

## The Educational Institute of Scotland

### CLASS SIZE

#### 1. Introduction

- 1.1 At its meeting on Friday 11 March 2005, Council agreed the terms of a report from the *ad hoc* Sub-Committee on Falling Rolls which included, *inter alia*, a number of recommendations for further action by the Institute and its committees. The Executive Committee, at its meeting on 22 April 2005, agreed that a paper should be prepared dealing with the following specific recommendations from the *ad hoc* Sub-Committee:

“The need to develop further the EIS case on class size to take account of recent developments and to articulate the possible advantages of falling rolls in pursuing EIS policy.”

- 1.2 Also at its March meeting, Council agreed to be represented on the ministerial working group on staffing resources and class sizes and it is intended that this working group would report in 2007, with an interim report to be published in 2006. Further the 2005 AGM, agreed to support the twin-track strategy promulgated originally by the Executive Committee and Council, by approving the following resolution:

“That this AGM resolve to endorse the involvement of Institute representatives on the ministerial working group on staffing resources and class sizes and instruct Council to continue to campaign, as appropriate, on Institute policy on class sizes, while the EIS continues to participate within the group.”

It is to the latter part of this AGM resolution to which the remainder of this paper is directed.

#### 2. The Situation at Present

- 2.1 At the current time class size limits are determined largely by collective agreements which have been approved by the Scottish Negotiating Committee for Teachers. These agreements have, more recently, been augmented by further limits which have been introduced by Statutory Instrument although some difficulties have been experienced when the parental choice legislation has been considered in light of the class size regulations. In the Scottish publicly funded education sector, therefore, the following class size limits currently apply.

Stage	Class Size Limit	Upper Limit*
Primary 1-3	30	39
Primary 4-7	33	39
Secondary 1 & 2	33	39
Secondary 3 & 4	30	34
Secondary 5 & 6	30	
Secondary (Practical)	20	
Special Education	6-10 (depending on special need category)	
Primary (Composite)	25	

\* The reference to upper limits remain in the Yellow Book but are, to all intents and purposes, redundant and will hopefully be deleted from the Scheme in the next revision.

- 2.2 As part of the partnership agreement between the Labour Party and the Liberal Democrat Party, which preceded the second period of coalition government within the devolved Scottish administration, there is a commitment to the following additional class size limits being introduced by 2007 (though the mechanism to be used is not yet decided).

Stage	Class Size Limit
Primary 1	25
Secondary 1 & 2 (English & Maths)	20

- 2.3 In the interim the class size provisions contained within the Schools (Scotland) Code 1956 and which applied to the nursery education sector have been repealed leaving the pre-5 sector with no protection in terms of class size limits.

### 3. **The Educational Rationale for Reduced Class Sizes**

- 3.1 The EIS recognises that schools will become more flexible in their organisation and that pupils will learn in variety of contexts within the school and outwith the school; the EIS recognises also that ICT will impact on teaching methodologies in a range of ways. That said, it is the view of the EIS that for most of the time in school pupils will be taught by a teacher in a designated class. It is crucial that pupils' experiences in classes should support effective learning.
- 3.2 The EIS is clear that one key factor in ensuring this outcome is the setting of a class maximum size that accords with the demands of current practice.

- 3.3 For years it was argued that class size was not important in that attainment was not dependent on class size; indeed some early studies concluded that attainment was on occasion higher in larger than in smaller classes. The conclusions of these studies are now rarely considered tenable: firstly in many cases it is impossible to distinguish the effects of class size from other contextual issues, many of which were not even considered by the researchers; secondly these studies used narrow (often very narrow) measures of attainment which are no longer appropriate measures of pupil achievement; thirdly many studies accepted that higher attaining pupils were as a matter of school policy assigned to larger classes.
- 3.4 However, there is one group of studies which do demonstrate a clear relationship between class size and attainment.
- 3.5 The benchmark study in this group remains the Tennessee STAR programme which demonstrated incontrovertibly that within that state small class sizes in the early years of school education led to significant long term improvements in attainment. It was significant that disadvantaged pupils (in US terms black children) benefited more than others: ie while the attainment of all improved, the attainment gap was narrowed. It could be argued (indeed was argued immediately by those concerned at the financial implications) that the lessons of this study may not be transferable to other systems. However other US states have adopted similar practices and have come to similar, if not quite such strong, conclusions. In the light of these results, the Federal Government provided funds to a Programme to reduce class sizes in elementary schools across the country.
- 3.6 There is growing evidence of the positive effects of small class elsewhere. London University has carried out a longitudinal study in England, the results of which are summarised in the 2002 SCRE publication *Does Small Really Make a Difference?* ‘The findings accord with American evidence .... the message is clear: an association was found between class size and pupils’ attainment on standardized tests. Test scores for literacy decreased as class size increased ... and again low achievers show the largest effects from being taught in small classes ....’
- 3.7 The results in the first report of the PISA programme developed by the OECD demonstrates that attainment correlates with student teacher ratios, a rough surrogate for class size; the worse the ratio, the lower the level of attainment.
- 3.8 An analysis based on all children born in England and Wales in one week of 1958 has concluded that class size has a substantial effect on the decision to stay on at school and therefore on final attainment.
- 3.9 Large class sizes are not merely associated with lower attainment: they impact negatively on pupil behaviour, on pupil motivation, on pupil self-

image. These qualities are difficult to foster when the teacher must spend most of her time managing a large group. As the SCRE report notes: 'Most studies show that teachers of smaller classes report that these are quieter and more easily managed than larger ones. Therefore, potential discipline problems are prevented from arising.' This is supported by the conclusion that 'American researchers ... claim that fewer of those pupils who experienced smaller classes in the early years of schooling subsequently "dropped out" of school at Grade 10 ... Their exclusion and absence rates are also lower. There is some European evidence to link larger class and school sizes with increases in the number of incidents of pupil pushing, crowding and other aggressive behaviour.'

- 3.10 Closer to home the research carried by Professor Pamela Munn for the Scottish Executive into discipline in schools clearly records the views of teachers that one means of promoting better behaviour and, therefore, better learning in schools was a decrease in class size. These views are based on the direct experience of hundreds of teachers.
- 3.11 The 2003 EIS survey of provision for vulnerable pupils resulted in many respondents referring to the impact of large class size on their ability to meet the needs of challenging pupils.
- 3.12 Again drawing on the SCRE report, there are clear suggestions as to the benefits of smaller classes in promoting more effective teaching.
- 3.13 Limited findings in the PRISMS enquiry in England suggested that in smaller classes there is:
  - a. more sustained interaction between teachers and pupils
  - b. more high order questioning
  - c. more feedback on work
  - d. less time spent on routine supervision
  - e. less time spent exercising classroom control
  - f. less time given to 'housekeeping'
  - g. less time spent on managing the classroom and more on direct teaching which allowed teachers to 'engage in more enquiring questioning, ask more task-related questions, make more statements' and to be 'more involved with the task when interacting with pupils'. (Hargreaves et al, 1998, p789).
- 3.14 A project in Alberta (Edmonton Public Schools, 2001) has provided a detailed description of those teacher practices in small classes which were considered to be effective. These teachers:
  - a. individualised learning for pupils
  - b. developed productive learning environments
  - c. achieved a richer, more creative and complete curriculum
  - d. used active learning

- e. integrated reading, writing and speaking
  - f. supported students' personal skill development
  - g. employed a repertoire of literacy processes
  - h. grew, themselves, through teacher support.
- 3.15 As part of the STAR initiative in Tennessee, a number of classroom activities which characterised effectiveness in small class teaching were identified. These included:
- a. basic instruction completed more quickly allowing time for additional material to be taught
  - b. more in-depth teaching
  - c. more opportunities used to engage in first-hand learning
  - d. increased use of learning centres
  - e. more use of individualised attention to pupils.
- 3.16 Teachers recognise the value of using a wide repertoire of teaching methodologies: direct interactive teaching, group work, collaborative learning, peer tutoring, recognising different learning styles, and ICT. But large class sizes force teachers into traditional whole class didactic teaching and prevent individualisation. This has been identified in a number of studies.
- 3.17 Work on formative assessment across the world and exemplified in the Assessment is for Learning Programme provides a clear message: formative assessment implies formative teaching in which sound learning is correlated to the nature of pupil teacher dialogue. While that dialogue will sometimes be mediated through indirect written dialogue, through the use of ICT, through peer group discussion, or through mentoring, much of the dialogue must include face to face discussion between pupil and teacher. Even where it is mediated, the amount of teacher input should not be under-estimated. This can only be effected in appropriately sized classes.
- 3.18 Work commissioned by the Teacher Training Agency in England from staff in Southampton University and the Open University has identified a number of studies of successful inclusion of pupils with 'special educational needs' in mainstream classrooms. 'All imply that the learning environment plays a key role, since pupils learn through social interactions, and a sense of belonging to, and participation in, the learning community has an important effect on young people's learning in schools. .... Teachers foster the construction of knowledge through... dialogue with peers.' The EIS argues that such practices require appropriately sized classes.
- 3.19 The growing movement for personalisation and choice in school education requires appropriate limits on class size. Individualised instruction in large groups has been limited to certain packages designed to enhance a comparatively narrow range of pupil skills; competent mediocrity rather than challenge became the norm. Similar comments could be made about ICT

packages which isolate the pupil, reward readily defined success, and provide remediation in areas of failure. Genuine personalisation and pupil choice require appropriately sized classes.

- 3.20 Given the importance of positive relationships in supporting effective learning, it is important to recognise that such an ethos is easier to develop, support, and maintain within a relatively smaller group. The Southampton University study found it very difficult to disassociate improvements in social climate in the class from improvements in attainment.
- 3.21 The views of teachers, parents and pupils expressed through the National Debate were clear and accorded with this: reasonable sized classes are a precondition if pupils are to thrive and flourish. One of the features advertised (in the literal sense) by private schools is the fact that pupils will be taught in small classes; parents are willing to spend considerable sums of money to purchase these smaller class sizes because they have clear views about the benefits to their children of such provision.
- 3.22 The different demands of different pedagogical methodologies were recognised in Scotland thirty years ago when secondary practical classes were afforded a lower maximum than non-practical classes. We have now to recognise that pedagogy in all areas of the curriculum has changed greatly in this period. These developments in pedagogy reflect our ever increasing knowledge of the ways in which young people learn, the move from transmitting knowledge to developing complex skills and dispositions, and the ever rising expectations held by the community of our schools.
- 3.23 Pupils must be afforded within the classroom space to work in different ways. This is extremely difficult within a classroom in which every space is occupied because of the number of pupils present; a reduction in class size will allow for more imaginative and effective use of classroom space to support pupils' learning. Suggestions that the placing of comparatively large numbers of pupils within a typical classroom with two teachers present is the equivalent of creating two smaller classes each with its own space are simply foolish.
- 3.24 The evidence of the STAR research is clear: reduction to, say, 30 from 33, will make little difference to experience in the classroom or to attainment. A maximum of the order of twenty marks a clear boundary.
- 3.25 While the EIS values the flexibility afforded to schools within Ambitious Excellent Schools and A Curriculum for Excellence, it is important not to assume that a reduction in pupil teacher ratio or in average class size is in itself sufficient. What matters to pupils is the size of the class in which they are placed. All pupils are entitled to a sound education. Therefore a maximum class size requires to be determined and enforced.

- 3.26 The EIS is even more strongly convinced that to talk of improving pupil-adult ratios in schools is not an adequate answer to this issue. The STAR research included a strand which allowed comparisons to be made between ‘regular’ classes, ‘regular’ classes in which there was a teacher aide, and ‘smaller’ classes. There was almost no advantage to pupils (in terms of the measures used) in regular classes with an aide compared to those in regular classes without an aide; pupils in smaller classes (which were not supported by an aide) attained highly compared to those in regular classes with an aide.
- 3.27 This conclusion is supported by the Effective Provision of Pre-School Education (EPPE) Project from Three Universities, an in-depth study of provision in that sector; it was clear in its conclusions that effective practice includes interactions between staff and children traditionally associated with the term ‘teaching’, the provision of instructive learning environments and ‘sustained shared thinking’ to extend children’s learning. Having a trained teacher as manager and a good proportion of trained teachers on the staff is an indicator of quality provision.
- 3.28 Limited research in Glasgow University some years ago on pre-five provision pointed to similar conclusions about the importance of the teacher in ensuring effective education. This view is sustained by HMIE who state *‘Teachers, arguably uniquely amongst early years practitioners, are equipped with what may be called a discourse in learning – a framework of ideas about learning through which their expertise is continually filtered and which in turn is repeatedly challenged by experience.’*
- 3.29 As indicated above this finding can be extrapolated to all other sectors of education. Improving adult-pupil ratios in schools is no substitute for ensuring that pupils have ready access to a teacher in the course of their learning. This can only be promoted by reducing the maximum class size.
- 3.30 The EIS recognises that it will be necessary to ensure that teachers are supported in developing ways of working with young people in smaller classes to maximise learning. Smaller class sizes also assist in promoting improved standards of health and safety and help to deter bullying within classes.
- 3.31 A reduction in class size is a necessary, though not in itself the only, pre-condition to improving education in our schools. There is clear educational evidence to support current EIS policy.

#### 4. EIS Policy Objectives

- 4.1 Currently the EIS policy objectives which derive from decisions taken at recent AGMs can be summarised as follows:

- (a) to reduce all normal class size maxima (nursery, and primary 1 to secondary 6) to 20
- (b) to reduce multi-stage composite classes to 15 or fewer (currently 25)
- (c) to reduce pupil/teacher ratios when special needs pupils are in a class whereby each SEN pupil counts as the equivalent to 6 pupils
- (d) to maintaining the 2007 agreement as defined in the partnership agreement which seeks to reduce classes in S1 and S2 English and Maths (20) and in P1 (25).

## 5. Other Statistical Considerations

The following tables outline the most recent statistics which demonstrate the range of average class sizes across sectors and public/private provision and in different European countries. Secondary statistics are difficult to come by for a variety of reasons (including the greater range of structures etc).

### 5.1 Class Size Averages in Primary Education (2004)

Country	Class Size Average (Primary)*
Scotland (Public)	23.9
Scotland (Private)	18.6
England	26.2
Ireland	24.2
France	22.3
Germany	22.2
Czech Republic	21.3
Netherlands	21.2
Poland	21.1
Slovak Republic	20.8
Hungary	20.5
Austria	20.0
Belgium	20.0
Denmark	19.4
Spain	19.4
Portugal	18.7
Italy	18.1
Latvia	18.0
Norway	17.4



Country	Class Size Average (Primary)*
Greece	17.2
Luxembourg	15.6
Lithuania	15.2
Iceland	14.4
Average	19.81

\*Eurydice

## 5.2 Pupil/Teacher Ratios (2003) (Scotland)\*

Sector	Pupil/Teacher Ratio
Primary (Public)	18.07
Primary (Private)	12.97
Secondary (Public)	12.82
Secondary (Private)	8.50
Private (All Sectors)	9.31
Public (All Sectors)	14.88

\*Scottish Executive Statistics

## 6. Future Campaigning Priorities and Strategic Objectives

- 6.1 From the research evidence and the statistics outlined in sections 3 and 5 of this paper, it is worth noting that a number of campaigning opportunities will become available while Institute representative continue to serve on the Ministerial Working Group on Staffing Resources and Class Size. This campaigning work will be directed at members, MSPs and the wider public and will involve a range of formats including: the SEJ, leaflets, alternative media, advertising etc. A further paper on campaigning strategy will be provided by the Strategy Sub-Committee for consideration by the Executive Committee and Council. In the first instance, however, a leaflet will be produced targeted at all members.
- 6.2 The Institute will pursue political commitments to achieving the following objectives which the Institute would wish to achieve in the period running up to and following the 2007 Scottish Parliament elections.
- Maintaining a permanent Scottish Executive commitment to a minimum of 53,000 (FTE) teachers in Scottish publicly funded schools.
  - Achieving EIS policy on maximum class size (ie 20 for all classes with the exception of 15 for multi-stage composites).

The Institute would wish to ensure that class size agreements are incorporated into teachers' contracts of employment through collective agreements at national level.

- 6.3 The Scottish Executive commitment to achieving a total of 53,000 (FTE) teachers in Scotland is both welcome and significant. While it is expected that much of the increase will be devoted to ensuring that the class size commitments included within the partnership agreement are achieved by 2007, it is expected that, in the longer term, the 53,000 total will be maintained. In a falling school roll situation, therefore, any commitment to maintaining that figure will have the effect of reducing both average class sizes and pupil teacher ratios. For example, if, at 2013 the 53,000 total of FTE teachers were to remain in place the pupil teacher ratios would decrease as follows:

Sector	PTR (2003)	PTR (2013)
Primary	18.07	14.74
Secondary	12.82	10.76
All	14.88	12.90

It is anticipated that, in the primary sector, a reduction in pupil teacher ratio of 18.43% would result in a concomitant reduction in average class size from 23.9 in 2003 to 19.5 in 2013, bringing the average, at least, within the limits of EIS class size policy. It should be noted that these trends will not be uniform and that funding models will have to be adapted accordingly.

In the first instance, therefore, the priority for the Institute should be to persuade as many political parties as possible (in the run-up to the 2007 Scottish Parliament elections) to commit to the 53,000 (FTE) total and to thus bring about real reductions in average class sizes and pupil/teacher ratios.

- 6.4 As can be ascertained from the tables in paragraphs 5.1 and 5.2, there exists, at present, a significant disparity between the average class sizes and pupil teacher ratios enjoyed by the private sector compared to the public sector. There can be little doubt that the private sector often exploits its ability to keep class sizes down (eg in advertising literature) and recognises that lower class sizes benefit everyone involved in the educational process.
- 6.5 In addition, therefore, as part of the campaign to reduce class sizes, the Institute should draw the attention of political parties and the wider public to the above disparity. It should be highlighted that, to achieve the class size and pupil teacher ratios enjoyed by the private sector would require, at the current time, a reduction in average class size in the primary sector from 23.9 to 18.6 (a reduction of 22.2%) and an overall reduction in pupil teacher ratio from 14.88 to 9.31 (a reduction of 37.4%). It has long been argued that, rather than

seeking the demise of the private sector, public education policy should be directed towards trying to make public sector provision as attractive as the private sector and reducing class sizes is a concrete example of achieving this in practice.

- 6.6 As can be seen from the table in paragraph 5.1, the average class size in primary schools in Scotland is significantly higher than class sizes elsewhere in Europe (with the exception of England and the Republic of Ireland). It should be noted that, in order to achieve the European average class size, Scotland's primary school classes would have to fall by around 17.1%.
- 6.7 Once again, from a campaigning perspective, it is useful ammunition to point to the difference in average class sizes across the European Union as a means of exerting further pressure to secure Institute policy in this area.
- 6.8 The main objective of the campaign to reduce class sizes is to secure a timetable for the implementation of EIS policy of no class having more than 20 pupils (15 in a multi-stage composite). However, it should be remembered that the use of class size ceilings or limits alone as a means of cutting class size is often criticised as a relatively blunt instrument. The Institute should, therefore, continue to campaign for improvements in class size which take account of absolute class size limits but also to seek improvements which can be measured both as average class sizes and pupil teacher ratios.

## 7. **Summary**

- 7.1 It is suggested, therefore, that the EIS approach should include strategic objectives covering absolute class size limits (20) and campaigning work as follows:
  - (a) to seek commitments to the maintenance of the minimum of 53,000 (FTE) teachers beyond 2007;
  - (b) agreeing a timetable to reduce absolute class size limits in line with Institute policy.
- 7.2
  - (a) That a leaflet be prepared, in the first instance, aimed at all members.
  - (b) That the Strategy Sub-Committee provide a further campaigning strategy paper for the consideration of the Executive Committee and Council.

- (c) That all MSPs should receive, from the Institute, material relating to the “Reduce Class Sizes” campaign.
-