# Research and Library Services



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# PRIMARY SCHOOL FUNDING

### **Research and Library Services**

This paper looks at the disparity in funding between primary and secondary schools. It looks at how Northern Ireland fares in relation to other countries. The report looks at the historic reasons behind the disparity and considers the research on possible impacts of the disparity and possible solutions.

Library Research Papers are compiled for the benefit of Members of The Assembly and their personal staff. Authors are available to discuss the contents of these papers with Members and their staff but cannot advise members of the general public.

#### **SUMMARY OF KEY POINTS**

- 1. The average funding to a Primary School pupil in Northern Ireland is £2,646 compared with £4,021 for a Post Primary School pupil.
- 2. The difference between primary school spend and post primary spend is larger in Northern Ireland than in England, Scotland or Wales. In Northern Ireland the funding for a Primary pupil is 66% of a secondary pupil compared with 78% in England, 71% in Scotland and 82% in Wales.
- 3. In an international comparison of 29 countries the United Kingdom is around the middle of the table in relation to its funding on education and on its percentage difference between primary and secondary school funding. Ireland also is around the middle of the table except in relation to the percentage of Gross Domestic Product (GDP). In this measure Ireland are among the three lowest contributors in relation to their GDP.
- 4. The reason for primary school pupils receiving less funding on average than secondary school pupils dates back to the creation of the school system.
- 5. Primary Schools developed out of Elementary Schools which were based on large numbers of pupils being taught by a single teacher. Secondary Schools were established for specialised teachers to teach smaller class sizes.
- The smaller funding amount is due to a number of differences in primary and secondary schools including; different resource needs, the size of the school, smaller class sizes.
- 7. There is no evidence to suggest that primary schools should receive less funding than secondary schools.
- 8. Effective primary schools have a positive impact on a child's later outcomes.
- 9. One possible outcome of increased funding is smaller class sizes however research is inconclusive on the impact of reduced class sizes. However the optimum class size is between 15 and 20 pupils per teacher.

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#### Introduction

This report is in two parts; section one compares the funding of education systems in a number of countries, specifically looking at the funding differential between Primary and Secondary stages. Section two details the research findings relating to what benefits are gained from primary education.

# <u>Section One: Funding Differentials Between Primary and Secondary Education</u>

#### 1.0 Northern Ireland

The Northern Ireland Primary Principals' Action Group (NIPPAG) has called for increased spending to Primary Schools. It has specifically cited the differential between the average spend on a Primary School pupil and that of a Secondary School pupil. The figures cited are that a year 7 child (last year of primary school) attracts £1,258 per year less than a year 8 child (first year of secondary school). NIPPAG also point out that Primary schools in Northern Ireland get a smaller proportion of the schools budget than in England and Scotland.<sup>2</sup>

It is indefensible that the Executive presides over a situation where Primary schools in England get 79% of secondary funding, in Scotland 72% and in Northern Ireland only 61.8%

Figures provided by the Department for Education to the Education Committee evidence the funding differential between Primary and Post Primary schools. Table 1 shows that in the years 2007/2008 and 2008/2009, the average per capita spend on primary school pupils is 65% of that spent on a post-primary child.<sup>3</sup>

Table 1: Spending in Northern Ireland schools per pupil

	Primary	Post Primary	Spend on primary school pupil as a percentage of spend on secondary school pupil
2007/2008 CFF* Funding & CYP#	£2,544	£3,923	64.8%
2008/2009 CFF*	£2,646	£4,021	65.8%

<sup>\*</sup>Common Funding Formula

The Department of Education point out that it is not a like for like comparison when comparing Northern Ireland with the rest of the UK<sup>4</sup>. They also make the point that<sup>5</sup>:

International Comparisons are difficult, due to the variations in the timing of research, definitions used and levels of delegated autonomy – and the nature and emphasis placed on addressing particular needs such as the incidence of small schools and levels of social deprivation.

<sup>3</sup> Briefing for the Education Committee from the Department of Education, 02 June 2008. p4 <sup>4</sup> Ibid p3

<sup>\*</sup>Children and Young Peoples Fund

<sup>&</sup>lt;sup>1</sup> Letter to Clerk to the Committee for Education from Mr D McCartney of the Northern Ireland Primary Principals' Action Group, 07 May 2008.

<sup>&</sup>lt;sup>2</sup> Ibid p1.

<sup>&</sup>lt;sup>5</sup> Ibid p3.

Although there may be differences between education systems in what is included in the funding of schools making pound-for-pound comparisons difficult, the differential in spend between primary and secondary school pupils within a country should be a more robust measure for comparison.

The Department of Education briefing does acknowledge that the funding differential between primary and post primary "should be smaller than it is currently" but also highlights the fact that as the budget is finite, an increase in funding to primary schools would mean a "corresponding reduction in the funding for post-primary schools".

The Department of Education's stated aim is to reduce the differential but in a way that does not have a negative impact on the post-primary sector<sup>6</sup>. To this end the differential has narrowed slightly however comparisons show it still remains larger than in other jurisdictions.

#### 1.1 Scotland

The figures for the differential between primary and secondary education, per pupil in Scotland are approximately in line with those quoted by NIPPAG in their presentation to the Education Committee<sup>7</sup>. In 2004–2005 in Scotland the gross revenue expenditure per pupil was £3,855 per primary pupil and £5,428 per secondary pupil, a percentage difference of 71%.

In Scotland, after the outcome of a Government inquiry, there has been a shift in policy which will decrease the differential between primary and secondary education. The Scotlish Government's objective of "making Scotland Smarter" has lead to an objective to reduce class sizes in years 1 to 3 to 18 children per teacher. This will have a great effect on the cost of primary education given that the greatest part of the education budget is for teachers 9.

#### 1.2 Wales

A report by the Wales Audit Office, analysed the finances available for primary and secondary schools in Wales and found that primary schools in Wales received, on average, 82% of the figure received by secondary schools<sup>10</sup>. This figure was based on the Individual School Budgets (ISBs) allocated to the schools by local authorities through their funding formula. In 2005/2006, the average ISB per primary school pupil in Wales was £2,909 compared to £3,548 per secondary school pupil.

#### 1.3 England

The primary school/secondary school differential in England was 79.5% in 2002-2003 (£2,870 per primary school pupil compared with £3,610 per secondary school pupil) based on the figures outlined by the Office of National Statistics<sup>11</sup>. This figure is inclusive of School Based Expenditure (that funding which goes directly to individual schools) and the combined Local Education Authority (LEA) spend (that funding spent by the LEA on central administration and services). Without including the LEA

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<sup>&</sup>lt;sup>6</sup> Ibid p3.

<sup>&</sup>lt;sup>7</sup> Letter to Clerk to the Committee for Education from Mr D McCartney of the Northern Ireland Primary Principals' Action Group, 07 May 2008.

<sup>&</sup>lt;sup>8</sup> http://www.scotland.gov.uk/News/This-Week/Speeches/classsizes

<sup>&</sup>lt;sup>9</sup> In Scotland 55% of the total gross revenue expenditure on education expenditure in 2004-2005 was on teachers. <a href="http://www.scotland.gov.uk/Resource/Doc/132966/0031688.pdf">http://www.scotland.gov.uk/Resource/Doc/132966/0031688.pdf</a>.

<sup>&</sup>lt;sup>10</sup> School Funding Analysis, Wales Audit Office, March 2006.

<sup>&</sup>lt;sup>11</sup> Statistics of Education: Education and Training Expenditure since 1994-95, National Statistics Bulletin, October 2004.

spend the percentage difference is 78% 2003 (£2,600 per primary school pupil compared with £3,320 per secondary school pupil).

Since 1997, there has, in fact, been some narrowing of the differential in favour of primary-aged pupils. In 1997/8, funding per primary-aged pupil was 73 per cent of the funding per secondary-aged pupil. The equivalent figure in 2005/6 is 81 percent. The increased funding has helped fund smaller classes, and an increase in teaching assistants and other support staff.

Table 2: Comparison of percentage spend across Northern Ireland, Scotland,

Wales and England

	Northern Ireland	Scotland	Wales	England
Spend on primary school pupil as a percentage of spend on secondary school pupil	66%	71%	82%	78%

#### 1.4 International comparatives

The Organisation for Economic Cooperation and Development (OECD) produces comparative figures relating to the funding of primary education. As the same level of expenditure will purchase different quantities of educational resources in different countries the comparison is expressed in US dollars in terms of purchasing power parity (PPP)<sup>12</sup>. With currencies converted in this way, \$100 would then purchase the same basket of goods in each of the countries listed. These figures show that primary education in Luxembourg is funded very well in comparison with Mexico which has the lowest funding of the 29 countries in the study. The United Kingdom is ranked in the middle of the OECD nations – 12th out of the 29 countries shown. This indicator of spend however seems to reflect the comparative wealth of the nation with richer countries spending more - rather than more deep seeded policy decisions:

It may be that expenditure expressed in terms of PPP primarily reflects the relative wealth of nations rather than their particular commitment to primary education. Indeed, we see in Figure 3 that the lowest levels of funding are found among the least wealthy of the OECD countries.

This purchasing power exchange rate equalizes the purchasing power of different currencies in their home countries for a given basket of goods. It is often used to compare the standards of living between countries, especially if one country has a more valuable currency, rather than a per-capita nominal gross domestic product (GDP) comparison at market exchange rates. The best-known and most-used purchasing power parity exchange rate is the Geary-Khamis dollar (the "international dollar").

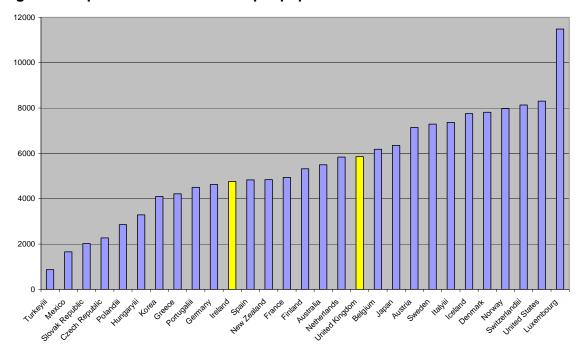


Figure 1: Expenditure on education per pupil based on US dollars

To avoid the problem of the relative wealth of countries the OECD study looks at the education as a percentage of Gross Domestic Product. The outcome of this is that the UK is seen to do relative well (18th out of 29 countries), whereas Ireland is among the bottom three.

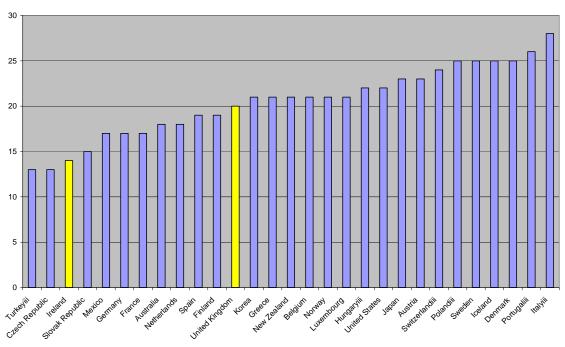


Figure 2: Expenditure on education per primary pupil as a percentage of Gross Domestic Product (GDP)

The OECD study also looks at the differential between primary and secondary education across the 29 Countries. This comparison shows that, the United Kingdom

ranks in 14th place out of the 29 countries, while Iceland actually funds primary school places more than secondary.

100

80

60

40

20

Grand Robert Lorder Lor

Figure 3: Expenditure on education per primary pupil as a percentage of secondary spend

The OECD study points out that:

It is interesting to note that of the four countries with the highest expenditure on primary education relative to secondary education, three are Nordic countries. All three have combined schools providing primary and lower secondary education. Grunnskólar in Iceland cater for pupils from 6 to 16 years of age, folkeskole in Denmark for those between 7 and 16/17 and grundskola in Sweden for those aged 6/7 to 15/16.

#### **Section Two: Resourcing Education**

The differential between primary and secondary education is an historic one and one which seems to have solidified in recent years due to the main policy emphasis being put on exam results. This section examines the historic reasons for the funding differential and explores the research findings relating to the benefits to be gained from well funded primary education.

#### 2.1 An Historic Perspective

The primary school system has been built on the elementary school system dating from the 19<sup>th</sup> century. The term "Elementary school" was the name given to publicly funded schools in England which provided a basic standard of education for working class children aged from five to 14, the then school leaving age. They were also known as industrial schools.

Prior to elementary schools, education was the preserve of the affluent as well as a small number of schools run by charitable organisations and at first the elementary schools themselves were run by religious groups with no financial assistance from government <sup>13</sup>. However over the course of the 19<sup>th</sup> century, government grants became available before the schools themselves moved to state funding. The elementary system was conceived as non-denominational but soon took on a denominational approach<sup>14</sup>. Local Authorities owned and administered schools with a Protestant student body and protestant teachers, whereas voluntary schools were owned by the Catholic Church. Elementary schools were set up to enable working class children to receive manual training and elementary instruction. The structure of elementary schools given poor funding was that a single teacher supervised a large class with the assistance of a team of monitors, who were quite often older pupils. They provided a restricted curriculum with the emphasis on reading, writing and arithmetic (the three Rs).

#### 2.2 The Education Act 1947

The school system was changed with the introduction of the Education Act 1947. Education was restructured into the selective system with the three progressive stages of primary, secondary and further education. The core aims of the elementary school also form the basis of the primary model, namely; "to provide cheap mass schooling based on a single generalist teacher instructing a large class" 15. In contrast, the secondary system was structured around specialised teachers instructing smaller classes. The disparity between funding levels in primary and secondary education are born out of this difference. These points were made by Andrew Adonis, Minister for Education in England in an interview on the government website teachernet.gov.uk in January 2006<sup>16</sup>.

The difference in funding levels between primary and secondary reflects a range of factors including the more specialised and advanced secondary curriculum, and the facilities required for teaching at that level — science laboratories, for example — and the higher salary costs generally in the secondary sector.

It seems clear that the opinion of the Primary Schools in Northern Ireland is that their funding is not sufficient. In a consultation exercise with schools, carried out by the Department of Education in 2007<sup>17</sup>, on the Common Funding Formula 99.5% of primary schools felt that their weighting for funding should be increased.

The Common Funding Formula is made up of a range of factors developed to reflect the main costs associated with schools, namely numbers of pupils; their ages and profile; the relative size of schools; costs associated with school buildings; together with a range of other factors which recognise the distinctive features of individual schools and certain pupils that give rise to significant and unavoidable costs.

http://www.gub.ac.uk/schools/SchoolofEducation/ProspectiveStudents/InitialTeacherEducatio nPGCE/PrimarySchoolExperience/filestore/Filetoupload,72469,en.pdf

The funding of English Primary Education, P. Noden & A. West, University of Cambridge,

http://www.deni.gov.uk/summary analysis for de web.pdf

<sup>&</sup>lt;sup>13</sup> Elementary School Records http://www.swansea.gov.uk/media/pdf/m/6/School\_records1.pdf

<sup>2008.</sup> 

<sup>16</sup> http://www.teachernet.gov.uk/teachers/issue42/primary/spotlight/AndrewAdonis/

The Department points out that the differential in spend is due to the "nature of the post primary curriculum, its mode of delivery and the extent of support arrangements, such as staffing, equipment and resource materials". In addition post primary schools have fees to pay for entry in to examinations and as well as receiving more money for larger premises.

#### 2.3 Should the disparity continue?

Given that the disparity in funding is due to the historical differences between secondary schools and to the associated costs of this, the next question is; should the disparity remain? A major review of primary education in England<sup>18</sup> has been asking this question and a team of academics producing research papers for the review has put forward a response, summarised by the education editor of the Guardian newspaper:

The government should increase primary school budgets to match those in secondary schools to pay for specialist teachers to tackle illiteracy, experts say. The multibillion pound investment in education since 1997 has been undermined by a failure to teach pupils the basics by the time they are 11, according to the biggest review of primary education in 40 years<sup>19</sup>.

This article cites a report by the Primary Review which concludes that<sup>20</sup>:

School-based expenditure per primary school pupil has risen substantially in recent years. However, after a previous slow convergence with spending at secondary level, since 2002-03 the gap in spending per pupil has grown between primary schools and England's more generously funded secondary schools. Conventional forms of primary and secondary school organization reflect this historical difference in funding. However it is not self-evident that there should be such a difference in funding levels — especially because later attainment is highly dependent on earlier attainment.

In addition, Anne West of the London School of Economics, co-author of the report, "The Funding of English Primary Education", has argued that<sup>21</sup>:

There is no sound justification for children aged 11 to be getting more than children aged 10 when it's crucially important that children at the end of primary school are functionally literate and numerate. Later attainment is clearly reliant on early attainment. If you get children literate at an early age it allows them to access the rest of the curriculum at secondary school.

Professor West author of the report on funding of Primary Education in England for the Primary Review said: "There does seem to be less public concern about primary schools than secondary schools. There haven't been as many initiatives for primary

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<sup>&</sup>lt;sup>18</sup> The Primary Review is a wide ranging independent enquiry of Primary Education in England. http://www.primaryreview.org.uk/index.html

The Guardian Polly Curtis, education editor, Friday February 29, 2008, <a href="http://education.guardian.co.uk/primaryeducation/story/0,,2261008,00.html">http://education.guardian.co.uk/primaryeducation/story/0,,2261008,00.html</a>
The funding of English Primary Education, P. Noden & A. West, University of Cambridge,

The funding of English Primary Education, P. Noden & A. West, University of Cambridge, 2008.

<sup>&</sup>lt;sup>21</sup> <u>The Guardian</u> Polly Curtis, education editor, Friday February 29, 2008, http://education.guardian.co.uk/primaryeducation/story/0,,2261008,00.html

schools since 1997 compared with secondaries." However research carried out by the Primary Review argues that those strategies that have been put in place for primary education have not all lead to improvements. Academics at Cambridge and Manchester Metropolitan Universities concluded that: <sup>22</sup>

The evidence on the impact of the various initiatives on standards of pupil attainment is at best equivocal and at worst negative. While test scores have risen since the mid-1990s, this has been achieved at the expense of children's entitlement to a broad and balanced curriculum and by the diversion of considerable teaching time to test preparation.

According to Professor Robin Alexander, Director of the Review of Primary Education in England, in a letter to the Prime Minister in 2005<sup>23</sup>;

The belief that educating children aged 5-11 is a sideshow, and that teaching them is in every sense child's play, has at last begun to yield to a simple, demonstrable and indeed momentous truth: that humans learn more and faster during their pre-adolescent years than at any other stage of their lives, and that what and how they are taught during those years profoundly conditions their future prospects and hence their contribution to the society in which they grow up. Primary education is a matter of the utmost importance.

The general secretary of the National Union of Teachers (NUT) commented that:<sup>24</sup>
The Government has a chance to tackle historic underfunding of primary schools. Falling roles should be seen as an opportunity, not a threat.
The funding gains created by smaller pupil numbers should be fed back into primary schools and not be seen as an opportunity to cut school budgets.

A spokeswoman for the Department for Children, Schools and Families, has defended some of these points saying:<sup>25</sup>

The government has hugely increased funding for pupils of all ages - from early years into sixth form ... We don't specify centrally a ratio of primary to secondary pupil funding in each local area. This is decided locally by local authorities in consultation with local schools and heads.

Mick Brookes, general secretary of the National Association of Head Teachers, reacted to the research coming out of the Primary review stating<sup>26</sup>:

The funding gap is not acceptable, but it has to be plugged with new money, not taking money from secondary schools ... We are in danger of sending children into secondary schools already switched off. Some have already lost the joy of learning.

<sup>&</sup>lt;sup>22</sup> Research Briefing, The Trajectory and Impact of National Reforms, Wyse et al, February 2008.

<sup>&</sup>lt;sup>23</sup> A shortened version of this article originally appeared in Wragg, E.C. (ed) (2005) *Letters to the Prime Minister: the future of education*, London, New Vision Group.

<sup>&</sup>lt;sup>24</sup> Primary schools "have got worse", BBC News, Febraury 2008, http://news.bbc.co.uk/1/hi/education/7268778.stm

http://education.guardian.co.uk/primaryeducation/story/0,,2261008,00.html http://education.guardian.co.uk/primaryeducation/story/0,,2261008,00.html

These arguments surround the current spending gap of approximately 20% in English schools. The fact that in Northern Ireland the gap is approximately 35% would suggest that the same argument for tackling the issue would apply.

#### 2.4 What is the impact of Primary School?

The impact of the disparity, referred to as an "historical anomaly" by the authors of a government report on Primary education<sup>27</sup> has lead the authors to argue that "primary schools have insufficient scope to employ, for example, the degree of specialist expertise that is needed to achieve better quality subject teaching"<sup>28</sup>. Increasingly, research provides evidence for the beneficial impact of good early intervention in children's lives. The provision of pre-school and primary school learning impact on the child's learning in later years.

The Effective Provision of Pre-School Education (EPPE) Project<sup>29</sup>, the first major study in the United Kingdom focusing specifically on the effectiveness of early years education has found that the impact of primary school is great. The EPPE project is a large scale, longitudinal study of the progress and development of 3,000 children. Reports form the EPPE study point to a number of findings which highlight the impact of "effective" primary schools on the attainment of pupils from key stage 1 to key stage 2<sup>30</sup> on both academic and behavioural measures.

The academic effectiveness of the primary school a child attends was a significant factor in accounting for variation in EPPE children's reading and mathematics attainment in Year 5. Children who attended a primary school identified as academically more effective had better outcomes at age 10 than children who attended a less effective primary school, after allowing for the influence of child, home and pre-school factors.<sup>31</sup>

Children who attend a primary school identified as more academically effective in promoting pupils' progress in Reading and Mathematics during KS2 show reduced 'Anti-social' behaviour at age 10. However, primary school academic effectiveness on its own did not show significant associations with the other aspects of social behaviour.<sup>32</sup>

Other research argues that both the academic skills and social skills developed during pre and primary school have a fundamental impact on life outcomes such as finishing school and later employment.<sup>33</sup>

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<sup>&</sup>lt;sup>27</sup> Curriculum Organisation and Classroom Practice in Primary Schools, A discussion paper, Alexander, Rose and Woodhead, Department of Education and Science, 1992, page 5.

Alexander, Rose and Woodhead, Department of Education and Science, 1992, page 5.

<sup>28</sup> Curriculum Organisation and Classroom Practice in Primary Schools, A discussion paper, Alexander, Rose and Woodhead, Department of Education and Science, 1992, page 5.

<sup>29</sup> <a href="http://www.ioe.ac.uk/schools/ecpe/eppe/index.htm">http://www.ioe.ac.uk/schools/ecpe/eppe/index.htm</a>

Key stage 1 is the stage from year one to year four and key stage 2 is from year four to year seven.

Influences on Children's attainment and progress in keystage 2: Cognitive Outcomes in year 5, EPPE 3-11, February 2007.
 Influences on Children's attainment and progress in keystage 2: Social/Behavioural

<sup>&</sup>lt;sup>32</sup> Influences on Children's attainment and progress in keystage 2: Social/Behavioura Outcomes in year 5, EPPE 3-11, August 2007.

The Impact of Early Cognitive and Non-Cognitive Skills on Later Outcomes, P.Carneiro, C. Crawford, A. Goodman, London School of Economics, October 2007. http://cee.lse.ac.uk/cee%20dps/ceedp92.pdf.

Children who exhibited greater social adjustment at age 11 were both more likely to stay on at school post-16, and more likely to have a higher education degree, accounting for cognitive ability and other background factors; however, social skills are not particularly important for basic literacy or numeracy attainment.

The EPPE 3-11 study found that children who attend a very high, high or medium academically effective primary school were found to obtain significantly better scores in NFER tests of mathematics in Year 5 than children who had attended a low effective primary school. Likewise, EPPE3-11 children who went on to attend a very high or highly academically effective primary school were also found to have significantly better reading skills by Year 5 than children who had attended a low effective primary school.

These results indicate that the variations in academic effectiveness identified between primary schools have a significant influence on children's attainment in other measures and at other time points over and above the influence of child and family background. Children who attend a less academically effective school are likely to do significantly less well by Year 5, especially in mathematics, taking other factors into account.<sup>34</sup>

For disadvantaged children, attending a less academically effective primary school is likely to further increase the achievement gap.

#### 2.5 What can be achieved with more funding?

It is difficult to identify a cause and effect relationship between the spending in primary schools and educational attainment. A study of the disparity of funding between Local Education Authorities in Wales in primary schools looked at differentials in educational attainment<sup>35</sup>:

Although strictly outside our remit, we have been concerned to establish whether and to what extent differences in levels of funding between schools and authorities are responsible for differences in educational attainment. Although it seems self-evident that there must be a link between funding and attainment, no matter how marginal compared to other factors, we have been surprised to find that there is apparently very little evidence to support this proposition.

The research shows the link not between funding and attainment but between effective schools and attainment. However NIPPAG in their submission to the Education Committee listed what they needed extra money to provide:

- Smaller class sizes,
- Planning, Preparation and Assessment (PPA) time for teachers,
- More and better learning resources.
- More staff support and
- More management support.

http://www.ioe.ac.uk/schools/ecpe/eppe/eppe3-11/eppe3-11%20pdfs/eppepapers/Tier%202%20Research%20Brief.pdf

<sup>35</sup> Committee on School Funding, Report on School Funding Arrangements in Wales, June 2006, National Assembly for Wales.

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#### 2.6 Smaller Primary School Class Sizes

Of the items on the NIPPAG list of items requiring additional spending, smaller class sizes or pupil to teacher ratios (PTRs) is the one which has received the attention of academic research. In Northern Ireland teacher numbers and, therefore, PTRs are determined by individual schools. Different educational structures mean that comparisons of PTRs across countries are not straightforward although table 3 provides current averages.

Table 3: Pupil Teacher Ratios<sup>36</sup>

	Northern Ireland	Scotland	Wales	England
Primary	20.5	17.1	20.7	22.0
Post-primary	14.4	12.3	16.7	16.6

The impact of PTR on attainment has been heavily researched however the findings have not been conclusive. A study of English Primary Schools by the University of London's Institute of Education (IoE) found that<sup>37</sup>:

No evidence was found that children in smaller classes made more progress in mathematics, English or science.

However Sir George Bain's review of Education in Northern Ireland succinctly encapsulates the prevailing thoughts on the issue:

Substantial international research demonstrates that levels of pupil attainment, particularly at the foundation stages of education and particularly among low-achieving groups, increase when high PTRs decrease. Some of this research suggests that any apparent benefits start to disappear once the PTR is reduced beyond a certain size (often between 15 and 20). Although there is no consensus on this point, this is the closest that current research gets to the notion of an optimum PTR in terms of educational need.

There can be a point at which high PTRs result in reduced attainment and adversely affect teaching styles and pupil behaviour. There can also be a point at which low PTRs may be associated with negative effects on aspects of the curriculum and pupils' social development.

In Scotland the argument for smaller class sizes has won through as a consequence of Scotland's objective of creating a Smarter Scotland. The Scottish Government has announced its plan to reduce class sizes in years P1 to P3<sup>38</sup>.

Why is it important to reduce class sizes? We need to remind other parties why. Aspects of literacy and numeracy are embedded in the early years—indeed, there are clear recommendations on that in the research. Until the age of eight, a child learns to read; from eight onwards, children

<sup>37</sup> The effects of Class size on attainment and classroom processes in English Primary schools, Research Brief, Blatchford et al, December 2004.

38 Cited in "Class Sizes", Kate Berry, SPICE Briefing, The Scottish Parliament, April 2008.

<sup>&</sup>lt;sup>36</sup> Schools for the Future, Report of the Independent Strategic Review of Education, December 2006

read to learn. .... If we get the basics and the foundation of literacy correct, we will ensure that there are improved opportunities for young children and, as important, ensure that we do not live in a country in which adult literacy and numeracy rates are shameful. It is not only about improving the life chances of individuals; it is about raising the skills of the nation.

The Scottish Executive Education Department (SEED) commissioned the Scottish Council for Research in Education (SCRE) to review the literature on the effects of class size on teaching practices and pupils' attainment, attitudes and behaviour and came to the conclusion that a significant reduction in class size will improve pupil attainment, especially for children in the early years of schooling.

Andrew Adonis countered the argument for smaller class sizes by pointing to both the direct cost impact of such a move but also the indirect impact <sup>39</sup>:

Funds that are better spent in the classroom on teaching children would also need to be spent on building additional classrooms to accommodate smaller classes, and on training and employing a greater number of teachers to teach these smaller groups.

#### 2.7 Other Impacts of Increased Funding

Increased funding on primary education evidently has a positive outcome – additional funding gives scope for more and better resources. However the optimum amount of funding needed is more difficult to establish as is the optimum difference in funding between primary and secondary schools. The research highlights that primary schools need to be "effective" and that covers a number of issues. That the class sizes are not too big as to prevent pupils from having one to one interactions with their teacher, nor too small that it would impact on the child's social development. That whatever the size of the class that the teacher has had the proper training to teach in that environment. Effective primary schools are due to resources as well as leadership, ethos and curriculum and when these are all in place the impact can positively change a child's life chances especially those less academically able pupils and those who are most economically disadvantaged.

<sup>&</sup>lt;sup>39</sup> http://www.teachernet.gov.uk/teachers/issue42/primary/spotlight/AndrewAdonis/.