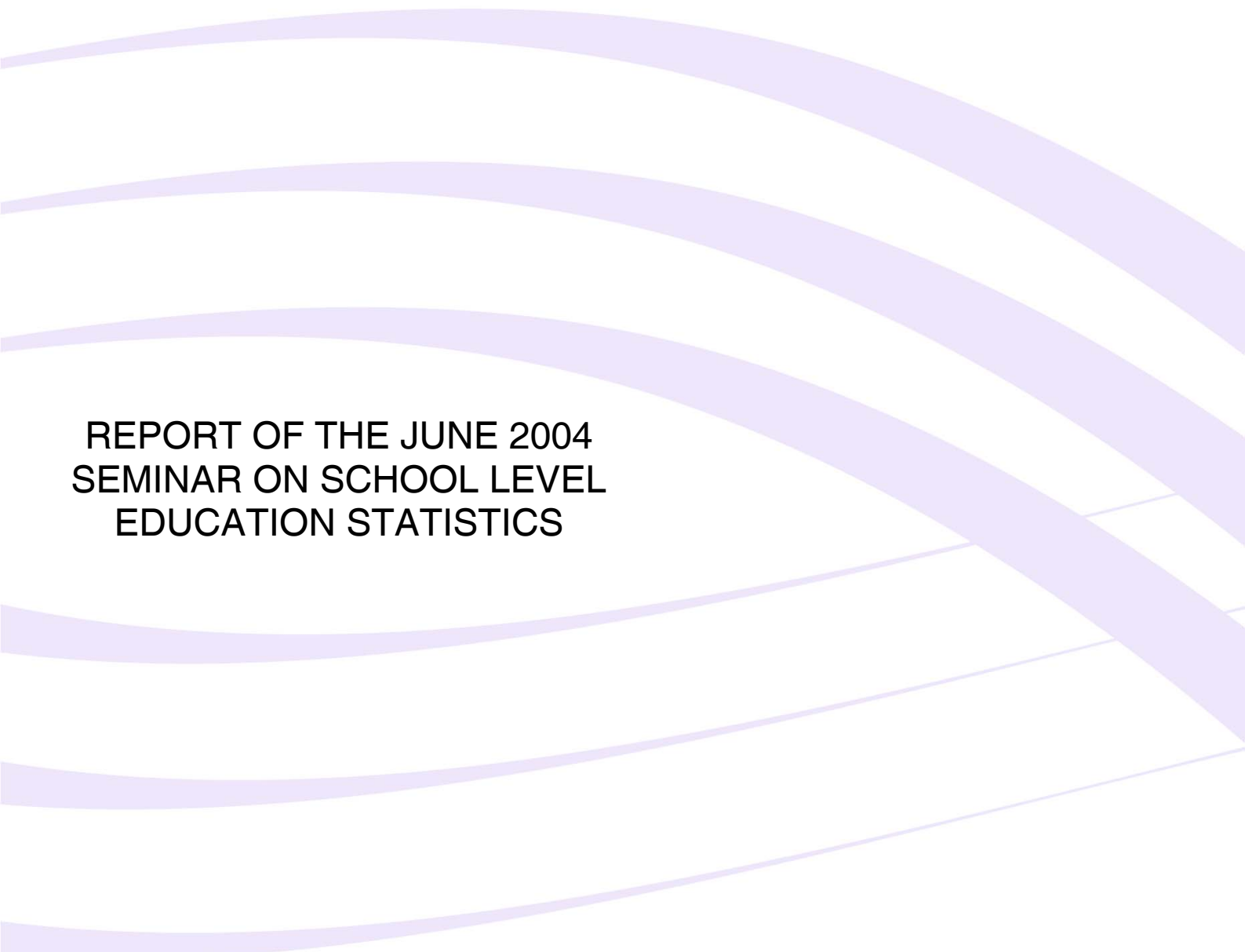


# Statistics Commission



**REPORT OF THE JUNE 2004  
SEMINAR ON SCHOOL LEVEL  
EDUCATION STATISTICS**

**Statistics Commission Report No 19  
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# Statistics Commission

## Research and Review Sub-Committee

### REPORT OF THE JUNE 2004 SEMINAR ON SCHOOL LEVEL EDUCATION STATISTICS

#### 1. Introduction

On 8 June the Statistics Commission held a seminar of education statistics experts as a first step in a review of school level education statistics in the UK. This review will examine the adequacy of such data and the uses to which they are, and might, be put, and may also look at methodological issues, where appropriate. The aim will be to identify and address any specific issues on which it is appropriate for the Commission to comment and then to make recommendations accordingly. The seminar was set up to begin to examine the areas of particular interest for the review to address.

Attendance at the seminar was good with representatives from across government including devolved administrations and local government as well as central government. Research bodies, users groups were also present. A list of those who attended can be found at Annex A.

This summary report highlights the issues that were raised. It has been prepared on behalf of the Research and Review Sub-Committee, primarily as background to the development of the Commission's plans for research in the field of schools' education statistics. The views expressed are those of individuals who attended the seminar. They are not intended to represent a consensus.

The seminar highlighted a number of issues; they are addressed under the following headings and sub headings

#### ➤ **Structural change and changing data requirements**

- ◆ **Data Sharing/matching** – growing demand for cross cutting analysis as a result of the Children Bill and other factors but data sharing restrictions limit the ease with which this can be done.

- ◆ **14-19 age group** - Can the statistics keep up with policy change in this area?
- **Need for further analysis** - There is a wealth of data that could help answer the questions of a wide range of users but capacity to carry out suitable secondary analysis is limited.
- **Accessibility of data**
  - ◆ **Easy access to comparable data** - Currently there is no one-stop shop for complete national picture, it can be difficult for users to find what they are looking for.
  - ◆ **Access to schools' data** – Schools currently hold a lot of the data that relates to them and release them on request or as they see fit. Should more be made available as a matter of course?
- **Methodology and presentation**
  - ◆ **Key Stages and National Curriculum Levels** – is the use of a discrete variable such as levels in monitoring children's progress appropriate and useful or are scaling problems causing more difficulties than they are worth.'
  - ◆ **Consistency of standards** – the quest to ensure and demonstrate consistency of standards over time goes on. The current system cannot meet high public expectations.
  - ◆ **Presenting performance data** - There are very different methods for presenting performance data across the UK but journalists are still keen to publish league tables.
  - ◆ **Contextual data** - There is a shortage of contextual information within the system currently and many methodological issues around it's inclusion in valued added data.
- **Devolution and international comparisons**
  - ◆ **Devolution** - there has been creeping divergence between the four countries of the UK since devolution. Competing demand for intra-country comparisons puts pressure on resources for UK inter-country comparisons.
  - ◆ **International comparisons** - International studies can be expensive but can be very valuable; can we make greater use of them for inter-country comparison in the UK?

- **User needs and communications with users**
  - ◆ **Parents' use and understanding of the data** - little is known about parents' use of the data available, current consultation mechanisms do not capture their views well.
  - ◆ **Consultation with official bodies and other key users** – variety of mechanisms currently working very well.
  
- **Burden on data suppliers and compliance** - too many tests and forms or just the wrong kind? There are problems with compliance by schools, the statutory framework for statistics is not always enforced.

The seminar also helped to confirm the tremendous progress seen in the field recently including the introduction of the Pupil Level Annual School Census (PLASC), the National Pupil Dataset (NPD) and the Common Dataset.

## **2. Structural change and changing data requirements**

### **2.1. Data Sharing – The Children Bill**

Analysis of education statistics in conjunction with other datasets is becoming more and more important particularly in the light of the Children Bill. There will be a requirement to monitor the impact of the new bill, the challenge stems from the crosscutting nature of the Children Bill:

‘There are requirements within the Children’s Bill to share information between health, social services and education which is going to make a huge difference in how we do things.’

The Education and Training Theme Working Group are already considering a framework for children’s statistics changing their emphasis to look at children as a whole. Organisational changes across central government and devolved administrations have led to some broader children’s statistical issues falling within the remit of Education Statistics divisions. There were questions raised about where children’s trusts will fit in, how David Miliband’s notion of the single conversation where one person deals with all school information will affect presentation of statistics and how agencies will work together to share information effectively.

Earlier attempts to use a single identifier such as National Health Service Number or National Insurance number across different datasets have not been successful due to difficulties in sharing the identifier. Currently statisticians spend considerable time and effort on 'fuzzy matching' but a single identifier could eliminate the need for this.

'There is a need to make things happen and confront some of these questions around data protection in the interests of better information and better management but also safeguarding children.'

There are considerable political and legal issues that need to be resolved before a personal identifying number could be introduced. There is the potential for the Children Bill to enable Local Education Authorities (LEAs) to share pupil numbers with Social Services departments if it goes through parliament. A national dataset equivalent to the NPD may be required.

Steps forward in matching data sets within education in recent years have made life considerably easier for researchers and analysts. PLASC and NPD were widely praised.

## **2.2. 14-19 year olds**

A key challenge facing statisticians is how to keep up with changes in the education system. For 14-19 year olds in particular the system is moving to one with more choice and less uniformity, making it more difficult for statisticians to capture and present data on. 'Policy keeps changing; how do we react to that and get in advance of that, to the extent that we can? Are we clever enough, looking at these green papers, white papers, education bills and so on, and thinking through the implications for statistics in the broader sense?'

## **3. Need for further analysis**

Several participants felt that there was a plethora of good data but a shortage of analysis and analysts. The emphasis in the work statisticians are involved in is changing: 'We are not just generating all of these statistics to go into the normal statistical publications... We are generating data that can be used at the sharp end ...providing people at the sharp end, the providers of the service, with the information they need'.

Research teams want far more analysis and monitoring, 'we think it is extremely effective and PLASC has opened up a whole new world of effective statistical monitoring whose surface we have barely touched'. 'We just do not do enough with the data that we have at the moment, and there is a series of very sensible questions we could answer, but which we just do not have any time to do any work on.'

Secondary analysis is needed 'to meet the searching questions of parent, children, schools ...and of the Minister'. The capacity to take on this additional workload is likely to be restrained by the Gershon review.

## **4. Accessibility of data**

### **4.1 Compendium of Education Statistics**

Concern was expressed about the accessibility of some datasets. Users do not always know where to find data series or even if they exist. Difficulties are greater for those wishing to compare data across the UK, since links are not always provided. A 'compendium on what is available, where you can find it and how it all fits together' was suggested as a solution. DfES takes lead responsibility for compiling and presenting UK statistics. The level of demand for such a product is not clear currently due to difficulties in engaging less active users in consultation processes.

### **4.2 Access to Schools' Data**

Currently schools themselves hold much of the schools' data. The question raised in the seminar was should this data be a public good? There are data that could be published as a matter of course although they are not in the public domain at the moment. If parents wish to see this data they can contact the school. DfES currently will not release school-level data unless schools have had the opportunity to check it or are made aware of it. The process of checking data with schools is incredibly time-consuming.

## **5. Methodology and presentation**

### **5.1 The Use of Levels**

The use of levels was introduced at a time when it was believed that grade-related criteria could be produced with relatively few problems. Converting a continuous

variable into a discrete one was not done for statistical reasons but so that everybody could understand for example what Level 3 meant in terms of a child's ability. Many analysts see levels as crude measures. A student at the top of level 3 and a student at the bottom of Level 4 are closer than the student at the bottom of Level 4 and the top of Level 4 – it is a classic scaling problem. 'A lot of effort is made turning scores into levels; people say levels are too crude; and efforts are then made to turn the level data on the national pupil dataset back into fine grain level in order to do a proper analysis'.

More sophisticated measures are available but schools, parents and LEAs using educational statistics have been known to lock onto levels.

At an individual level boundary problems are considerable: 'The consequences of using levels, in terms of the implications for the individual child would cause us to question their use'. The problem disappears as results are aggregated further.

## **5.2 Consistency of Standards**

The group discussed 'the fruitless quest for the independent metric in relation to underlying attainment. We do not have a metre of gold in a hermetically-sealed box against which we can measure educational standards'. This problem is exacerbated by the creation of new tests all the time.

Public expectations for consistent standards are high as demonstrated by annual debates about standards following the publication of exam results. 'Public understanding and expectation in respect of consistency and rigour of assessment is far in excess of the capacity of the system to deliver it'. Last year the Massey report offered one possible solution but there are clearly issues here for the review to consider.

## **5.3 Presenting Performance Data**

There has been a clear move away from publishing performance tables in parts of the UK but not from publishing the underlying data. Regardless of the format in which it is published journalists across the UK are still turning performance data into league tables. There are clearly issues on the presentation of data, since journalists appear to feel that there is public demand for tables ranking schools, while others experience criticism when they publish them.

## **5.4 Contextual data**

A current weakness identified in the system was the shortage of background variables. Social background is recognised as a principle determinant of educational attainment. Understanding of social background for example parents and social circumstances is relatively weak but there is considerable work going on in this area. There was concern that data connected with these issues must be presented with care since 'the social responsibility around these data is absolutely enormous'.

Issues around contextualised value added performance data have been keeping the Value Added Methodology Advisory panel busy. Changes to free school meal entitlement presents further difficulties in this area.

## **6. Devolution and international comparisons**

### **6.1 Devolution**

In addition to difficulties accessing comparable datasets across the UK further problems arise as education systems begin to diverge further following devolution. The process of divergence has not been fast but with intra-country consistency taking precedence over inter-country consistency there has been a slow drift apart. Gaps in the UK statistics volume demonstrate this divergence. As separate education systems evolve under different governance arrangements the pace of this divergence may increase.

For statisticians in devolved administrations allocating resources to inter-country comparability in the light of competing demands for intra-country comparisons is difficult.

### **6.2 International Comparisons**

In addition to work on intra-country comparisons there is a parallel body of work being taken forward on international consistency. 'If we are looking at UK figures compared to France, Germany and Scandinavia, we can be reasonably confident that we are looking at approximately comparable figures.' One of the international groups on indicators and benchmarks in the EU, is 'following on from the Lisbon Agreement, and looking at where the EU, as a whole, is moving over the next



10 years on a variety of international measures. That is quite quickly exposing the paucity of consistent international data, and a few specifics about how the UK fits into some of those comparisons. We need to keep investing some efforts in ensuring that our figures are worth looking at in the international context.'

International studies 'are expensive, and they can mean a lot of work at school level, but we put quite a high value on being able to compare ourselves internationally through these studies'. It was also noted that these studies could be used to make comparisons within the UK as well as internationally.

## **7. Burden and Compliance**

'There have been big pressures over the past few years to reduce burdens on providers, particularly in the schools sector. Teachers should be there to teach, not filling in the forms that we send them. There is huge pressure both within the Department and from Number 10 to reduce burdens on providers.' While Ministers are concerned about burden their demand for information is still growing.

Schools appear to have mixed feeling on testing:

'Schools say that they have far too many tests, yet they use this enormous battery of tests that they very frequently buy with public money. It has something to do with the timing of the data, and they feel it is theirs. They receive it back at a time when they find it slightly more useful than the end of key stage tests, but the number of things they use is enormous. The Monitoring Curriculum Assessment Project (a survey of 3000 schools) tells us that they love the optional tests and hate the mandatory tests, even though they are in virtually the same form. That has something to do with the linkage with accountability measures and the consequences of the use of the data from the mandatory tests.'

'We must be careful in our expectations around how much time resource schools can put into maintaining data and becoming generators of all of this information. In a small primary school where there is a head teacher plus perhaps two or three teachers, there is significant overhead in gathering this information. This must be considered every time we make a request for data from schools.'

'There is a statutory framework for determining which statistics must be made available. Through the Governors' Annual Report schools must make a wide range of information available to the public.' It is clear from users' difficulties in accessing this data that not all schools are complying fully. Pay information was another area where lack of compliance with statutory requirements was identified. Currently not all statutory requirements are vigorously enforced.

Despite lack of compliance there is certainly a wealth of data collected. 'The sheer volume of data becoming available is another issue for us'. 'We have such a fantastic source of data that we want to tell everybody everything, but not everybody wants to know.'

## **8. User needs and communications with users**

David Miliband said recently 'Parents also have a right to a broader and deeper understanding of what the school is doing. We think the answer lies in an annual school profile... it will be light on bureaucracy, easy to access and powerful in impact'

Concern was expressed that parents had not been asked what they wanted from school profiles. 'Parents need particular information that they understand. Sometimes we forget that they may not understand what we want them to understand' There is evidence to suggest use of terminology may be making the issue. 'Parents themselves talk the language of levels, such as Level 3 or Level 4, yet evaluation work suggests they do not actually know what that means'

Consultation amongst official users and producers and research bodies from school level up was widely regarded to be very good. The mechanisms DfES and others have put in place appear to be working extremely well, the complex network of bodies involved in the production and interpretation of education statistics meet regularly and provide constructive feedback to each other. Engaging the broader church of users is much more difficult. Attempts at public consultation through websites etc have received little response and where there are responses there is no guarantee that they are representative.

'When we come up with ideas of what we should disseminate – for instance, statistical publications or fixed reports from the NPD – we are essentially talking to key colleagues and partners in other departments. They are major users, but it

is not really the broad church of users that we really need to be consulting. We do get some feedback, because we ask for it through the Research Statistics website, but we only get a handful of comments and we cannot be sure if it is really representative. We have to take it with a pinch of salt.

'The EDAP is a good source, sharing activities and producing very useful feedback. The Value Added Methodology Advisory Panel is a group of academics and policy/analytical people and is very effective at addressing the issues around contextual value-added. That is about it. A very difficult issue is to ensure that we are putting out what people really want to see, adds value for them, and takes the agenda forward. We need to find the appropriate forum to take new issues out into the public domain.'

Parents' groups in Scotland may be more vocal than elsewhere although it is difficult to make comparisons.

## **9. Next Steps**

The Statistics Commission will follow up these issues and any further issues that come to our attention during the review. The Commission or consultants working the Commission will contact a wide range of users and producers of schools education statistics to examine the adequacy of the data and the uses to which they are, and might, be put and may also look at methodological issues, where appropriate. A report containing a series of recommendation and conclusions will be published in Spring 2005.

## **Abbreviations**

DfES	Department for Education and Skills
EDAP	Employee Development and Assistance Programme
LEA	Local Education Authority
NDP	National Pupil Dataset
PLASC	Pupil Level Annual School Census

**ANNEX A      EDUCATION STATISTICS SEMINAR ATTENDANCE LIST**

**8JUNE 2004**

Richard Alldritt	Statistics Commission
Patrick Barmby	CEM Centre, University of Durham
Anthony Boucher	Ofsted
Malcolm Britton	DfES
Brian Clegg	Education Statistics Users Group
Paul Demery	Welsh Assembly
Geoff Eagle	LGA,
Stephen Gorard	University of Wales
Nigel Hill	Hampshire LEA (Local Education Authority)
Kathryn James	National Association of Head Teachers
Ivor Johnston	Northern Ireland Department of Education
Tim Oates	QCA (Qualifications and Curriculum Authority)
Melissa Rice	Statistics Commission
Allen Ritchie	Statistics Commission
Ian Schagen	NFER (National Foundation for Educational Research)
Peter Scrimgeour	Scottish Executive
Martin Weale	Statistics Commission