



Chief Statistician's Annual Report

2005

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ISBN: 0-7559-4898-X

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Produced for the Scottish Executive by Astron B44321 11/05

Published by the Scottish Executive, December, 2005

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The Framework for National Statistics requires the production of a publicly available report by the Chief Statistician. This is one of the measures designed to assure the integrity and reliability of the Scottish Executive's statistics.

This report sets out the main developments that have occurred in government statistics in Scotland including examples within Executive Departments and agencies. The report also sets out what we have done to meet the requirements of the National Statistics Code in terms of quality, integrity and professional development.

The Executive operates an extensive network to involve users and providers of statistics in our planning and decision making. This provides for involvement in an electronic network and/or involvement in working groups that operate on a broad theme basis (such as education statistics). We are always keen to see new people join in this activity. If you would like to know more, look at the ScotStat web site at: <http://www.scotland.gov.uk/stats/scotstats.asp>

I would be delighted to receive any comments on this report to help us to develop government statistics in future. If you have any concerns I would be pleased to hear from you. If there are areas you would like to see us develop in future, please have a look at our Statistics Plan <http://www.scotland.gov.uk/Publications/2005/04/AnnualReport2004> .

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INTRODUCTION

1. Official government statistics play a vital role in providing government, Parliament and the public with the information needed to measure the delivery and impact of government programmes, supporting their implementation and informing debate on and development of future programmes. For this to happen, the statistics need to be relevant, timely, reliable, accessible and credible.
2. This report sets out the main developments that have occurred in the last year. It includes developments in the range of statistics we produce, how they are produced and how they are used.
3. This year there has been a lot of activity to address Ministers' concerns to ensure that statistics are in place to allow the effectiveness of Executive policies and programmes to be properly assessed. We also continue to respond to the views of all external users and providers and to move forward the efficiency and effectiveness of official statistics production.

COLLECTING THE STATISTICS THAT ARE NEEDED

4. There were no major additions to the range of statistics that are classified as National Statistics. The vast majority of our statistics are already included in National Statistics.
5. Following discussion at Ministerial level all Departments took action to ensure that they were producing the statistics needed to measure the delivery and impact of the Partnership Agreement (PA) and major spending programmes and to inform their future development. New statistics series were started on:
 - The school estate (Spending Review target)
 - Education Maintenance Allowances, which were introduced across Scotland from August 2004. (PA commitment)
 - A new quarterly snapshot census of the outpatient waiting list, used to measure the PA commitment to maximum waiting time for all outpatient appointments.
 - Information on the numbers of people in receipt of free personal care and related expenditure.
 - New Scottish Household Survey questions were introduced
 - on motoring taxes and charges, traffic growth and congestion (to inform the targets to reduce traffic levels and reduce congestion on trunk roads)
 - motorcycling and road accidents, and "contributory factors" (for the target to reduce road accident casualties)
 - non-users' views of rail service (for the target to increase rail passenger numbers.)
 - Following a GB-wide Quality Review, from the start of 2005, the road accident statistics returns collect data about the factors which contributed to the occurrence of accidents, and other new information.
6. In addition
 - a Strategic Review of Health & Care Statistics was started and will report in 2005.

- it was agreed as part of Spending Review 2004 that the remit of the £2M Neighbourhood Statistics budget could be widened beyond Neighbourhood Statistics to statistical developments that would enhance the measurement of delivery and impact of the Partnership Agreement.
7. Existing material is drawn together in new ways to support PA implementation. For example
 - statistics to support the inspection teams fulfilling the PA commitment to “put in place a tough new inspection system to ensure that the reform of child protection services is delivered.”
 - statistics to support the PA commitment to reform the Common Fisheries Policy
 - the publication of the race crime statistics in the Inspectorate of Prosecution’s first thematic report was the first time they had been made publicly available in this format.
 8. We continued to develop **disaggregation of statistics by age, gender and ethnicity**. In conjunction with the Equality Unit and researchers we worked towards production of a consultation paper on the development of a common ethnicity classification for use in the collection and dissemination of data (subsequently released in summer 2005).
 9. Development of new data for **Neighbourhood Statistics** continued, together with promotion of the use of this information in the development and evaluation of national and local policy. A range of small area statistics on socio-economic outcomes have been developed from health, education, benefits, housing and physical environment administrative systems. We also funded a Labour Force Survey boost in Scotland which allows headline labour market statistics to be available at local authority level and also for rural and deprived areas. Air quality data for each datazone was added to the Neighbourhood Statistics website in January.
 10. In response to Ministerial concerns we thoroughly **reviewed the need for all data collections**. The following were dropped:

Health

- Data relating to General Practice staff (the introduction of new legislation within this area resulted in changes to the data available on General Practice payments and workforce)
- The neonatal record (SMR11) was dropped as a result of the introduction of the Scottish Birth Record, which produces an electronic health record for every newborn baby.

Education

- International Data on Education for Scotland – publication was dropped due to likely duplication with other outputs.
- ICT in Schools – publication dropped.
- Incidents of Anti-social Behaviour and Violence Against Local Authority School Staff – to be replaced by periodic research survey of teachers’ and pupils’ experience of indiscipline.
- Staff, and Exclusions from Schools 2003/04 - survey dropped and replaced with periodic survey of teachers’ perception, but exclusions published on their own.

- Residential accommodation for children – survey dropped with plans to use alternative collections.
- Adoption applications – collection dropped with plans to use alternative data sources.

Scottish Household Survey

- Detail on past job search activity.

Scottish Vacant and Derelict Land Survey

- Land suspected to be contaminated and land suspected not to be contaminated.
 - Land suspected to have presence of mineral workings and land suspected not to have presence of mineral workings.
11. We also commenced discussions with colleagues on rationalising the collection of local government performance information, initially through identifying the local government contribution to the Partnership Agreement and other programmes. We have now decided to set up an internal working group to look at efficient data collection and will fulfil our earlier commitment to review Survey Monitoring and Advice arrangements thereafter.
 12. All Departments of the Executive continued to work with colleagues in the other UK administrations through National Statistics Theme Working Groups to contribute to the collection of **comparable statistics across the UK** and internationally. This included
 - assisting the UK Atkinson Review into the measurement of government output and productivity for the national accounts. To supplement the Final Report of the Review, the Executive published its own Implementation Strategy. This will make a significant contribution to the accurate measurement of public sector productivity in Scotland.
 - commencing work on changing the way in which hospital waiting time guarantees are measured in Scotland, by introducing definitions which are much more closely aligned with those in England by January 2008. To facilitate the transition, guidance on the new definitions was issued in March 2005.

COLLECTING STATISTICS EFFICIENTLY

13. We carefully considered the most efficient and effective means of collecting the required statistics. We maximised the extraction of statistics from administrative systems and other sources which reduce the burden on potential data providers. Developments included
 - co-ordination of SE and GROS requests for small area data to the Department of Work & Pensions (DWP) and HM Revenue and Customs through an internal benefit and tax credit user group. Further liaison with DWP is required before access to the Work and Pension Longitudinal Database will be given to the SE.
 - The SE and the Care Commission commenced working together to reduce any duplication of data collection between the Commission's pre-inspection reports and SE surveys relating to social work services.
14. Electronic data collection allows the same data or more to be collected with less of a burden on providers. There were a number of interesting developments:
 - Neighbourhood Statistics developed innovative internet based data loading and dissemination systems that are being used by Analytical Services Divisions to

disseminate official statistics. These systems are increasing the effective use of statistics to support policy by bringing together statistics from across the Scottish Executive on a common geography and in a single system. They are also increasing efficiency by reducing the volume of requests for small area statistics on the Scottish Executive, and making available all the statistics in one place for users.

- The ScotXed project continues to increase and improve the electronic exchange of and use of key education data between schools, LAs the SE and others.
 - Individual level information was collected for the first time on pupil attendance and exclusions from school, both in much greater detail than before. Linkage to pupil census information allowed a wide range of analysis to be undertaken. Information was received from the information systems which previously produced summary statistics, meaning that there should not have been any change in administrative burden.
 - An online form was introduced for the 2003 Global Connections Survey to assist businesses responding
 - Statistics on the non-domestic rates taxable base are now derived directly from data downloaded from the Scottish Assessors Association website rather than a direct data collection exercise.
 - Data from the travel to study question in the GROS census of population was used by HMIE and combined with data from the school census, in order to develop alternative benchmarks for schools performance
 - An on-line form for the EC Farm Structure Survey was introduced.
 - VIVAFISH, a new system for capturing fisheries data at Fishery Offices which will improve the quality of data through better designed user input screens and improved validation of data entered
 - In 2004-05, statistical information on criminal appeals was collected for the first time by means of electronic data extracts from the relevant Scottish Courts Service's administrative system, replacing the previous paper-based method of data collection.
 - Discussions with schools and Education Authorities to try and exploit ScotXed by phasing in the electronic transfer of pre-inspection data from schools to HMIE.
15. More generally GROS and the SE worked together and with colleagues in other administration to develop a programme of action to improve the way in which we collect population statistics. A new programme of work commenced in GROS working with Development Department and Communities Scotland to produce population, households and housing estimates in an integrated way and draw on developments in population registration and the Definitive National Address project.

IMPROVING TIMELINESS

16. There were a number of improvements in the timing of collection and reductions of processing time. For example:
- The results of the pupil census were published two months earlier than in 2004, and the teacher census three months earlier.

- Updated versions of tables from "Scottish Transport Statistics", and extra road accident statistics tables, were put on the Web site earlier than in the previous year.
- Publication of Scottish Local Government Financial Statistics was brought forward by three months to February 2005.
- The VIVAFISH data capture system will result in continually updated rather than daily updated fisheries data being available.
- Processing time for the 2004 Scottish Vacant and Derelict Land survey was reduced to under 3 months.

IMPROVING METHODS & QUALITY

17. Our statistics are already of a very high standard. However, where appropriate we continue to invest in improving methodology and output quality.
18. We contributed to the following National Statistics quality reviews:
 - Tourism Statistics
 - Road traffic estimates.
19. We also carried out our own reviews in a number of areas:
 - A Census linked study of survey non-response in the Scottish Household Survey.
 - We started a Quality Review of the Scottish Household Survey, the results of which will inform the specification of the survey for 2007 onwards.
 - Following the first cycle of inspections of education authorities we are contributing to a review of the validity of the original statistical indicators of comparator and the results will be used by HMIE from September 2005.
 - Further work to harmonise economic statistics from various sources, including introducing more constraining variables to the input-output model, including the ONS Regional Accounts, harmonising GDP weights with the input-output estimates of gross value added and implementing quality improvement to the GDP estimates for Scotland.
20. **Harmonisation of statistical classifications and methods** is vital to reliability, consistency and usefulness of our statistics. We continued to contribute to the development of standards across the UK through our involvement in the GSS social statistics harmonisation committee. In addition:
 - The development of the IFISH data warehouse has resulted in a front-end harmonisation of variables and codings between FIN (ERAD data) and FAD (Defra data).
 - The Scottish Executive Urban Rural Classification was updated in June 2004 and is consistent with 2001 Census population estimates. A strategy is now in place which sets out when the classification will be updated next, and the steps for ensuring that the future classifications will be consistent with small area population estimates being developed through Neighbourhood Statistics.

- Farm classifications were also revised in 2004/05, the first major revision for over a decade. This followed a UK wide review. Data have now been published on both the old and new bases.
21. We developed a strategy to ensure the clear and coherent conduct of population and household surveys in Scotland. We are working to harmonise and realign Scottish Executive surveys to improve the consistency of key estimates and maximise the coverage of topics. We also worked with ONS to ensure that Scottish issues were taken into account on the development of the new UK Continuous Population Survey. Longer term, we are exploring the role of integrated surveys as one of the sources that could replace the decennial Census of Population.
 22. The introduction of a stable **statistical geography** has been a particularly important development. Having established Neighbourhood Statistics data zones in February 2004, we released the new Intermediate Geography (which is based on amalgamations of data zones averaging around 4,000 individuals) in February 2005. This followed extensive consultation with Community Planning Partnerships on how best to define the new statistical geographic areas to maximise their potential to assist community planning. Taken together these now provide a comprehensive and hierarchical small area statistical geography which will allow a huge improvement in the availability of statistics across a wide range of topics on a consistent geographical basis and greatly assist the production of meaningful time series analysis to monitor the impact of national and local policies. Given the larger size of this geography it has also been possible to increase the range of information provided through Neighbourhood Statistics, as there is less of an issue in terms of disclosure control through differencing. New benefits and education statistics are already available at intermediate geography level.
 23. We have now set up a branch to provide support for the statistician group on **methodology** issues. Initial emphasis has been on disclosure control but this will be developed in other areas in future. We are aiming to provide a central resource to direct statistical colleagues to the most appropriate techniques and resources as required. We will also support users in improving their statistical knowledge by sharing best practice across the statistics group and ways of improving our links with academia will be sought.
 24. Developments in methodology occurred across Departments and agencies. For example in response to concerns about the use of Free School Meal entitlement in identifying similar schools for benchmarking purposes HMIE Statistics has been piloting the use of an alternative benchmarking methodology combining information from the GROS census of population on the qualification of mothers of pupils within a school, with other information from the school census. Feedback on the new methodology for benchmarking schools has been very positive and consultations are underway to take this forward.

DEVELOPING THE USE OF OUR STATISTICS

25. Analysis adds greatly to the value of the statistics we produce. We worked closely with users to provide them with the analysis they need and to help identify the best way of using our statistics.
 - The Office of the Chief Economic Adviser, in partnership with Visit Scotland and Scottish Enterprise, undertook a project to develop a Tourism Satellite Account for Scotland. Data, based on this experimental analysis, was presented in the Scottish

Economic Statistics publication inviting comments and feedback on its methodology and assumptions.

- GROS are developing small area population estimates which are critical to the development of area measures of deprivation and SNS data.
- We produced a major piece of analytical work in the form of the Scottish Index of Multiple Deprivation (SIMD) in early summer 2004. This updated analysis identifies Scotland's most deprived areas.
- We prepared an analysis of religion information from the 2001 Census. This was used by the Equality Unit to facilitate internal discussions and was well received.

26. In addition we were involved in a number of initiatives to make better use of our statistics and analysis

- We developed the use of Neighbourhood Statistics and the Scottish Index of Multiple Deprivation particularly in relation to 'closing the opportunity gap'. SIMD is now being used in the allocation of regeneration funding (formerly directed towards Social Inclusion Partnerships) to Community Planning Partnerships for 2005 onwards
- Neighbourhood Statistics have also been used by Community Planning Partnerships to identify local priorities and will be used to monitor progress through the Regeneration Outcome Agreements.
- The NHS Resource Allocation Committee (NRAC) has a remit to refine and review the Arbutnott formula, and a major component of the work plan involves consideration of improved data sources which have become available since the formula was developed. In particular, the potential for analysis to be carried out at the level of data zones in order to ensure the formula is sensitive to the needs of small areas of deprivation within health board areas, and the potential use of SIMD in the work on deprivation, are being taken forward by the Committee. HD and OCS statisticians are working with other analytical colleagues to support the committee in this work.
- Information on the SIMD of different areas has been used to help decide which areas should be inspected during Community Learning and Development inspections in an Education Authority (EA). Background statistical information on these areas has then been extracted from SNS to support the inspections.
- Information on the postcode of pupils attending a particular school has been linked with the SIMD in order to explore alternative methods of benchmarking schools. Maps have been produced at EA level showing areas shaded by SIMD and the location of schools within the EA. These maps have supported HMIE inspection teams and EAs prior to an inspection.

27. Action took place across the SE to ensure that measurement issues were considered fully in setting targets for Spending Review 2004. The work was subsequently published in the form of Technical Notes. However work on the development of a database on targets was postponed. Given other developments across statistics and policy, we wish to refocus this work to ensure anything taken forward meets current needs as the specification for the database will have moved on.

MAKING OUR STATISTICS AVAILABLE IN THE FORM USERS WANT

28. We took steps to improve access to and presentation of data and analysis. Improvements made in our website were followed by a range of developments in the content and format in the theme sections. The statistics topic pages remain amongst the most well used in the Executive's website.
29. Other developments in dissemination included:
 - "SHS Lite", a simplified version of the Scottish Household Survey data for use by those who lack the time to develop an expert knowledge of the full survey dataset. It was designed with the help of users from local authorities and universities.
 - Scottish Household Survey Topic Reports on "Accessibility and Transport" and "Mode Choice".
 - Cross-tabulations of SHS results for individual local authority areas on the SHS web site.
 - Improvements to the Transport Statistics publications, with over 50 new tables and many other enhancements. New topics covered included the punctuality of rail, air and ferry services; road condition, delays and congestion and children injured when travelling to or from school.
 - The publication of the Grant Aided Expenditure (GAE) 'Green Book' on the website. This was a significant improvement in terms of providing indicators and data used to calculate the GAE settlement. The publication also contains a considerable level of detail concerning the calculations involved.
 - The IFISH data warehouse which brings together fisheries data from SEERAD and Defra as a shared resource. This has resulted in a substantial reduction in the burden on each department to produce data for the other. Work also started to further develop our internet site to provide more efficient access to data sets by users.
30. The Neighbourhood Statistics project continues to move forward access to small area information. The new geographic and socio-economic information is freely available through innovative and easy to use SNS and SIMD internet systems that allow users to flexibly define the areas of interest and select the statistics for these areas. In addition to the information on the SNS and SIMD internet sites, a data CD is also available which contains a copy of all the statistics on the SNS site. This is also supplemented with a geographic information CD which allows users to link their local information to the SNS geographies.
31. We also developed the availability of cross cutting summaries and extracts of statistics.
 - We moved forward the development of a new high-level summary of the key statistics relevant to measuring the impact of government programmes, and facilitating access to more detailed statistics for those who require it. This work will be incorporated into further developments of the Statistics website in the coming year.
 - We are continuing to work towards the development of equality factsheets, which will be incorporated into the high level summary of statistics.

- We produced a comprehensive report on Disability in summer 2004 which provides users with the first official statistical analysis of this strand of the equality strategy.
32. The need to improve availability of statistics on a comparable basis across the UK arose on a number of occasions. Sometimes demands have been more by way of general comments rather than identifying specific areas of concern, but we remain very open to meeting such needs where they are clear.
 33. Departments continued to review the timing and grouping together of releases. For example The Review of Health and Care Statistics, which has involved extensive consultation with users and providers, is considering a number of options concerning data presentation and proposals to move towards a more orderly release of statistics.
 34. We produced detailed guidance on the impact of **Freedom of Information** on statistics release arrangements, agreeing this with the Scottish Information Commissioner and making it available to others. It has been widely welcomed.

WORKING WITH USERS AND PROVIDERS

Internal

35. We continued to increase direct contact with Ministers to help departments enhance the support they provide and to assist Ministers to achieve their objectives within the terms of the National Statistics Code of Practice.
36. The move of the Chief Statistician's office to the Office of the Permanent Secretary provided the impetus for us to enhance our arrangements to support the core policy making units in the Department (the Strategy and Delivery Units and the Performance & Innovation Unit). This will develop further.

External

37. The ScotStat board continued to function effectively. Issues dealt with at Board level included measuring public sector output and productivity, developments relating to demographic change in Scotland, guidance on target setting, the impact of Freedom of Information for statistics publication and developments to the ScotStat website.
38. Full details of Committee level activity can be found in the ScotStat website. Some examples of recent developments include:
 - a review of arrangements for the Social and Welfare Committee,
 - the Health & Care Committee was finally established and has met,
 - a survey of users to ask what improvements they would like in "Scottish Transport Statistics",
 - extension of membership of ScotStat Crime & Justice Committee to include representation from the academic research sector,
 - the first of an annual series of Scottish Household Survey User Days held in March 2005,
 - evaluation of new statistical data collections on racist incidents,
 - we replaced the short life Scottish Index of Deprivation Group with the new Measuring Deprivation Advisory Group which will provide the Scottish Executive

advice on measuring deprivation as it works to implement the long term strategy for measuring deprivation,

- we organised a series of Community Planning seminars with Communities Scotland. These included information and guidance on using Neighbourhood Statistics and the SIMD to support national and local policy. Almost 1,000 people attended these events.

MAINTAINING AND PROMOTING INTEGRITY THROUGH THE NATIONAL STATISTICS CODE OF PRACTICE

39. There were no reported breaches or exceptions to the National Statistics Code in 2004/05.
40. The Scottish administration compliance statement on the 11 new National Statistics protocols was issued in March and is available on our website.
41. Additional guidance on the Code was produced for Ministers, senior officials and press officers on the National Statistics requirements.
42. Plans to develop arrangements to improve the handling of non-National Statistics produced within the Executive and planned work with the Statistics Commission to develop its role in Scotland have not yet moved forward. Planned action on the review of the National Statistics Framework and Code was postponed due to changes in the UK Government's timetable.
43. Major progress has been achieved in developing disclosure control software in conjunction with other UK and European departments and specific work has been developed in a number of areas including advice to Neighbourhood Statistics data providers and work on the Agricultural Census.

DEVELOPING OUR WORKFORCE

44. Recruitment of staff with the necessary skills and potential continued. The number of professional statisticians in the Executive and GROS grew slightly from 99 to 103 over the financial year. By March 2005 direct recruits made up 65% of our staffing complement (up from 57% in the previous year).
45. Looking at changes over the year, on the positive side the number of leavers was the lowest for many years and as a result the proportion of staff with less than 2 years experience fell to its lowest level since 1997. On the negative side, internal movement increased from a year ago as did the number of days lost through vacancies and our dependence on temporary staff and temporary promotions. However most of these were in line with the average for recent years.
46. We increased the specialist training budget to £93,000 on a one off basis due to underspend in other areas. Throughout the year, our Training and Development Group organised regular courses for statisticians within the SE and associated agencies. These included:
 - a local induction course for newly recruited Assistant Statisticians,
 - a statistics refresher course,
 - various IT related courses,
 - local corporate courses in surveys and sampling and also in multi-level modelling,

- a series of seminars for staff to find out about other areas and share best practice.
47. We developed new Band B (Assistant Statistician) arrangements. However plans to develop a new development for Band C (Statisticians and Senior Statisticians) were put on hold due to changes in the broader SE arrangements, although this may be looked at with other analysts.
 48. Scottish Executive staff continued to participate in the Royal Statistical Society, through for example membership of their local group committee, giving presentations on tourism statistics and transport statistics and being on the discussion panel of a meeting on linking survey and administrative data and statistical disclosure control.