



National Audit Office

---

**MEASURING UP**

HOW GOOD ARE THE GOVERNMENT'S  
DATA SYSTEMS FOR MONITORING PERFORMANCE  
AGAINST PUBLIC SERVICE AGREEMENTS?

**JUNE 2010**

---

**Comprehensive Spending Review 2007 covering the period 2008-2011**

**Review of the data systems for Public Service Agreement 3 led by the Home Office:**

*‘Ensure controlled, fair migration that protects the public and contributes to economic growth’*

---

Our vision is to help the nation spend wisely.

We apply the unique perspective of public audit to help Parliament and government drive lasting improvement in public services.

---

The National Audit Office scrutinises public spending on behalf of Parliament. The Comptroller and Auditor General, Amyas Morse, is an Officer of the House of Commons. He is the head of the National Audit Office which employs some 900 staff. He and the National Audit Office are totally independent of Government. He certifies the accounts of all Government departments and a wide range of other public sector bodies; and he has statutory authority to report to Parliament on the economy, efficiency and effectiveness with which departments and other bodies have used their resources. Our work leads to savings and other efficiency gains worth many millions of pounds; £890 million in 2009-10.

---

# Contents

<b>Summary</b>	<b>4</b>
<b>Overview</b>	<b>6</b>
<b>Findings and conclusions for individual data systems</b>	<b>10</b>
Indicator 1: Deliver robust identity management systems at the UK border	10
Indicator 2: Reduce the time to case conclusion for Asylum applications	12
Indicator 3: Increase the number of enforced removals and voluntary departures year on year	14
Indicator 4: Increase the proportion of ‘higher harm’ enforced removals and voluntary departures	16
Indicator 5: By the effective management of migration reduce vacancies in shortage occupations	18

The National Audit Office study team consisted of: Miguel Garcia-Sanchez, Julie McGuinness and Tim Phillips under the direction of Aileen Murphie.

This report can be found on the National Audit Office website at [www.nao.org.uk](http://www.nao.org.uk)

For further information, please contact:

Aileen Murphie  
National Audit Office  
157-197 Buckingham Palace Road  
Victoria  
London  
SW1W 9SP  
Tel: 020 7798 7700  
Email: [aileen.murphie@nao.gsi.gov.uk](mailto:aileen.murphie@nao.gsi.gov.uk)

---

# Summary

## Introduction

1. This report summarises the results of our examination of the data systems used by the Government between 2008 and 2011 to monitor and report on progress against Public Service Agreement (PSA) 3, “Ensure controlled, fair migration that protects the public and contributes to economic growth”.

## The PSA and the Departments

2. PSAs are at the centre of Government’s performance measurement system. They are usually three year agreements, set during the spending review process and negotiated between Departments and the Treasury. They set the objectives for the priority areas of Government’s work.
3. This PSA is led by the Home Office’s United Kingdom Border Agency (the agency). Each PSA has a Senior Responsible Officer who is responsible for maintaining a sound system of control, across Departmental boundaries, that supports the achievement of the PSA. The underlying data systems are an important element in this framework of control.
4. The most recent public statement provided by the Home Office (the Department) on progress against this PSA was in its 2009 Autumn Performance Report.

## The purpose and scope of this review

5. The Government invited the Comptroller and Auditor General to validate the data systems used by Government to monitor and report on PSA performance. During the period October to December 2008, the National Audit Office (NAO) carried out an examination of the data systems for all the indicators used to report performance against PSA 3. This involved a detailed review of the processes and controls governing:
  - The match between the indicators selected to measure performance and the PSA. The indicators should address all key elements of performance referred to in the PSA;
  - The match between indicators and their data systems. The data system should produce data that allows the Department to accurately measure the relevant element of performance;

- The collection, processing and analysis of data for each indicator. Control procedures should mitigate all known significant risks to data reliability. In addition, system processes and controls should be adequately documented to support consistent application over time; and
  - The reporting of results. Outturn data should be presented fairly for all key aspects of performance referred to in the target. Any significant limitations should be disclosed and the implications for interpreting progress explained.
6. During January and February 2010 the NAO carried out a follow-up examination of the data systems for all indicators used to report performance against PSA 3.
7. Our conclusions after the follow-up examination are summarised in the form of traffic lights (see figure 1). The ratings are based on the extent to which the Department has:
- put in place and operated internal controls over the data systems that are effective and proportionate to the risks involved; and
  - explained clearly any limitations in the quality of its data systems to Parliament and the public.
8. The remaining sections of this report provide an overview of the results of our assessment, followed by a brief description of the findings and conclusions for each individual data system. Our assessment does not provide a conclusion on the accuracy of the outturn figures included in the Department’s public performance statements. This is because the existence of sound data systems reduces but does not eliminate the possibility of error in reported data.

**Figure 1: Key to traffic light ratings**

<b>Rating</b>	<b>Meaning ...</b>
<b>GREEN (Fit for purpose)</b>	The data system is fit for the purpose of measuring and reporting performance against the indicator
<b>GREEN (Disclosure)</b>	The data system is appropriate for the indicator and the Department has explained fully the implications of limitations that cannot be cost-effectively controlled
<b>AMBER (Systems)</b>	Broadly appropriate, but needs strengthening to ensure that remaining risks are adequately controlled

<b>AMBER (Disclosure)</b>	Broadly appropriate, but includes limitations that cannot be cost-effectively controlled; the Department should explain the implications of these
<b>RED (Systems)</b>	The data system does not permit reliable measurement and reporting of performance against the indicator
<b>RED (Not established)</b>	The Department has not yet put in place a system to measure performance against the indicator

## Overview

9. This PSA is supported by 5 indicators. They are as follows:

- 3.1: Deliver robust identity management systems at the UK border
- 3.2: Reduce the time to conclusion for Asylum applications
- 3.3: Increase the number of enforced removals and voluntary departures year on year
- 3.4: Increase the proportion of 'higher harm' enforced removals and voluntary departures
- 3.5: By the effective management of migration reduce vacancies in shortage occupations

10. None of the indicators were used to measure performance in previous spending reviews.

11. The Department has made concerted efforts since 2006 to improve its understanding of the quality of the data it generates and uses to report progress, not just against PSAs, but in other types of management information as well. By July 2008, each of the Department's principal data streams had been through three iterations of an annual review process, being awarded a star rating according to the results, ranging from 3 stars (excellent data quality practices) to 0 stars (extremely poor data quality practices). This is good practice. To date, the process has led to improvements in a number of data streams and, perhaps most importantly, has raised awareness of data quality as an issue throughout the Department, including at Board level.

12. The current Home Office star rating system is based upon self assessments of the quality of data that have been challenged by staff in Home Office Science and Research Group as part of the reform programme. These self-assessments are subjected to sample validation by the Home Office Internal Audit Unit. The agency built upon this approach by designing and implementing a Quality Assurance Framework for their star ratings from January 2009

---

onwards. The quality of all data streams, including the PSAs, that feed the performance metrics presented in the agency's Monthly Strategic Performance Pack is assessed against this framework. Learning from early experiences, the agency agreed and rolled out a revised framework in August 2009.

13. Nonetheless, important challenges remain and these validation exercises have shown that some data systems need strengthening to control the remaining risks to the measurement of the PSA indicators which the agency has signed up to. The results of the agency's Quality Assurance Framework assessments are to be included in its Monthly Strategic Performance Pack. This reflects the desire of the agency to enable improved visibility and management of the quality of data systems used for measuring key performance indicators, like PSA targets. The Quality Framework Assurance work is a two year process and is still at an early stage and the benefits have yet to be achieved or evaluated.
14. Individual Board members have been notified of the results for their area of responsibility. In addition, since March 2010, the UK Border Agency Board has also been advised of all the star ratings. Where required, improvement plans are being, or have been, developed and the Board has been asked to support the implementation of these improvements.
15. An internal audit report produced in 2008 noted inconsistencies in the role of data quality officers in different parts of the Home Office and recommended the development of Department-wide standards and definitions for data quality. The Department has now completed the actions recommended by the internal auditors (other than updating the annual assessment which is currently underway). This includes the setting up of a regular management board for the annual data re-assessment process, involving business area representatives, to strengthen the processes further.
16. In many cases, it is beyond the control of the Department to change quickly or significantly the quality of an individual data stream, but, in these instances, the star rating project has made it easier to report information with the necessary caveats applied. Recent annual reports have included substantial sections devoted to data limitations.
17. Figure 2 summarises our assessment of the PSA 3 data systems. The ratings to change as a result of our follow-up work are Indicator 3, which was previously Amber (Systems), but is now Green (Fit for purpose); and Indicator 4, which was previously Amber (Systems), but is now Green (Disclosure).

**Figure 2: Summary of assessments for indicator data systems**

No	Indicator	Rating
1	Deliver robust identity management systems at the UK border	<b>RED (Not established)</b>
2	Reduce the time to conclusion for Asylum applications	<b>GREEN (Fit for purpose)</b>
3	Increase the number of enforced removals and voluntary departures year on year	<b>GREEN (Fit for purpose)</b>
4	Increase the proportion of 'higher harm' enforced removals and voluntary departures	<b>GREEN (Disclosure)</b>
5	By the effective management of migration reduce vacancies in shortage occupations	<b>RED (Not established)</b>

18. The main outstanding issues are that:

- For all of the indicators, although there had been informal consideration of the risks relating to the data systems, no formal risk assessment process has been implemented.
- Indicators 3 and 4, as defined in the Delivery Agreement, require only an increase of one percentage point for success to be achieved.
- Indicator 3 uses a complete set of administrative data, which meets the quality standards required for national statistics in every respect, but data quality is not fully explained in external reporting. The public and Parliament would benefit from a better understanding of the accuracy of the data and, in particular, knowing that outturn figures are not subject to a five per cent error.
- On Indicator 4, narrative on the limitations of the data is already included in external reporting, however, this does not make clear the percentage of removals cases that are not assessed for harm.

19. We recommend that the Department:

- continues the annual central review of important data streams and the implementation and evaluation of evidence-based star ratings;



- 
- completes specifications for Indicators 1 and 5 as soon as possible;
  - ensures full disclosure, against Indicator 4, of the percentage of removals for which no harm assessment is made; and
  - should evaluate the quality of their Monthly and Quarterly Data Quality reports, in particular, the extent to which they are used to improve the consistency and quality of the data systems.

### **Assessment of indicator set**

20. In undertaking the validation, we read the documentation associated with the PSA, including the Delivery Agreement, and considered whether the indicators selected to measure progress are consistent with the scope of this PSA.

21. We conclude that the indicators selected afford a reasonable view of progress other than Indicator 5, for which it is not possible to accurately measure performance using the methods currently specified in the Delivery Agreement. In particular, it would be difficult to link migration to changes in vacancies for shortage occupations, due to the many factors which can influence them. The agency is aware of this limitation and that this will need to be disclosed when performance is reported.

---

# Findings and conclusions for individual data systems

The following sections summarise the results of the NAO's examination of each data system.

## Indicator 1 - Deliver robust identity management systems at the UK border

---

### Conclusion - Red (Not established)

22. The Department has not yet fully put in place a system to measure performance against Indicator 1; the system for measuring performance is incomplete. Of the two sub-measures to this indicator, a measurement option for secure IDs will not be fully developed until a new provider is appointed. The system for the second sub-measure is operating with some limitations.

### Characteristics of the data system

23. This indicator has two sub-measures:

- ***All non-EEA nationals that have unique secure IDs on arrival to the UK*** – data relating to this measure will be generated through the agency's Secure ID project. The preferred delivery option has recently been agreed. The capture and verification of biometric data of arriving non-EEA nationals will be undertaken at the UK Primary Checkpoint. This sub-measure was reported as "not assessed" in the 2009 Autumn Performance Report; and
- ***95 per cent of all journeys into and out of the UK to be tracked by 2011*** – data relating to this measure is generated through the agency's e-Borders programme, which collects real-time passenger movement data for journeys into and out of the UK from passenger carriers. The proportion of journeys tracked is estimated with reference to a Passenger Movements Model commissioned by the agency. This sub-measure was reported as "improvement" in the 2009 Autumn Performance Report.

### Findings

24. The specification of the data system for collecting information on unique secure IDs (the first sub-measure) is in the very early stages of development. Systems for delivery are not currently in place, nor are there systems in place to measure performance against the target. In January 2010, the agency was in the process of appointing a new provider for this element of the e-Borders programme. To be able to report performance against this

---

indicator by the end of the spending review period, the agency will need to take prompt action to implement the project.

25. On the second sub-measure, external data from passenger carrier services (such as airlines and shipping companies) is used to track passengers into and out of the UK. Carriers are legally required to supply this information, and while the agency has no formal direct control over data collection, it has set out the specifications for the required passenger data.
26. The agency tested the system for capturing data from carriers through its Project Semaphore, using data received from carriers between November 2004 and August 2009, to check that system-driven data quality checks operated properly and data could be received and processed.
27. The capture of real-time passenger data, as part of the e-Borders programme, went live on 15 May 2009. The agency introduced a dedicated carrier rollout team to ensure that all carriers bringing passengers into the UK are tracked, monitored and compliant with the legislation. The team carries out checks on the data supplied by carriers, and rejects it if it is found to be flawed.
28. The agency has considered the practicalities of carrying out a review of carriers' data systems (not just data outputs) to supplement their own internal 100% automated checks, confirming that carriers are meeting their legal responsibilities and that the e-Borders and roll-out teams are fulfilling their quality control remit. However, as the agency has no authority to review carriers' data systems, it has been decided that the implementation of a comprehensive assurance process would be unachievable.
29. To enable the calculation of the percentage of passenger journeys tracked, the agency has established a model that estimates the total number of annual passenger movements. The model uses two tests, and the difference between the results of the tests informs the assessment of error in the calculation. The agency has concluded that allowance should be made for a range of up to +/-5 per cent in the calculated percentage of tracked journeys into and out of the UK. This will have implications when outturn figures approach the 95 per cent threshold stated in the sub-measure, such that only a reported outturn of 100% would provide robust evidence that the threshold had been reached.
30. The agency set a milestone towards the goal of tracking 95 per cent of all passenger journeys by the end of 2010 - to track 60 per cent of all passenger journeys by December 2009. According to the agency's calculations, this was equivalent to approximately 139

---

million out of an estimated total of 231 million journeys. As at end of 2009, 104 million journeys had been tracked, representing about 45 per cent of the total. The shortfall of 35 million journeys tracked was because a range of routes that had been planned for inclusion could not be progressed, partly as a result of European data protection and/or free movement concerns.

31. The agency is aware that the route categories affected by these concerns should be included in the outturn figures for the indicator. In the 2009 Autumn Performance Report, the Home Office reported that “the risk to delivering this target centres on the ongoing intensive negotiations with the European Commission around data protection. Negotiations have been positive, but a timely decision from the Commission will be critical”.

## **Indicator 2 - Reduce the time to case conclusion for Asylum applications**

---

### **Conclusion - Green (Fit for purpose)**

32. The data system for Indicator 2 is fit for the purpose of measuring and reporting performance against the indicator. The Department should confirm that data quality is consistently high across all teams and ensure that systems for external reporting are consistent over the spending review period.

### **Characteristics of the data system**

33. The Case Information Database (CID) is an administrative tool, used by the agency to perform asylum tasks including recording all applications for asylum, the related casework and decisions. It is regularly updated by caseworkers as they progress applications for asylum.
34. Migration Statistics uses data extracted from CID to produce a National Statistics data series, which is published annually and used to assess performance against the indicator. Performance is assessed based on the relevant cohort of applicants.

### **Findings**

35. A large volume of information is input into CID by many caseworkers at multiple sites across the United Kingdom. To mitigate the risk that recording by caseworkers is inconsistent across different teams, a comprehensive training package has been rolled out to all caseworkers.
36. To encourage high standards of data quality, and to identify errors in CID, a programme of weekly data quality reviews is carried out by the data quality officers in all teams. The target for data quality is 95% accuracy, and our analysis suggests that this target is being

---

met. The agency, however, does not compile statistics to demonstrate the level of accuracy across all teams, or monitor trends in accuracy levels over time.

37. Since our fieldwork, however, the agency's Performance Services Team has developed for each Asylum Team, Monthly and Quarterly Data Quality reports that highlight trends for the Asylum Flows. These should not be confused with the National Quarterly reports as they do not include the work streams of the Detained Fast Track, Third Country Unit (TCU) or cases that are allocated to other parts of the agency such as Criminal Casework Directorate (CCD). The NAO provided feedback on the reports in April 2009 and recommended that the agency should continue to evaluate the quality of these reports and the extent to which they are used to improve the consistency and quality of the data systems over the next six months.
38. The Department had been considering whether this series will continue to form part of National Statistics reporting in the future. However, in March 2010, the Department confirmed to the NAO that the data series will continue to be a National Statistic.

---

### **Indicator 3 - Increase the number of enforced removals and voluntary departures year on year**

---

#### **Conclusion – Green (Fit for purpose)**

39. The data system for Indicator 3 is fit for the purpose of measuring and reporting performance against the indicator.
40. When previously assessed in 2008, this indicator was rated Amber (Systems). During follow-up work, we found that data accuracy had considerably improved.
41. For the purposes of determining whether performance has been met, the PSA Delivery Agreement does not define what magnitude of increase in removals would be necessary. However, the accuracy of data is very high and reported levels of change to date have been significant.

#### **Characteristics of the data system**

42. The Case Information Database (CID) is an administrative tool, used by the agency to capture enforcement and removals' work-streams, including recording dates of removal of people not entitled to be in the United Kingdom. It is regularly updated by caseworkers as they progress each removal case. Within the agency, the Immigration Group records information relating to enforced removals and assisted voluntary returns of immigration offenders and the Criminal Casework Directorate records data pertaining to the removal of Foreign National Prisoners.
43. Migration Statistics uses data extracted from CID to produce a National Statistics data series, which is published quarterly and used to assess performance against the indicator.

#### **Findings**

44. A large volume of information is input into CID by many caseworkers at multiple sites across the United Kingdom. To mitigate the risk that caseworkers are inconsistent across different teams, a comprehensive training package has been rolled out. However, improved training processes were not rolled out to caseworkers in the Criminal Casework Directorate until November 2008 and there remains a risk that, during the first seven months of the spending review period, data collection standards may have lacked consistency and accuracy within this directorate. The agency has now agreed Minimum Data Set standards across all removal delivery areas to ensure consistency in the way that removals are recorded on the CID database and these standards are strengthened by hard validation in the system itself.

- 
45. A programme of weekly data quality reviews are carried out by data quality officers in the Immigration Group. Between April and December 2009, the average compliance rate for the minimum data set (mandatory fields in CID) updated for enforced removals and assisted voluntary returns was close to 100%, according to the agency's analysis. The minimum data set includes data relating to removals as well as unrelated data in which recording errors would not influence reporting on performance against the indicator.
46. Furthermore, data quality officers from Immigration Group and Criminality & Detention Group undertake quarterly reconciliation of their own removals data with independent removals data produced by Migration Statistics. This process allows independent challenge of removal figures, ensures data standards adhere to National Statistics protocols and permits all parties to investigate and resolve any disparities within the data before agreeing the final removal figures prior to the Migration Statistics quarterly publications. Between October 2008 and September 2009, Migration Statistics challenged 0.09% of the removals data provided by the agency.
47. For the purposes of determining whether performance has been met, the PSA Delivery Agreement does not define what magnitude of increase in removals would be necessary. In the 2009 Annual Report and Autumn Performance Report, the Home Office reported a significant increase since the beginning of the spending review. With a level of error close to 0%, there is a very low risk that the increase in the number of removals would be invalid.
48. The Measurement Annex in the Delivery Agreement mentions that CID is subject to data control procedures with a target to achieve 95% data quality. The outturn figure for Indicator 3 published in the 2009 Autumn Performance Report is based on data whose quality is higher than 95%. The public and Parliament would benefit from a better understanding of the accuracy of the data and, in particular, knowing that outturn figures are not subject to a five per cent error. The Department should ensure that data quality is consistent over the spending review period and should explain in external reporting how the removals data meets the quality standards required for administrative national statistics.

---

## Indicator 4 - Increase the proportion of 'higher harm' enforced removals and voluntary departures

---

### Conclusion – Green (Disclosure)

49. The data system is appropriate for the indicator and the Department has explained fully the implications of limitations that cannot be cost-effectively controlled. When previously assessed in 2008, this indicator was rated Amber (Systems). During follow-up work, we found that data accuracy had improved.
50. For the purpose of determining whether performance has been met, the PSA Delivery Agreement does not define what magnitude of increase in removals would be necessary. The agency should ensure compliance rates are maintained and should report these rates alongside outturn figures.
51. The agency has already recognised and acted on the need to improve data capture ahead of publication of its results and has included caveats about the quality of the data when outturn figures are reported, to improve the transparency and comprehensiveness of reporting to the public and Parliament. However, the 2009 Autumn Performance Report does not make explicit the proportion of removals and voluntary departures that have not received a harm assessment.

### Characteristics of the data system

52. The Case Information Database (CID) is an administrative tool, used by the agency to perform enforcement and removals' work-streams, including recording dates of removal of people not entitled to be in the United Kingdom. It is regularly updated by caseworkers as they progress each removal case. Within the agency, the Immigration Group records removals information relating to enforced removals and assisted voluntary returns of immigration offenders and the Criminal Casework Directorate (CCD) records data pertaining to the removal of Foreign National Prisoners.
53. Assessment and recording of "harm" is a new activity for the agency. Training has been provided to caseworkers responsible for assessing and recording harm, reminder boxes have been introduced in CID and a Harm Matrix has been developed to reduce the subjectivity of the assessment. The 2007-08 baseline for the indicator was established retrospectively by assessing a sample of 467 cases.

### Findings



- 
54. The agency has developed a monitoring system to report progress against this indicator. Currently however, not all removal cases are being assessed for harm. Immigration Group figures show that 95.6 per cent of cases in the period 1 April 2009 to 30 January 2010 have been designated a harm level. This is significantly higher than when we reported in June 2009.
55. A minority of cases are not assessed for harm due to the applicant's embarkation being identified after they have voluntarily left the UK without notifying immigration authorities.
56. Each month, non-assessed removals are identified and cascaded across Immigration Group to be updated as a priority. Data on the removal of "harm" cases as a proportion of total cases removed was reported for the first time in the 2009 Autumn Performance Report. The Data limitations section in the report did not mention the exact percentage of non-assessed removals and did not include any reference to the Harm Matrix.
57. For the purposes of determining whether performance has been met, the PSA Delivery Agreement does not define what magnitude of increase in higher harm removals would be necessary. An increase of one percentage point would be sufficient to meet the indicator. Reported outturn figures suggest that the agency will meet this indicator, even if the number of assessed removals is lower than current levels. However, we recommend that the Agency consider meeting a 95% assessment threshold for every year in the spending review, as long as it is cost-effective. This would provide the public and Parliament with better estimates and is possible because old cases can be retrospectively assessed.
58. Immigration Group and CCD perform data quality checks on those removals which do receive a harm assessment on a monthly sample basis. Figures from Immigration Group show that harm was correctly reflected in 99% of cases checked in the period April to December 2009. This is very high quality.

---

## **Indicator 5 - By the effective management of migration reduce vacancies in shortage occupations**

---

### **Conclusion – Red (Not Established)**

59. At the time the review was conducted, a data system was not yet in place to measure performance against Indicator 5. No one data system can be used to measure performance against Indicator 5, due to its cross Government nature, so the agency will use a number of proxy measures to assess performance.

60. The Indicator is reported as “not assessed” in the 2009 Autumn Performance Report.

### **Characteristics of the data system**

61. Shortage occupations (those occupations where there is a shortage of skilled workers in the UK) were defined by the Migration Advisory Committee (MAC) in September 2008.

62. The National Employer Skills Survey (NES Survey) is the intended data source for this indicator. The NES Survey collects data on skills shortage vacancies (vacancies arising due to a shortage of individuals with the required skills to fill a job vacancy) and will be the main measure for PSA 3.5, as set out in the PSA 3 Delivery Agreement.

### **Findings**

63. The data collected by the NES Survey is less detailed than the occupations classified as shortage occupations by the MAC. It is not possible to directly assess the level of skills shortages for these occupations without further manipulation of NES Survey data.

64. It is the intention of the indicator that cross-government delivery networks will be required to deliver progress against the target, since vacancies may be filled by education and training, movement of labour within the EEA or migration of people from non-EEA countries. It will be challenging to demonstrate how effective cross-government action has influenced the measure.

65. Further, because the NES Survey is only published every 2 years, the agency will use a number of proxy measures to monitor performance. These include:

- Jobcentre Plus data on vacancies for shortage occupations at the 4 digit Standard Occupation Classification code;
- other Government Departments’ initiatives to improve the skills of the UK workforce, including the Department of Health, Department for Business, Innovation and Skills,

---

Department for Children, Schools and Families and Department for Culture, Media and Sport; and

- Points Based System data on the number of Certificates of Sponsorship issued to migrants for shortage occupations.

66. A senior statistician has been appointed to develop a model to estimate historical trends in vacancies and attempt to isolate a causal link to specific activities, for instance the management of migration, from wider socio-economic factors.

67. Our follow-up validation work in January-February 2010 gave us the opportunity to review the proxy measures. While the agency has given careful consideration to Indicator 5, the proxy measures are unlikely to offer a robust assessment of performance. For both the NES Survey and the proxy measures, it will be challenging to demonstrate that any reduction of vacancies in shortage occupations has been the result of the effective management of migration, rather than other socio-economic factors.