Costs of Administering Housing and Council Tax Benefits

Michelle Boath, Ian Dunbar and Helen Wilkinson

A report on research carried out by Risk Solutions for the Department for Work and Pensions
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Michelle Boath and Ian Dunbar are Senior Consultants with Risk Solutions; Helen Wilkinson is one of Risk Solutions’ partners. Risk Solutions is a management consultancy specialising in the application of risk-based methods and approaches to help managers and policy makers make better decisions in the face of risk, uncertainty or complexity.
### Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACL</td>
<td>Adjusted Caseload – caseload plus number of New Claims in year</td>
</tr>
<tr>
<td>AHR</td>
<td>Assessor Hourly Rates – average assessor employment cost per hour, including employer’s NICs and superannuation</td>
</tr>
<tr>
<td>CL</td>
<td>Caseload</td>
</tr>
<tr>
<td>Clustan</td>
<td>A cluster analysis package</td>
</tr>
<tr>
<td>CoCs</td>
<td>Changes of Circumstances</td>
</tr>
<tr>
<td>CT</td>
<td>Council Tax</td>
</tr>
<tr>
<td>CTB</td>
<td>Council Tax Benefit</td>
</tr>
<tr>
<td>CTWA</td>
<td>Total Workload Areas corrected for assessor hourly rate</td>
</tr>
<tr>
<td>DIPS</td>
<td>Document Image Processing System</td>
</tr>
<tr>
<td>DWP</td>
<td>Department for Work and Pensions</td>
</tr>
<tr>
<td>EL</td>
<td>Elderly, pensionable age</td>
</tr>
<tr>
<td>ERTD</td>
<td>Employee Related Top Down Cost</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GOR</td>
<td>Government Office Region</td>
</tr>
<tr>
<td>HA</td>
<td>Housing Association</td>
</tr>
<tr>
<td>HB</td>
<td>Housing Benefit</td>
</tr>
<tr>
<td>HBMS</td>
<td>Housing Benefit Matching Service</td>
</tr>
<tr>
<td>LAAs</td>
<td>Local Authority Associations</td>
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<tr>
<td>LAs</td>
<td>Local Authorities</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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<tr>
<td>LHA</td>
<td>Local Housing Allowance</td>
</tr>
<tr>
<td>LSVT</td>
<td>Large Scale Voluntary Transfer (also known as housing stock transfer)</td>
</tr>
<tr>
<td>MIS</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>NC</td>
<td>New Claims</td>
</tr>
<tr>
<td>PRS</td>
<td>Private Rented Sector</td>
</tr>
<tr>
<td>RA</td>
<td>Rent Allowance</td>
</tr>
<tr>
<td>RR</td>
<td>Rent Rebate</td>
</tr>
<tr>
<td>RATS</td>
<td>Remote Access Terminals</td>
</tr>
<tr>
<td>RSLs</td>
<td>Registered Social Landlords</td>
</tr>
<tr>
<td>Sem</td>
<td>Standard error of the estimate of the mean</td>
</tr>
<tr>
<td>TIWA</td>
<td>Total of Identified Workload Areas</td>
</tr>
<tr>
<td>TTD</td>
<td>Total Top Down cost</td>
</tr>
<tr>
<td>TWA</td>
<td>Total of Workload Areas</td>
</tr>
<tr>
<td>VCoC</td>
<td>Volume of Changes of Circumstances</td>
</tr>
<tr>
<td>VF</td>
<td>Verification Framework</td>
</tr>
<tr>
<td>VNC</td>
<td>Volume of New Claims</td>
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<td>WA</td>
<td>Working Age</td>
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Summary

Housing Benefit (HB) and Council Tax Benefit (CTB) are claimed by nearly four million households at an annual cost of approximately £16.6 billion. The Department for Work and Pensions (DWP) identified a need to have better information on the costs to Local Authorities (LAs) of administering HB and CTB, and commissioned Risk Solutions to carry out a two phase study to investigate the costs incurred by LAs in England, Scotland and Wales in administering HB and CTB.

The project was undertaken in two distinct phases. In Phase 1 we gathered background information and explored the requirements of key stakeholders. We also developed a sampling strategy based on cluster analysis to select 30 LAs for detailed case study visits during Phase 2. Phase 2 fieldwork was carried out while several LAs were acting as pilots for the Local Housing Allowance (LHA) scheme; it should be noted that the study reported here excludes consideration of any costs or benefits associated with the implementation and operation of LHA.

In Phase 2 we carried out the detailed case studies; the LAs visited included LAs with a wide range of characteristics, including:

- District councils, metropolitan borough councils, city councils, London boroughs and unitary authorities.
- Wide geographical spread including LAs in England, Scotland and Wales.
- Range of caseload size and mix, taking account of passported status, working age versus pensionable age cases, CTB only cases and tenancy mix.
- Fully Verification Framework (VF) compliant LAs and LAs not yet fully VF compliant.
- Several different assessment software systems.
- LAs that were about to change or had recently changed their assessment software systems.
- LAs that had and had not undertaken Large Scale Voluntary Transfer of Housing Stock (LSVT).
At each case study, each lasting two to three days, we collected information on how work is organized, and how key processes are carried out. We also collected information on the numbers of staff employed in different workload areas (e.g. new claims and Changes of Circumstances (CoCs) processing, fraud-related work, proactive reviews, appeals etc) and their employment costs (including employers’ national insurance contributions and superannuation costs). For the processing of New Claims and CoCs we collected information on the time taken to complete individual tasks within the assessment process.

We found that while there are detailed differences between processes, there are also many similarities, with some differences resulting from the assessment software used.

Data collected at the case study visits also included high level accounts information on the total estimated cost of HB and CTB administration for 2004/05; this was a snapshot of the best information available at the time of the visit, and so based on revised budgets or forecast out-turns, as our visits were largely completed before the end of the financial year.

Phase 2 also included a wider survey of costs, conducted by National Opinion Poll (NOP). This provided cost information for an additional 70 to 80 LAs, and was particularly useful for extending the case study analyses to estimate national totals of the cost of administering HB and CTB.

We estimate the total direct costs of administering HB/CTB in 2004/05 to be £M(461 ±5). The confidence interval quoted here is the 95% confidence interval calculated on the basis of the standard deviation of the residuals for the regression model.

We estimate the total cost, including direct and indirect costs, to be £M(801±11); again, the confidence interval is calculated from the standard deviation of the residuals from the regression model.

The cost of administering HB and CTB within an LA is determined largely by the size of the caseload and the average employment costs for assessors. The Caseload measure can be the ‘snapshot’ number, that is, the number of cases on the books at a particular time (called CL here) or the ‘Adjusted Caseload’ (ACL), formed by adding to CL the number of new cases determined in a year. The ACL gives a somewhat better fit to the costs, but CL can be used when this is not available. The data we have collected shows small differences between average employment costs for assessors by region, but with London Boroughs experiencing higher average employment costs than other LAs.
The remaining scatter in the data once caseload and employment costs have been taken into account is not explained by differences in the mix of types of cases within the CL. Within each LA, some differences according to case type can be seen, but these are small compared with the differences between the LAs. The remaining scatter is most likely to be due to individual features of the LAs in our sample. Some of these may be ongoing characteristics, such as high staff turnover, which leads to higher recruitment costs and training costs. Others may be temporary; for example, in our sample, LAs that have not yet fully implemented VF tend to have lower costs than others, but this may change once VF is fully implemented. Other factors may be ‘one-off hits’, for example the high costs associated with introducing new assessment software or a Document Image Processing System (DIPS), or the costs of changing payment arrangements associated with an LSVT.

The quantitative results of this research must be viewed in light of the potential limitations and uncertainties inevitably associated with any estimates based on survey data. These include issues related to sample coverage, potential bias and uncertainties introduced by the measurement process. It should also be noted that this research addressed costs, and not outcome measures and also that costs may be related to availability of funding, such as performance standards funding. For example, some LAs may choose to incur costs to introduce DIPS because they have secured funding to meet the cost.
1 Introduction

1.1 Background

Housing Benefit (HB) and Council Tax Benefit (CTB) are claimed by nearly four million households at an annual cost of approximately £16.6 billion. HB is a cornerstone of the Government’s welfare reform programme, and is central to driving poverty reduction strategies. The Government’s aim is to provide a simple, fairer system, offering a better service to claimants, with fewer barriers to work. Clear standards and increased accountability, with an emphasis on driving down fraud and error, are priorities. HB is a complex benefit to administer, involving close coordination between central and local government; a three stage reform process has been developed – ‘Building Choice and Responsibility’ aimed at improving Local Authorities (LAs) administration, restructuring rents in the social sector and providing benefit support for those on low incomes.

Good performance measures will accurately reflect the effectiveness of underlying processes and will enable central government to challenge poor performance if necessary. Measures of speed and accuracy and error and fraud are currently reported but to date there has been a limited understanding of the cost drivers behind the administration of HB and CTB.

The Department for Work and Pensions (DWP) has identified a need to have better information on the costs to LAs of administering HB and CTB. To meet this need, DWP commissioned Risk Solutions to carry out a two phase study to investigate the costs incurred by LAs in England, Scotland and Wales in administering HB/CTB.

The study was undertaken while several LAs were acting as pilots for the Local Housing Allowance (LHA) scheme; the study excludes consideration of any costs or savings associated with the introduction and operation of LHA.
1.2 Objectives

The main objective for this project is to provide a robust estimate of the total cost of administering HB/CTB incurred by the 408 LAs in England, Scotland and Wales and to:

- provide the DWP with a greater appreciation of the current costs of administering HB/CTB and an improved understanding of why these can vary between LAs;
- inform future policy making relating to redesigning benefits, modernising their delivery and planning fraud strategy;
- facilitate fair allocation of resources;
- provide a baseline upon which costs can be examined over time.
2 Phase 1 of the project

The project was undertaken in two distinct phases. Phase 1 was undertaken from December 2003 to May 2004 and primarily involved gathering background information and fully exploring the requirements of key Department for Work and Pensions (DWP) stakeholders. Consultation included interviews with key DWP housing policy and analytical staff to ensure that the research addressed their needs. We also sought input from external experts with knowledge and interest in this area. It was important to ensure that Local Authority Associations (LAAs) fully understood and supported this project, therefore particular efforts were made to ensure that they were consulted and their views incorporated in to the design of Phase 2. In addition to publicising the work via Housing Benefit (HB) Direct, presentations were made to the LAA Steering Group early in the work and on completion of Phase 1 of the work, and DWP and Risk Solutions presented the work plan to the ALG towards the beginning of Phase 1 of the work.

An advisory panel was established to inform and guide the research strategy and analysis. Representatives of a number of organisations agreed to participate and help guide the direction of the work. The panel comprised representatives from a number of organisations, including:

- Local Government Association (LGA).
- Association of London Government (ALG).
- Welsh Local Government Association (WLGA).
- Convention of Scottish Local Authorities (COSLA).
- Office of the Deputy Prime Minister (ODPM).
- Audit Scotland.
- Audit Commission.
- Chartered Institute of Housing.
- National Housing Federation.
- Institute of Revenues Rating and Valuation (IRRV).
- Chartered Institute of Public Finance and Accountancy (CIPFA).
- LA Managers.
The first meeting of the advisory panel explored the key issues and challenges that would be encountered in Phase 2, and contributed to the design of the sampling methodology used to select a representative sample of LAs for case study visits. The advisory panel’s input at this first meeting also provided an input to the design of the data collection process and the subsequent analysis strategy. Further input during the case studies contributed to further development of the methodology and the analysis strategy.

During the life of the research a website was created to allow members of the panel to have ongoing access to reports on the research, so that they could comment on the work as it progressed.

To understand fully the contextual issues surrounding the project we undertook a review of the key studies to date. Drawing on this contextual information and our consultations, we formulated a user specification, developed a detailed understanding of how the model would be used and, in broad terms, the outputs required. We also explored the main challenges that would be encountered. In addition, data were gathered and analysed to formulate our sampling methodology.

The output of Phase 1 was a specification for the work undertaken in Phase 2, and reported here. The approach recommended and followed is discussed in Section 3. Section 4 discusses the qualitative findings of the study, while Section 5 describes the results of quantitative analysis of the data, and Section 6 presents the conclusions of the research.
3  Methodology

Our Phase 1 work recommended the approach illustrated in figure 3.1:

Figure 3.1  Outline of project approach

Key features of the approach are:

1. It combined a breadth survey of all 408 Local Authorities (LAs) with a case study based depth survey to obtain a good estimate of total Great Britain (GB) costs along side a detailed understanding of costs and cost drivers at the individual LA level.

2. It was staged to ensure that the design of the breadth survey and full case studies isoptimised.

3. Consultation and communication continued at intervals throughout the study to build on the good relationships established with key stakeholders.

4. It used cluster analysis to optimise sample sizes, allowing resources to be targeted more effectively.
A series of initial pilot case studies were carried out to help determine the level of
detail that would be feasible to collect, and to allow refinement of the approach.
Fieldwork commenced in May 2004, and the final case study was completed in
May 2005. The telephone interviews for the breadth survey of costs were conducted
in February and March 2005.

3.1 Sample selection
To obtain a representative sample, without incurring unnecessary cost by conducting
too many case study visits, it was important that a good sampling strategy was
adopted. We used information gathered from the literature review and consultations
undertaken in Phase 1 to select a strategy meeting this requirement by grouping LAs
on the basis of the main potential cost drivers.

3.1.1 Potential sampling strategies
The aim of our sampling strategy was to select a sample of LAs that adequately
represented the total population in terms of the costs they incur in administering
HB/CTB. The cost of administering housing benefit and council tax benefit is our
target variable. We considered three approaches to sampling:
1. Random sampling.
2. Stratified, hierarchical sampling.
3. Stratified sampling based on cluster analysis.

There are clear advantages in using a stratified sampling strategy, whether hierarchical
or cluster-based. For the same sample size, a stratified sample can improve estimates
of the target variable mean, compared with random sampling. Proportional
sampling of strata provides modest gains with low risk of a biased sample. At worst,
this strategy is equivalent to random sampling of the population.

In this study, we were addressing a complex system, in which there are a large
number of variables characterising LAs that may be correlated with the cost of
administering HB/CTB. The nature and strength of the relationships between these
variables are not known. These factors led us to propose the use of cluster analysis at
the beginning of the project. The consultations carried out in Phase 1, in particular
the advisory panel workshop, confirmed that stakeholders believe that there are a
large number of interlinked factors that affect administration costs. Stakeholders
were reluctant to prioritise the influencing factors, or to discard any. This confirmed
our view that a good stratification scheme for this project is one that allows us to
characterise LAs using a large number of variables, without prejudging which may
be important, while permitting us to restrict the number of clusters to a practicable
level for sampling purposes. For these reasons, we retained a cluster-analysis based
stratified sampling strategy.
3.1.2 Cluster analysis

We selected a number of cluster variables, based on characteristics that might affect LAs’ administration costs, for which data were available for most of the 408 LAs in England, Scotland and Wales. Our aim was to use a wide range of variables, with little prejudgement of what might be important. The variables were selected on the basis of our consultations and literature review.

Initial variables selected were:

1. population per unit area;
2. percentage population over pensionable age;
3. business accommodation costs (from Department for Work and Pensions (DWP) data);
4. numbers of HB recipients;
5. numbers of CTB recipients;
6. HB as percentage of households;
7. HB paid annually;
8. CTB paid annually;
9. RA/(RA+RR) (Rent Allowance recipients as a fraction of all HB recipients);
10. days to process new claim;
11. days to process changes of circumstances;
12. percentage accuracy;
13. Verification Framework (VF) compliance – full, partial or not VF compliant;
14. centralised versus decentralised;
15. number of staff employed in HB and CTB administration;
16. CTB only claimants as percentage claimants;
17. estimated cost per claim;
18. percentage of HB claimants in private rented sector.

Of these, pairwise comparisons showed that numbers of CTB recipients correlate strongly with numbers of HB recipients, while CTB paid and HB paid correlate strongly with CTB recipients and HB recipients respectively. Items 5, 7 and 8 were therefore removed from the list of cluster variables, as they are represented by item 4. We found that item 15, number of staff employed in HB and CTB administration, also correlated well with item 4, number of HB claimants. Item 15 was therefore also excluded.
We used the specialist cluster analysis package Clustan to look for natural clusters in the data. This randomly assigns all LAs to one of a number of clusters, and then exchanges cluster members until a local optimum is reached. The procedure is repeated a number of times to find a global optimum. We found that reductions in total standard error diminished slowly beyond an 11 cluster model, and so chose 11 clusters as adequate for the purpose required here. Figure 3.2 below illustrates the geographical locations of cluster members.

**Figure 3.2 Geographical locations of Local Authority clusters**
### 3.1.3 Sampling from within clusters

We used two methods to estimate the sample size: an estimate of the accuracy of the results, and the value of sampling from all clusters.

#### Accuracy of results

If the population standard deviation is \( s \) and the sample size is \( N \) (assumed small compared with the population size) then the standard error of the estimate of the mean is:

\[
\text{sem} = \frac{\sigma}{\sqrt{N}}
\]

and the 95% confidence limit is:

\[
CL(95\%) = 1.95 \text{ sem} = 1.95 \frac{\sigma}{\sqrt{N}}
\]

The population standard deviation was not known – the aim of the exercise was to provide estimates of such population parameters. However, we can use the ‘indicative cost per claim’ numbers used in the cluster analysis to inform initial estimates of how large the sample should be. These have a mean of 63 and a standard deviation of 21. The dependence of the sem on sample size is then:

<table>
<thead>
<tr>
<th>( N )</th>
<th>( \text{sem} )</th>
<th>( CL (95%) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>4.7</td>
<td>9.2</td>
</tr>
<tr>
<td>25</td>
<td>4.2</td>
<td>8.2</td>
</tr>
<tr>
<td>30</td>
<td>3.8</td>
<td>7.5</td>
</tr>
<tr>
<td>35</td>
<td>3.5</td>
<td>6.9</td>
</tr>
<tr>
<td>40</td>
<td>3.3</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Because of the dependence on the inverse square root of \( N \), the marginal benefits of increasing \( N \) decrease with increasing \( N \). A sample size of 30 gives a 95% confidence interval of 63±7.5. Increasing the size to 40 reduces this only to 63±6.5.

#### Representative sampling across clusters

Because we believe that our eleven clusters capture significant variability in LA type, we want a sample large enough to include at least one LA from each cluster. Stratified sampling is most robust when the sample size in each cluster is proportionate to the sample size. With 30 samples overall this is possible, except for the small five-member cluster, which on strict proportionality would be rounded down to zero. However rounding this up to one does not distort proportionality too greatly.

For these reasons we used a sample size of 30.
3.1.4 Replacement strategy

Where a member of the random sample was unable to participate, a replacement was selected. The replacement strategy adopted was to select the original LAs closest neighbour in cluster space, that is, the nearest neighbour statistically, using information from the specialist statistical package used for cluster analysis. In effect, this selects the LA considered by the analysis to be most similar to that originally selected, taking account of the wide range of characteristics considered.

3.2 Case study research methods

Prior to undertaking the case study visits we worked closely with DWP to develop a template of data requirements. We then selected two LAs from different clusters to visit as our pilot case study authorities. These first case study visits were intended to be used to determine the depth and quality of information available and to test and refine our methodology. These pilot case studies were very useful; following our visits, we reviewed what we had been able to find out, and identified areas where our approach could be improved. For example, it was apparent at both pilot case studies that few cases could be completed without pending, owing to a lack of complete information with a new claim or change of circumstance. In many cases, the assessor must write to the claimant seeking additional information or evidence, pending the case until such information is received. In such instances, the assessor must review the case when the additional information is received, prior to completing the assessment. This has cost implications, but information was not readily available from existing data sources. To address this, we worked with DWP to develop a sampling exercise to be carried out at each case study to collect information on a random sample of new claims and changes of circumstances, including information on whether and how many times assessments were pended.

With the help of the LAs we visited, we also identified areas where initial specifications for data requirements were unlikely to be met without additional effort. For example, it became clear that volume information was not readily available at the level of disaggregation that we had hoped, and it would have been onerous for LAs to provide this information. DWP worked to develop a method to produce the required volume data from sources available to them. We tested the revised methodology at a further two case studies, before proceeding with the remaining case study visits. Each case study required five to six days of effort, typically provided by two consultants spending two to three days at the LA offices. As noted earlier, fieldwork commenced in May 2004, and the final case study was completed in May 2005.

Our case study research methods comprised three chronological stages:

1. Prior to visit.
2. Case study visit.
3. After case study visit.
These are described below.

3.2.1 Prior to visit
Prior to visiting each LA we arranged a telephone interview, usually with the benefits manager, to collect preliminary information, discuss arrangements for the case study visit and provide advance notice of some of the data we would like, so that LAs had some flexibility in organising the collation of this data. Issues covered in this telephone interview were:

- How work was organised.
- Fraud team reporting arrangements (through benefits or internal audit?).
- What types of reviews were carried out: visits, postal, telephone?
- Reviews staff reporting arrangements.
- What assessment software was used.
- Whether a Document Image Processing System (DIPS) was in place or paper files were used.
- Preliminary discussion on the selection of a random sample of 50 new claims and 50 changes of circumstances for review during the case study.
- Advance requests for data.
- Discussion of which staff we would like to interview during the case study visit.

3.2.2 Case study visit
Each case study visit comprised the following activities:

- Initial discussion with Benefits Manager and other key staff.
- Interviews with other LA staff to collect information on the areas listed in Table 3.1.
- Observation of staff processing new claims and Changes of Circumstances (CoCs).
- Sampling exercise to gather information on a random sample of 50 new claims and 50 CoC determined from April 2004 onwards.
- Close-out meeting with Benefits Manager.
Table 3.1 Interview schedule by information area

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3.2.2.1 Top down cost information (Items A and B in Table 3.1)

At each case study LA, we sought information on costs as recorded in the accounting system, for 2003/04 and for 2004/05 (as the case studies were undertaken during 2004/05 the figures for 2004/05 were generally estimated outturns). In addition, we tried to determine whether any costs were not fully captured, and collected some high level information on the basis for recharges. Early in the case studies, it became apparent that recharging practice varies considerably across LAs. As the main focus of this study was not to investigate recharging practice or the effect of accounting differences, we focused on collecting information on direct costs, which comprise, largely, the cost of people’s time.

The Audit Commission has carried out work looking at the costs incurred by LAs’ Revenues and Benefits divisions, which addresses some of these strategic issues1.

3.2.2.2 Workload areas

We collected detailed information on what people do, and how much time it takes them. Our data collection process aimed to estimate the cost of the workload areas shown in Table 3.1.

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At each LA we began by discussing how work was organised within the benefits department, and identifying who was responsible for each of the work areas listed above, and who was best placed to provide the information that we sought. For workload areas E to J, we began by mapping the work processes, to ensure that we had a good understanding of the nature of the work.

**E: New claims**

We spent time with assessors of varying experience (both of benefits and of assessment software) and elicited information on the time taken to complete the tasks required to assess different types of claims. It can be very difficult for individuals to estimate how long it takes to complete tasks, and so we also spent some time observing assessors working on actual assessments to see how long different tasks took. We also collected information to permit working day analyses, eliciting information on time spent on a range of non-assessment activities such as answering telephone queries, discussing assessment queries with colleagues, and time lost as a result of unanticipated system downtime.

Where a separate front office or customer service function was in place, we also talked to a customer-facing member of staff, to estimate the time taken to complete tasks completed by them, including for example, helping claimants complete forms, checking forms, verifying information, and issuing receipts.

These timings were combined with volume information and estimates on the numbers of claims received by post and via a front office or customer services to estimate the total costs for processing new claims. Data collection here included times spent setting up payments and identifying and recovering overpayments (where such tasks were carried out by assessors), but the analysis separates out these two areas, which are included in workload areas K and I.

**F: Changes of circumstances**

The approach here was as for workload area E. Information on timings was again combined with volume information and estimates on the relative proportions of changes notified by post and via a front office. In addition, our sampling exercise (see section 3.2.2.3) produced an estimate for the proportion of changes in circumstance resulting in a change in benefit, and the proportion leading to an identified overpayment. This information was also used to estimate the total cost of processing changes of circumstances. Again, as for workload area E, the analysis presented later separates out overpayment recovery and payments.

**G: Proactive reviews**

Here, we mapped the key processes for visits, postal reviews and telephone reviews. We sought information on the number, grade and cost of staff involved in review visits, where carried out, and in completing postal and telephone reviews. Where reviews were carried out by staff whose main role was not reviews, we elicited
information on the fraction of their time devoted to reviews. We also elicited times for the tasks required to complete the review processes, and elicited information for working day analysis.

In addition, we collected available information on the numbers of notified and un-notified visits undertaken and completed, together with information on the percentage of visits where access was gained first time. Data was also sought on the number of reviews that resulted in the identification of a change of circumstances, and of a benefit overpayment. Similar information was sought for postal reviews and telephone reviews.

**H: Fraud**

In the fraud workload area we collected information on the number, grade and cost of staff involved in fraud work. We mapped the fraud investigation process, and elicited information on the time taken to complete tasks within the process, where possible. The pilot case study visits demonstrated that while some of these tasks can be timed, the nature of fraud work is such that the major part – the investigation – is not amenable to eliciting timings. Fraud cases vary greatly, according to the nature and complexity of the case, and the length of time over which the alleged fraud has been perpetrated.

**I: Overpayment recovery**

Here, the model referred to for workload areas E and F was used to derive costs for the work assessors carry out in relation to the identification and recovery of overpayments. In addition, we spoke to overpayments teams, both inside and outside benefits teams, eliciting information on the number, grade and costs for people dealing with this workload area. Where overpayments were dealt with alongside other sundry debts, estimates were elicited of the effort believed to be required to deal with the benefits workload.

**J: Appeals**

The approach varied depending on how the work associated with dealing with appeals was organised. Where specific appeals officers dealt with this workload, the estimates are based on the employment costs for those officers. Where work is carried out by staff who also have other responsibilities (typically assessment team leaders) then the costs are estimated by eliciting information on the time taken for different tasks, multiplied by the volumes of those tasks, and cross-checked by eliciting estimates of the proportion of the officer’s time devoted to dealing with such tasks.

**K: Payments and rebates**

The model referred to for workload areas E and F was used to estimate the cost of assessors’ time used to set up payments or rebates during the assessment process.
addition, we elicited information on the time taken by other officers involved in the
payment process, including tasks such as authorising payments, reconciliations,
dealing with stopped and returned cheques, and enveloping cheques and remittances.
We also collected information on consumable costs (cheque printing stock, ‘do not
redirect’ envelopes), bank charges related to the payment methods used, and
postage costs. Information was gathered on the volumes of payments made using
different methods; where information was available, this was disaggregated by
payee, ie payments to claimants, and payments to landlords.

**L: Checking**

We collected information on what checking was carried out, who performed the
checking, and how much time was taken, so that the total cost could be estimated.
Information was collected relating to 10% checking, sample checking of such
checking, 100% checking of new starters’ work, and quarterly accuracy checks.

**M: Changes in regulations**

In this workload area, we aimed to estimate the costs associated with dealing with
changes in regulations, including end of year processes, dealing with software
releases and patches, changes requiring LAs to arrange publicity, updating claims
forms, leaflets and guidance notes. As part of this workload area we also collected
information on take-up campaigns, both qualitative, and where available, quantitative
information on costs, including staff time, postage and printing costs.

In addition, we sought information on the costs associated with the introduction of
pension credits and tax credits.

**N: Changes of Circumstances not reported by claimant or third party**

For this workload area we sought information on how the LA processes CoCs that
they can address without the need for reporting of the change by the claimant or a
third party. Such CoCs include: LA rent changes, CT changes, rent officer
re-determinations, and significant birthdays (e.g. 18, 65). Where available, information
was collected on the time taken to deal with such changes, and therefore the costs
incurred.

**O: Subsidy/Management Information Systems**

The cost of dealing with Management Information System (MIS) (excluding quarterly
accuracy checks) and subsidy returns was estimated by eliciting information on the
time – days taken, or proportion of time, as appropriate – taken to complete the
returns, and to liaise with auditors and answer their queries.

**P: Benefits management**

This was estimated as the employment costs of core assessment team managers and
senior benefits management (typically those above team leader level), less the costs
related to time spent by those individuals on the other workload areas identified
here.
**Q: Training**
We collected information on the number of days spent training by grade and team. For new starters, we collected information both on formal training, and on-the-job training.

### 3.2.2.3 Sampling exercise
At each LA we worked with the identified member of staff, to obtain a sampling frame from which to select a random sample of 50 new claims and 50 CoCs that had been determined since the beginning of April 2004. We recorded information on these claims such as claimant passporting status and tenancy type. For CoCs we recorded information on whether an overpayment was identified, and whether benefit had increased, decreased, or there had been no change.

In addition, we looked at how many times assessors had contacted the claimant or any third parties to seek additional information, or supporting evidence, and what type of information had been sought, including enquiries via remote access terminals.

### 3.2.3 After case study visit
After the case study visits a summary of the information collected was returned to each LA; follow-up emails were sent and telephone calls made to answer any questions that LAs had.

### 3.3 Breadth survey
DWP commissioned National Opinion Poll (NOP) to carry out a cost survey of LAs, excluding those LAs to which we made case study visits. We worked with DWP and NOP to develop a questionnaire that would provide a breadth of cost information to complement the detailed case study information collected from 30 LAs. NOP distributed the questionnaire in paper form, and electronically, following up with telephone interviews.

### 3.4 Complexity, uncertainty and limitations
Any estimates based on survey data will be subject to various possible limitations and uncertainties (or potential inaccuracies). This section describes the main factors that should be considered when addressing these.

#### 3.4.1 Sample coverage
This study aims to estimate the costs incurred in 2004/05. However, the data collected at each case study is necessarily a snapshot of how work was carried out at the time of the visit. The effect of some changes can be difficult to measure, e.g. changes in senior management.
3.4.2 Sample bias

Our sampling methodology was designed to produce a sample with as little bias as possible. Nevertheless, as both the case study and breadth survey rely on voluntary participation, there may be some bias in the sample.

3.4.3 The ‘measurement’ process

Our case study visits relied on interview and elicitation skills; this process inevitably results in some uncertainty, even where a small team of researchers is used. In addition, we must recognise that it can be difficult, particularly for small items of work, for people to estimate how long tasks take.

For the largest work area, the processing of new claims and CoCs, elicitation was supplemented by observation. It is well-known that observation can affect the manner in which tasks observed are performed. Where possible, further cross-checks were made, for example, seeking information on the actual numbers of cases completed over specified time periods. However, this must be recognized as a potential source of uncertainty.

3.4.4 Data incompleteness

Our research method sought estimates of time spent on particular workload areas believed to be the largest contributors to the cost of administering HB and CTB. There may be areas of work not identified.

3.4.5 Other factors

Our research addressed costs, not sources of funding. It should be noted that LA spending decisions are not made in a vacuum; the degree to which costs are incurred may be a function of the available funding.
4 Findings

Our sample of case studies covered a wide range of Local Authority (LA) types. The sample included representatives of District Councils, Metropolitan Authorities, Unitary Authorities and London Boroughs. It included LAs from England, Scotland and Wales, with a range of caseloads. Some authorities had LA housing, some had transferred some or all of their housing stock. Many were fully Verification Framework (VF) compliant, some were not. During our case study visits we encountered several different assessment software systems, and several different Document Image Processing Systems (DIPS), as well as LAs using paper files. In summary, our sample of LAs spans a wide range of all the characteristics deemed to be potentially significant. We expect, therefore, that our sample reflects the differences between LAs nationally, both in terms of processes used and costs incurred.

This section presents our observations on how the work necessary in order to administer benefits is organised. As part of this research, we have produced a suite of outline process maps for each case study authority visited. For reasons of anonymity, these are not reproduced in this report. However, for two of the areas studied, new claims processing and dealing with Changes of Circumstances (CoCs), we have also produced generic process maps, and these are included at Appendices A and B.

4.1 Customer-facing staff

4.1.1 How work is organised

We encountered two main models with regard to direct claimant contact.

1. Dedicated benefits counter or service desk, usually co-located with the assessment office.

2. LA wide customer service centres or one-stop shops, dealing with a wide range of council queries, including benefits.

Where the first option is in place, assessors tend to be considered to be ‘on-call’ and are often called to the front desk to answer queries, or assist with complex cases. In many instances, assessors will provide cover for this benefits counter.
The one-stop shop model is more prevalent in larger authorities, and the concept seems to be increasing in popularity, with several of the LAs currently using the first model reporting that the LA is considering the introduction of a central customer facing unit, with work being organised along front office-back office principles.

In both instances, front office staff will typically issue claims forms and carry out trial calculations when callers request this. Occasionally they assist claimants to complete forms, and they check completed forms for completeness and signatures. They also typically check whether all necessary evidence has been provided, verifying that documents are originals, and will issue receipts and checklists noting any remaining information or evidence that must be provided before the claim can be assessed. For the first model, front office staff will often deal with postal receipts as well, and will be responsible for either filing or scanning of documents and claims forms. For the second, one stop shop model, front office staff may scan claim forms and documents received there, while a separate team deals with postal receipts.

4.1.2 Other observations

We noted earlier the potential impact on cost of incomplete claims that must be pended awaiting receipt of additional information. This can also affect processing times reported for both New Claims (NC) and CoCs. Where a high number of NC and CoCs are received via customer service desks or one-stop shops as opposed to via the post, we found that there were good opportunities for customer-facing staff to encourage faster returns of information. For example, when returning a checklist highlighting information and documents that must be provided before the claim can be assessed, if customer-facing staff say ‘if you bring this in by Friday, we should get your claim sorted within a week’ rather than for example ‘you have to bring in this information within x days’, this may encourage the claimant to respond more quickly.

4.2 Assessing New Claims and Changes of Circumstances

4.2.1 How work is organised

Assessment and pre-assessment

The work organisation we encountered can be categorised into two broad models:

1. Assessors deal with claim or change from start to finish.

2. Work is split into pre-assessment and assessment, dealt with by pre-assessors and assessors.

To illustrate the typical operation of the second of these two models, consider the processing of a new claim. A pre-assessor will typically check through the claim form, identifying any missing information and writing to the claimant to request any additional evidence that is required. If the claim has not yet been registered on the assessment software system, the pre-assessor will register it. If the claim is
passported but proof of passported status has not been provided, the pre-assessor will request (and in some cases carry out) a Remote Access Terminals (RATS) check. Generally, we found that pre-assessors do not do detailed checks; eg, it is assessors who will carry out detailed checking of bank statements, ensuring there are no inconsistencies.

We found two main rationales for work model 2; it was usually a response to recruitment and training issues, or an attempt to reduce the processing time for assessors by ensuring that claims are as complete as possible before they are assessed.

Some LAs had experienced difficulties recruiting experienced staff, and noted that training new assessors took considerable time, as assessment has become more complex with time. In some instances, new starters receive training, both classroom and on the job training, but leave before they have reached a fully productive level. Organising the work so that new recruits with no benefits experience are trained as pre-assessors can help to address this, while also providing career progression. It takes less time to train a new starter as a pre-assessor than as an assessor, and pre-assessors who then progress to become assessors already have a background in benefits. If staff leave after relatively short periods of time, then there is less ‘loss’ of investment in training and development. It also means that experienced assessors are focused on the areas of work where they are needed most.

The second rationale is that processing time for assessors is reduced by ensuring that claims are as complete as possible before being passed to them. This reduces the number of claims in an assessor’s work tray at any one time, and may reduce the cost of processing claims.

**Allocation of claims**

Practice relating to allocation of claims varies widely. In some LAs NCs and CoCs are dealt with by separate teams, in others different teams deal with blocks of addresses, and in others claims are split by surname of claimant. Some LAs have separate teams dealing with different categories of claimant, for example private sector tenants, LA tenants and Council Tax Benefits (CTB) only claims.

Some of the more complex types of claims, for example temporary accommodation claims\(^2\), students, self-employed, may be routed to particular individuals or teams.

### 4.2.2 Other observations

Some LAs routinely send out CoCs forms with any correspondence with claimants. While we did not collect formal data on this, at those LAs we observed that a significant number of CoCs in our sampling exercise had been reported using these forms, and that supporting evidence was more likely to be provided when the form was used.

\(^2\) These claims may not be inherently complex, but they are often more time-consuming to deal with as they may, for example, be dealt with as clerical claims by DWP so that passporting status is more time-consuming to verify.
4.3 Proactive reviews

4.3.1 Reviews undertaken

Proactive reviews were often referred to as interventions by LAs. Not all of the LAs we visited were fully VF compliant. Two had introduced a limited number of postal reviews ahead of fully implementing proactive reviews, and were among three LAs that had plans in place to introduce review visits in the first half of calendar year 2005.

We observed a mixture of approaches to reviews in our case study sample; all fully VF LAs we visited used review visits, most also used postal reviews or were considering the use of postal reviews. Only one LA in our sample used telephone reviews. Many noted that they had made a positive decision not to use telephone reviews.

4.3.2 How the work is organised

Postal reviews were often organised by assessment administration support staff, with assessors dealing with returned review forms. Visitors were invariably in a dedicated visits team. In some instances this reports in to fraud, and in others to assessments. Where there was a visiting team, the visitors undertook several different types of visit. In addition to review visits, they also undertook visits whose primary purpose was welfare, to assist vulnerable or housebound individuals to complete forms, or to collect additional information from them or explain the answers to queries to them. Visitors also undertake new claims residency checks; some LAs use these routinely after the first payment has been made, some prioritise private rented sector claims.

Some LAs use unnotified visits for all review visits, while others use them only for higher risk claims. Success rates (defined as the percentage of calls where access is gained) for unnotified visits are, not surprisingly, lower than for notified visits. This can result in large numbers of cases in visitors’ work trays.

The level of administrative support provided for visitors varied, in some cases through local choice, and in some cases as a result of recruitment issues and available resources. Where visiting officers had limited access to such support, less time was available for the completion of visits. Much of the work required prior to a review visit is clerical in nature, and lends itself well to office-based support staff, who can select cases for review and complete initial checks and paperwork, producing a visit pack for each claim. Where notified visits are used, office-based staff can make appointments, and take telephone calls to set up new appointments where claimants find the offered appointment inconvenient. Office-based staff can also deal with paperwork following visits, completing reviews where no changes have been identified, and forwarding changes of circumstances to the assessment team.
Typically, work is organised so that assessors input any changes identified and then complete the review. However, at least one LA has plans to keep the entire review process within one team, so that visiting officers will be responsible for the entire review process, including the processing of any changes of circumstances identified. This may have advantages in that the whole process will be owned by one individual, which may have performance advantages with regard to processing times.

4.3.3 Other observations

At the beginning of our fieldwork, the review process had only recently been introduced. Several software houses had not yet released updated review modules. At several LAs, ad-hoc and semi-manual systems were being used to manage the review process.

Partly as a result of this, the quantity and quality of information available varied, particularly on items such as the number of reviews resulting in CoCs (irrespective of whether a change in benefit resulted), the number of visits where access was successful first time, and the number of reviews where all the required information was obtained first time.

If DWP has a need for good information in these areas, it may be worth considering an exercise to look at reviews, once LAs have been operating the review system for a little while. As well as seeking more up to date information, this could look at whether there are differences in outcome related to some of the differences in process, considering the channel used for review (visit, postal, telephone), whether visits are notified or not, and perhaps whether the different management lines (assessment, fraud investigation) have any effect.

4.4 Fraud-related work

4.4.1 How the work is organised

We encountered two core models for fraud investigation:

1. Fraud investigation team reporting to the Benefits Manager.
2. Fraud investigation team reporting to internal audit.

Where fraud investigation reported into internal audit, we still found that their workload was entirely drawn from Housing Benefit (HB) and CTB related fraud. There did not appear to be any observable difference in the working arrangements dependent on the reporting lines for the fraud team.

Within this workload area, the processes used to filter fraud referrals, investigate the case and deliver sanctions are broadly similar. However, the level of resources and the percentage of referrals subsequently investigated varies. The number of full-time equivalent staff allocated to fraud-related tasks (including support staff and managers, in addition to investigators) per 1,000 caseload in our sample varied
from 0.2 to 1.3, with a median of 0.5. The percentage of referrals subsequently investigated varied in our sample from 10% to 100%, with a median of 71%; the wide variation here suggests that there may be differences in how referrals are recorded and measured.

We also observed differences in approach to the use of informal interviews, which seem to be more prevalent in some LAs, while little used in others. Where the LA decides to prosecute, the approach taken and costs incurred can vary. Some prosecutions are dealt with internally, some by local solicitors, some by DWP, and in some instances joint working with police permits the police to lead the prosecution.

We encountered a range of joint working initiatives, with LAs working with a variety of other agencies on fraud, including pro-active initiatives. LAs work jointly with the DWP, the police, and HM Revenue and Customs. LAs were broadly positive about the benefits of joint working, although some concerns were raised regarding the length of time that it can take for DWP to determine the magnitude of overpayments.

### 4.4.2 Housing Benefit Matching Service referrals

The team responsible for the initial filtering of Housing Benefit Matching Service (HBMS) matches varies. In many instances, the fraud team carry out initial filtering, while in others the assessment team is responsible. Many of those responsible for initial filtering noted that there are often many matches that require no assessment action or fraud investigation, as the assessment team has already been made aware of a change that resulted in the match. Filtering is usually a batch task carried out by one officer, sorting those that can be dealt with by the assessment team from those that are considered to warrant referral to the fraud investigation team.

### 4.5 Overpayment recovery

The cost of dealing with overpayments varies greatly and is not strongly correlated with caseload (see Section 5.4.3). In some instances overpayment recovery is dealt with entirely within the benefits department, but typically initial identification of overpayment and recovery from ongoing benefit is dealt with by assessors, who sometimes raise the initial invoice where recovery from ongoing benefit is not possible. Subsequent reminders, invoices and other overpayment recovery tasks are usually handled by sundry debts.

Factors that result in higher overpayment recovery costs within this study include the existence of specific teams set up to address high levels of aged overpayments. It should be noted that we have sought to establish how much it costs LAs to recover overpayments, without linking this to the effectiveness of overpayment recovery.
4.6 Appeals

Some LAs have dedicated appeals officers, while at others reassessments and appeals are handled by the assessment team, typically at team leader level. Larger LAs are more likely to have dedicated appeals officers.

4.7 Checking

Checking samples of work is often undertaken by senior assessors or team leaders, particularly checking of new starters’ work. Quarterly accuracy checks are often carried out by QA officers, but may also be carried out by senior assessors or team leaders.

Where formalised checking is in place, LAs generally use the results of checking to identify development needs, both at team and individual levels. High checking costs are incurred when staff turnover is high, so that the number of new starters – whose work requires a high level of checking for several months – is higher.

4.8 Subsidy and Management Information Systems returns

Subsidy returns are typically dealt with at a senior level, often by the benefits manager, with support from other staff. Benefits managers or other senior staff also deal with Management Information Systems (MIS) returns, although systems support and QA staff may also assist.

4.9 Benefits management

Factors that might be expected to result in lower benefits management costs, as a percentage of total costs, include centralisation, and increased size, as economies of scale should be possible. However, high staff turnover can increase costs, as new members of staff require greater levels of supervision and support. Economies of scale can be offset in LAs with higher caseloads because many of them have relatively high staff turnover.

Conversely, smaller LAs often have lower levels of staff turnover, and so staff may require lower levels of supervision and support.

4.10 Training

Larger benefits departments are more likely to have dedicated training and development officers. We found considerable variation in the percentage of total costs related to training, but there were clear reasons for this. Two main factors are associated with higher than average training costs, namely the introduction of new assessment software or DIPS, and high staff turnover.
5 Analysis

The main objective of the analysis presented in this section is to develop a robust estimate of the total cost of administering Housing Benefit/Council Tax Benefit (HB/CTB) across the 408 LAs in England, Scotland and Wales, and to see to what extent the variations in the costs between Local Authorities (LAs) can be explained. The first step is therefore to identify which cost variables are to be examined in this way. This is done in Section 5.1.

An obvious cause of variation in total costs is the variation in size of workload. We want to understand the variability in costs once the effects of size of workload are taken out (the variability in unit costs). In Section 5.2 we define different measures of size of workload and consider their possible explanatory power.

The first tests we then carried out were to see how well total cost measures can be explained by total measures of the size of workload. The results of these are given in Section 5.3. The explanatory power of some other factors is tested at this stage.

The total cost can be disaggregated into the costs of different activities. We collected information on these separate costs in our case studies. In the areas of processing New Claims (NC) and Changes of Circumstances (CoC), the Department for Work and Pensions (DWP) then provided us with the workload sizes similarly disaggregated by activity. This allowed us to calculate the unit costs of the different activities at different levels of disaggregation; the results are given in Section 5.4. These are interesting in their own right, and they allow us to test to what extent the variability in aggregated unit costs can be explained by variability in the mix of tasks with different unit costs.

While our case study fieldwork was underway, National Opinion Poll (NOP) sent out a survey questionnaire to LAs, asking them questions about the costs of administering HB and CTB. In Section 5.5 we compare some of the results of this survey with numbers obtained from our case studies. This provides a test of how well our sample performed in producing results that are representative of the population of LAs as a whole.

The conclusions of the data analysis are given in Section 5.6. We give here what we consider to be the best fit to the costs, a formula we believe to be suitable for grossing up to provide estimates of the cost across all LAs. We also describe some of
the factors specific to individual LAs in our sample which cause them to deviate from our model.

**Note on the Sample Used for the Analyses.** Our sample consisted of 30 LAs, chosen by the methods described earlier in the report. For the purposes of preserving the anonymity of these LAs, we have ordered them by the size of caseload and then given them a consecutive code number of the form LA<sup>nn</sup>. Of the 30, LA29 and LA30 are considerably larger than the others. In some cases, including these two outliers in the regression analyses can distort both the regression line and the value of the correlation coefficient. Therefore some analyses are done excluding LA29 and 30, while others are done including them.

In the latter case, including the points for LA29 and 30 in scatterplots where one or both of the axes corresponds to a measure of the overall size would be disclosive. Therefore, to preserve anonymity, these points have been omitted. The regression lines and associated parameters are however those calculated including the LA29 and 30 data.

### 5.1 Measures of cost

We obtained figures for the costs of administering HB and CTB in two ways. The first was to use accounting information and to extract the costs assigned there to this activity. These are what we call the ‘top down’ costs. We sought disaggregated information on these costs as shown in Table 5.1. Note that these items are not applicable in all LAs, for example, where paper files are used and there is no central document management system, there will be no information available for the document management item.

We refer to the sum of these costs as the Total Top Down cost (TTD). The first item on the list, namely the Employee Related Top Down cost (ERTD) is of particular interest because it relates to what is measured by the second way.

**Table 5.1 Breakdown of Top Down Costs**

<table>
<thead>
<tr>
<th>Employee related costs, ERTD</th>
<th>Transport</th>
<th>Supplies and services</th>
<th>IT</th>
<th>Customer services</th>
<th>Document management</th>
<th>Other recharges</th>
<th>Capital charges</th>
<th>Sum = total top down cost, TTD</th>
</tr>
</thead>
</table>

The problem with using the figures found in the accounts has been that differences
between accounting practices have made comparisons difficult to interpret. This was one of the reasons that we carried out detailed case studies, measuring how much time various activities took and the employment costs of the people paid to do them. This allowed us to construct ‘bottom up’ estimates of the costs. As well as the employment costs of the people undertaking these tasks, easily identifiable direct costs were also included where available, such as the costs associated with printing and posting cheques, and making Banks Automated Credit System (BACS) payments. These were calculated as the sum of costs from the ‘Workload Areas’ shown in Table 5.2.

**Table 5.2  Build Up of Bottom Up Costs**

<table>
<thead>
<tr>
<th>NC</th>
<th>CoC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive Reviews</td>
<td>Fraud</td>
</tr>
<tr>
<td>Customer Services</td>
<td>Changes of circumstances LA</td>
</tr>
<tr>
<td>Ongoing Changes in Regulations</td>
<td>Payments and Rebates</td>
</tr>
<tr>
<td>appeals</td>
<td>Other Tasks</td>
</tr>
</tbody>
</table>

*Sum = total of workload areas, Total of Workload Areas (TWA)*

The final element in the list of workload areas, namely ‘Other Tasks’, is different from the other components of TWA listed here, (and described in detail, in Section 3.2.2). Rather than being a variable directly measured during the case study visits, it is a balancing figure to account for the discrepancy between the costs specifically identified against tasks and the employment costs of people identified as working on benefits-related activities. At each LA, we were provided with a list of numbers of staff by grade (or pay scale point), with employment costs per fte at each grade (or at each pay scale point). This allowed us to estimate the total employment costs for staff working on HB and CTB administration. Information collected at the site visits allowed us to estimate the employment costs for staff working on each of the items in Table 3 except ‘Other Tasks’. The ‘Other Tasks’ figure was obtained by deducting that total from the total employment costs for staff working on HB and CTB administration.

The sum of all the costs shown in Table 3 is called the Total of Workload Areas, TWA. It is the point of contact between the top-down and bottom-up analyses – it and the employee-related top-down costs, ERTD, are different ways of measuring a similar...
quantity. Each of the methods has its own uncertainties, so we should not expect the two numbers to be exactly equal. In particular it should be noted that the ‘Other Tasks’ term in the TWA is not a balancing figure that makes the TWA equal to the ERTD. Nevertheless if the two measures were not highly correlated, then there would be something wrong with either (or both) of the two methods. The relations between all the cost variables, and how they were obtained are summarised in Figure 5.1.

**Figure 5.1  Cost variables**

To test the hypothesis that the TWA and ERTD are measuring approximately the same thing, we performed a regression analysis with the model:

\[
\text{ERTD} = \text{const} \times \text{TWA}
\]

If the two methods are working, we should expect a good correlation with the constant of proportionality close to one.

The result (excluding LA29 and 30) is shown in Figure 5.2.
The R² value shows that around 81% of the variability in ERTD is explained by this linear relation with TWA. The slope of the line is 0.97, with 5th and 95th percent confidence limits of 0.90 and 1.04. This shows that the two sets of figures are broadly measuring the same thing.

The ratios TWA/ERTD for LA29 and LA30 are 0.97 and 0.90 respectively, showing that LA29 is virtually on the regression line and LA30 is not far below it.

To check what effect including the ‘Other Tasks’ component has on the comparison with ERTD, we took this element out of TWA, calling the result Total of Identified Workload Areas (TIWA). The results when this quantity is used in the test are shown in Figure 5.3.
The fraction of the variability in ERTD explained by this new variable has fallen slightly (from 81% to 79%), and the slope has changed to 1.00, with confidence limits 0.92 and 1.08. The ratios for LA29 and 30 are 1.06 and 0.96 respectively, consistent with the trend line obtained on the basis of the rest. Overall, the ability of our workload area analysis to capture what is contained in ERTD does not depend to any great extent on the use of the ‘Other Tasks’ term.

We believe that the ‘Other Tasks’ values represent both tasks that we have either not identified or not measured, and some uncertainties associated with measurement of other workload areas. Areas of work identified but not measured include local policy issues such as planning for future changes, developing better ways of working and small areas of work, e.g. the production and investigation of exception reports. We considered whether this ‘Other Tasks’ figure should be excluded from our analysis, but as we consider it to be a genuine element of the costs of administering HB and CTB, we have included it in our totals.

For these reasons, and given the results of the regression analysis above, we use TWA as our primary measure of the total cost of administering HB and CTB.
5.2 Measures of workload size

An obvious measure of the size of the workload is the Caseload (CL). This is a snapshot of the number of cases on the books of an LA of recipients of HB, CTB or both. In our analysis we have used the 11 November 2004 set of values from DWP. However the use of caseload as a measure of how much one might expect the administration of HB and CTB to cost can be criticised on the grounds that, as a snapshot, it does not take into account the rate of turnover of cases. An LA with a smaller caseload, but where there are more cases entering and leaving the books all the time, may incur higher costs than an LA with a larger but more static caseload.

To take account of the turnover, we obtained from DWP figures on the volumes (V) of transactions for each LA. These are total annual numbers of transactions for the latest consecutive four quarters for which data were available. These are broken down into new claims (VNC) and changes of circumstances (VCoC), and then further into the types of claim. The volumes used for new claims include those that were unsuccessful or cancelled; while the numbers of these are generally low, in some LAs they can represent several percent of new claims processed, and our observations suggest that the work involved in processing such claims is equivalent to that involved in processing successful claims. The volumes relating to changes of circumstances were obtained by analyses of the HBMS database and not from MIS returns. Using HBMS allowed standardised definitions of different types of changes of circumstances to be applied across all LAs, so that the volumes of different types of changes of circumstances are consistent across LAs.

To see how these volumes of transactions relate to caseload (and to test the assumption that there can be differences in volumes not related to caseload), we plotted the total volume and the separate NC and CoC volumes against caseload, in Figure 5.4, below. Regression curves were calculated, again with the intercept constrained to be zero, because it is reasonable to assume that a zero caseload would entail zero volumes of transactions.

This shows there is a reasonable, though not perfect, correlation between caseload and volumes, with one item of caseload being associated on average with 0.5 new claims per year and 1.9 changes of circumstances per year. The scatter about the regression lines is sufficient to motivate exploring the dependencies of cost on both caseload and volume of transactions.

A measure of caseload that takes more account of the turnover would be to count not the cases on the books at one time, but rather the total number of cases that were on the books at any time during a year. As an approximation to this, we defined an ‘adjusted caseload’ as:

\[ ACL = CL + VNC \]

This is the snapshot value, plus the number of new cases that are processed over a year.
5.3 High level analyses

To what extent can the total cost be explained by one of our total workload measures, without having to take into account how that workload is broken down into different activities? To explore this we looked at how TWA relates to CL, V and ACL. This is done in Figures 5.5, 5.6 and 5.7 below. This time in the regression analyses the intercept is not constrained, so that the resulting best fit equation can be interpreted as:

\[
\text{(cost)} = (\text{unit cost}) \times (\text{number of workload units}) + (\text{fixed cost})
\]

In each case there is a reasonable fit to the total cost, as measured by TWA. The fit is particularly good when ACL is used as the measure of size of workload. In this case 88% of the variation in cost is explained by the linear regression model, as opposed to 73% when the other two measures are used. The model suggests that on average the fixed cost of administering HB and CTB is a little above £200k, with a variable cost of around £45 for each case on the books at any time in a year (though note that for the smallest LA in the sample the TWA cost is only just above £200k).
Figure 5.5  Total of Workload Areas versus Caseload (excluding LA29 and 30)

\[ y = 65.1x + 270 \]
\[ R^2 = 0.73 \]

Figure 5.6  Total of Workload Areas versus total volume (excluding LA29 and 30)

\[ y = 25.2x + 299 \]
\[ R^2 = 0.73 \]
Although this model is a good fit to the 28 LAs in this sample, it underpredicts the TWA values for the two largest LAs (LA29 and LA30). Figure 5.8, below, shows what happens when these two are included in the regression analysis.
The $R^2$ value is no longer a good measure of overall goodness of fit because it is dominated by the extreme outlier. LA29 is well above the line and LA28 is well below it. However LA30 is virtually on the line, and it is striking the extent to which a line connecting the origin to the LA30 point is a reasonable fit to the first 27 LAs in the sample.

Next, we examined the extent to which this scatter could be accounted for by differences in employment costs between the LAs. Our case studies collected data on the employment costs for assessors, and the number of hours in a working week; from these we derived assessor hourly rates which can be used to adjust the TWA, producing a ‘Corrected TWA’ (CTWA).

$$\text{CTWA} = \text{TWA} \times \left( \frac{\text{average assessor hourly rate}}{\text{assessor hourly rate}} \right)$$

where the average rate is the average over the 30 LAs in the full sample.

The result of plotting this against ACL is shown in Figure 5.9. This improves the fit, especially for LA29, which is brought down to lie almost exactly on the regression line. A good model for the TWA is then: multiply the ACL by £63, then scale up by the ratio of the assessor hourly rate to the average assessor hourly rate.

**Figure 5.9 Total of Workload Areas corrected versus Adjusted Caseload (including LA29 and 30)**

$$y = 62.7x - 23.1$$

$R^2 = 0.96$
We can use these data to look for differences between sub-samples within our sample. For example we can split the sample into those LAs who use DIPS and those who use paper records. Figure 5.10 is the same scatterplot as Figure 5.6, except that now the two sub-samples are subjected to separate regression analyses.

Taken at face value the results suggest that the DIPS may have a higher fixed cost, around £310k per year, but a lower unit cost, around £41 per ACL item, as compared to paper working, with a fixed cost around £48k per year and a unit cost of £55 per item. However we first need to test whether these differences are statistically significant.

This is done in Tables 5.3 and 5.4. The first table shows the mean values of the DIPS parameters (slope and intercept of the regression line) as well as the lower and upper 95% confidence limits. It then compares these with the mean values of the paper parameters, which are expressed in terms of what percentage would have to be chosen to make these values the upper or lower confidence limit. The second table then compares the DIPS values with the distribution of the paper parameters.

### Table 5.3  Paper Parameters Compared with Document Image Processing System distribution

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DIPS mean</th>
<th>LCL (95%)</th>
<th>UCL (95%)</th>
<th>Paper mean</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slope</td>
<td>41</td>
<td>32</td>
<td>50</td>
<td>55</td>
<td>99.3%</td>
</tr>
<tr>
<td>Intercept</td>
<td>311</td>
<td>125</td>
<td>497</td>
<td>48</td>
<td>97.2%</td>
</tr>
</tbody>
</table>
Table 5.4  Document Image processing system parameters compared with paper distribution

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Paper mean</th>
<th>LCL(95%)</th>
<th>UCL(95%)</th>
<th>DIPS mean</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slope</td>
<td>55</td>
<td>45</td>
<td>65</td>
<td>41</td>
<td>99.0%</td>
</tr>
<tr>
<td>Intercept</td>
<td>48</td>
<td>-126</td>
<td>222</td>
<td>311</td>
<td>99.3%</td>
</tr>
</tbody>
</table>

Both pairs of parameters are on or around the 99% confidence limits of the distributions of the other pair. We may say that the differences are significant at the 1% level, but only just. Moreover these tables show that the intercept confidence intervals are very broad, i.e., there is a lot of uncertainty in the estimates of the intercept. For example, a paper intercept (interpreted as fixed cost) of zero is well within the confidence interval.

The regression analysis shows therefore that there is some evidence for a difference in the cost structure of DIPS and paper working. However, to make this conclusion any stronger would require a closer examination of the costs involved to test whether the regression parameters were realistic estimates of costs.

5.4 Disaggregated analyses

The TWA cost is, for each of our 30 sample LAs, disaggregated into the costs for the range of workload areas shown on Table 5.2. These workload areas are: the processing of NCs, the processing of CoCs, and a range of other activities. For NCs and CoCs we have the costs further disaggregated by type of claim or change, and for some of the types we have received from DWP similarly disaggregated volumes. This allows us to perform cost versus volume analyses at various levels of disaggregation.

5.4.1 New Claims

Figure 5.11 shows the scatterplot of the total new claims costs against the volumes, for our sample, excluding LA29 and 30.
Figure 5.11 Costs versus volumes for New Claims (excluding LA29 and 30)

Figure 5.12 shows what happens when the correction for assessor hourly rates is applied. Note that, by contrast to the correction above, here we correct the volume rather than the cost. The formula is:

\[
\text{corrected volume} = \text{volume} \times \left(\frac{\text{assessor hourly rate}}{\text{average assessor hourly rate}}\right).
\]

The two approaches are equivalent.

The figure shows that the \( R^2 \) value is improved from 0.69 to 0.82, showing that differences in employment costs explain some of the scatter in the points in Figure 5.11. Finally, the points for LA29 and 30 are included in the analysis in Figure 5.13. LA29 is below the line and LA30 is right on it.

We investigated whether the number of days to process a new claim had any influence on the costs beyond that already accounted for. It is not easy to see \textit{a priori} which way this effect might go. Higher costs might be associated with inefficiencies that also manifest themselves in longer times to process new claims. Alternatively, where costs are higher per claim, this might be because there is more capacity available to process the claims more quickly. In the event, adding a term depending on days to process to the regression model produced virtually no improvement in the fit. Why this is so can be seen in Figure 5.14. Here the residuals from the regression in Figure 5.12 are scatterplotted against the days to process new claims. There is no correlation, showing that the days to process variable explains none of the residual scatter in costs.
Figure 5.12  New Claims costs versus corrected volumes (excluding LA29 and 30)

Figure 5.13  New Claims costs versus corrected volumes (including LA29 and 30)
It may seem surprising that the total cost of processing new claims can be largely explained by the total volume of such claims and the assessor hourly rate, without taking into account differences between the types of new claim. There could be two explanations for this fact:

- the split into different claims types does not vary greatly between the LAs;
- the unit costs do not depend strongly on type of claim.

We examined these possibilities for the split by tenure type. Those claims with a housing benefit component were split according to whether the housing was LA, Registered Social Landlord (RSLs, eg HAs) or Private Rented Sector (PRS). The fourth type consisted of those claims that were for Council Tax Benefit only (CTB).

Figure 5.15 shows the fractional volumes in each of these four types for all 30 LAs in our sample, ordered by the fraction of PRS claims. This shows that the mix varies considerably across the sample. The PRS fraction varies from 12% up to 53%, and the LA fraction varies from zero (five LAs have no LA housing stock at all, while another six have 3% or less) to 52%.
Figure 5.15  New Claims volume fractions by tenure

Figure 5.16  New Claims cost to volume ratios by tenure
Figure 5.17 looks instead at the ratio of cost to volume for each of the four tenure types, again across the sample. What is striking here is that the differences in unit costs across the LAs are much greater than the differences between types within each LA. There is a systematic tendency for the PRS unit costs to be higher than the others, but the differences are relatively small. This shows why disaggregation into tenure type is not required to explain the differences in costs of new claims.

We also examined the fourfold breakdown of new claims by Working Age versus Elderly (WA/EL) and passported versus standard (p/s). The fractional volumes for this split are shown in Figure 5.18, ordered by increasing fraction of WAp. This shows that while the ratio WA:EL is reasonably constant across the LAs, averaging around 75:25, within the WA claims the ratio of passported to standard varies considerably. The overall WAp fraction varies from 28% to 52%.

Figure 5.17  New Claims volume fractions by Working Age versus Elderly, passported/standard

The C/V ratios for the four types are shown below in Figure 5.19. Once again the differences between LAs are generally larger than the difference between types. A systematic effect whereby unit costs of standard claims are larger than those for passported claims is visible, but the differences in costs are small.
Figure 5.18  New Claims cost to volume ratios for Working Age versus Elderly, passported/standard

5.4.2 Changes of Circumstances

We have repeated the calculations for new claims shown in Figures 5.11 to 5.13 for CoCs. Figure 5.19 shows the regression line for CoC costs against volumes, with the largest two LAs excluded. Comparing this with Figure 5.11 we see that:

• $R^2$ is 0.85, compared with 0.69 for new claims, showing that there is less scatter in the CoC figures;

• the slope is £13.3 per CoC, as opposed to £29.8 per new claim, showing that, on average, new claims are around two times more expensive to process than CoCs.

Figure 5.20 shows that for CoCs, there is little reduction in the scatter when the volumes are corrected for the assessor hourly rate. Finally, Figure 5.21 shows that the regression line extended to the two largest LAs in the sample is also a good fit to the smaller LAs, suggesting that an average value of around £13 per CoC is a reasonable approximation across the full range of LAs, largely independent of the type of claim being modified.
Figure 5.19  Costs versus volumes for Changes of Circumstances (excluding LA29 and 30)

\begin{align*}
y &= 13.3x \\
R^2 &= 0.85
\end{align*}

Figure 5.20  Changes of Circumstances costs versus corrected volumes (excluding LA29 and 30)

\begin{align*}
y &= 13.8x \\
R^2 &= 0.88
\end{align*}
5.4.3 Other workload areas

In order to explore the dependence of the costs associated with the other workload areas listed in Table 5.2, we carried out regression analyses for each of these costs against the ACL, excluding LA29 & 30. One workload area, Customer Services, was omitted, because for about half our sample direct costs for this area were not available (reflecting the difference in work organisation – where customer services are LA wide one stop shops, costs are incurred via a recharge). The results of the analyses are shown in Table 5.5. None of these have $R^2$ values approaching those associated with the total of workload areas, or the costs of processes new claims or changes of circumstances when compared with the appropriate volumes. There is a range of $R^2$ values, from 0.55 for proactive review to 0.03 for ongoing changes in regulations and 0.02 for the ‘other’ costs category.
Table 5.5  Costs of other workload areas versus Adjusted Caseload

<table>
<thead>
<tr>
<th></th>
<th>Proactive Review</th>
<th>Fraud</th>
<th>CoC LA</th>
<th>Ongoing Changes in Regulations</th>
<th>Payments &amp; Rebates</th>
<th>Overpayment Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R²</strong></td>
<td>0.54</td>
<td>0.37</td>
<td>0.20</td>
<td>0.03</td>
<td>0.48</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>intercept</strong></td>
<td>16.23</td>
<td>69.97</td>
<td>0.63</td>
<td>9.61</td>
<td>-0.70</td>
<td>30.16</td>
</tr>
<tr>
<td><strong>slope</strong></td>
<td>4.70</td>
<td>3.24</td>
<td>0.22</td>
<td>0.23</td>
<td>1.01</td>
<td>1.02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Appeals Subsidy &amp; MIS</th>
<th>Checking</th>
<th>Training</th>
<th>Benefits Management</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R²</strong></td>
<td>0.30</td>
<td>0.12</td>
<td>0.26</td>
<td>0.27</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>intercept</strong></td>
<td>8.78</td>
<td>8.10</td>
<td>4.97</td>
<td>10.54</td>
<td>0.73</td>
</tr>
<tr>
<td><strong>slope</strong></td>
<td>0.87</td>
<td>0.30</td>
<td>0.80</td>
<td>1.79</td>
<td>3.75</td>
</tr>
</tbody>
</table>

To see what these results mean in terms of scatterplots, we have looked at Proactive Review and Fraud Investigation, this time including LA29 and 30 in the regression analysis. These are shown below on Figure 5.22 and Figure 5.23 respectively. In the former, the points lying well below the regression line are those for LAs that have not fully implemented proactive reviews. In spite of the scatter, both of these data sets give a regression line that extrapolates well to LA30.

To see if there is any relationship between proactive review and fraud expenditure, we produced a scatterplot relating the cost per ACL for the two areas (Figure 5.24). This shows that in fact the two variables are almost entirely uncorrelated.

Figure 5.22  Proactive Review Costs versus Adjusted Caseload (including LA29 and 30)
Figure 5.23  Fraud costs versus Adjusted Caseload (including LA29 and 30)

Figure 5.24  Proactive review versus fraud (Cost/Adjusted Caseload – including LA29 and 30)
5.5 Comparisons with the National Opinion Poll survey

While we were carrying out our study, NOP carried out a survey of LAs, asking those not taking part in our study to provide information on the costs of administering HB and CTB. 79 LAs answered the questions relating to what is effectively the ERTD cost, and 76 answered the TTD questions.

The first issue to address is how representative the NOP sample is of the population of LAs as a whole. Since the total caseload is a reasonable predictor of costs, we can ask: how well do the case study sample and the NOP sample reproduce the caseload distribution of the population as a whole?

The normalised distributions for the population and the two samples are shown on Figure 5.25 (caseload values have been removed because they would have been disclosive). The two samples reproduce the main part of the distribution very well. In the high-caseload tail of the distribution, the NOP sample does better in the lower part of the tail, but the case study sample, by virtue of the stratified design, has one point in the higher part, where there are no NOP data. The two samples therefore can be seen as complementary, as long as it can be demonstrated that the two studies are measuring the same thing. To investigate this, we show on Figure 5.26 the ERTD versus caseload scatterplots for the two samples. Broadly these show a good deal of agreement between the two distributions, giving us some confidence that the two studies have measured the same quantity, and the two samples can be merged. The NOP sample shows a higher degree of scatter, particularly for the larger LAs.

Figure 5.25 Normalised caseload distributions
Figure 5.26  Employee Related Top Down Cost versus Caseload for the two samples

Figure 5.27 does the same for the TTD figures for the two samples. Here we see a good deal more scatter in the NOP sample. We have removed eight outliers from the sample, where it is possible that the respondents misunderstood the questions. The ‘cleaned’ NOP sample then gives a regression line closer to that for our sample, and when we use joint samples below in the calculation of national totals, it is this ‘cleaned’ sample that we use.

Figure 5.27  Total Top Down cost versus Caseload for the two samples
The NOP survey also produced data on Assessor Hourly Rates (AHR) for 80 LAs. To test that the survey and the case studies are measuring the same quantity, Figure 5.28 shows the distributions of AHR from the two sources. This shows that the distributions are similar except that the NOP sample has a low-AHR tail not present in the case study sample. In the estimation of national totals, described below, we used the combined data on AHR.

**Figure 5.28  Assessor Hourly Rates for the two samples**

![Histogram showing the distributions of AHR for the NOP and CS samples.](image)

### 5.6 Estimates of the national totals

On the basis of the above analyses, we have produced estimates of national totals and national averages for various quantities of interest.

#### 5.6.1 Estimate of national Employee Related Top Down cost

Given that the ERTD depends upon caseload and assessor hourly rate, we based our estimate of the national average on a fit of AHR-corrected ERTD to the adjusted caseload (i.e. caseload plus new claims\(^3\)), for the 100 LAs for which both ERTD and AHR were available, from either our study or the NOP survey. This fit is shown in Figure 5.29.

---

\(^3\) Estimates of numbers of new claims were produced for almost all LAs by DWP. The few gaps were filled by using comparator LAs and scaling by the caseload. The NC numbers were then rescaled to take into account unsuccessful claims using averaged values of the scaling ratios measured for LAs in our sample.
Figure 5.29  Employee Related Top Down Cost (Corrected) versus Adjusted Caseload for the joint sample

This regression model was used to estimate the ERTD (corrected) for each of the LAs. This estimate was then rescaled to the actual ERTD using an estimate of the AHR for each LA. (These estimates, and the national totals based on them, all exclude the smallest LA, which has a caseload of less than 50 and for which insufficient data were available).

Producing estimates of AHR was the main difficulty we encountered in this approach. Using the joint sample of AHR values we looked for factors known for all LAs that might serve as predictors of AHR. We tried cluster membership, type of LA (District/Welsh/Unitary/Metropolitan/London), and Gross Domestic Product (GDP) per head, and found no significant correlations with AHR. Only when we used Government Office Region (GOR) regions did we find a weak effect, as shown in Figure 5.30. The small dots are the values for the individual LAs and the larger squares are the averages for each region (there were no data for region 14, North Eastern Scotland, and only one point for region 15, Highland and Islands). The regions are identified in Table 5.6. There is a significant difference between the London LAs and the rest. Although there are differences between the means of the other regions, the scatter within the regions is greater than the scatter between the means. Nevertheless, for lack of any better predictor, we used the regional mean as the estimator for the AHR for those LAs not in the joint sample.
When all this was done, the estimate for the national total for the ERTD costs (excluding Isles of Scilly) was:

\[
\text{National ERTD} = \£M(474 \pm 8)
\]

The confidence interval quoted here is the 95% confidence interval calculated on the basis of the standard deviation of the residuals for the regression model in Figure 5.31. This is an underestimate of the actual confidence interval because it does not take into account the uncertainties in the AHR estimates. (Producing confidence intervals from models with more than one source of uncertainty could be done using Monte Carlo analysis, but this is beyond the scope of the current study.)
5.6.2 Estimate of national Total of Workload Areas cost

We estimated national TWA cost using the same method as that described above, but using the regression model shown below, using data from the 30 case study sample LAs.

Figure 5.31 Total of Workload Areas (corrected) versus Adjusted Caseload

When this was done, the estimate for the national total for the TWA costs was:

\[
\text{National TWA} = \£M(461 \pm 5)
\]

The confidence interval quoted here is the 95% confidence interval calculated on the basis of the standard deviation of the residuals for the regression model. As noted earlier, this figure comprises direct identifiable costs, and comprises the cost of staff time (including salary, NI and superannuation costs), together with identifiable other costs, largely transport costs for visiting and fraud investigation officers, and the costs of consumables and bank charges associated with making payments. TWA is based on data collected on individual workload areas, and can be considered to be a ‘bottom-up’ estimate.

From this, we can calculate an average TWA cost per unit caseload, as given in Table 5.7.

Table 5.7 also includes estimates for the national totals for individual workload areas; these were estimated using the same method as the total, but using a separate regression model for each item. In addition, each item was regressed separately against caseload and adjusted caseload, with the best fit used to predict the national total. Further, in some cases, the data for case 30, a large city, seemed
to be an outlier. In these cases, the costs for other ‘large cities’ (identified as such from our early cluster analysis) were predicted separately, using the unit values for case study LA 30. Note, therefore, that the sum of the totals thus estimated does not equal the best estimate for TWA; it differs by about 2%. The ‘per unit caseload’ averages are also given, but it should be noted that some of the items correlate poorly with caseload, and so some of these unit values may be poor predictors of totals for individual LAs.

### Table 5.7  Estimated national averages per unit caseload

<table>
<thead>
<tr>
<th></th>
<th>Total£M</th>
<th>Per unit caseload £</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total annual cost (see Section 5.6.3)</td>
<td>801</td>
<td>152</td>
<td>1</td>
</tr>
<tr>
<td>TWA</td>
<td>461</td>
<td>91.20</td>
<td>1</td>
</tr>
<tr>
<td>New claims</td>
<td>63</td>
<td>12.10</td>
<td>2</td>
</tr>
<tr>
<td>Changes of circumstances</td>
<td>142</td>
<td>26.90</td>
<td>3</td>
</tr>
<tr>
<td>Proactive reviews</td>
<td>45</td>
<td>8.50</td>
<td>1</td>
</tr>
<tr>
<td>Fraud</td>
<td>58</td>
<td>11.00</td>
<td>4</td>
</tr>
<tr>
<td>CoCs LA</td>
<td>2.4</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>Changes in regulations</td>
<td>8.1</td>
<td>1.60</td>
<td>1, 5</td>
</tr>
<tr>
<td>Setting up and making payments and rebates</td>
<td>14</td>
<td>2.70</td>
<td>1,5</td>
</tr>
<tr>
<td>Identifying and recovering overpayments</td>
<td>23</td>
<td>4.40</td>
<td>4</td>
</tr>
<tr>
<td>Appeals</td>
<td>11</td>
<td>2.00</td>
<td>1</td>
</tr>
<tr>
<td>Subsidy and MIS returns</td>
<td>6.4</td>
<td>1.30</td>
<td>4, 5</td>
</tr>
<tr>
<td>Checking</td>
<td>8.6</td>
<td>1.60</td>
<td>4</td>
</tr>
<tr>
<td>Training</td>
<td>23</td>
<td>4.30</td>
<td>4, 5</td>
</tr>
<tr>
<td>Benefits management</td>
<td>36</td>
<td>6.80</td>
<td>4</td>
</tr>
<tr>
<td>Other tasks</td>
<td>30</td>
<td>5.70</td>
<td>4</td>
</tr>
</tbody>
</table>

1 The totals for these items were estimated using a regression model based on adjusted caseload.
2 The total for this item was estimated using a regression model based on numbers of NCs processed.
3 The total for this item was estimated using a regression model based on numbers of CoCs; numbers of changes of new circumstances were predicted using a regression model based on caseload.
4 The totals for these items were estimated using a regression model based on caseload.
5 For these items, ‘large cities’ were estimated separately from other LAs.

It should be noted that, except for the first line in Table 5.7, cost estimates shown are estimates of direct costs only, mostly the cost of staff time (including salary, NI and superannuation) and do not include any ‘overhead’ allocation, eg for support services, or supplies and services.

The data in Table 5.7 are shown graphically in Figure 5.32, below. As might be expected, the largest workload area in terms of cost is the processing work associated with NCs and CoCs. Fraud-related work and proactive reviews are also significant workload areas, with benefits management the next highest cost item, closely followed by the identification and recovery of overpayments, and staff training.
We have also calculated national averages for some individual workload areas per unit workload, e.g. the cost of new claims processing per new claim, averaged over all new claims processed. For some workload areas, the available data do not support the calculation of national averages; here, we provide descriptive statistics for the values determined for the case study LAs. These are shown in Appendix C.

5.6.3 Estimate of national Total Top Down cost

Because the TTD is likely to be less influenced by AHR, we based our national estimate on a regression fit of the (uncorrected) TTD to the caseload. This used the joint sample based on the case study and ‘cleaned’ NOP samples, as described above. The fit is shown in Figure 5.33.
The resulting national estimate of the total national costs of administering HB and CTB is:

$$\text{National TTD} = \£M(801 \pm 11)$$

Again the confidence interval is calculated from the standard deviation of the residuals from the regression model. This result implies that at the GB level, an overhead of approximately 67% can be added to the identifiable direct costs to determine total costs. While this may be a useful starting estimate for determining the total cost of eg operating selected rules (see 5.6.4), it must be noted that no analysis has been carried out into the cost structure of this overhead in terms of the contribution of fixed and variable charges. In contrast with the estimate for TWA, the estimate for TTD is based on high level accounts information, and can be considered as a ‘top-down’ estimate; it should be noted that the estimate is based on cost information available at the time of the case study visits, and so generally on predicted costs or revised budgets, and not on final out-turns.

### 5.6.4 Cost of operating selected rules

We have used our models for estimating the costs of processing NCs and CoCs to estimate the total national costs for operating:

- Non-dependant deduction rules.
- Processing rent amounts for LA, RSL and PRS tenants.
- Means test for non-passported (standard) cases.
- Passporting arrangements for passported cases.
The uncertainties associated with these estimates must be noted. The estimates rely on data at a fine level of disaggregation, for example, on the estimated time taken for a number of short tasks. In addition, some of the costs are associated with the number of times a NC or CoC is ‘pended’, i.e. when a claim cannot be completely processed owing to a lack of information. The information relating to pends is taken from our samples of fifty new claims and fifty changes of circumstances; these sample sizes are relatively small.

**Non-dependant deductions**

We have estimated this as the sum of the cost of:

- processing changes of circumstances specifically related to non-dependants, such as changes of household composition due to a non-dependant joining or leaving the household or changes in on-dependant income or status;
- completing tasks associated with non-dependants in processing new claims, such as verifying and entering non-dependant income;
- writing out for additional information relating to non-dependants, for both new claims and changes of circumstances.

The total estimated national cost is £13M.

**Processing rent amounts**

We have estimated this as the sum of the cost of:

- processing rent changes;
- making and actioning rent officer referrals and re-referrals;
- tasks associated with rent amounts in changes of circumstances, e.g. moving within the LA;
- tasks associated with rent amounts in new claims, including verifying rent amounts and rent paid, and entering information on rent and services;
- writing out for additional information relating to rent amounts, both for NCs and for CoCs.

The total estimated national cost is £29M.

**Means test**

We have estimated this as the sum of the cost of:

- verifying and entering means test-related information for NCs;
- processing CoCs related entirely to means test items, such as a change in income;
- verifying and entering means test-related items in NCs;
- writing out for additional information relating to means test items, both for new claims and for changes in circumstance.
The total estimated national cost is £75M.

Passporting arrangements
We have estimated this as the sum of the cost of:

• obtaining and verifying proof of passporting for new claims, including carrying out checks on RATS;

• obtaining and verifying proof of passporting for CoCs (e.g. where a standard claim becomes a passported claim);

• writing out for additional information in relation to passporting benefits.

The total estimated national cost is £130M.
6 Conclusions

Based on the analysis of data collected through case study visits to a representative sample of 30 Local Authorities (LAs), the total direct costs of administering HB/CTB is estimated to be £M(461 ±5). The confidence interval quoted here is the 95% confidence interval calculated on the basis of the standard deviation of the residuals for the regression model.

Based on the 30 case studies and the breadth survey, we estimate the total cost, including direct and indirect costs, to be £M(801±11); again, the confidence interval is calculated from the standard deviation of the residuals from the regression model.

At the Great Britain (GB) level, therefore, an average ‘overhead’ of approximately 74% can be added to the estimated direct costs to derive the total cost. This may be a useful starting point when estimating the total costs of particular sets of tasks, although it should be recognised that no analysis of the relative contribution of fixed and variable charges to this ‘overhead’ has been carried out.

The cost of administering HB and CTB within a LA is determined largely by the size of the caseload and the average employment costs for the assessors. The caseload measure can be the ‘snapshot’ number, that is, the number of cases on the books at a particular time (called CL here) or the ‘adjusted caseload’ (ACL), formed by adding to CL the number of new cases determined in a year. The ACL gives a somewhat better fit to the costs, but CL can be used when this is not available.

The remaining scatter in the data once caseload and employment costs have been taken into account is not explained by differences in the mix of types of cases within the caseload. Within each LA, some differences according to case type can be seen, but these are small compared with the differences between the LAs. The remaining scatter is most likely to be due to individual features of the LAs in our sample. Some of these may be ongoing characteristics, such as high staff turnover, which leads to higher recruitment costs and training costs. Others may be temporary; for example, in our sample, LAs that have not yet fully implemented VF tend to have lower costs than others. Other factors may be ‘one-off hits’, for example the high costs associated with introducing new assessment software or a Document Image Processing System (DIPS), or the costs of changing payment arrangements associated with an Large Scale Voluntary Transfer (LSVT).
Appendix A
Generic process maps for new claims processing

Claim receipt

- Claim received
- Register claim on system
- DIPS used?
  - Yes
    - Copy originals of supporting documents
    - File claim and documents
  - No
    - On-site scanning?
      - Yes
        - Return originals of supporting documents to client
      - No
        - Copy originals of supporting documents
        - Send copies to scanning team
        - Scan claim and supporting documents
        - Supporting information 1
Supporting information and evidence 1 – passporting status and identity

From claim receipt → Check for existing claims in same name or at same address → Passed passported claim? → Yes: Check passported status → No: Supporting information 2

Details verified?

No → RAT: check for proof (repeat checks may be necessary)

Yes → Details verified?

No → Contact Benefits Agency and/or write to claimant

Yes → Contact Pensions Agency and/or write to claimant

Details verified?

No → Contact Pensions Agency and/or write to claimant

Yes → Proof of identity, NINO

Details verified?

No → Contact Pensions Agency and/or write to claimant

Yes → Details of household composition

Details verified?

No → Contact Pensions Agency and/or write to claimant

Yes → Claim includes HB claim

Yes → Supporting information 3

No → Determine claim

No → End process

Make claim defective
Supporting information and evidence 2 – standard claims identity, income and capital

Supporting information 1

Proof of identity, NINO

Details verified?

- Yes
  - Write to claimant
  - Details verified?
    - Yes
      - Details of household composition
    - No
      - Details verified?
        - Yes
          - Details of household composition
        - No
          - Write to claimant
  - No
    - Write to claimant

Details verified?

- Yes
  - Proof of income (including non-dependants) and capital
    - Details verified?
      - Yes
        - End process
      - No
        - Details of household composition
    - No
      - Details verified?
        - Yes
          - Details of household composition
        - No
          - Write to claimant
  - No
    - Write to claimant

Make claim defective

End process

Supporting information 3

Determine claim
Supporting information and evidence 3 – tenancy and rent details

Form supporting information 1 or 2

Tenancy type?

Check tenancy agreement and rent details

Details verified?

No

Write to claimant

Yes

Details verified?

Check for existing RO appraisal or pre-tenancy determination

Details verified?

No

Refer to Rent Officer

Yes

Check proof of ownership

Details verified?

No

Write to claimant and/or landlord

Yes

Determine claim

Details verified?

No

Make claim defective

End process
Determine claim

From supporting information 1 or 3

Claim includes CTB claim?

Yes

create claim, e.g. enter dates

Enter household composition including names, NINOs, DOBs

No

Passported claim?

Yes

Enter details of capital

Calculate CTB entitlement (software does this)

No

Claim includes CTB claim?

Yes

Enter details etc or pick-up from database

Check entitlement, review information entered if necessary

No

Calculate & enter income (claimant, partner & non-dependants)

Enter landlord details onto system

Check entitlement, review information entered if necessary

Tenancy

RSL or LA

PRS

PTD or RO appraisal?

Yes

Select appropriate indicative rent level*

Enter landlord details onto system

Yes

Enter payment details: payee, method, bank details if relevant

Calculate HB (and CTB if relevant) entitlement

No

Enter rent and allowance rent (if known) & any meals and services

End process

*Claim will be updated at a later date, when rent office referral has been actioned and returned.

Record actions taken, e.g. in ‘notebook’

Notify claimant

LA tenant?

Yes

Apply any rebate to CT a/c (automatic)

No

Notify claimant

Notify claimant

Appendices – Generic process maps for new claims processing
Appendix B
Generic process maps for Changes of Circumstances

Receipt of Change of Circumstances notification

- Change of circumstances reported
- DIPS used?
  - Yes: On-site scanning?
    - Yes
      - Return originals of supporting documents to client
      - Scan claim and supporting documents
      - Process Change of Circumstances
    - No
      - Copy originals of supporting documents
  - No
    - Copy originals of supporting documents
    - Return originals of supporting documents to client
      - Send copies to scanning team
      - File claim and documents
Determine information and evidence required.

Depending on information required:
- write to claimant
- write to landlord
- contact Benefits Agency
- contact Pensions Agency
- RAT enquiry

Details verified?

Yes → Update claim as required, eg:
- claim periods
- household composition
- income
- capital
- rent (or meal services)
- payment details

Yes → Calculate HB and/or CTB entitlement

No → Suspend claim if appropriate

No → Check entitlement, review information entered if necessary

Adjust any rebate to CT a/c (automatic)

LA tenant?

Yes → Adjust any rebate to Rent a/c

No → Check for overpayment

Overpayment?

Yes → Recoverable from ongoing benefit?

Yes → Set up recovery

No → Initiate overpayment recovery process

No → Notify claimant

Record actions taken, eg in notebook

End process
Appendix C
Estimates of national averages

The estimates presented here for estimates of national averages are based on direct costs, that is, the cost of staff time together with clearly identifiable other costs such as postage associated with making payments. These averages therefore exclude a number of cost items, including supplies and services and recharges for support services elsewhere within the Local Authorities (LA).

New Claims processing

As we have estimates for the number of New Claims (NC) processed for all LAs, we used a regression model of total cost of processing new claims against number of new claims processed. First, we adjusted the case study values to remove the effect of differing Assessor Hourly Rate (AHR). These values were then regressed against total number of NCs processed, with the resulting model used to predict total new claims processing costs for all LAs. The AHR correction was then reversed to produce estimates of actual costs, producing the total and per new claim cost shown in Table C.1. Note that as for Changes of Circumstances (CoC) processing, below, these costs exclude the cost of setting up and making payments, and the other workload areas noted in the Total of Workload Areas (TWA) analysis.

Changes of Circumstances

We do not have reliable estimates of the volumes of CoCs for LAs not in our case study sample. However, for our sample, the volumes of CoCs correlate well with caseload ($R^2=0.85$). The approach here was to use the regression model derived from our sample for volume of CoCs v caseload to predict the volumes of CoCs for other LAs.

Using our case study results, we adjusted the totals for CoC processing to remove the effect of differing AHR then regressed the adjusted totals against the volume of
CoCs. The resulting model was used to estimate the cost of CoC processing for all LAs, following which the AHR adjustment was reversed, to give the values shown in Table C.1.

**Table C.1 New Claims and Changes of Circumstances processing, per unit workload**

<table>
<thead>
<tr>
<th>Unit workload average</th>
<th>National Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New claims processing £30.30 per new claim processed £63M</td>
<td></td>
</tr>
<tr>
<td>CoC processing, per CoC £13.30 per CoC processed £142M</td>
<td></td>
</tr>
</tbody>
</table>

Other items

The items shown in Table C.2, do not correlate well with measures available for all LAs; this makes estimating a national average using a regression model problematic. Instead, the table shows descriptive statistics for the estimates obtained from our case study analyses.

**Table C.2 Case study averages, per unit workload**

<table>
<thead>
<tr>
<th>£</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review visits, per visit (1)</td>
<td>29.50</td>
<td>26.90</td>
<td>13.80</td>
<td>10.70</td>
<td>70.10</td>
</tr>
<tr>
<td>Postal reviews, per review (1)</td>
<td>9.80</td>
<td>6.70</td>
<td>7.80</td>
<td>2.90</td>
<td>27.90</td>
</tr>
<tr>
<td>Fraud per referral (2)</td>
<td>213</td>
<td>216</td>
<td>107</td>
<td>44.30</td>
<td>453</td>
</tr>
<tr>
<td>Fraud per investigation (2)</td>
<td>375</td>
<td>343</td>
<td>244</td>
<td>93.90</td>
<td>1,320</td>
</tr>
<tr>
<td>Fraud per sanction (2)</td>
<td>16,200</td>
<td>10,100</td>
<td>18,200</td>
<td>1,950</td>
<td>80,200</td>
</tr>
<tr>
<td>Payments and rebates, per payment</td>
<td>0.84</td>
<td>0.61</td>
<td>0.60</td>
<td>0.26</td>
<td>2.40</td>
</tr>
<tr>
<td>Appeals per appeal</td>
<td>1,000</td>
<td>550</td>
<td>1,100</td>
<td>94</td>
<td>4,800</td>
</tr>
<tr>
<td>Training per staff member</td>
<td>1,110</td>
<td>1,090</td>
<td>670</td>
<td>98</td>
<td>2,300</td>
</tr>
</tbody>
</table>

1 Excludes processing any changes of circumstances identified.
2 This is total costs of fraud related activities expressed per unit referral received, or per investigation completed, or per sanction. These lines are not additive but reflect alternative ways of expressing the cost of fraud-related activities on a ‘per unit workload’ basis.