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Inquiry into the Education and Training Inspectorate and the School Improvement Process

Education Committee of the Northern Ireland Assembly

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Both authors are willing to present oral evidence to the Education Committee.

Executive Summary

1. The current school improvement process relies on a system of self evaluation and improvement by schools which set their own targets for progression towards better education outcomes. The system offers neither incentives for doing well or penalties for poor performance. School improvement rests on peer 'pressure' to do better judged by benchmarking education performance in one school compared with that of a comparable school. What makes a school comparable, and therefore a useful benchmark is, whether it is grammar or non-grammar, and the proportion of pupils in the school eligible for free school meals.

2. While perhaps laudable in its intent, schools are unlikely to set ambitious targets for improvement and are safe in the knowledge that business will go on as usual regardless of cajolement by the Education and Training Inspectorate (ETI) through benchmarking. The current system is failing to make any significant impression on the huge education attainment gap which exists between grammar and non grammar schools. The average non-grammar school can only offer 36% of its pupils 5+ GCSEs at A* - C grades, including English and Maths.

3. To improve education performance we need to know those factors which influence it. Using multi-variate analysis on data from the Department of Education and Education and Library Boards, this paper uncovers those factors which most impact on education outcomes. Not only should this allow schools to better understand what is important in improving their performance but it also allows us to predict, taking into account the circumstances of each school, **how** schools **should** be performing against their **actual** results. In other words, the model allows us to compare the difference between observed and predicted education results and assess whether a school is 'under' or 'over' performing. Such a calculation, in effect, offers an insight into, and way of measuring, the **value-added** learning offered by teachers in each school and could be used as a way to reward improved performance.

4. Given the differences in current performance between grammar and non-grammar sectors and within these sectors (maintained and controlled schools), there is also an opportunity for peer cross-community learning for which there is research evidence of improved educational and reconciliation outcomes. One mechanism which could be used to operationalise peer learning at the Northern Ireland wide scale is the shared education premium proposed in the *Ministerial Advisory Group on Advancing Shared Education* (2013).

5. Peer cross-community learning offers a significant opportunity to tackle two seemingly intractable problems in our education system in Northern Ireland: (a) a system of two halves – high performing schools which serve some of our pupils extremely well but fails over one-third of school leavers, and (b) a highly segregated system of schools. Through peer learning **all schools** (no matter how good or poorly performing) can engage in incentivised reciprocal learning. Peer learning therefore renders the debate on academic selection superfluous.

1.   Introduction

1.1   This paper is a response to a request from the Education Committee of the Northern Ireland Assembly for written evidence to assist in their inquiry into the Education and Training Inspectorate (ETI) and its role in the School Improvement Process. Given the breadth and complexity of this topic we have of necessity focused our response on the post-primary sector. The authors of this paper have also completed work on improving performance in primary schools which can be accessed on request.[2]

1.2   The paper is structured in the following way. First, the paper sets out the baseline against which improved performance can be measured, the Department of Education's (DE) current policies on school improvement, and whether they are working. Second, we consider those factors which affect the performance of schools and how these can be used to create a model for assessing and incentivising value-added learning across schools. Third, we consider the role which peer cross-community learning (shared education) could play in improving education performance. Fourth, we demonstrate the strength of association between school performance and parental choice. Finally, we offer some recommendations on an alternative approach to school improvement and raising standards for consideration by the Education Committee.
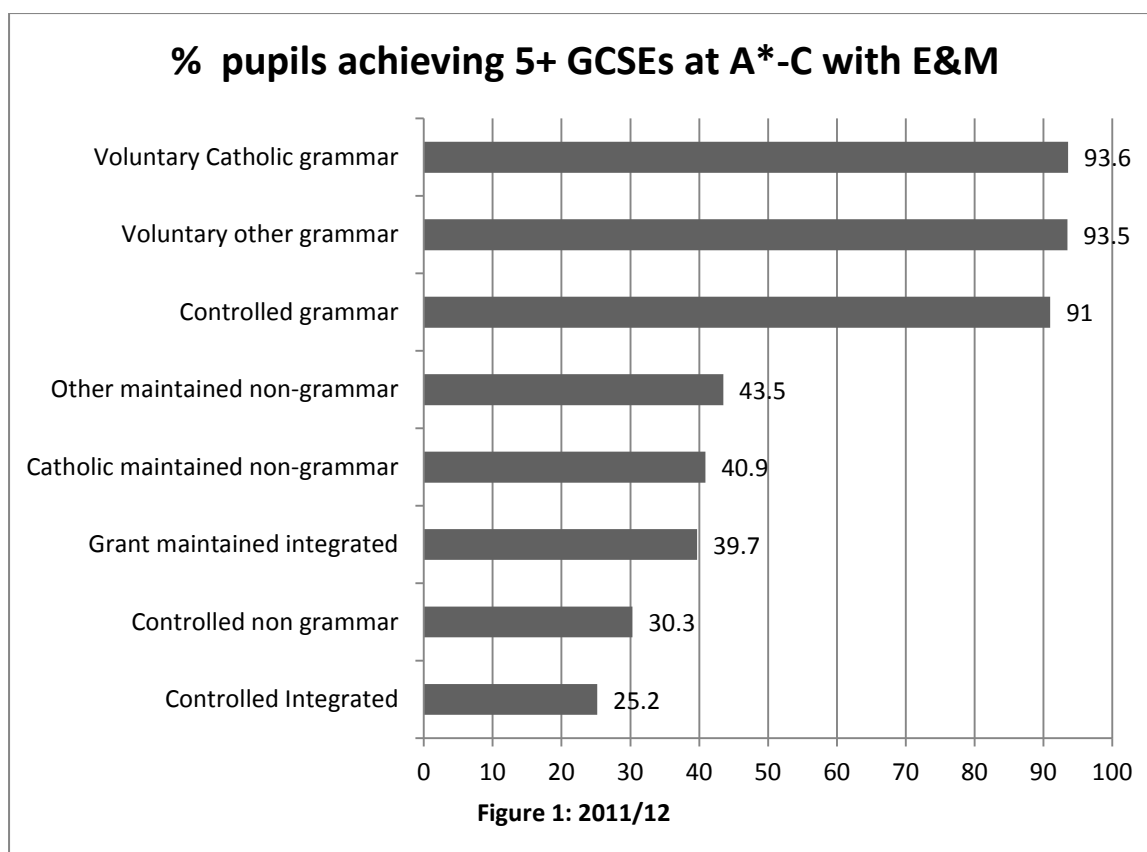
2.   What are we trying to improve?

2.1   The first consideration here is what are we trying to improve or what is the baseline against which we seek to improve the performance of schools? There are various education outcome measures at both primary and post-primary levels. For the purposes of this submission to the Education Committee we will use the standard measure of 5+ GCSEs (including English and Maths) at grades A* - C for post primary schools as the baseline. This is a widely used education outcome measure.

2.2   The results for the school year 2011/12 are listed in table 1 below and shown in figure 1.

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[2] Borooah, V.K., and Knox, C. (2013) *Shuffling desks or improving education performance? Area planning in Northern Ireland.* University of Ulster Research Paper.

Table 1: Post primary schools performance 2011/12		
Type of school	**Number of schools**	**% of pupils achieving 5+ GCSEs at grades A* - C including English and Maths**
Voluntary Catholic grammar	29	93.6%
Voluntary (other) grammar	22	93.5%
Controlled grammar	17	91.0%
Other maintained non-grammar (Irish medium school)	1	43.5%
Catholic maintained non-grammar	71	40.9%
Grant maintained integrated[3]	15	39.7%
Controlled non grammar	56	30.3%
Controlled integrated	5	25.2%
Total number of schools: 216 post primary schools (68 grammar schools and 148 non grammar)		
Total number of pupils: 146,747 post-primary pupils 62,554 attend grammar schools (42.6%) 84,193 attend non-grammar schools (57.4%)		

2.3 These results clearly illustrate the differences between education outcomes of grammar and non grammar schools and the fact that there is considerable room for improvement in the latter. The average non-grammar school in Northern Ireland can only offer 36% of its pupils 5+ GCSE passes at A*- C grades, including English and Mathematics – we return to this topic later in the paper. The statistics also demonstrate the significant difference between performance in Catholic maintained non-grammar schools and Controlled non-grammar schools (40.9% and 30.3% respectively). Given that these schools are likely to be drawing from similar social and demographic areas the obvious question is why this is the case? There is also a significant difference between the performance of grant maintained integrated schools and controlled integrated schools (39.7% and 25.2% respectively).

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[3] Please note that some Grant Maintained Integrated schools such as Lagan College and Slemish Integrated College are bilateral schools (combine grammar and non-grammar) with 35% of Year 8 intake admitted via the higher ability route. These pupils undertake the transfer test (GL assessment) and are streamed within the schools.

% pupils achieving 5+ GCSEs at A*-C with E&M

School type	Value
Voluntary Catholic grammar	93.6
Voluntary other grammar	93.5
Controlled grammar	91
Other maintained non-grammar	43.5
Catholic maintained non-grammar	40.9
Grant maintained integrated	39.7
Controlled non grammar	30.3
Controlled Integrated	25.2

Figure 1: 2011/12

3.   School Improvement – the current approach

3.1   The Department of Education's approach to schools improvement is based on their key policy document *Every School a Good School: A Policy for School Improvement (ESaGS, 2009).* The policy aims to support schools and teachers in their work to raise standards and overcome barriers to learning that some pupils may face.

3.2   Central to the ESaGS policy is the process of self evaluation and self-improvement. Specifically the policy document notes:

> School self-evaluation and self-improvement (with support) are at the heart of the policy. We believe that schools themselves, through honest and open engagement in self-evaluation, using effectively the wide range of data and information available to them, are best placed to identify areas for improvement and to implement changes that can bring about better outcomes for pupils (ESaGS, 2009: 1).

3.3   The ESaGS policy is based on a number of principles which include, *inter alia*, the following:

- The interests of pupils rather than institutions must be at the centre of efforts to improvement educational attainment and tackle underachievement.
- Equity of access and equity of provision as well as a continuum of provision for a diversity of need.
- A recognition that every school is capable of improvement; that the school is best placed to identify areas for improvement; and that sustained improvement comes from within the school.
  (ESaGS, 2009: 5).

We will return to these principles when discussing what has been achieved through the DE's work on school improvement to date and how it 'measures-up' against these principles.

3.4   To operationalise the ESaGS approach of self-evaluation and self-improvement, data at, pupil, class, year group, key stage and whole-school levels are collated, from which schools (by legislation) set their own targets for improvements, including targets for literacy and numeracy, and incorporate these into their school development plans. The targets set should be challenging and based on performance trends and plans for improvement. When setting targets schools are asked to take into account:

- trends in performance by the school over previous years;
- the prior attainment of each year group;
- the likelihood that levels of progression will be more challenging;
- the context within which the school is operating and how it compares to schools in similar circumstances; and,
- the priorities set in the school development plan.

3.5   All schools are provided annually with benchmarking data to enable them to compare their performance in assessment and public examinations with schools in similar circumstances, in terms of enrolment bands and proportions of pupils with free school meal entitlement.[4] Effective self-evaluation and the actions that flow from this process should, according to DE, deliver educational improvement for all pupils.

3.6   In addition to the above, DE has a strategy which is designed to support teachers and school leaders in raising levels of attainment in literacy and numeracy (*Count, Read: Succeed A Strategy for Improving Outcomes in Literacy and Numeracy, 2011*). More recently, OFMDFM and DE have collaborated in a *Delivering Social Change Improving Literacy and Numeracy* signature project (2012) which aims to employ 230 recently graduated teachers on two-year fixed term contracts to enable schools to deliver

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[4] DE Circular 2013/03, 26th April 2013 School Development Planning and Target Setting.

tuition and support for children in primary and post-primary schools who are having difficulties achieving basic educational standards.

3.7   There have also been structural responses to raising school standards in the form of the area planning process and the establishment of the Education and Skills Authority (ESA). Area planning was the DE response to an excess of school places and intended to put in place 'a network of viable and sustainable schools that are of the right type, the right size, located in the right place and have a focus on raising standards'.[5] Up until now the sense of what is driving the area planning process is that 'bigger is better'. In other words, treat schools like hospitals – build or amalgamate schools into large units to offer the widest curriculum choice and, as a consequence, pupils will perform better. This will also bring economies of scale and impact positively on school funding. Whilst this may have intuitive appeal it is based on little more than a hunch by senior officials in the Department of Education and school managing authorities.

3.8   Another aspect of this institutional response is the establishment of a new education body entitled the Education and Skills Authority (ESA) which is intended to help improve education standards, promote equality, and enable more resources to be directed to schools.[6] In a briefing to the Education Committee of the Northern Ireland Assembly a senior official of the Department of Education noted:

> The Minister is very clear that this particular Bill should focus on improving education rather than on reducing bureaucracy, important though that is. Although much of the focus of the Bill is on ESA as an organisation, ESA is merely a means to an end. That end, the policy goal, is better schools.[7]

3.9   In fact, many of the clauses in the Education Bill are about institutional changes rather than a focus on improving schools. Much of its content is on: the role, membership, and functions of ESA; the functions of the Northern Ireland Council for Curriculum, Examinations and Assessment; management of grant-aided schools; new powers and functions for the Education Inspectorate; and new statutory duties for Boards of Governors. The establishment of ESA may well result in greater administrative efficiency in the management of the education system but there is no guarantee that, of itself, it will improve education outcomes.

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[5] Department of Education (2012) *Area Planning Guidance*. Bangor: DE.
[6] Perry, C. (2012) *Education Bill*, NIAR 699-12. Northern Ireland Assembly: Research and Information Service.
[7] Official Report (2012) *Hansard: Education Bill* – Department of Education Briefing, 10th October: 3.

4. Have existing policies succeeded in improving schools' performance?

4.1 We argue that existing school improvement policies are failing. The Chief Inspector of Schools in her recent report agreed although is less explicit in her summation.[8] Focusing on two (of three) themes she reports the following in summary form:

(a) <u>Achieving value</u>: overall the education system across Northern Ireland achieves good value but its outcomes are too variable... too many children are failing to fulfil their potential. She identifies key challenges:

- To improve the outcomes for learners in English and Maths across all sectors, particularly for those from disadvantaged backgrounds, where only 32% of all school leavers entitled to Free School Meals achieve GCSE grade A*- C (with English & Maths) in 5 subjects.

- Improving the quality of leadership and management across all sectors and particularly in post-primary schools.

(b) <u>Transforming communities</u>: the formal and informal education and training sectors can transform lives by challenging the poverty of aspiration and encouraging learners, with the support of parents and carers, to achieve their full potential. She identifies, *inter alia*, the following challenges: closing the achievement gap and breaking the link between social disadvantage and poor educational performance.

4.2 The Chief Inspector concluded her report by saying:

> Some schools are failing to break a cycle of underachievement that has persisted over a period of time. All schools need to work as a united community to share and develop good practices across the controlled, integrated and maintained sectors, as well as further education, work-based learning and the informal sectors, to improve standards and educational outcomes for all learners... More cohesive planning and closer collaboration are required to serve the best interests of the learners through creating more diverse and inclusive educational communities.[9]

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[8] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12*. Bangor: Department of Education, Northern Ireland.
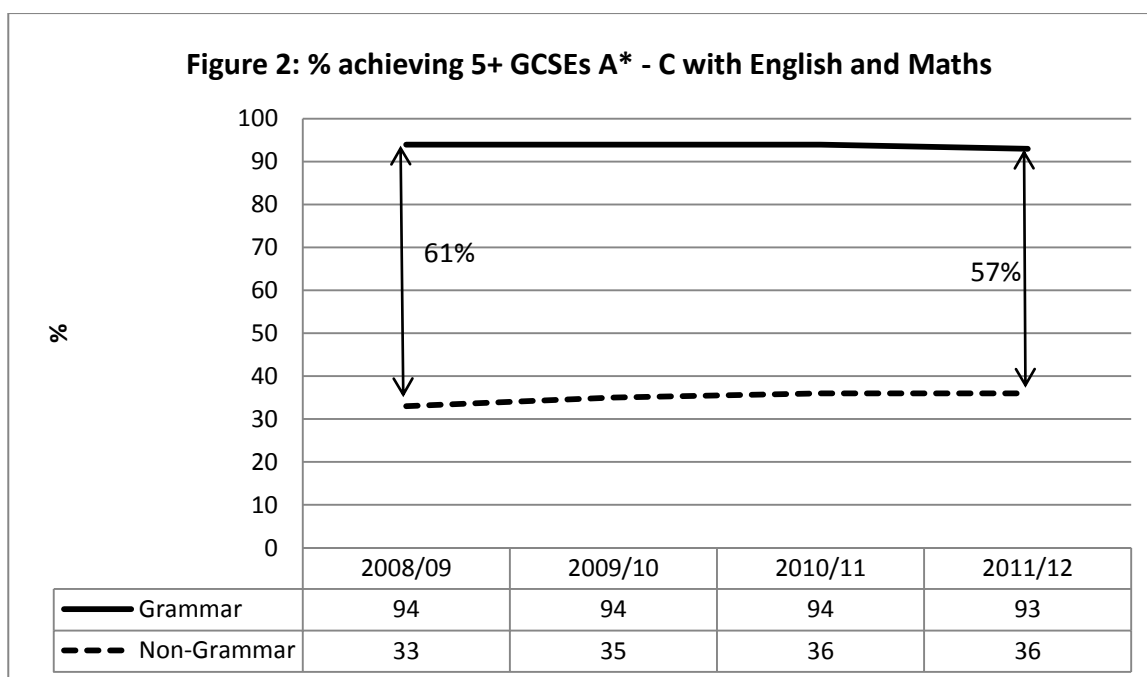[9] Ibid pages 25 & 27.

4.3   Concurring with the Chief Inspector, we would suggest there are 2 key performance weaknesses in the school system:

   i.   **Performance inequalities** between grammar schools and secondary schools. Table 2 shows that there were a total of 21,827 pupils in year 12 in 2011/12 of which 42.1% were in grammar schools and 57.9% in non-grammar. If we consider those students who achieved 5+ GCSEs A*- C grades (including English and Maths), grammar schools accounted for 65.1% of year 12 pupils and non-grammar 34.9%. In addition, the average non-grammar school in Northern Ireland can only offer 36% of its pupils 5+ GCSE passes at A*- C grades, including English and Mathematics. The achievement gap between grammar and non-grammar schools remains significant 61% in 2008/09 and 57% in 2011/12 (see figure 2). This is a major indictment of the education system. There is also a high level of educational underachievement amongst the Protestant population validated by a study which noted that 'there appears to be a tendency towards elitism, and socially imbalanced pupil intakes within schools predominantly attended by Protestants.'[10]

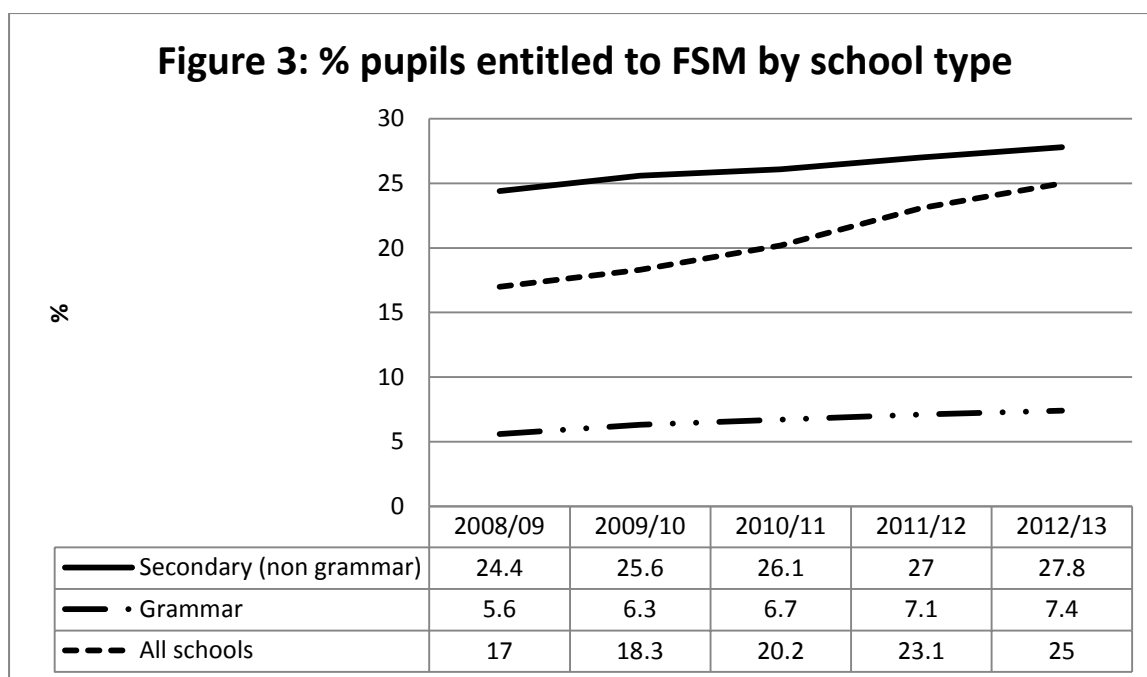| Table 2: Performance Inequalities (2011/12)				
	N	%	Number obtaining 5+ GCSE A*-C with E & M	%
Year 12 pupils in grammar schools	9,193	42.1%	8,540	65.1%
Year 12 pupils in non-grammar schools	12,634	57.9%	4,574	34.9%
Total number of Year 12 pupils	21,827	100%	13,114	100%

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[10] Purvis, D. (2011:4) *Educational Disadvantage and the Protestant working class: a call to action*. Belfast: Purvis Report.

Figure 2: % achieving 5+ GCSEs A* - C with English and Maths

	2008/09	2009/10	2010/11	2011/12
Grammar	94	94	94	93
Non-Grammar	33	35	36	36

(Chart annotations: 61%, 57%)

ii. **Access inequalities:** Pupils on free school meals (FSM) do not get sufficient access to grammar schools – they constitute 19% of all post-primary pupils but only 7.4% of grammar school enrolments, whereas there are 27.8% of non-grammar school enrolments in 2012/13 eligible for FSM (see table 3 and figure 3[11]). Similarly, children with special educational needs. There are 19.7% of all post-primary school children with special education needs in 2012/13 Grammar school enrolments comprise only 7.8% of SEN children whereas they make up 28.7% of non-grammar school pupils (table 3). Hence FSM and SEN pupils are disproportionately under-represented amongst grammar schools.

Table 3: Access inequalities			
Free School Meals			
2012/13	Grammar schools	Non-grammar schools	Total FSM pupils
FSM pupils (n)	4,607 (16.6%)	23,094 (83.4%)	27,701 (100%)
% of school enrolment	7.4%	27.8%	19% of all post-primary school pupils
Special Education Needs			
2012/13	Grammar schools	Non-grammar schools	Total SEN pupils
SEN pupils (n)	4,882 (17%)	23,828 (83%)	28,710 (100%)
% of school enrolment	7.8%	28.7%	19.7% of all post-primary school pupils

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[11] It is interesting to note from the statistics that there is a year-on-year increase in the proportion of pupils eligible for free school meals in each sector.

Figure 3: % pupils entitled to FSM by school type

	2008/09	2009/10	2010/11	2011/12	2012/13
Secondary (non grammar)	24.4	25.6	26.1	27	27.8
Grammar	5.6	6.3	6.7	7.1	7.4
All schools	17	18.3	20.2	23.1	25

5. What factors influence education performance in schools?

5.1 The Department of Education's approach to raising standards relies on self-evaluation and benchmarking against other comparable schools, disaggregated into grammar and non-grammar schools within various free-school meal bands. There are at least three problems with this approach. First, schools set their own targets for improvements and are therefore unlikely to be overly-ambitious in case they do not meet these targets. Second, there are neither incentives nor sanctions for meeting or failing to meet targets, respectively. Third, self-evaluation and benchmarking do not offer guidance to schools on **how** to improve their performance but rather how their education outcomes compare with other schools from the same management type and with a similar free school meals profile. This assumes that the only two factors which influence performance are, whether a school is a grammar or non-grammar school, and the percentage of FSM pupils which make up a school's constituency.

5.2 In fact, we can be more scientific about how we determine factors which best explain education performance in both our primary and post primary schools. We draw on several data sets relating to (in this case) all post primary schools to enable us to do this:

- Education performance: percentage of pupils obtaining 5+ GCSE at A* - C grades with and without English and Maths

- School characteristics: school management type; pupil numbers of various year groups; FSM and SEN pupils; and gender breakdown of the school.
- Financial status: level of financial stress as judged by the viability audit criteria (levels 1 – 4).
- Teacher numbers: number of full-time equivalent teachers in post primary schools.
- Attendance: pupil attendance record in schools.

5.3   Using these data, a regression equation was estimated with the dependent variable 5+ A*-C [E&M]. The estimation results are shown in appendix 1. The equation explained 95% of the variation in results between schools. The results show that the most important variables determining educational performance in a school in respect 5+ A*-C [E&M] were, in *descending* order of importance:

    i.   Being a grammar school
    ii.   The school attendance rate
    iii.   The proportion of free school meal children in the school
    iv.   The size of the Sixth Form
    v.   Being a Catholic Maintained school
    vi.   Being a Grant Maintained Integrated school
    vii.   The Education and Library Board within which the school resides
    viii.   The proportion of special educational needs pupils in schools
    ix.   Being a girls' only school

5.4   From this analysis we can draw a number of conclusions about post-primary schools in Northern Ireland. It is immediately obvious that the size of the school and its budgetary status are **not significant** when it comes to educational attainment. Yet, these are the factors most often cited by education officials as important target variables when rationalising the schools estate – small schools and those with budget deficits are easy targets for the reformers. A key variable in improving educational performance in post primary schools is attendance, perhaps indicative of wider issues within the school boundaries (pupils behaviour, teaching standards) and beyond (pupils called on to help with siblings or family duties where pupils help out on farms). It is also unclear why, for example, Catholic maintained schools out-perform their Controlled counterparts. But this could offer significant opportunities for shared or peer learning across the sectors – we will return to this point.

6. Value-added measurement

6.1 As a result of understanding the relationships between those variables which <u>explain</u> education performance we can use the regression equation (appendix 1) to <u>predict</u>, within a range of significance levels, what results schools **should** achieve, given their circumstances. We can then examine the difference between actual results achieved against those which we can predict. This allows us to say whether a school is **'over-performing'** or **'under-performing'**. The corollary of this point is that we can estimate the **value which teachers add** to their pupils' performance through good teaching, leadership, expertise and so on. The value added is therefore the difference between the observed and predicted values of educational performance in each school.

6.2 We can contrast the DE's approach to measuring educational underperformance with ours. Like us, the DE recognises that there is an inverse relation between the proportion of FSM pupils in a school and its educational performance. Consequently, to facilitate inter-school comparison, schools are grouped by the DE into seven bands by the percentage of FSM pupils in the school (0-9.99; 10-19.99; 20-29.99; 30-30.99; 40-49.99; 50-50.99; over 60). Unlike the DE, however, we make *explicit* the relationship between schools' educational performance and their proportion of FSM pupils and, in addition, moderate this relation by including other variables (*inter alia* the proportion of SEN pupils, the number of teachers, attendance rates).

6.3 Consequently, using our regression model, we are able to measure the <u>absolute</u> performance of a school (how a school is doing without reference to other schools) as well as its <u>relative</u> performance (how a school is doing with reference to other schools). The DE construct is only able to identify schools in the lowest quartile. In consequence, the DE comparison is purely relative: a school may be improving in absolute terms but the fact that it is in the lowest quartile of educational achievement for three successive years is sufficient to label it as an 'underperforming' school.

6.4 There is also a range of commercial tools available to schools to assess the value they add to pupil outcomes (e.g. Yellis, MidYIS).[12] These can provide teachers with information which helps to target their efforts on pupils who are underachieving but they tend to be used inconsistently across schools rather than at system-wide level.

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[12] Perry, Caroline (2011) *Valued Added Measures*. Research and Library Service Briefing Paper 39/11 NIAR 93-11.

7. Peer learning as a way of improving performance

7.1 One of the striking features of educational performance in post primary schools is the variation in results across the sectors. This offers real opportunities for peer learning. Why is it, for example, that Catholic maintained schools, drawing from similar demographics and pupil profile, out-perform Controlled non grammar schools and is there an opportunity for cross-sectoral learning here?

7.2 Much of the theoretical and research underpinnings for peer learning draw on the extensive literature on how collaboration and networking between schools in Great Britain can enhance school effectiveness and improvement. Work by Lindsay *et al* (2005) and Chapman and Allen (2005), for example, examine the potential for stronger schools being matched with weaker schools to help improve their performance[13]. Muijs *et al* (2010) argue that networking is differentially effective in meeting different educational goals and set out the circumstances under which it is more likely to enhance school effectiveness and improvement:

> Where improvements in pupil performance have been seen, this is often where more effective schools have paired with less effective schools to help them to improve, where leadership has been strong and supportive of networking, and where the number of schools involved has been limited. External support may also be helpful in cases where internal capacity or trust between schools may be lacking.[14]

7.3 Chapman's research (2008: 415) highlights key levers for improvement where networking takes place in a context of challenging circumstances which he argues should include: generating positive relationships; focusing on teaching and learning; understanding, leading and managing changes; committing to continuous professional development; building community; and, drawing on external support.[15]

7.4 An example of this type of peer learning is the Shared Education Programme supported by Atlantic Philanthropies and the International Fund for Ireland. Shared education refers to schools from different sectors working together in a sustained process ranging from two or more schools making shared use of specialist facilities, through to coordinated timetabling, and pupils taking classes across a network of schools.

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[13] Lindsay, G., Harris, A., Chapman, C. and Muijs, D. (2005) *Schools federations. Preliminary report to the DfES.* Coventry: University of Warwick.
Chapman, C. and Allen, T. (2005) *Partnerships for Improvement: the specialist schools achievement programme*. Coventry: University of Warwick.
[14] Muijs, D., West, M. and Ainscow, M. (2010) 'Why network? Theoretical perspectives on networking' *School Effectiveness and School Improvement*: *An International Journal of Research, Policy and Practice* 21 (1): 5-26.
[15] Chapman, C. (2008) 'Towards a framework for school-to-school networking in challenging circumstances' *Educational Research* 50 (4): 403-420.

7.5 The focus of shared education is delivering core curriculum activities where teachers and pupils work together across schools to achieve higher quality educational experiences. Shared education recognises that schools have interdependent relationships and promotes positive collaboration to support the common good. Ultimately it is about creating interdependencies between schools and making boundaries porous – it isn't about threatening anyone's identity or the creation of a Catholic/Protestant hybrid.

7.6 We know from existing research that shared education, by extending curriculum choices for pupils on a cross-community basis, results in significant, measurable educational and reconciliation benefits.[16] This research evidence is affirmed in the recently published Ministerial Advisory Report (2013) on Advancing Shared Education which states:

> Schools that work together in relation to the sharing of resources, expertise and good practice, and that bring their children together to engage in meaningful educational activities, have been shown to produce clear and measurable improvements in outcomes compared to those that do not. Similarly, there is overwhelming evidence internationally that when meaningful and sustained opportunities are provided for children and young people from different backgrounds to learn together then this can result in improved attitudes and relationships.[17]

7.7 OFMDFM has expressed an interest in working with DE to scale-up shared education as a Delivering Social Change flagship project. An integral element of this is to incorporate a shared education premium under the revised common funding formula now under consultation following the Salisbury Report.[18]

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[16] Borooah, V.K. and Knox, C. 'The Contribution of Shared Education to Catholic-Protestant reconciliation in Northern Ireland: a third way?' (2013) *British Educational Research Journal* DOI: 10.1002/ berj.3017.
 Hughes, J. (2010) 'Are separate schools divisive? A Case Study from Northern Ireland'. *British Educational Research Journal* 37 (5): 829-850.
[17] Report of the Ministerial Advisory Group: *Advancing Shared Education* (2013, xvi).
[18] *An Independent Review of the Common Funding Scheme* (2013) Salisbury Report.

8.   School improvement and parental choice

8.1   Schools which improve their educational outcomes become more popular with parents. Using 2013 admissions data to post-primary schools[19] in which parents express their first preference when completing transfer forms, we can examine variations in popularity across schools.

8.2   We examined variations in popularity across schools, as measured by the number of their first-preference applications, and asked, in particular, whether variations in popularity are associated with variations in schools' educational performance? In the analysis, educational performance is measured in two ways: (i) the proportion of pupils obtaining 5+ GCSE grades at A*-C and (ii) the proportion of pupils obtaining 5+ GCSE grades at A*-C, *including English and Mathematics*.

8.3   The results of our analysis (see appendix 2) show that both types of GCSE performance significantly and positively affect the number of first preference applications expressed by parents for a school. Performance, including English and Mathematics, had a stronger effect than performance which does not include these subjects. In short, better performing schools influence parental choice for their children. This is hardly surprising but the strength of this relationship is compelling. The evidence shows the variation in parents' first preference choice for a post-primary school is explained by the school's education performance. Parents therefore 'vote with their feet' and choose schools largely based on educational performance.

9.   Recommendations

9.1   To summarise, the Department of Education's response to school improvement has been: through schools participating in self-evaluation and self-improvement; a policy on literacy and numeracy; and, a review of organisational delivery structures (area planning, ESA, Education Bill). It is clear that so far these have had limited or no impact on the key problems facing the education system in Northern Ireland and there is a need to consider some creative alternatives.

9.2   The Education Minister recently proposed a series of school improvement measures aimed at addressing the concerns raised by the Chief Inspector's Report (above). In a statement to the Northern Ireland Assembly he indicated that he was 'determined

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[19] See Kathryn Torney 'The supply and demand for places: check out your local schools' *The Detail*, Issues 235, 1st July 2013

to retain a clear and unapologetic focus on raising educational standards'.[20] He intends, *inter alia*, to:

- Support continuing professional development of teachers through a new strategy for teacher education that will focus first on attracting the right people in to teaching and then to support them as they prepare to become teachers and as they go through their professional career.

- Develop fit-for-purpose leadership programmes for principals and vice principals – leaders who will work in alliance with their peers to meet the education needs of young people.

- Reward principals who undertake leadership roles in under-performing schools, not based on the number of pupils in their school but on the size of the challenges they face and on their success in overcoming these challenges.

- Stimulate mobility in the profession to create a breath of experience, including employment outside the school system.

- Enhance the professional standing of teachers by strengthening the role of the General Teaching Council as the professional body involved in supporting teachers and upholding the highest professional standards.

9.3   We are supportive of the Minister's measures particularly the principle of incentivisation which links rewards with results. We think this principle should pervade school improvement policies but argue that the Minister does not go far enough. For example, leaving schools to self-evaluate and self-improve as a central plank in school improvement stimulates little momentum for change.

9.4   Similarly, structural policies such as area planning are based on little more than hunch and intuition such as, large intra-sectoral schools will improve educational standards, when there is no empirical evidence to support this contention. In the same vein it is unclear how the establishment of ESA, in itself, will improve educational standards. These are structural 'solutions' to systemic problems of access and performance inequalities in education.

9.5   Based on the analysis (and underpinning research) in this paper, we recommend the following:

(i) **Access inequalities:** grammar schools should be set quotas by DE for selecting FSM and SEN pupils which requires them to better reflect the communities which they serve. This should result in an even distribution of pupils from these categories

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[20] O'Dowd, J. (2012) *Putting Pupils First: improving outcomes; improving opportunities*. A statement by the Minister for Education to the Northern Ireland Assembly. Bangor: Department of Education

across grammar and non-grammar schools. This will help to address the key problem of access inequalities in the current system of education and open up greater opportunities for pupils from disadvantaged backgrounds.

(ii) **Performance inequalities:** there are major opportunities for peer learning and improving educational outcomes between schools which from performance data are likely to mean collaboration across controlled and maintained schools. Peer learning will therefore result in both education and reconciliation benefits. The process through which this could happen is shared education and the mechanism to incentivise schools to become involved is the shared education premium as an integral part of the common funding formula. The premium would link financial incentives to the number of pupils and classes involved in shared education and improved educational outcomes of such classes.

(iii) **Added value:** Self-evaluation and self-improvement needs to be replaced by a mechanism which explicitly measures added value in schools. Using a model based on the type of regression formula developed for this paper, we recommend a value-added approach which allows us to **predict** the results of schools (based on the variables which explain education performance) against the **actual** results. Incentives could be linked to those schools which 'over-perform', and help, advice, guidance and support offered to schools which 'under-perform'. For example, the role which absenteeism plays in lowering educational outcomes has been highlighted in this research, yet it doesn't feature to any extent in DE's approach to improving performance.

(iv) **Academic selection:** the political and public debate on academic selection has become increasingly toxic and is stymieing opportunities to move forward with education reforms. We start from the same principle outlined in ESaGS, namely: 'a recognition that every school is capable of improvement.' Peer cross-community learning offers a significant opportunity to tackle two seemingly intractable problems in our education system in Northern Ireland: (a) a system of two halves – high performing schools which serve some of our pupils extremely well but fails 38% of school leavers,[21] and (b) a highly segregated system of schools. Through peer learning, operationalised via shared education and incentivised by a shared education premium, **all schools** (no matter how good or poorly performing) can engage in incentivised reciprocal learning. Peer learning therefore renders the debate on academic selection superfluous. All schools which are educationally proximate, geographically close (to avoid transport costs) should be incentivised to

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[21] A total of 38% of school leavers in 2011/12 left full-time education without 5 GCSE A*-C including English and Maths. Source: *Qualifications and Destinations of Northern Ireland School Leavers 2011/12*. Belfast: NISRA.

engage in cross-community peer learning to improve education and reconciliation outcomes.

(v) **Future role of ETI:** school inspections need to change in order to reflect the proposals suggested here which are aimed at overall school improvement. The ETI should have a clear role in monitoring and addressing access and performance inequalities, seeking significant changes over time. The reduction in the large performance gap since 2008/09 of 4% between grammar and non-grammar schools is inadequate. There needs to be a shift in focus within inspections to the value which schools add to pupils' learning rather than a reliance on self-evaluation and improvement, a system which lacks incentives or punitive measures for poorly performing schools. The ETI should oversee a new system of peer cross-community networked learning, incentivised through a shared education premium, aimed at raising educational outcomes for all schools.

Appendix 1:
Regression Estimates for 5+ A[*]-C grades at GCSE, Including English and Mathematics

Explanatory Variables↓	Coefficient	Standard Error	t value	Prob>t	Beta coefficient
Grammar School	38.889	2.255	17.25	0.00	0.614
Number in Sixth Form	0.025	0.006	4.18	0.00	0.098
Proportion of Free School Meal Pupils	-0.432	0.080	-5.38	0.00	-0.188
Proportion of Special Educational Needs Pupils	-0.085	0.060	-1.43	0.16	-0.036
Southern Board	4.965	1.299	3.82	0.00	0.068
Western Board	6.365	1.439	4.42	0.00	0.079
Grant Maintained Integrated	8.495	2.271	3.74	0.00	0.069
Catholic Maintained	6.420	1.693	3.79	0.00	0.093
Boys' only School	-3.540	1.684	-2.10	0.04	-0.037
Girls' only School	3.503	1.606	2.18	0.03	0.038
School Attendance Rate	2.156	0.315	6.85	0.00	0.213
Intercept	-156.452	29.305	-5.34	0.00	
Equation Statistics					
Observations = 211	Adjusted R^2=0.945	$F(11, 199)$ = 330.4	$\hat{\sigma}$ = 7.3	$\hat{\sigma}^2$ = 52.8	

Appendix 2

Regression Estimates for Number of First Preference Applications to post primary schools

	Coefficient	Standard Error	T value	Prob>t
Proportion of 5+ A*-C including E&M	0.864	0.229	3.78	0.0
Proportion of 5+ A*-C	0.696	0.187	3.73	0.0
Equation Statistics				
	Number of Observations=200	R^2 adjusted=0.795	F(2,198)= 389	Root MSE=52.9