularly in relation to Attendance. Staff had a high degree of involvement in the planning process in most schools, and typically included the Principal, the Deputy Principal, and the HSCL Coordinator (among others). Parents had an input into the planning process in approximately half of schools. The most common source of support in the development of the plan was by members of the SDPI/PDST team. Over four-fifths of principals indicated that either 'a lot of progress' or 'some progress' was made in reaching the targets in each of the three areas. Overall, principals' views of the planning process, and of the target-setting aspect of the DEIS strategy, was markedly positive. This was matched in most cases by a genuine enthusiasm for the programme, and an appreciation of the resources received as a result of participation.

The majority of those who conducted visits to schools reported that they were impressed by the openness of principals to the visitors, and by the enthusiasm of school staff for their work and for DEIS. However, several sources of concern remained. These included cuts in staffing (particularly in EAL provision and guidance counselling) and the perceived negative consequences for the school resulting from enrolment patterns and practices in other schools in their area.

CHAPTER 2: UPTAKE OF PROGRAMMES UNDER DEIS

A major concern of any programme evaluation is the extent to which the programme has been implemented as originally intended. If implementation levels are low, there might be reason to expect very few changes in outcomes. One way of examining levels of programme implementation is to assess the extent to which schools have been given, or have taken up, the resources available to them. (A list of resources available to some or all schools participating in DEIS were listed in the preface to the present report). While all DEIS schools benefit from additional funding under the programme, not all schools provide educational programmes designed to cater for at-risk students (e.g., The Junior Certificate School Programme (JCSP) and the Leaving Certificate Applied (LCA)). In theory, all participating schools were given access to these programmes, and the schools assessed as the most disadvantaged were to be provided with libraries under the JCSP programme.

Junior Certificate Schools Programme (JCSP) participation

It was an explicit feature of the DEIS action plan that schools in the SSP under DEIS were prioritised for entry to the JCSP programme. The first group of DEIS schools joined the *Junior Certificate School Programme* in 2006. It was intended that all DEIS schools would be approved to offer JCSP by 2010 (for more information visit www.jcsp.slss.ie).

To examine the extent to which participating schools were prioritised in terms of admission to the JCSP, uptake rates among SSP and non-SSP schools were examined over a 12-year period using data provided by the DES (Table 2.1).

Table 2.1. Numbers and percentages of schools involved in JCSP in DEIS and non-DEIS schools between 2001 and 2012.

School Year	Total no. of schools* with JCSP	No. SSP schools with JCSP	No. Non-SSP schools with JCSP	No. of schools that joined JCSP each year	% of schools with JCSP students that are in SSP	% of newly admitted schools that are in SSP
2000/01	87	66	21	69	75.9	53.6
2001/02	103	82	21	20	79.6	90.0
2002/03	113	88	25	9	77.9	55.6
2003/04	122	96	26	9	78.7	66.7
2004/05	133	104	29	11	78.2	63.6
2005/06	134	105	29	9	78.4	77.8
2006/07	134	107	27	1	79.9	100
2007/08	162	135	27	28	83.3	100
2008/09	183	157	26	18	85.8	100
2009/10	198	172	26	26	86.9	92.3
2010/11	207	180	27	2	86.9	100
2011/12	207	180	27	1	86.9	100
2012/13	207	178	29	-	86.0	-
2013/14	208	178	30	-	85.6	-

*NOTE: Some schools appear to drop out of JCSP, or miss a year(s) because they have no students taking JCSP in a given year. These figures are not recorded here but account for apparent discrepancies in the participation figures.

In the school year 2001/02, about three-quarters of all schools in JCSP were schools that were later to be identified for inclusion in the DEIS programme. Since DEIS was introduced in 2006/07, entry to JCSP has been the exclusive preserve of DEIS schools[6]. In each year since DEIS began, with the exception of 2007/08, all newly admitted schools were participating in DEIS. These figures indicate a strong bias, throughout the years, of uptake of the JCSP by DEIS schools. On the basis of data in Table 2.1, it seems that about 92% of SSP schools (180 of 195) are offering JCSP to their students. It seems, therefore, that this aspect of provision has been successfully implemented.

Participation in the Demonstration Library Project

Under the DEIS Action Plan, the JCSP Demonstration Library project was to be expanded to include up to 50 SSP schools by 2010. However, there are currently only 29 DEIS schools participating in the Demonstration Library Project (Table 2.2). No further schools have been

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[6] Although it appears from Table 2.1 that two non-DEIS schools were admitted to the JCSP in 2009/10, these two schools were in fact detention centres with primary roll numbers. As such, they do not represent the inclusion of non-DEIS second level schools.

included in the library project since 2009/10 due to a moratorium on appointments and replacements in the public sector. However, where libraries do exist, virtually all of them (with one exception) are located in SSP schools. This indicates low levels of implementation, but positive discrimination (as intended) towards SSP schools in provision.

Table 2.2. Total number of schools and number of SSP schools joining the JCSP Demonstration Library Project between 2002 and 2008.

Year	No. of JCSP Libraries opened	No. of JCSP Libraries opened in SSP schools
2002	9	8
2003	1	1
2004	-	-
2005	-	-
2006	-	-
2007	10	10
2008	10	10
TOTAL	**30**	**29**

NOTE: Official launches of libraries opened in 2007 and 2008 were staggered due to the numbers involved, with the most recent launch taking place in May 2011.

As already noted, the original intention was to equip the 50 most disadvantaged schools in the SSP with libraries. To examine the extent to which this was the case, Table 2.3 shows where schools that are currently participating in the library programme fell in terms of assessed level of disadvantage. The data clearly show that assignment of libraries to schools was largely based on level of disadvantage[7]. This indicates that, while implementation levels could be considered low, there is evidence that level of disadvantage was a major factor in the choice of schools in which to establish libraries.

Table 2.3. The number and percentage of schools with JCSP libraries according to rank order of disadvantage (within the top 50 ranks and outside of the top 50)

	No. of Schools JCSP Libraries	% of Schools JCSP Libraries
Rank order <50	24	82.7
Rank order >50	5*	17.3
All	29**	100%

* One of these schools is the only non-DEIS participant
**Although 30 schools have JCSP libraries, one of these schools opened in 2010/11 and does not have a rank order according to level of disadvantage.

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[7] See page 2 of the current report, and Weir (2006) for more detail.

Participation in Leaving Certificate Applied (LCA)

Numbers of participating LCA students were supplied by the DES to the ERC for each school year from 2000/01 to 2011/12. The percentage of SSP schools with LCA did not vary much between 2000 and 2012, showing only a slight increase in uptake of the programme over the period (Table 2.4). In the school year 2011/12 almost half (45.6%) of all post-primary schools participating in the LCA programme were in the SSP. This compares with a figure of 41.9% for the 2000/01 school year prior to the introduction of DEIS. It is worth noting that schools offering the LCA option require a certain number of students to participate each year (a critical mass) and that may result in some schools offering the programme not having LCA students every year. This leaves open the possibility that the number of SSP schools offering the LCA option is actually higher than the 45.6% indicated for the 2011/12 school year. It is also worth pointing out that the uptake of LCA in DEIS schools is much lower than the uptake of JCSP. However, this is not too surprising because early intervention – with a particular emphasis on the Junior Cycle – is a feature of the programme.

Table 2.4. Numbers and percentages of schools providing Leaving Certificate Applied in DEIS and non-DEIS schools between 2000 and 2012.

School Year	Total no. of schools* with LCA	No. SSP schools with LCA	No. Non-SSP schools with LCA	% of schools with LCA students that are in SSP
2000/01	222	93	129	41.9
2001/02	236	101	135	42.8
2002/03	254	109	145	42.9
2003/04	278	123	155	44.2
2004/05	282	127	155	45.0
2005/06	290	129	161	44.5
2006/07	293	131	162	44.7
2007/08	296	132	164	44.6
2008/09	293	130	163	44.4
2009/10	290	128	162	44.1
2010/11	288	129	159	44.8
2011/12	287	131	156	45.6
2012/13	282	128	154	45.4
2013/14	282	126	156	44.7

*Note. Some schools appear to drop out of LCA, or miss a year(s) because they have no students taking LCA in a given year. These figures are not recorded here but account for apparent discrepancies in the participation figures.

CONCLUSION

This review demonstrates that there has been high levels of engagement among DEIS schools with educational programmes targeting at-risk students. Almost all SSP second level schools offer the option of JCSP to their students and almost half provide for the LCA option. For uptake of programmes aimed at junior cycle students there has been a strong bias towards schools participating in the DEIS initiative. Engagement with the JCSP library programme was less than planned. Given the overwhelmingly positive feedback from schools where these libraries are in place, this is likely to be due to external factors such as the embargo on public service appointments.

As mentioned previously, because early intervention is a feature of the DEIS programme it is not surprising that the uptake of the LCA (senior cycle programme) is not as prevalent in DEIS schools as the uptake of the JSCP. However, there has been a slight increase since 2000 in the percentage of DEIS schools with students availing of the LCA as an alternative to the traditional Leaving Certificate programme.

CHAPTER 3: CHANGE OVER TIME IN THE EDUCATIONAL AND SOCIOECONOMIC CHARACTERISTICS OF STUDENTS IN DEIS SCHOOLS

At post-primary level, the ERC is monitoring achievement outcomes using centrally available data on retention levels and performance in public examinations. The sections below present data for 704 schools, including 200 schools which were enlisted into the SSP in the year 2006/2007 and 504 which did not participate in the SSP. The data describe trends over time in relation to academic achievement (i.e., Junior Certificate Overall Performance Score; Junior Certificate English and Junior Certificate Maths) and retention levels (i.e., Retention to Junior Certificate and Retention to Leaving Certificate). The data were analysed with a view to establishing whether there were any significant trends across time in each of the variables for all schools, whether rates of change differed for SSP and non-SSP schools and whether the introduction of DEIS in 2006/2007 had any impact on trends across time. A linear mixed model, which is a statistical technique suitable for the analysis of longitudinal data, was fitted to each set of data in order to estimate the rate of change over time, the significance of the fixed effect of SSP status (i.e., SSP vs non-SSP) and the significance of the time-varying covariate, signifying the introduction of the DEIS programme. (For more information on the mixed model method see Appendix 1).

Achievement in the Junior Certificate Examination (JCE)

Junior Certificate Overall Performance Score
Student performance in the JCE is described here using an overall performance scale (OPS) score which has been adopted directly from that used by Kellaghan and Dwan (1995) in their analysis of the 1994 Junior Certificate results. The OPS scale involves the allocation of numerical values to the alphabetical grades awarded to candidates, which when summed, produce an index of a candidate's general scholastic achievement (Table 3.1). The OPS score is based on a student's performance in the seven subjects in which he or she performed best. The maximum possible OPS score is 84 (which is achieved by a student who is awarded seven "A" grades on Higher Level papers), while the lowest possible OPS score is 0 (where a student fails to achieve at least a grade "F" on any of his or her best seven papers).

In the practical application of the scale, a student with an OPS score of 63, for example, has achieved the equivalent of seven "D" grades on Higher Level papers, or seven "A" grades on

Ordinary Level papers. In reality, a student achieving an OPS of 63 will have earned that score based on a mixture of grades and levels. It should be noted that in the allocation of weights to grades it is assumed that the difference between an "A" and a "B" grade on a Higher Level paper is the same as the difference between an "A" and "B" grade on an Ordinary Level (or Foundation Level) paper. Another assumption is that an "A" grade on a Higher Level paper (which attracts a score of 12) is 12 times as meritorious as an "F" grade on a Foundation Level paper (which attracts a score of 1). Furthermore, all subjects are treated as equivalent, while in practice, it may be more difficult to achieve a high grade in some subject areas than in others. In spite of these considerations, the OPS score may be taken as a useful broad measure of a candidate's achievements in the JCE.

Table 3.1. Individual overall performance scale (OPS) scores corresponding to grade categories at each examination level.

Higher	Ordinary	Foundation	OPS score
A			12
B			11
C			10
D	A		9
E	B		8
F	C		7
	D	A	6
	E	B	5
	F	C	4
		D	3
		E	2
		F	1

Junior Certificate Overall Performance Score average in SSP and non-SSP schools

To examine change in students' achievements in the Junior Certificate Examination over time, average OPS scores were calculated for students in SSP and non-SSP schools. Table 3.2 shows average OPS scores of students in both categories in the Junior Certificate examination between 2002 and 2011[8]. The data in the table show that, with one exception (SSP students in 2007), average OPS scores increased in each group each year. It also shows a considerable achievement gap favouring non-SSP schools in each year.

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[8] Data are missing for 2004 for all tables and figures in this section.

Table 3.2. Average Junior Certificate OPS scores from 2002 to 2011* for SSP and non-SSP schools.

	JOPS Mean	
	SSP	**Non-SSP**
2002	57.33	67.68
2003	58.07	68.19
2005	58.21	68.34
2006	58.69	68.62
2007	58.57	68.72
2008	58.71	68.80
2009	59.16	68.89
2010	59.75	69.47
2011	60.41	69.52

*The SSP was introduced in 2006/2007, and the line is intended to distinguish schools pre- and post-programme.

The magnitude of the increases (the values of the change in OPS in absolute terms) are given in Table 3.3. As the table shows, the increases are small, although they appear slightly greater for the SSP group. The statistical significance of the changes, and whether they coincide with the introduction of the programme, are examined below.

Table 3.3. Year-on-year changes in average Junior Certificate OPS scores from 2002 to 2011 for SSP and non-SSP schools.

	JOPS Mean	
	SSP	**Non-SSP**
2002	-	-
2003	+0.74	+0.51
2005	+0.14	+0.15
2006	+0.48	+0.28
2007	-0.12	+0.10
2008	+0.14	+0.08
2009	+0.45	+0.09
2010	+0.59	+0.58
2011	+0.66	+0.05

Figure 3.1 depicts the mean Overall Performance Scores (OPS) in the Junior Certificate examination over the nine year period. Separate lines represent average scores for all schools in the sample, SSP schools and non-SSP schools.
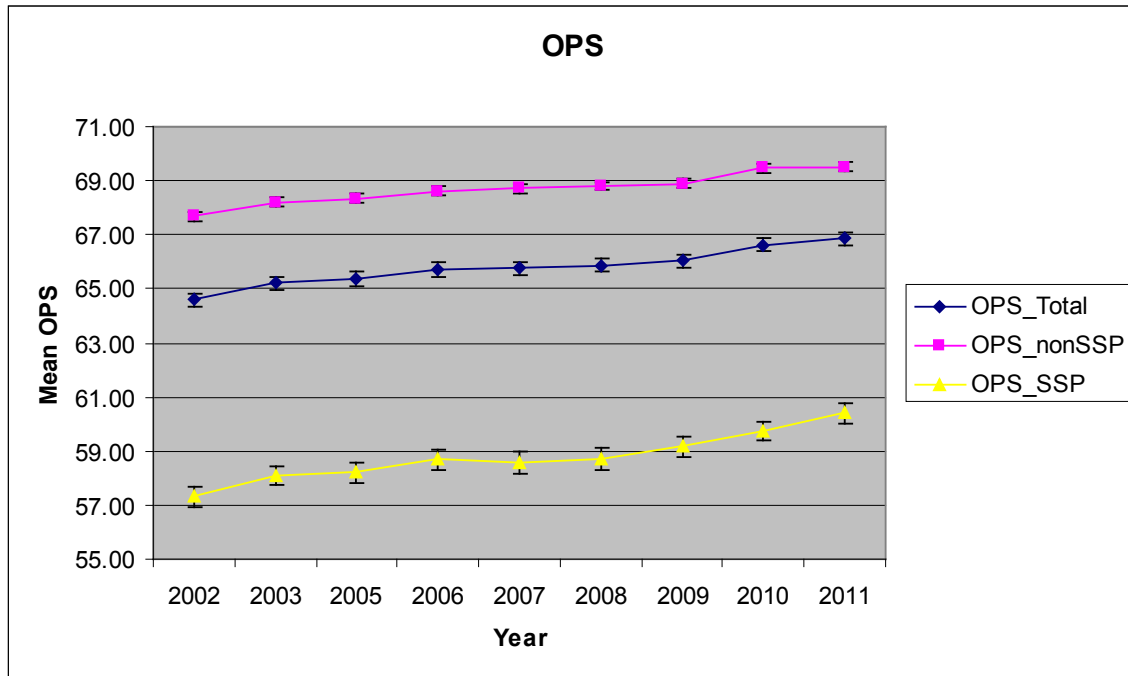

Figure 3.1. Mean OPS from 2002 to 2011 for all schools, SSP schools and non-SSP schools.

An examination of the plot by eye suggests that there is a linear upward trend across time in OPS for all schools. This observation was supported by the Linear Mixed Model, which indicated a significant effect of Time ($F(1, 670.38) = 325.09$, $p < .001$), and estimated that the OPS for all schools increased on average by .24 points per year between 2002 and 2011. Also evident from an examination of the plot is the discrepancy between OPS for SSP and non-SSP schools, with non-SSP schools seeming to have higher scores across all years. Again, this was confirmed by the Linear Mixed Model, which indicated a significant effect of SSP status on OPS ($F(1, 682.63) = 838.65$, $p < .001$), estimating that in 2002, non-SSP schools had an average OPS that was 10.4 points higher than the average for SSP schools. There was, however, also a significant interaction between SSP status and Time ($F(1, 664.69) = 16.43$, $p < .001$), indicating that the increase in OPS with each passing year was significantly greater for SSP than for non-SSP schools by .12 points. Specifically, separate models developed for the SSP and non-SSP schools estimated that non-SSP schools began with an average OPS of 67.83 in 2002 and increased each year by .21 points while SSP schools began with an average OPS of 57.45 in 2002 and increased each year by .32 points.

To examine the impact of the introduction of DEIS in 2006/2007 on the trend in OPS over time, a time varying covariate, which indicated the presence of SSP resources from 2008 on,

was included in the model for SSP schools. The analysis revealed a significant interaction between this time varying covariate and Time (F (1, 458.23) = 8.78, p = .003), indicating that the increasing trend in OPS was significantly higher during the years following the introduction of DEIS. Specifically, this model suggested that between 2002 and 2007, OPS increased by an average of .3 points per year and that this increased to an average of .57 points per year from 2008 on. A similar analysis conducted for the non-SSP schools indicated no such impact of the time varying covariate (F (1, 1132.91) < 1).

Junior Certificate English Scores

Figure 3.2 presents the mean English scores for all schools, SSP schools and non-SSP schools for the years 2002 to 2011 (missing 2004).
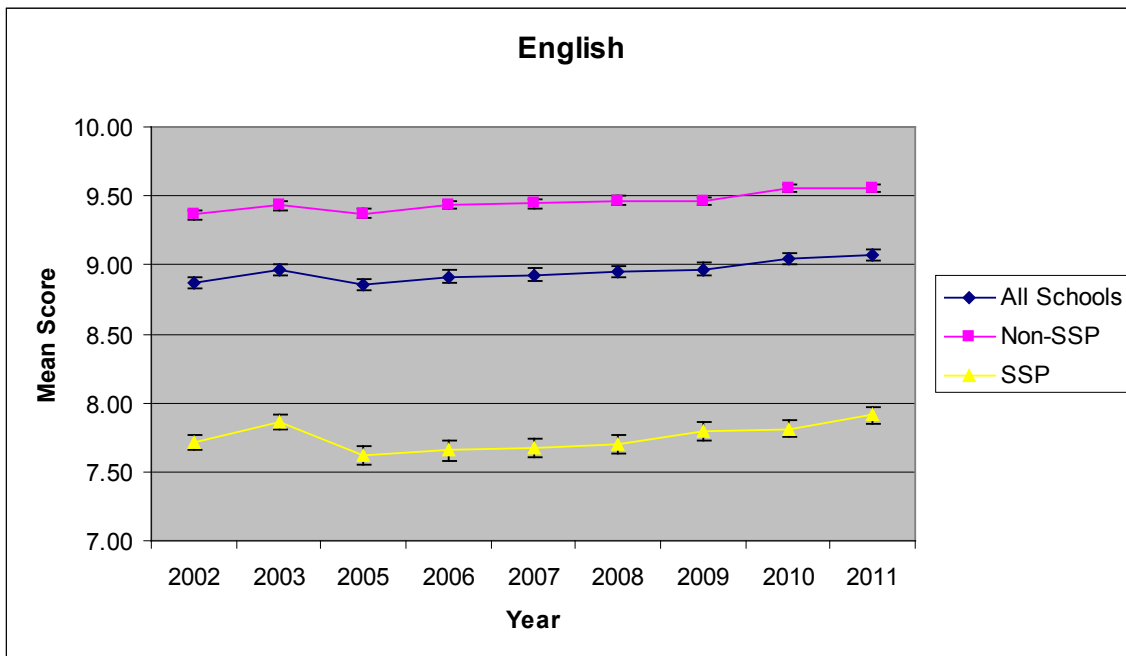
Figure 3.2. Mean English Scores from 2002 to 2011 for all schools, SSP schools and non-SSP schools.

Among other things, Figure 3.2 shows that, the average OPS in English in the Junior Certificate examination in 2011 was equivalent to a "B" grade at Ordinary Level. This compares with an "A" grade at Ordinary Level in all schools nationally. The Linear Mixed Model indicated the presence of a significant positive trend over time (effect of Time, F (1, 642.64) = 64.12, p < .001), with the average English score for all schools in the sample estimated to be increasing in a linear fashion by .02 points each year. The model also confirmed the existence of a significant gap between the English scores of SSP and non-SSP schools, suggested in Figure 3.2 (effect of SSP status, F (1, 679.87) = 898.79, p < .001). In 2002, non-SSP schools were estimated to have an average English score that was greater than

that of SSP schools by 1.68 points. However unlike the results for OPS, there was no evidence of differing trends over time (Time x SSP status interaction, F (1, 641.4) = 1.15, p = .28).

For the SSP schools, there was a significant interaction between the time varying covariate and Time (F (1, 461.53) = 23.31, p < .001), indicating a significant effect of the introduction of DEIS resources on changes in average English scores over time. Specifically, when the time varying covariate was added to the model for SSP schools, the estimates specified a negative linear trend of -.028 points per year between 2002 and 2007, followed by a positive linear trend of .063 points between 2008 and 2011. The addition of the time varying covariate to the model for the non-SSP schools revealed no statistically significant difference between trends in English scores between 2002 - 2007 and 2008 - 2011, (Time x Time Varying Covariate interaction, F (1, 1146.46) = 2.79, p = .095).

Junior Certificate Maths Scores

Figure 3.3 presents the mean Junior Certificate maths scores for all schools, SSP schools and non-SSP schools from 2002 to 2011.
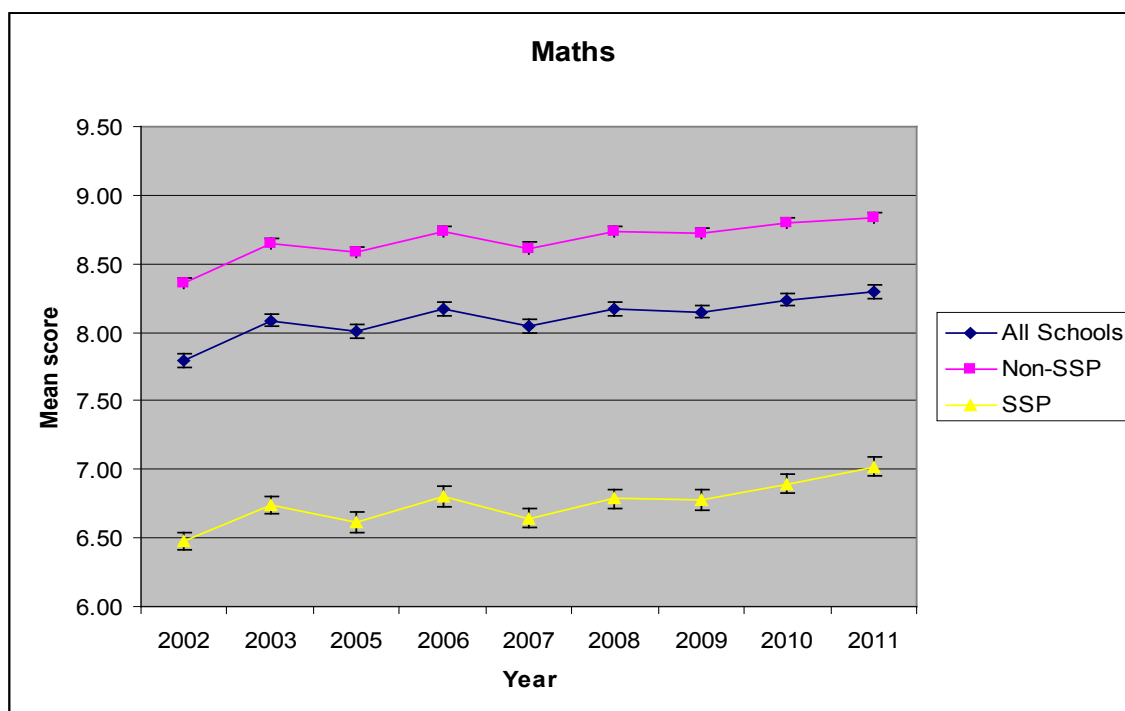

Figure 3.3. Mean Maths Scores from 2002 to 2011 for all schools, SSP schools and non-SSP schools.

Figure 3.3 shows that the average OPS in Mathematics in the Junior Certificate examination in 2011 was equivalent to a "C" grade at Ordinary Level. This compares with higher than a "B" grade at Ordinary Level in all schools nationally. A significant positive linear trend was identified

for all schools, (effect of Time, $F(1, 636.62) = 254.25$, $p < .001$), with an average increase of .045 points each year being estimated. Maths scores for non-SSP schools were found to be significantly higher than scores for SSP schools, (effect of SSP status, $F(1, 680.33) = 785.23$, $p < .001$), with average maths scores for non-SSP schools estimated as exceeding those of SSP schools by 1.94 points in 2002. However, there was no evidence of differing trends over time (SSP status x Time interaction, $F(1, 633.44) = 1.4$, $p = .24$). The effect of the time varying covariate for the SSP schools was not statistically significant (Time x Time Varying Covariate interaction, $F(1, 450.93) = 3.43$, $p = .065$), indicating that the introduction of DEIS resources during the period of 2008 to 2011 did not coincide with a significant increase in maths performance.

Retention levels

As is the case with performance in the state examinations, retention levels at Junior and Senior Cycle are considered to be important indicators of educational attainment. Indeed, as already mentioned, retention levels to Junior and Senior Cycle were among the educational indicators used to identify schools for participation in DEIS. The DES regularly produces its own retention report, and in a recent one, retention rates among DEIS (SSP) and non-DEIS schools for the 2005 and 2006 cohorts were reported (DES, 2012). It is important to note at this point that the *cohort year* refers to the year that the students entered second level, not the year that they took the Junior Certificate or Leaving Certificate examination. Therefore, the "2006 cohort" is composed of students that entered first year of the Junior Cycle in 2006. These students require at least five years (and often six) to be tracked through to Senior Cycle before it is possible to calculate a retention figure for them (as they are most unlikely to sit the Leaving Certificate before 2011 or 2012). Furthermore, because retention data work on a 5-6 year cycle, Junior Cycle retention rates are not reported until the entire cohort has completed Senior Cycle. These factors explain the apparent time-lag in reporting retention figures.

In the 2012 DES retention report, the Leaving Certificate retention rate for the 2006 cohort in DEIS schools was found to be just over 80%, about 10% lower than the national average rate[9]. Furthermore, the report stated that:

> The retention rate to the Leaving Certificate for DEIS schools, while still significantly lower than the rate for non-DEIS schools, continues to improve, with a

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[9] There are slight differences used in the methodologies used by the DES and in the current report to produce retention figures. For example, 2005 and 2006 rates reported by the DES have been adjusted for emigration and transfer to the private sector.

rate of 78.4% for the 2005 cohort and a rate of 80.1% for the 2006 cohort. The improvement has mainly taken place from the period of entry of the 2004 cohort onwards. The corresponding rates for non-DEIS schools for 2005 and 2006 are 91.7% and 92.7% respectively. A gap remains of approximately 12% in the Leaving Certificate retention rates between DEIS and non-DEIS schools, however the improvement in DEIS schools' retention rates has been significantly higher than the overall improvement nationally (DES, 2012, p. 15).

The report noted two important things. First, the improvement has taken place mainly from 2004 onwards, and second, that SSP schools showed more improvement than non-SSP schools. The remainder of this section is aimed at examining the extent to which increases in retention rates coincided with the introduction of the programme, and if there is statistical evidence of greater increases among SSP schools. Analyses will use year-on-year on retention rates over a ten-year period of entry cohorts in 1995 to 2004. Leaving Certificate retention data are available for two more recent cohorts (2005 and 2006).

Retention to Junior Certificate

Figure 3.4 presents the average Percentage Retention to Junior Certificate for cohorts between 1995 and 2007.
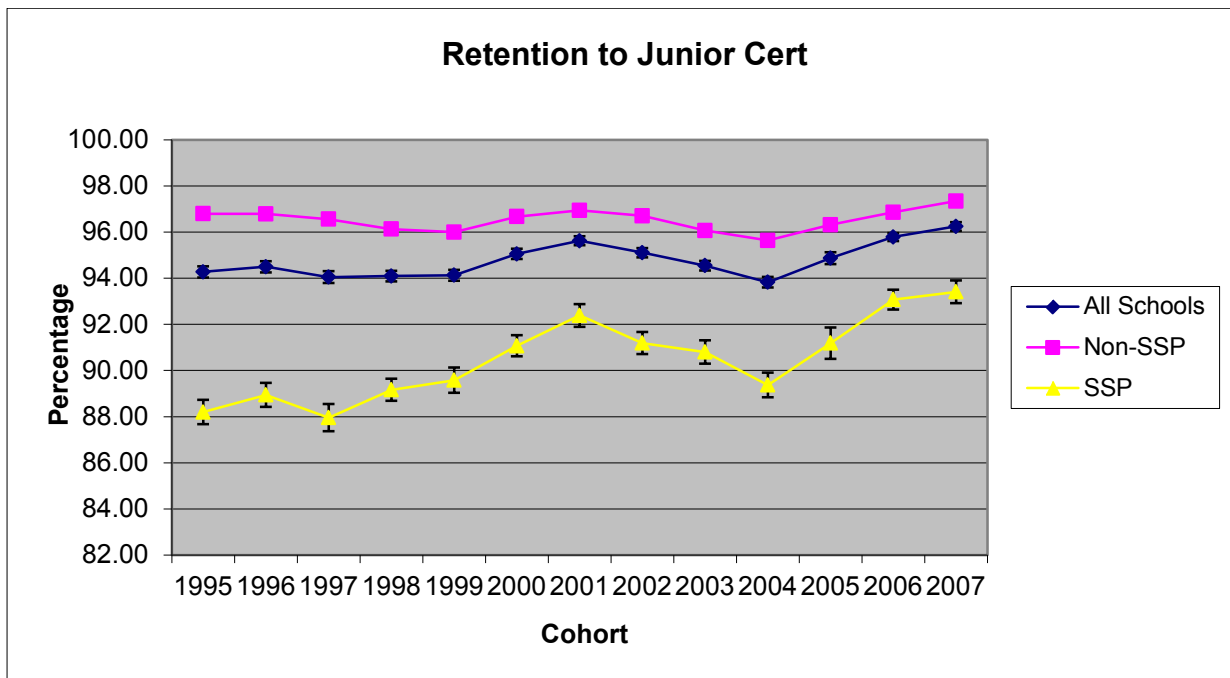

Figure 3.4. Average percentage retention to Junior Certificate for the 1995-2007 cohorts in all schools, SSP and non-SSP schools.

A Linear Mixed Model examining trends in the percentage of retention to Junior Certificate for all schools (*n*=709) revealed a significant effect of Cohort (F (1, 662.25) = 42.26, $p < .001$),

indicating the presence of a significant increasing trend over time, with retention rate increasing on average by .12 percentage points per year. There was, however, a significant effect of SSP status (F (1, 667.89) = 461.39, p < .001), and a significant interaction between SSP status and Cohort (F (1, 650.82) = 97.1, p < .001), signifying a significant gap between retention rates in the two types of school and differing trends over time. The 1995 cohort of non-SSP schools (n=515) was estimated as having a retention rate that was 8.22% higher than that of SSP schools (n=194) but SSP schools showed a significantly higher rate of growth in percentage retention over time, exceeding that of non-SSP schools by .36 percentage points (change of .37 v .01 percentage points, respectively). Schools in the SSP were estimated as beginning with a percentage retention rate of 88.2% for the 1995 cohort, followed by a significant positive trend with an average increase of .37 points per year. In contrast, non-SSP schools were estimated as beginning with a very high retention rate of 96.43% in 1995, with no evidence of a linear trend across the years for the cohorts of 1995 to 2007 (F (1, 453.45) < 1).

An examination of the trend line in Figure 3.4 suggests that a linear trend may not adequately describe the trajectory in mean retention rates for the SSP schools. An inspection by eye suggests a general linear increase until a peak for the 2001 cohort, followed by a linear decline between 2002 and 2004, with an increasing trend characterising the cohorts from 2004 onwards. The 2004 cohort would have benefited from the presence of DEIS resources (introduced in 2006/2007) in their third year of post-primary school. The Mixed Model was re-estimated for SSP schools, including a parameter representing a downward slope for the cohorts of 2001 to 2003 and a parameter representing the introduction of DEIS resources for the cohorts of 2004 to 2007. The model revealed the presence of a statistically significant increasing trend of .5 percentage points for the cohorts of 1995 to 2000 (F (1, 1089.53) = 25.54, p < .001), a significant downward trend involving an average decrease of .75 percentage points per year for the 2001 to 2003 cohorts (F (1, 1550) = 20.71, p < .001), followed by a significant upturn for the cohorts of 2004 to 2007(F (1, 1258.81) = 24.29, p < .001), for which there was an average increase of 1.43 percentage points per year.

An equivalent analysis for non-SSP schools revealed the presence of a significant decline of .1 percentage points per year for the cohorts of 1995 to 2000 (F (1, 2903.93) = 8.59, p = .003), a further decline of .42 percentage points per year for the cohorts of 2001 to 2003 (F (1, 3931.33) = 10.8, p = .001), and a significant increasing trend of .57 percentage points per year for the cohorts of 2004 onwards (F (1, 3307.67) = 101.12, p < .001).

These findings verify the existence of a statistically significant positive trend in retention rates for the 2004 to 2007 cohorts in SSP schools. Although this positive trend coincides with the introduction of DEIS resources it is difficult to interpret as it occurs in the context of a generally increasing trend for cohorts up to 2001, followed by a short-lived negative trend for the immediately successive cohorts. Furthermore, a similar, though much attenuated, positive trend was evident for the 2004 to 2007 cohorts in non-SSP schools, making it unlikely that the significant increase for the 2004 to 2007 cohorts in SSP schools was due to the introduction of DEIS resources.

Retention to Leaving Certificate

Figure 3.5 presents the average percentage retention to Leaving Certificate for the 1995 to 2007 cohorts.
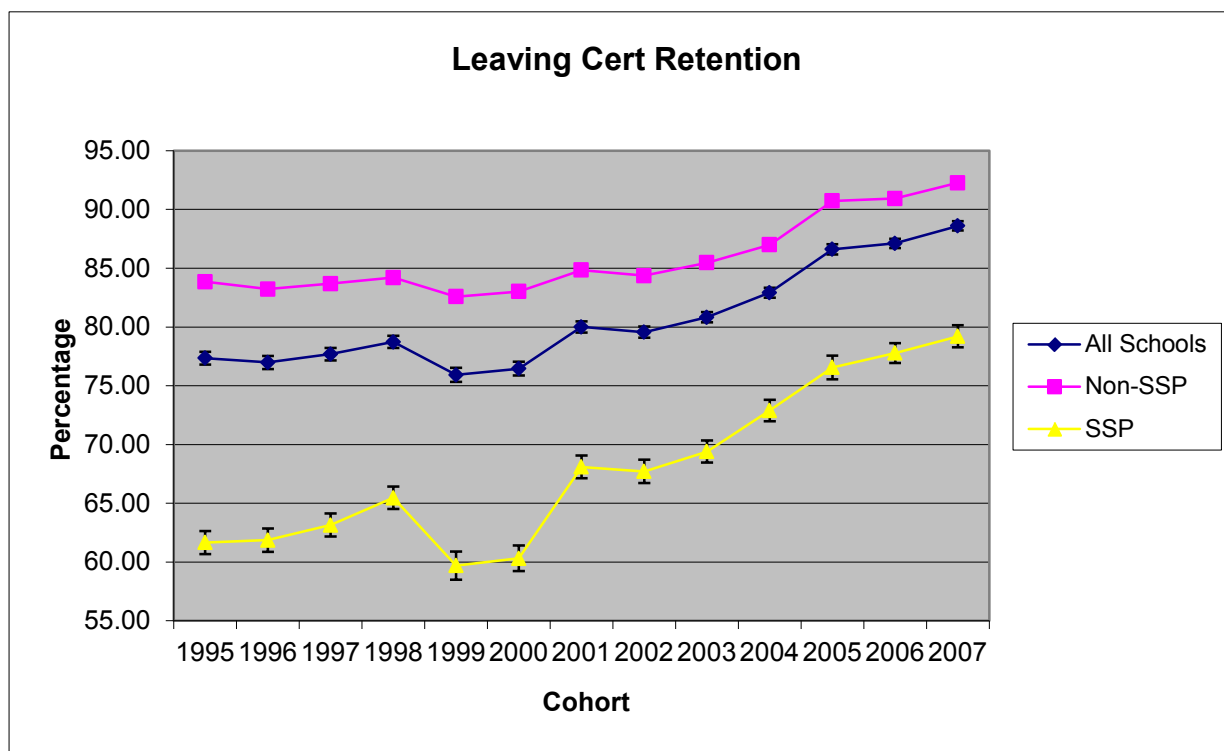

Figure 3.5. Average percentage retention to Leaving Certificate for the 1995-2007 cohorts in all schools, SSP and non-SSP schools.

A Linear Mixed Model for all schools ($n = 695$) indicated that the time series began with an average percentage retention of 74.97% for the 1995 cohort, followed by a significant linear increase of .97 percentage points per year (effect of Cohort, $F_{(1, 657.15)} = 975.31$, $p < .001$). There was also a significant effect of SSP status ($F_{(1, 661.18)} = 788.28$, $p < .001$), and an interaction between SSP status and Cohort ($F_{(1, 641.27)} = 189.1$, $p < .001$). The average

percentage retention level for the 1995 cohort was estimated to be 22.84 percentage points higher in the non-SSP schools (*n*=501). Their trend across time was, however, estimated to be .83 percentage points lower than the trend for the SSP schools (*n*=194). For SSP schools, the 1995 cohort was estimated as having a 58.64% retention rate, followed by an average increase of 1.56 percentage points per year between 1995 and 2007. The non-SSP schools were estimated as beginning with an average percentage retention of 81.5% for the 1995 cohort, followed by a significant average increase of .73 percentage points per year. These analyses indicate that Leaving Certificate retention rates have demonstrated a significant positive linear trend between the years 1995 and 2007 in all schools. While retention rates in non-SSP schools have remained at a significantly higher level throughout the period, there was evidence that retention rates in SSP schools were increasing at a significantly higher rate.

A time varying covariate, specifying the presence of DEIS resources for the cohorts of 2004 onwards, was added to the model to examine if the introduction of the SSP had an effect on trends in retention for SSP schools[10]. The Intervention variable had a significant interaction with Cohort (F (1, 1132.27) = 14.02, p < .001, indicating that the cohorts from 2004 on experienced a significantly different linear trend to prior cohorts. Specifically, the model estimated the cohorts between 1995 and 2003 as having a positive linear trend of .97, with the cohorts of 2004 to 2007 experiencing a significant increase of 1.11 points in that trend (i.e., a positive trend of 2.08 per year from 2004 to 2007). However, a similar analysis with non-SSP schools also indicated that the cohorts from 2004 on experienced a significant increase in the linear trend (F (1, 2732.03) = 152.58, p < .001). The trend for the cohorts between 1995 and 2003 was estimated as being .21, with an increase of 1.46 percentage points for the cohorts of 2004 to 2007 (i.e., a positive trend of 1.67 per year for these cohorts). These analyses indicate that Leaving Certificate retention rates have been increasing at a significantly higher rate during recent years, but this is a feature of both SSP and non-SSP schools, making it unlikely that the accelerated trend in recent years for SSP schools is wholly due to the introduction of DEIS.

Percentage Medical Cards

It is important to consider any changes in educational outcomes in the socioeconomic context in which they occur (in this regard, the relationship between retention levels and the state of the

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[10] The models estimated in this section also include a parameter specifying an interruption to the general increasing trend for the 1999 and 2000 cohorts. Figure 3.5 suggests that the cohorts of 1999 and 2000 were marked by a downward shift in the generally increasing trend for both SSP and non-SSP schools. The parameter representing this 'interruption' to the trend was statistically significant when added to the models for the SSP and the non-SSP schools.

economy has already been mentioned). The only available socioeconomic variable that relates to schools in the SSP is the percentage of medical cards held by Junior Certificate candidates in each school (an exam fee exemption is granted on the basis of family possession of a medical card). Table 3.4 and Figure 3.6 present the average percentage of students with medical cards in all schools, in SSP schools and in non-SSP schools between 2002 and 2011. (The 2003 school year is not included due to anomalies in the data that relate to JCSP for that year). It may be seen from Table 3.4 that since DEIS was introduced in 2007, there has been an increase in medical card percentage of about 10% at school level for all schools, for SSP schools, and for non-SSP schools. Not surprisingly (because medical card percentage was an indicator used to identify schools for the programme), SSP schools have a much higher percentage of medical card holders than non-SSP schools (the former are about 28% higher).

Table 3.4. Mean (*SD*) percentage of students with medical cards in all schools, SSP schools and non-SSP schools between 2002 and 2011 (excluding 2003).

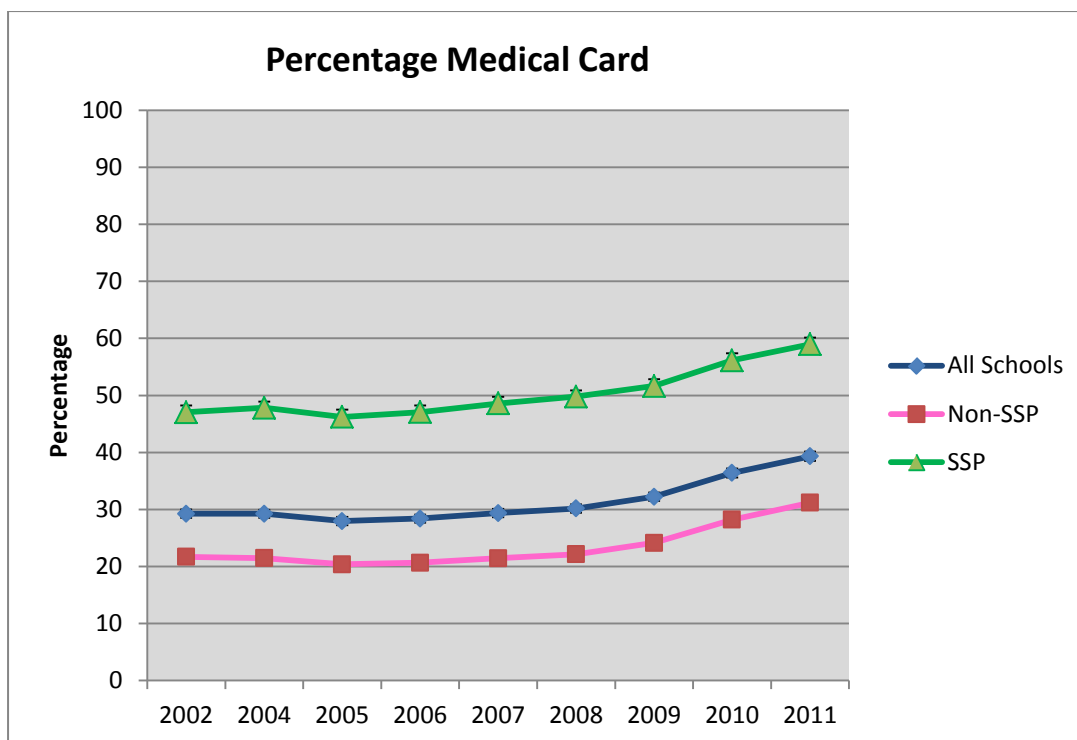| Year	All Schools	SSP Schools	Non-SSP Schools
2002	29.25 (18.66)	47.05 (16.59)	21.71 (13.72)
2004	29.25 (18.35)	47.82 (15.33)	21.47 (13.20)
2005	27.96 (18.62)	46.23 (17.74)	20.37 (12.81)
2006	28.41 (18.46)	47.08 (16.19)	20.67 (13.01)
2007	29.36 (19.25)	48.58 (16.51)	21.43 (14)
2008	30.16 (18.64)	49.80 (15.58)	22.14 (12.99)
2009	32.21 (18.91)	51.64 (17.16)	24.15 (12.74)
2010	36.39 (20.19)	56.15 (17.31)	28.20 (14.96)
2011	39.33 (20.57)	58.96 (16.09)	31.19 (16.3)

Figure 3.6. Average percentage of students with medical cards in all schools, SSP schools and non-SSP schools from 2002 to 2011 (excluding 2003).

CONCLUSION

The analyses presented above were conducted with a view to establishing whether there were any significant trends across time in Junior Certificate performance and retention levels in post-primary schools, whether such trends differed for SSP and non-SSP schools and whether there was any evidence that the introduction of DEIS in 2006/2007 had an impact on trends over time in SSP schools.

The analysis of performance in Junior Certificate examinations indicated the presence of significant positive trends over time for all schools, both in terms of overall performance scores, and scores in the individual subject areas of English and Maths. In each of the areas, a significant discrepancy between SSP and non-SSP schools was also noted, with non-SSP schools tending to have significantly higher levels of performance than SSP schools. There was also evidence that the positive trend in achievement across the years was of significantly greater magnitude in SSP schools than non-SSP schools. This was found in the analysis relating to Overall Performance Scores but not in relation to English or Maths scores. It suggests that between 2002 and 2011, the Overall Performance Scores for students in SSP schools improved

at a faster rate than those of students in non-SSP schools. In terms of whether or not the introduction of the DEIS programme had an impact on achievement, the models indicated significantly higher rates of increase throughout the years 2008 to 2011 for Overall Performance Scores and English scores (though not for Maths scores). While these data cannot allow causal statements to be made, they indicate that the implementation of the SSP during these years was associated with higher rates of growth in academic achievement in these areas in participating schools.

The analysis of retention data revealed significant discrepancies in retention levels of SSP and non-SSP schools, with the latter schools having significantly higher retention levels to Junior Certificate and Leaving Certificate. Percentage retention to Junior Certificate was uniformly high across the years for the non-SSP schools but a significant positive trend was identified for percentage retention to Leaving Certificate. Positive trends of a significantly greater magnitude were identified for SSP schools in relation to both Junior Certificate and Leaving Certificate Retention. The introduction of DEIS resources for the cohorts of 2004 onwards was associated with significantly higher rates of growth in both Junior and Leaving Certificate retention rates for those students in SSP schools. Similar patterns were also evident for those in non-SSP schools, however, making it unlikely that increases in trends were wholly due to the introduction of DEIS. It is likely that other factors, such as fluctuations in economic growth and employment opportunities, also influenced retention rates.

The recent economic downturn is reflected in the increasing percentages of medical card holders throughout the period (see Figure 3.6). It should be noted that the improvements in educational outcomes may be considered to be more impressive in light of increasing poverty levels.

OVERALL CONCLUSION

This report has drawn on various sources of material, including questionnaires and interviews, and data provided by various sections of the Department of Education and Skills. Taken together, the data indicate that high levels of implementation have been achieved in participating schools. Self-report data from questionnaires and interviews indicate that the majority of staff in the majority of schools are engaging well with the programme. As part of the development of a plan for DEIS, most schools have set targets in specified areas and are monitoring progress in relation to those targets. There is also evidence of increased levels of engagement in SSP schools with programmes targeting at-risk students, with almost all schools in the programme offering JCSP to their students and almost half providing the option of the LCA.

Outcome data, including student retention levels and performance in the Junior Certificate Examination, reveal increases in both since the programme was introduced. Although not clear cut, there are indications that progress in these outcome measures may be associated with the introduction of DEIS. These outcome data require further monitoring in the future, and it will be important to examine (insofar as the data allow), the relationship between implementation levels and outcomes. It is planned to prepare brief updates on outcomes such as retention and examination performance as further datasets become available. Any such examination will need to be mindful of the great variation in the scale of challenges faced by participating schools. These challenges include the achievement levels of incoming students, and the levels of marginalisation among families served by the school which can be exacerbated by factors such as levels of stress experienced by school staff and the impact of enrolment policies.

While improvements in a range of areas over the first few years of the programme have been observed, it is important to point out that the achievements and retention levels of students in schools in the SSP remain well below national norms. If the programme is successful in its aim of improving outcomes for participants, such impacts are more likely to be visible in the long term. This reinforces the need for continued monitoring of the programme, preferably as part of a formal evaluation. At the moment it is not possible to attribute, with confidence, improved outcomes to participation in DEIS, or indeed, to certain aspects of DEIS. Differences between the nature of the DEIS programme and that of previous programmes aimed at addressing disadvantage may well emerge as important determinants of the success or otherwise of the programme.

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APPENDIX 1

Linear Mixed Models

Longitudinal analysis involves the study of change over time. A longitudinal dataset is one which contains repeated measurements of the same unit of analysis, such as an individual or a school, over a period of time. This repeated measurement gives rise to one characteristic of longitudinal datasets which complicates statistical analysis of change over time. This is serial dependency, the fact that repeated observations taken from the same individual tend not to be independent, but correlated with each other. To take an example, it is likely that a student's score on a reading test on one occasion would be correlated with his/her score on another occasion. Statistical analysis of longitudinal data must be able to take account of this dependency in the data.

The linear mixed model is a statistical tool which is equipped to do just that and has become a widely used tool for the analysis of longitudinal data. The technique has been mentioned in the literature under many different names, including mixed effects regression, hierarchical linear models, random effects models, and multilevel models. Essentially an augmented linear regression model, the linear mixed model accounts for the serial dependency in the data by including an estimation of 'random effects', specifying the influence of each individual on their repeated observations. It includes both a between-subjects model, which estimates group trends over time and a within-subjects model, which estimates variation related to individual trends across time. Specifically, the linear mixed model enables the regression of the dependent variable upon time, calculating the initial starting point (intercept) and trend or rate of change over time (slope) for the sample as a whole (between-subjects model), while allowing the intercept and slope to vary across individuals (within-subjects model). An additional advantage of the linear mixed model is its ability to estimate the impact of time invariant factors, such as gender or nationality, and time varying covariates, such as life events, on the trend over time.

In the current analysis, the linear mixed model was used to examine trends over time in a sample of 704 Irish schools in relation to Junior Certificate exam performance and retention rates to Junior and Leaving Certificate. The linear mixed model permitted the inclusion of a variable relating to SSP status, indicating whether or not schools were involved in the DEIS programme, as a time invariant factor, which enabled the existence of differing trends over time for SSP and non-SSP schools to be investigated. The linear mixed model also facilitated the inclusion of a time varying covariate, which permitted an examination of whether or not trends differed significantly in the years following the introduction of the SSP in participating schools.

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