Cabinet Office

Piloting Alternative Electoral Canvassing Models - Full Report

Using Randomised Controlled Trials to evaluate efficiency and effectiveness

Modern Registration Division
28 June 2018

Alternative format versions of this report are available on request from cg-analysis@cabinetoffice.gov.uk.

Acknowledgements

The authors would like to thank all twenty-four pilot sites for their hard work and enthusiasm as well as the information they provided to aid the evaluation. We appreciate the time taken to speak to the Cabinet Office on various occasions.

We are also grateful for the support provided to each pilot site by their Electoral Management System provider and we thank them for their contributions to this evaluation.

Thanks go to the Electoral Commission for their collaborative approach to the research design and evaluation, in particular to Phil Thompson, Davide Tiberti and Michelle Man.

The authors of this report and the underlying analysis are government social researchers and economists based in the Cabinet Office Constitution Group. If you have any queries in relation to this evaluation please contact cg-analysis@cabinetoffice.gov.uk.

Contents

Executive Summary

In 2016 and 2017, electoral administrators from twenty-four Local Authorities (LAs) and Valuation Joint Boards (VJBs), working alongside their Electoral Management Software (EMS) suppliers and the Modern Electoral Registration Programme, delivered pilots to test whether or not alternatives to the legislated annual canvass exist that are more efficient and at least as effective.

Four alternative canvassing models were tested using randomised controlled trials: the HNL model, the email model, the telephone model and the discernment model. Each LA or VJB completed the usual legislated canvass in the control group and their chosen alternative canvass model in the intervention group. By comparing the results of two approaches, delivered at the same time and in the same area, we can show that the difference in outcomes is driven by the alternative approach tested.

Through our analysis we found that while each model was successfully implemented, only the telephone and email canvass models were as effective as the legislated canvass at a lower cost. On average the telephone model cost an average 30% less than the usual canvass and the email model cost an average 22% less.

The HNL and discernment models made larger savings of 65% and 37% respectively but were not as effective as the legislated canvass. This can be largely attributed to the HNL being less effective in capturing the same volume of information as the usual canvass, and the quality of the data that routed households to the HNL as part of the discernment model.

The telephone and email models, when considered as end-to-end processes, most clearly met both primary policy objectives. However, there is equally important evidence that emerges from analysis of particular processes (or ‘steps’) within each model trialled.

We found there were benefits to the processes the discernment model introduced. Considering between 57% to 83% of households across the pilot sites reported that there had been no change to their household composition, it is significant that the discernment model, a data driven approach that targets resources to where changes are more likely, is effective and drives down costs.

Equally, through the email and discernment models, we found that using two emails alongside one posted HEF and a household visit was more effective than the usual canvass at capturing information about changes and also less expensive.

In 2016 there were twice as many additions to the register outside the canvass period as during the canvass, signalling that the canvass itself is becoming less important in registering eligible electors. Electors themselves can now register online in five minutes. While the legislated canvass implemented in each control group was used to assess each alternative model, EROs also emphasised their reservations about returning to the legislated canvass approach. A collective belief that the usual process is costly, repetitive and results in few positive outcomes reiterates clear support for modernisation attempts - and the canvass pilots evaluation process has set a robust evidence-base to inform this.

1. Context

1.1. The Issue

In 2014, Individual Electoral Registration (IER)[1] was introduced to replace the household registration system, where one person in every household was responsible for registering everyone who lives at that address. Under IER each person in a household is required to register to vote individually. They must also provide 'identifying information', such as their date of birth and national insurance number, to be added to the register.

The transition to IER has been very successful with over 96% of electors transferring to the new system[2]. Electors can now register online in under five minutes. Since June 10th 2014 there has been over 32 million applications to register to vote under IER, with 76% made online. However, EROs are still required to conduct a full household annual canvass. Under IER this now requires the household to complete a household form every year, as well for any individual who is not registered to complete an additional individual application form (or online application).

With the introduction of IER, registration processes have also become more expensive, with net costs increasing by an estimated £21 million per annum. This is a 30% increase compared with the previous household system. In addition, whilst the majority of households (an estimated 88%[3]) have not seen a change in household composition a response is required from every household. If they do not respond the ERO is required to send two reminders and carry out a household visit. The process is felt to be inefficient to those who are delivering the current canvass - with many EROs expressing the need for modernisation.

In this context - given the resource intensive nature of the task and the introduction of IER - the need arose to rethink the canvass process. To help inform implementation of a new annual canvass and to avoid any unintended negative consequences, Cabinet Office enabled electoral service teams to test innovative ideas with reduced risk to the completeness and accuracy of the electoral registers in aggregate, by piloting alternative approaches to the annual canvass in 2016 and 2017.

1.1.1. The Introduction of Individual Electoral Registration (IER)

Before the introduction of IER, the system of electoral registration in Great Britain was based on an annual household canvass, whereby each household is asked to provide a list of eligible electors at that address. An application for registration on a canvass form only required the name, address and nationality of each elector and a signed declaration by the person completing the form that those named are eligible to vote. Outside the annual canvass process a citizen could submit this information on a ‘rolling registration’ application form. Evidence of eligibility to vote was not required although an ERO could investigate where they had suspicions about the information recorded in an application.

Under IER, each person is now required to register to vote individually rather than by household, by providing 'identifying information' such as their date of birth and national insurance number. Each applicant has to be verified before they are added to the register.

---

[1] https://www.gov.uk/government/publications/about-individual-electoral-registration-ier

[2] https://www.gov.uk/government/news/completing-the-move-to-individual-electoral-registration

[3] Electoral Commission, The December 2015 electoral registers in Great Britain, July 2016 http://www.electoralcommission.org.uk/__data/assets/pdf_file/0005/213377/The-December-2015-electoral-registers-in-Great-Britain-REPORT.pdf

Anyone unable to supply this information can provide an alternative form of evidence of their identity.

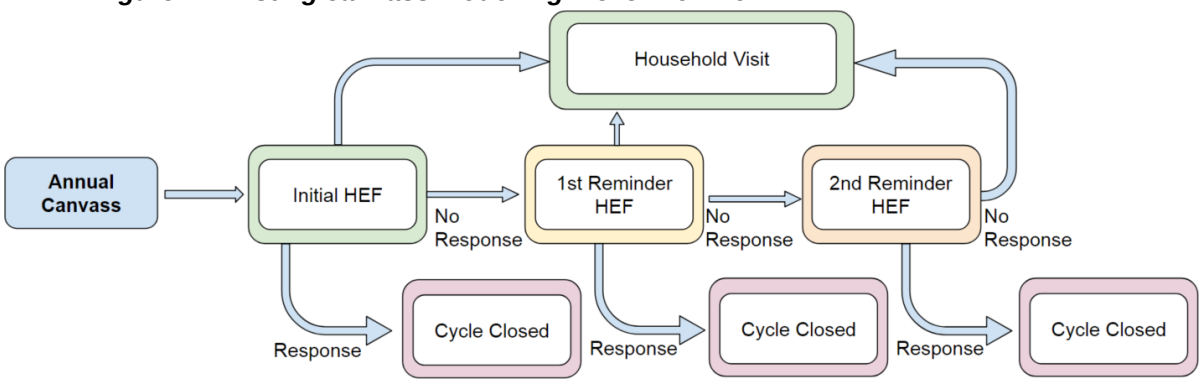
Under Section 9A of the Representation of the People Act 1983[4] (RPA 1983) an ERO has a duty to maintain the electoral register for their area. Despite the move to IER, an ERO's duties still include the requirement to conduct an annual canvass, usually between July and December, in order to identify everyone who is entitled to be registered.

1.1.2. Existing Canvass Model

As set out in law, EROs are required to undertake an annual canvass of all properties in their area by sending every household a postal Household Enquiry Form (HEF) which asks for a response, regardless of whether there has been a change in household composition.

They must follow up any non-responses with two reminders and carry out a household visit if required. The household visit can be conducted at any stage and any of the initial, first reminder and second reminder HEF steps can be combined with the household visit.

Figure 1: Existing canvass model high level workflow



This existing canvass model provides information on potential additions, changes, and deletions to the register. However, since the introduction of IER in 2014, further actions have to be taken for this information to convert to actual changes on the electoral registers. EROs must invite potential new electors to register, and verify their identity if they do, before they can be added to the register. In most cases during the canvass, two forms of evidence are required to remove electors from the register.

1.1.3. Issues with the Existing Canvass Model

The introduction of IER in 2014/15 created several new requirements for EROs in England, Scotland and Wales. This included a longer process for adding potential new electors individually, collecting evidence for removing those no longer eligible, and larger forms (from A4 to A3). As a result, the financial burden for LAs and VJBs increased. These additional costs - which come on top of the annual canvass (previously estimated at £60m per annum) - have been covered by funding from the Cabinet Office. In 2016/17, the net additional costs were approximately £21m.

[4] Representation of the People Act 1983
http://www.legislation.gov.uk/ukpga/1983/2

According to the Electoral Commission (EC)[5], the first full canvass conducted under IER in 2015 saw significantly lower response rates to the HEF (81%), compared to the old household canvass form (93%).

In July 2016, the EC published a full assessment of the accuracy and completeness of the registers in Great Britain and the transition to IER[6]. They reported that overall (from 10 June 2014 to 1 December 2015), the accuracy of the registers increased by an estimated four percentage points, whilst completeness remained largely stable with a statistically insignificant decline of less than 1 percentage point.

Qualitative feedback from EROs to the Electoral Commission[7] (EC) has indicated high levels of confusion from electors regarding the two-stage canvassing approach. Some electors believed by returning the HEF they were registering (as was the case under the old system), leading them to ignore the subsequent Invitation to Register (ITR), or vice versa. In both cases an ERO is legally required to chase up non-responses.

In addition, aided in particular by a new digital service, more than half of applications to register are made outside the canvass period. Some EROs have expressed frustration at the requirement for every household to respond to the canvass when only a small proportion of households change residents. This background indicates that IER has met its primary objective of boosting the quality of registers and reducing the risk of registration fraud, but increasing costs and reducing the efficiency of the canvass.

The existing legislated canvass process is regarded as inefficient and too focused on measuring success by outputs, such as forms sent. This stands in contrast to a key aim of the Modern Electoral Registration Programme (MERP) in Cabinet Office: for an outcome focussed electoral registration system. Therefore the electoral service teams in LAs/VJBs suggested that a priority for realising this goal should be reforming the annual canvass.

1.1.4. Research Need

A potential solution identified would be to give LAs/VJBs greater freedom in how they conduct the annual canvass processes, if they are able to prove this does not negatively impact the completeness and accuracy of their electoral register.

To determine whether or not this solution would be appropriate, and if so, to help inform implementation and avoid unintended negative consequences, Cabinet Office supported pilots in three LA areas in 2016 and twenty-four LA/VJB areas in 2017. This approach enabled electoral service teams to test innovative ideas with reduced risk to the completeness and accuracy of the electoral registers in aggregate.

[5] Electoral Commission, The December 2015 electoral registers in Great Britain, July 2016 http://www.electoralcommission.org.uk/__data/assets/pdf_file/0005/213377/The-December-2015-electoral-registers-in-Great-Britain-REPORT.pdf

[6] Electoral Commission, The December 2015 electoral registers in Great Britain, July 2016 http://www.electoralcommission.org.uk/__data/assets/pdf_file/0005/213377/The-December-2015-electoral-registers-in-Great-Britain-REPORT.pdf

[7] Electoral Commission, Assessment of December 2015 electoral registers, February 2016 https://www.electoralcommission.org.uk/__data/assets/pdf_file/0011/197516/IER-Assessment-December-2015-registers.pdf

Therefore research was needed to:

- Provide Parliament and other stakeholders with evidence of the effectiveness of proposed reforms to the statutory requirements of the annual canvass
- Validate anecdotal evidence that EROs should have the flexibility to choose the alternative approach that works for them
- Inform policy decisions and provide considerations for implementation of changes to canvass legislation where appropriate

In doing so we aim to build a strong base of evidence that alternative viable processes to the usual canvass exist and how these can be delivered across different LA/VJB types.

1.1.5. 2016 Pilots

Before the larger round of pilots in 2017, randomised controlled trials were first delivered in three LA areas through pilots in 2016. The HNL model was piloted in Ryedale and the discernment model was piloted in Birmingham and South Lakeland. The alternative canvass models piloted in 2016 are outlined in Annex B.

The findings and lessons learnt from the 2016 pilots informed the larger wave of pilots delivered in 2017. These type of pilots had not been delivered before, and the initial round shaped the delivery and project management of the second round in 2017.

In particular, the Cabinet Office modified some elements of the alternative canvass models to maximise success, such as including more postal contact attempts before carrying out a household visit. There were also suggestions on extending the planning time for the pilots, and improving the frequency and style of communications, that were implemented for the 2017 pilots.

1.2. Report Overview

The next section introduces the overall aims and objectives of the pilots, and our research questions. This is followed by a section on the delivery of the pilots, that details the alternatives tested and areas involved in the pilots. The subsequent three sections present the evaluation and methodology design, our findings by each model piloted, and our conclusions.

2. Policy and Research Objectives

2.1. Aims

The aim for the canvass pilots was to explore whether or not a flexibility of canvass legislation is viable, such that EROs can obtain the same or greater volume and quality of information through an alternative canvass for a lower cost, by testing the case in twenty-four[8] LAs/VJBs. We also set out to get an understanding of how particular elements of proposed canvass alternatives contribute to the overall outcomes, and to assess any other costs and benefits of the policy.

2.2. Policy Primary Objectives[9]

With the above aims considered the agreed policy primary objectives for the pilots were:

A. That the monetary cost of conducting the alternative canvass activity is lower than the usual canvass, and could therefore reduce the costs of electoral registration.

Measured by comparing the estimated total cost of conducting the usual canvass to the estimated total cost of conducting the alternative (to include all printing, postage, processing, face-to-face visits or other staff time).

B. That the volume and quality of the information supplied to EROs as a result of the alternative canvass activity was the same or higher than the usual canvass.

Volume of information measured by: comparing the estimated total volume of information gathered through conducting the usual canvass to the estimated total volume of information gathered through conducting the alternative canvass.

Quality of information measured by: comparing the estimated total number of conversions (actual changes on the register) occurring from information gathered from conducting the usual canvass, to the estimated total number of conversions from information gathered through conducting the alternative canvass.

2.3. Policy Sub-Objectives

We will also identify any additional costs and benefits of the policy change. We believe there may be a number of other benefits which could be derived from the pilots and have set a number of policy sub-objectives to explore these.

[8] Even though twenty-four authorities took part in the pilots, for the purpose of the evaluation South Oxfordshire and Vale of White Horse were considered as a single Local Authority, as the authorities jointly run the legislated canvass in their areas. As a result, we only evaluated twenty-three authorities.

[9] EROs gather information through the canvass that they ultimately use to either invite potential electors to register or use the HEF form as one form of evidence (and, if necessary, seek a second) to support a deletion, and thus improve the completeness and accuracy of the register. Given the canvass process is not a registration exercise itself and is instead focused on gathering information for EROs about population churn, we do not think it appropriate to have objectives for adding or removing electors. We use addition and deletion conversion rates only to assess the quality of information gathered.

The agreed policy sub-objectives for the pilots were:

I. **Improves usability of the ERO's chosen methods of contact with households**
Measurement: Volume and substance of complaints related to the process received by ERO

II. **Reduces time taken to gather information**
Measurement: Duration of 2016 and 2017 canvass activity in pilot areas compared to baseline

III. **Increases the volume of actual registrations and deletions arising from the canvass or alternative**
Measurement: Number of additions and deletions

IV. **Increases ERO satisfaction with the piloted canvass process**
Measurement: Self-reported satisfaction level

2.4. Research Objective

Considering the overall aims and the policy objectives outlined above, our primary research objective was:

To assess whether or not alternative approaches to canvassing could result in the same or a greater volume and quality of information at a lower cost, compared to the process prescribed in legislation.

2.5. Research Questions

Based on the research objective, the research questions were:

1. **Do more efficient and at least as effective alternatives to the legislated canvass exist and, if so, can they be successfully implemented?**
2. **What impact, if any, did the various elements of the alternative canvass have on the quality and quantity of information collected, and on the cost of the canvass?**
3. **What, if any, are the other important costs or benefits to the alternative approach?**

To answer the three key overarching research questions, we planned to collect information to address the following:

a. Did EROs receive a greater volume of information from the existing or alternative canvass?
b. Did EROs receive a greater quality of information from the existing or alternative canvass?
c. Does the existing or alternative canvass cost the least?
d. Which step(s) in the new process was most effective and efficient, and why?
e. Does the existing or alternative canvass result in the greatest volume of actual registrations and deletions, and why?
f. Do EROs prefer the existing or alternative canvass, and why?

3. Delivery

3.1. Legislative Requirements

Section 9 of the Electoral Registration and Administration Act 2013[10] allows the creation of statutory instruments to enable the piloting of schemes relating to the conduct of the annual canvass.

To support the 2016 pilots, a statutory instrument[11] naming three local authority areas was made on 12 July 2016. The Order extended to England and Wales and EROs were required to complete their pilot activity by 2nd February 2017[12]. To support the 2017 pilots for the named three local authority areas, the Order[13] was amended to extend the piloting period for a further year.

Two further statutory instruments[14][15] to support the 2017 pilots were made on 26th April 2017 and named an additional twenty-one LAs/VJBs. The Orders extended to England, Wales, and Scotland. EROs were required to complete their pilot activity by 2nd February 2018.

The EC is required, under the section 9 provision, to complete a report evaluating the pilot scheme by 29th June 2018.

3.2. Local Authority Areas

For the 2016 pilots, three LAs piloted two different alternative canvass models. The first alternative canvass was proposed by Ryedale and was run in just this area. The second was proposed by Birmingham and a similar canvass was adopted and run in South Lakeland. Annex B contains the 2016 alternative canvass models.

The Cabinet Office took forward an additional twenty-one schemes in partnership with the participating LAs/VJBs named in the 2017 pilot orders. These were:

- Barrow-in-Furness
- Bath & North East Somerset
- Blaenau Gwent
- Camden
- Coventry
- Derbyshire Dales
- Dumfries & Galloway
- East Devon
- City of Glasgow
- Hounslow
- Luton
- Newcastle Upon Tyne
- Salford
- South Holland
- South Norfolk
- South Oxfordshire
- Sunderland
- Torfaen
- Vale of White Horse
- Wakefield
- Woking

[10] Electoral Registration and Administration Act 2013
http://www.legislation.gov.uk/ukpga/2013/6/contents/enacted
[11] The Electoral Registration Pilot Scheme (England) Order 2016
https://www.legislation.gov.uk/uksi/2016/739/contents/made
[12] A revised register of electors must be published by 1st December each year. The pilot orders extended this to the 2nd February in case any LA or VJB involved in piloting had a by-election during the canvass, and consequently delayed the publication of their register. If they delayed publication of the register they then had until 1st February to publish a revised register.
[13] The Electoral Registration Pilot Scheme (England) (Amendment) Order 2017
http://www.legislation.gov.uk/uksi/2017/606/made
[14] The Electoral Registration Pilot Scheme (England and Wales) Order 2017
https://www.legislation.gov.uk/uksi/2017/610/contents/made
[15] The Electoral Registration Pilot Scheme (Scotland) Order 2017
http://www.legislation.gov.uk/uksi/2017/605/made

The additional twenty-one pilot areas were selected through a rigorous selection process as detailed in section 3.3 below.

Section 3.5 details the four alternative canvass processes that were piloted in these areas.

3.3. Selection Process

The three pilot areas in 2016 were self-selecting. While there would be benefits to random selection this was not practicable for this initial efficacy study.

The selection process for the 2017 pilots began in 2016. LAs/VJBs that were interested in participating were invited to submit detailed business cases regarding a potential alternative approach they would like to pilot. These ERO-led ideas were used to develop five alternative canvass models, and following detailed feedback[16], four options were decided to be taken forward for piloting.

A full briefing pack was sent to all EROs across Great Britain on 30 August 2016 which confirmed the approach to piloting and set out how they could apply to participate. Cabinet Office received 71 applications, and these were placed into a template that was populated with data on the characteristics under consideration. Annex A contains further detail on the selection process conducted and the rationale for each criteria.

Given the applications submitted, it was not possible to achieve a perfectly even spread across all key characteristics. We believe that the twenty-four chosen areas met the selection criteria best given the constraints presented by the applications. We believe that the selection process was conducted in a fair and analytical manner in accordance with our pre-approved decision criteria.

3.4. Delivery Partners

The key delivery partners for these pilots were the electoral service team in each LA/VJB and the Electoral Management System (EMS) supplier teams. All three pilot authorities in 2016 used a single EMS supplier, and 2017 pilot authorities used a mixture of five EMS suppliers.

3.4.1. EMS Supplier Delivery

EMS suppliers developed the functionality for EROs to administer the pilots. Detailed technical specifications were issued to the suppliers to allow for the administration, and data collection, of the pilot schemes. In response they delivered functionality that enabled the ERO to:

- exclude certain properties from the canvass, and therefore the trial
- randomly assigned all canvass households to an intervention or control group
- channel households through the correct workflow based on the random assignment
- generate a report containing detailed data on outcomes for intervention and control properties

The suppliers provided electoral service teams in the pilot authorities with training and ongoing support.

[16] The five models were subjected to intense scrutiny by electoral administrators and EROs, the EC, the Association of Electoral Administrators (AEA), and Scottish Assessors' Association (SAA).

3.4.2. ERO Delivery

EROs were provided with the software needed to enable the start of the canvass for piloting by EMS suppliers. The electoral service teams worked through the appropriate workflow for each household, before publishing their registers on 1 December 2017.

While EMS functionality allowed automated reporting on outcomes, we were reliant on the electoral service teams to record key data relating to the monetary and resource costs of administering the legislated and alternative canvass processes.

3.4.3. Cabinet Office

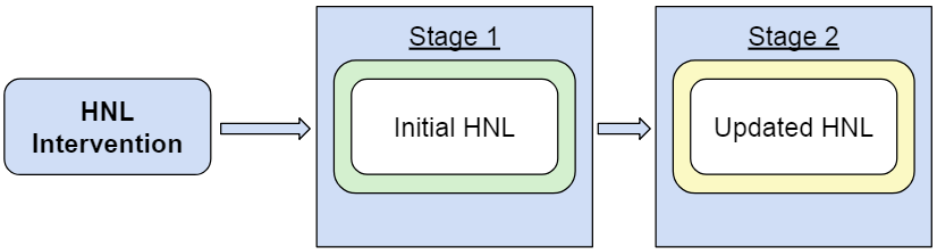
The Cabinet Office helped with the set-up and running of the pilots, and recorded the EROs experience of managing the pilots qualitatively to help obtain evidence for the pilot research objectives.

3.5. 2017 Alternative Canvass Models

3.5.1. Household Notification Letter (HNL) Canvass[17]

A HNL, issued by post, listed the details of everyone registered to vote in that household. It was sent to all addresses in the intervention group and required the household to respond only if there had been a change to the details listed. If there was no response to the HNL but a new registration was received at the property, or the ERO obtained sufficient evidence to remove an elector, the household received a second HNL, showing the updated details of electors in the household and reminding the household to inform the ERO of any further changes. If there were no changes to the details given in the HNL, no response was required.

Figure 2: HNL canvass model high level workflow



3.5.2. Email Canvass[18]

While the control group followed the usual canvass, households assigned to the intervention group were routed to one of two canvass cycles depending on whether an email address was held for the household or not.

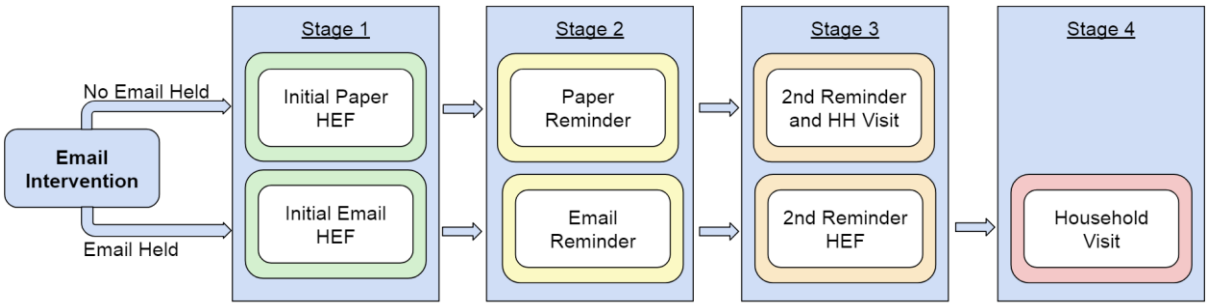
Route 1: Where an email address was held against either an individual over the age of 18 or the household, that household was issued an initial email containing a link to an online HEF. If there was no response to the initial email, the household was sent a reminder email. If there was no response to the reminder email, the household was posted a paper HEF. This could have contained a link to an online HEF, an option to respond via text or by phone and/or an option to reply by post using a pre-paid envelope (at the discretion of the LA/VJB).

[17] The HNL canvass was piloted by Barrow, Blaenau Gwent, East Devon, Newcastle, Ryedale, South Holland, South Norfolk, Torfaen, and Wakefield.
[18] The email canvass was piloted by Bath & North East Somerset, Coventry, Derbyshire Dales, Hounslow, and Woking.

If there was no response to the first reminder paper HEF, the household was visited by a canvasser. If there was no response at this stage, the chasing cycle was closed.

Route 2: Where no email address was held against individuals over the age of 18 or the household, that household was issued an initial paper HEF and followed a similar process to the legislated canvass. Each HEF could have contained a link to an online HEF, an option to respond via text or by phone and/or an option to reply by post using a pre-paid envelope (at the discretion of the LA/VJB). If there was no response to the initial paper HEF, the household was posted a reminder paper HEF. If there was no response to the reminder paper HEF, the household was visited by a canvasser where the second reminder HEF was delivered if there was no response. If there was no response at this stage, the chasing cycle was closed.

Figure 3: Email canvass model high level workflow



3.5.3. Discernment Canvass[19]

Initial data matching[20], against locally held data sets, routed households to one of two canvass cycles. The data matching was undertaken at the ERO's discretion, enabling them to set their matching algorithms, choose what data they thought should be matched against and the final threshold match rate, for the property to be forwarded to either route 1 or route 2.

Route 1: Where the ERO believed the data did not indicate a change in the electors at a given residence, a HNL was sent in the post. It then followed the same route as the HNL model (detailed at 3.5.1).

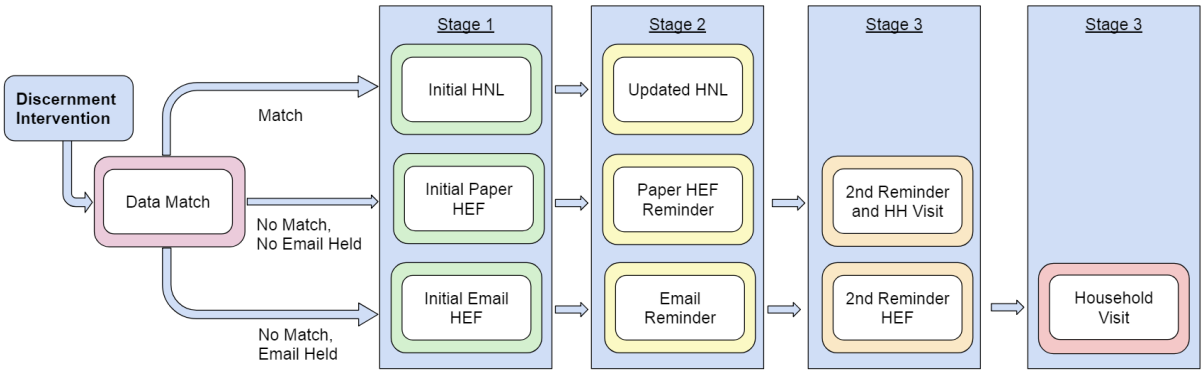
Route 2: Where the ERO could not confirm that the electors registered at a given residence still resided there, that household would be allocated to one of two more intensive canvasses:

> *Route 2a*: Where no email address was held against individuals over the age of 18 or the household, that household was issued an initial paper HEF. This followed the same process as described in route 2 email model (detailed at 3.5.2).
>
> *Route 2b*: Where an email address was held against either an individual over the age of 18 or the household, that household was issued an initial email containing a link to an online canvass form. This followed the same process as described in route 1 email model (detailed at 3.5.2).

[19] The discernment canvass was piloted by Birmingham, Camden, Glasgow, Salford, South Lakeland, and Sunderland.

[20] There was no strict matching threshold for the 2017 pilots, and the threshold was set individually by each piloting authority, ranging from 66% to 100%.

Figure 4: Discernment canvass model high level workflow



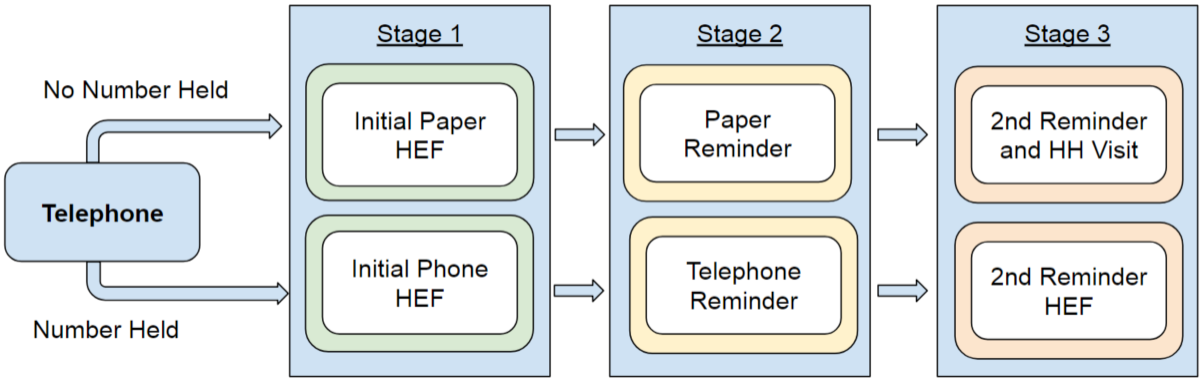
3.5.4. Telephone Canvass[21]

While the control group followed the usual canvass, households assigned to the intervention group were routed to one of two canvass cycles depending on whether a telephone number for the household was held.

Route 1: Where a telephone number was held against an individual over the age of 18 or the household, that household was issued an initial paper HEF, containing a link to an online canvass form and/or with an option to reply by post using a pre-paid envelope (at the discretion of the LA/VJB). If there was no response to the initial paper HEF, the household received a telephone call. If there was no response to the telephone call, the household was issued a reminder paper HEF. If there was no response at this stage, the chasing cycle was closed.

Route 2: Where no telephone number was held against individuals over the age of 18 or the household, that household was issued an initial paper HEF, containing a link to an online canvass form and/or with an option to reply by post using a pre-paid envelope (at the discretion of the LA/VJB). If there was no response to the initial paper HEF, the household was posted a reminder paper HEF. If there was no response to the reminder paper HEF, the household was visited by canvassers. If there was no response at this stage, the chasing cycle was closed.

Figure 5: Telephone canvass model high level workflow



[21] The telephone canvass was piloted by Dumfries and Galloway, Luton, and South Oxfordshire and the Vale of White Horse.

4. Research Approach

When designing the initial pilot, Cabinet Office and the EC decided to use randomised controlled trials (RCTs) with intervention and control groups in all twenty-four LAs/VJBs.

We decided to conduct a process evaluation[22] as the overarching framework for evaluating the pilots, to help understand how local areas and EROs would respond and implement alternative canvass processes if they were rolled out nationally.

4.1. Research Methodology: Randomised Controlled Trials (RCTs)

In order to get the most robust evidence possible we undertook RCTs in each LA/VJB, with a 'control group' completing the existing legislated canvass and an 'intervention group' completing a new, alternative canvass model.

Households were randomly assigned to the control and intervention groups by a computer generated randomisation. In theory this ensures that known and unknown characteristics, that could affect the outcome of the pilot, are evenly distributed across the two groups.

In addition a small number of properties with unique characteristics, for example houses in multiple occupation (HMOs) or nursing homes, were excluded from the randomisation at the EROs discretion. These households, and any added after the randomisation was complete, do not contribute to the research findings[23].

As households are randomly assigned we assume there are no systematic differences between the two groups. We can therefore compare the monetary cost and the volume and quality of information resulting from the two approaches to canvassing and attribute the difference solely to the alternative approach tested. This allowed us to evaluate the pilots against our policy and research objectives.

The randomisation was also completed immediately before canvass activities (including data matching and printing) commenced. Aside from households excluded prior to the randomisation or households added during the canvass, there was a very low risk that any households in an authority were not included.

Annex C contains further detail on the rationale for using RCTs.

4.1.1. Randomisation Process

For the 2017 pilots we wanted to ensure that there was an adequate number of households in both control and intervention groups. We identified the minimum number of households required for the pilot sample to ensure there was a representative sample across all areas, and to ensure that any statistically significant differences could be identified.

Following this, all households were subject to the randomisation process that assigned a set proportion of households to the control and intervention groups. The sample sizes set for each LA/VJB can be found in Annex C and ranged from 15% to 50% .

4.2. Data Sources

We used a number of evidence sources in our evaluation of the pilots' success. These included:

[22] It should be noted that the process evaluation is not intended to be a technical evaluation of the EMS infrastructure as it was not built for the purpose of a national model.

[23] Student halls of residence, care homes, and nursing homes were excluded from the randomisation process. Electors not tied to a UK address are also naturally excluded from these trials as they do not form part of the annual canvass.

- Electoral Management System (EMS) Management Information (MI) data
- ERO interviews
- LA/VJB post-pilot surveys
- EMS supplier post-pilot surveys
- Household visit data
- Manual cost data
- User journey
- Focus group (2017 pilots only)

Annex D provides further detail on the data sources used during the pilots.

4.3. MI Analysis Approach

One of the two primary policy objectives is that the volume and quality of the information supplied to EROs as a result of the alternative canvass activity was the same or higher than the usual canvass. Our analysis therefore primarily looked at the volume and quality of information gathered.

We compared the volume of information gathered through the existing canvass to the volume of information gathered through the alternative canvass, by comparing the 'change response rate':

- **Change Response Rate:** Of all households contacted the percentage that provided a 'change' response at any stage of the canvass, where a change response was one indicating that an existing elector should be removed or a new elector should be added to the register[24].

We compared the quality of information gathered through the existing canvass to the quality of information gathered through the alternative canvass, by comparing 'addition conversion rates' and 'deletion conversion rates':

- **Addition Conversion Rate:** Of all individuals identified as potential new electors on a canvass response, the percentage that were subsequently added to a monthly update or the register[25] published during, or at the end of, the canvass.
- **Deletion Conversion Rate:** Of all existing electors identified as no longer eligible on a canvass response, the percentage that were subsequently removed from a monthly update or the register published during, or at the end of, the canvass.

If our random assignment of households to intervention and control groups resulted in comparable populations between the two groups, and if the alternative canvass was equally as effective as the existing canvass at gathering information, we would expect change response rates, addition conversion rates and deletion conversion rates to be the same for each group.

In addition we also looked at the overall volume of additions and deletions to the register, and the effectiveness of new canvass stages (such as the email step).

4.4. Benefits and Limitations of Research Approach

4.4.1. Randomised Controlled Trials

RCTs are resource-intensive and take time to design and deliver, and Cabinet Office committed to supporting EROs in this. However, the proposed canvass alternatives, which

[24] The metric did not include minor changes such as an elector indicating they would like to change their opt out preference.

[25] This includes electors where the ERO was satisfied they should be added to the register but where they reached this decision after the five day objection period ahead of register publication had already commenced. These electors would not be added until the next monthly update.

were delivered across the majority of households, should offer savings on the usual canvass which we hope will offset the resources required for piloting. The potential for long-term savings should not be ignored. Even if elements of this approach are more expensive, the cost of not piloting and continuing with the current canvass could ultimately be more costly.

The experience and outcomes of delivering a RCT may not fully reflect the outcomes of a full national roll out of an alternative canvass, where EROs only have to deliver one canvass, instead of both a control and intervention canvass alongside participation in additional research. For this reason it is possible our findings could underestimate or overestimate the effects of each model. However, through a range of research approaches, we have explored the issue of national roll out and 'scaling-up' of the alternative canvass processes with both EMS suppliers and EROs, to try and better understand the feasibility of moving towards an alternative canvass model long-term.

4.4.2. Data Sources

As outlined in section 4.2, we used a number of different data sources to evaluate the success of the pilot and to address the research objective. Our analysis of MI and manual cost data was supplemented with different qualitative and quantitative research approaches.

A key source of data was the EMS MI, which provided data to address the research questions. We were able to analyse this quantitative data for statistical significance, to make robust conclusions when comparing outcomes across the control and intervention groups.

Our analysis looked specifically at the change response rates, addition conversion rates and deletion conversion rates in each LA/VJB's intervention and control groups. While we feel these are the best measures with which to assess the volume and quality of information, we also acknowledge that they can be influenced by the EROs local processes. For example, electors identified through the canvass as no longer being eligible can be put into the review process where they would be deleted after fourteen calendar days if they do not request a hearing. An ERO who follows this process consistently will likely have a near 100% deletion conversion rate, despite the quality of information. Other EROs who follow the summary removal process, requiring two forms of information to complete the deletion may equally have a lower deletion conversion rate, again despite the quality of information gathered. To assess the effectiveness of each model we compare each authorities' intervention group to their control group, where local processes are identical, rather than across pilot sites where they may differ.

While the EMS MI captured the majority of outcomes data, there was a slight limitation with information for activities that took place outside of the software. For example, we had to assume that a property listed as due a household visit actually received this visit, and that a response which followed was prompted by the visit, rather than a paper reminder delivered at the same time or earlier. Therefore we also collected household visit data, via a form for canvassers, who could record what happened during household visits. This data supplemented and helped ratify the EMS MI.

Another key source of data were cost data forms, which were used to compare the cost of the control and intervention models. The Cabinet Office provided standardised forms for EROs to record all of the costs incurred throughout the pilot, separated into control and intervention groups. These costs were often difficult to apportion accurately between control and intervention as several expenses were incurred for items that were used for both control and intervention households. Similarly, it is particularly difficult to estimate with accuracy the

proportion of staff time spent implementing the canvass for the control and intervention households.

To mitigate against this, we have utilised volume data from the EMS MI, and combined this with information from the cost data forms. We asked EROs to record batches of orders to calculate unit costs for items such as HNLs and HEFs, and scaled this up using volume data for both groups to isolate the costs of running the control and intervention canvasses. To calculate staff costs, we collected salary data from each LA, and asked EROs to record the average length of time to complete various processes. We combined this information with MI data to calculate the required staff time and subsequent cost for the control and intervention canvasses.

It should be noted that these costs are self-reported. While we produced extensive guidance to achieve consistency in the way these costs were reported, we have not verified the accuracy of the data provided against financial records.

Furthermore, there was a potential discrepancy in costs between control and intervention groups: most LAs had households that were not placed in either the control or treatment group. These households were often all treated in the same way as either the control or the treatment group. As a result, it is plausible that some orders for one group or the other (for example, bulk orders for printing and postage) may have been subject to a discount, relative to the smaller control/intervention group, due to the size of the order. We have made no attempt to adjust our cost data for this, though we expect these discrepancies to be relatively insignificant.

We supplemented the EMS MI and cost data with qualitative research, such as interviews, surveys, and a focus group. The in-flight interviews and focus group used semi-structured topic guides, which included a list of topics to cover that would help address the key research questions and objectives. The semi-structured nature of the sessions meant that LA/VJB staff were given flexibility to expand on topics they felt were important, allowing us to gain greater insights into individual experience and how the pilots were delivered within different authorities.

Qualitative research is criticised for being subjective and open to biases during the analysis of data. To overcome this limitation to some extent, we shared our initial analysis with EROs to allow them to feedback on the findings and conclusions that had been drawn.

Although the limitations outlined above were taken into consideration when conducting the research, there was clear rationale and advantages to the approaches taken. The combination of the different research methods also improved understanding as a variety of sources could be taken into account when reporting the key findings.

4.5. Ethical Considerations

The pilot orders were supported by an Equality Impact Assessment and Privacy Impact Assessment. EROs were asked to conduct their own internal assessments.

Criticisms of RCTs tend to focus on the perception of unfair intervention of one set of people. However, in the absence of robust evidence, we cannot say for certain that either approach (control or intervention canvass) is better, hence the need to test this. Furthermore without this evidence, it is unlikely to be possible to change the legislation around the canvass, meaning that no one would be able to benefit from a policy change even if alternatives are truly better than the current canvass.

When conducting the supplementary research, ethical and data issues were considered. For example, informed consent was obtained from each participant who took part in an interview or focus group prior to recording. When conducting survey and interview research and supplying cost data, EROs were first made aware of what their data would be used for and who it would be shared with. We also informed EROs that all data would be anonymised and not used in a manner that would allow identification of individuals.

All research participation was optional and EROs could withdraw their consent at any point during the process.

5. Findings

5.1. Summary of Findings

Overall we found that **two of the four** alternative canvass models, the email and the telephone models, captured the **same volume of information**, and **all** alternative canvass models captured the **same quality of information**, when compared to the legislated canvass. By capturing a **lower volume of information**, the HNL and discernment models also captured **fewer actual additions and deletions**.

All pilot models produced **cost savings** when compared to the legislated canvass. These savings ranged from 65.3% for the HNL model to 22% for the email model. The savings were attributable to **lower staff processing costs** (saving an average of 59%) and **less printing and postage** (saving an average of 40%) when compared to the legislated canvass. Finally, there was a **100% saving** on **household visits** for the **HNL model**, given that this step was removed. However, for the other pilot models, the **cost of household visits fell** by an average of 36%.

Through qualitative evidence, staff in all piloting authorities experienced considerably **less pressure** under the alternative canvass models, and emphasised **significant cost savings in printing, postage, and staff time**. It was apparent that there is no interest in returning to the legislated canvass, viewed by EROs as a repetitive process and a **backward step from modernisation attempts** such as encouraging electors to use emails instead of paper forms.

The below sections outline each of the models piloted, and give an overview of key findings followed by detailed analysis of the extent to which the models met policy objectives[26].

5.2. Interpreting Findings

As discussed in section 4.3, if our random assignment of households to intervention and control groups resulted in comparable populations between the two groups, and if the alternative canvass was equally as effective as the existing canvass at gathering information, we would expect change response rates, addition conversion rates and deletion conversion rates to be the same for each group.

- **Change Response Rate:** Of all households contacted the percentage that provided a ‘change’ response at any stage of the canvass, where a change response was one indicating that an existing elector should be removed or a new elector should be added to the register[27].
- **Addition Conversion Rate:** Of all individuals identified as potential new electors on a canvass response, the percentage that were subsequently added to a monthly update or the register[28] published during, or at the end of, the canvass.
- **Deletion Conversion Rate:** Of all existing electors identified as no longer eligible on a canvass response, the percentage that were subsequently removed from a monthly update or the register published during, or at the end of, the canvass

When comparing the results from the control and intervention groups we have noted where

[26] Unless otherwise stated, all averages referred to represent the arithmetic mean of averages.
[27] The metric did not include minor changes such as an elector indicating they would like to change their opt out preference.
[28] This includes electors where the ERO was satisfied they should be added to the register but where they reached this decision after the five day objection period ahead of register publication had already commenced. These electors would not be added until the next monthly update.

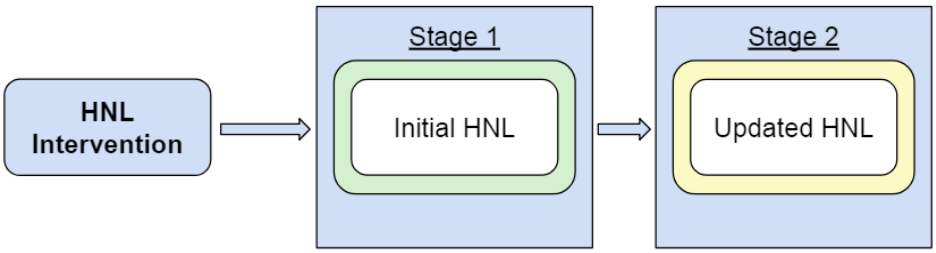
the difference is statistically significant**.** A result is said to be statistically significant if it is likely not caused by random chance but is instead more likely to be attributable to differences between the control and alternative canvass models. We tested for statistical significance where $p < 0.05$.

Where a result is not statistically significant we cannot be certain that the difference was not caused by chance.

5.3. HNL Model

The HNL model was piloted by Barrow, Blaenau Gwent, East Devon, Newcastle, Ryedale, South Holland, South Norfolk, Torfaen, and Wakefield. The model diagram is shown below.

Figure 6: HNL canvass model high level workflow



Key Findings

- A statistically significantly lower volume of information was captured in the intervention group compared to the control group. The difference ranged between 4% and 11%.
- Considering how much of the information captured was converted to additions and deletions, the HNL model captured either better or equal quality of information compared to the usual canvass. This varied by LA.
- However, the lower volume of information captured resulted in a lower level of actual additions and deletions when compared to the control group.
- The cost per household for the HNL model fell by 65%, the largest of all models.
- On average, costs fell from £1.48 per household, for the control canvass, to £0.47 for the HNL canvass.
- On average, the HNL model achieved the largest savings in print and post, processing and canvassing costs.
- The HNL model was viewed by EROs as easy to deliver, and generating significant savings in time, money, and resources.
- There was a mixed response from EROs over the impact that the HNL could have had on the accuracy and completeness of the electoral register, and there were some concerns about the HNL not capturing all household composition changes.

5.3.1. Volume of Information

As Table 1 shows below, the HNL model captured a lower proportion of change responses compared to the legislated canvass delivered in the control group. If the HNL model was as effective as the usual canvass we would expect the change response rates to be the same. This suggests that the HNL model is not as effective at capturing information about changes in household composition as the legislated canvass.

The differences were large and statistically significant in each pilot site and particularly pronounced in Newcastle, where the legislated canvass captured more than four times as many changes as the HNL model. The final column in Table 1 below highlights the large differences between the level of changes captured between the control and intervention groups.

Table 1 - Percentage of change responses captured in the control and intervention groups under the HNL model

Local Authority	Control Group	Intervention Group	Difference in % change response rate between the Intervention and Control Groups
	Change Response Rate	Change Response Rate	
Barrow	6.6%	2.6%	-4*
Blaenau Gwent	13.9%	3.5%	-10.4*
East Devon	10.6%	5.6%	-4.9*
Newcastle	12.3%	2.7%	-9.6*
Ryedale	16%	5%	-11*
South Holland	7.9%	3.6%	-4.3*
South Norfolk	10.2%	5.1%	-5.1*
Torfaen	9.4%	4.2%	-5.3*
Wakefield	16%	4.8%	-11.2*

**denotes where difference is statistically significant*

5.3.2. Quality of Information

Measured by the proportion of changes that are then converted to additions and deletions to the register, the quality of information gathered in the control and intervention groups is much more comparable than the volume of information discussed above.

In some LAs, the HNL model appears to gather higher quality information compared to the usual canvass implemented in the control group. However, since the HNL model also captured a lower volume of change, the addition and deletion conversion rates may be higher in the intervention group simply because there was less change to process. With a lower volume of change to action, the ERO has more time to focus on the addition and deletions processes, and in this way the HNL model may just appear to have captured a higher quality of information in some areas when actually there is no real difference.

As shown in Table 2 and Table 3 below, the addition conversion rate and deletion conversion rate are the same or better in the intervention group.

In Barrow, 100% of new electors identified through the HNL model were added to the register, and in Wakefield 100% of electors identified through the canvass as no longer eligible were removed.

In other areas the HNL model was at least as effective as the legislated canvass - for example in Ryedale where the small differences between the control and intervention groups were not statistically significant.

The only instance where the control group outperformed the intervention group was in Torfaen, where the addition conversion rate was ten percentage points lower for the HNL canvass.

Table 2 - Total additions to the register and percentage of change responses converted into additions to the register under the HNL model

Local Authority	Control Group		Intervention Group	
	Total Additions	Addition Conversion Rate	Total Additions	Addition Conversion Rate
Barrow	424	52%	222	100%*
Blaenau Gwent	494	30%	367	81%*
East Devon	825	61%	535	65%
Newcastle	1916	49%	843	51%
Ryedale	798	43%	472	73%*
South Holland	759	55%	474	62%*
South Norfolk	954	50%	686	50%
Torfaen	671	29%	421	19%*
Wakefield	2289	38%	1172	83%*

**denotes where difference is statistically significant*

Table 3 - Total deletions to the register and percentage of change responses converted into deletions to the register under the HNL model

Local Authority	Control Group		Intervention Group	
	Total Deletions	Deletion Conversion Rate	Total Deletions	Deletion Conversion Rate
Barrow	560	87%	345	100%*
Blaenau Gwent	1093	99%	639	97%*
East Devon	924	87%	738	84%
Newcastle	2228	100%	1068	97%*
Ryedale	1217	100%	691	100%
South Holland	488	63%	418	59%
South Norfolk	1075	95%	849	90%*
Torfaen	1091	100%	728	100%
Wakefield	2269	98%	1865	94%*

**denotes where difference is statistically significant*

However, the overall number of additions and deletions was consistently lower in the intervention group. For example, in Barrow, although 100% of changes were converted to additions in the intervention group, there were over half as many changes to household

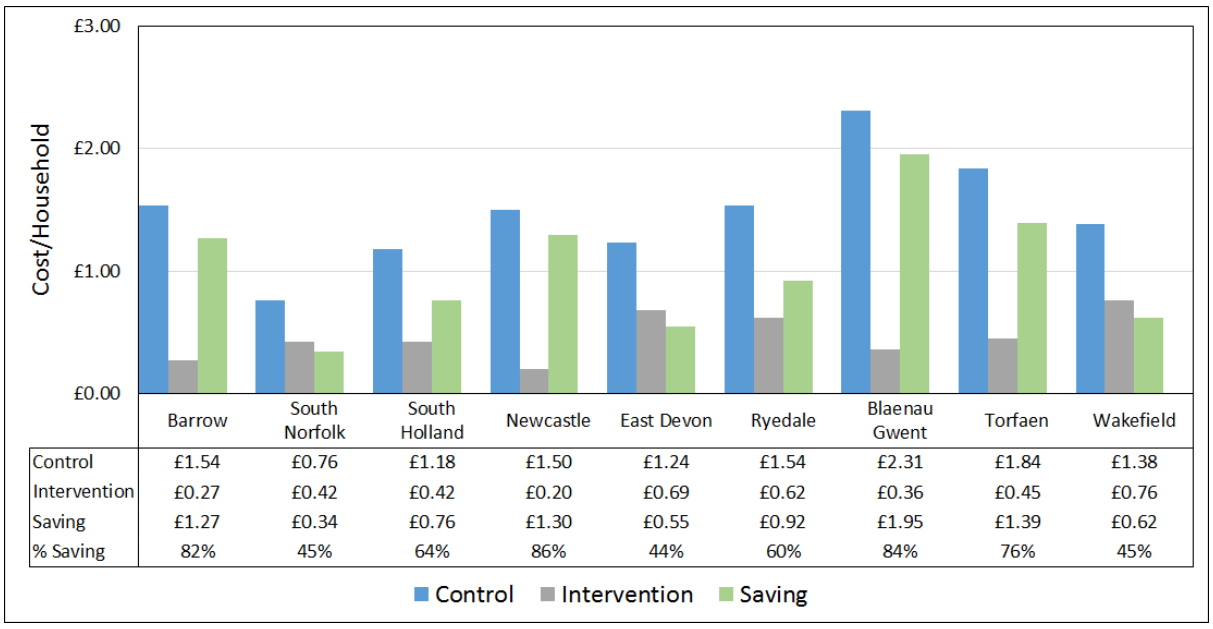
composition captured by the canvass itself. Although the information captured was at least as good as the legislated canvass, there was less overall change captured, and by extension less additions and deletions.

Considering that the lower volume of change captured by the HNL model resulted in less additions and deletions, it's hard to say definitively that the HNL model captured a higher quality of information simply because the addition and deletion rates were higher in places. As aforementioned, having received a lower volume of change the ERO would have more time to focus on the addition and deletions processes. Additional time to focus on these processes, rather than gathering higher quality information, may be driving higher addition and deletion conversion rates. In this way the HNL model may just appear to have captured a higher quality of information in some areas when actually there is no real difference.

5.3.3. Costs

The alternative HNL model was, on average, 65% cheaper to run compared to the control canvass. This represented the largest saving seen across all of the four alternative canvass models. Figure 7 below shows the costs of running the control and HNL canvass in the nine LAs which piloted this model.

Figure 7: Savings per household in the control and intervention groups for each LA that piloted the HNL model



	Barrow	South Norfolk	South Holland	Newcastle	East Devon	Ryedale	Blaenau Gwent	Torfaen	Wakefield
Control	£1.54	£0.76	£1.18	£1.50	£1.24	£1.54	£2.31	£1.84	£1.38
Intervention	£0.27	£0.42	£0.42	£0.20	£0.69	£0.62	£0.36	£0.45	£0.76
Saving	£1.27	£0.34	£0.76	£1.30	£0.55	£0.92	£1.95	£1.39	£0.62
% Saving	82%	45%	64%	86%	44%	60%	84%	76%	45%

As shown in Figure 7 above, the HNL model (intervention canvass) delivered savings across all participating LAs compared to the control canvass. There was a reasonable degree of variation in the level of savings between the LAs, ranging from 44% to 86%. The largest proportional savings were seen in Newcastle (86%) and Blaenau Gwent (85%) respectively. East Devon saw the smallest percentage saving (44%) for its intervention group when compared to the control.

Table 4 - Savings per household in the control and intervention (HNL) groups for process costs

Processing Cost	Control Cost	Intervention Cost	Cost Saving	% Saving
Print and Post	£0.76	£0.32	£0.44	58%
Staff Processing	£0.57	£0.06	£0.51	90%
Household Visits	£0.58	n/a	£0.58	100%

As demonstrated by Table 4, the HNL model delivered savings across each of the major cost categories. These have been calculated by taking the total expenditure for each category in the control and intervention groups respectively, and dividing this by the total number of households in each group. This gives us the average cost spent for each type of cost per household. It should note that this does not reflect the average unit cost associated with each process - these are presented in Figure 8.

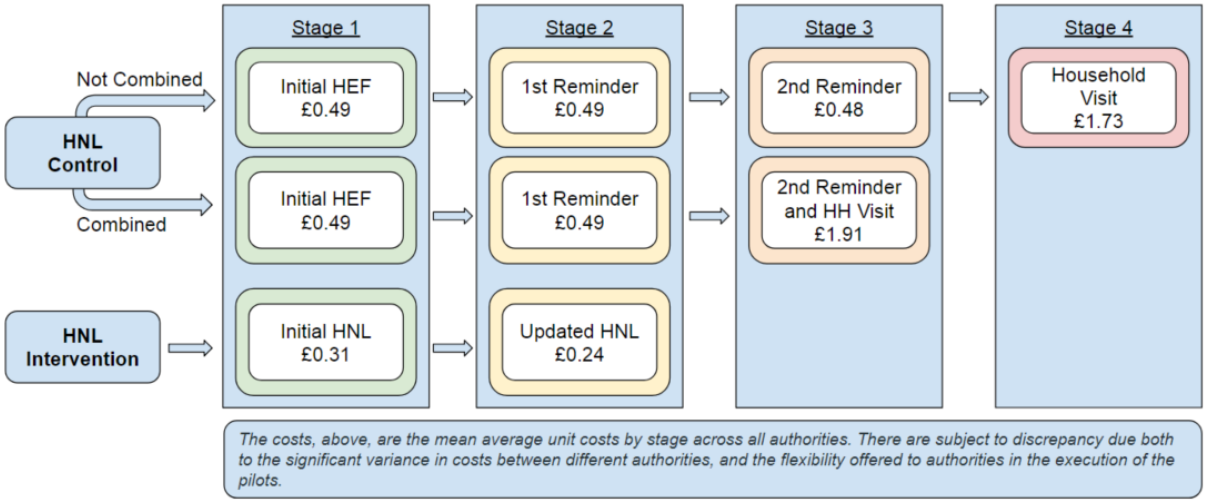
Print and postage costs fell from an average of £0.76 in the control group to £0.32, a reduction of 58%. This was largely due to a reduction in the number of forms sent to households, which fell by 39%. The rest of the savings can be explained in part by the smaller form size: HNL forms are printed on A4 paper instead of A3, which are cheaper to print; and partly because of lower postage costs - HNL forms often only use outward postage (although some LAs chose to include return postage too), whereas HEFs contain return envelopes and postage.

Processing costs capture the staff costs associated with processing returned forms. This has been measured combining three components: staff wage data; the average amount of time spent each types of form, as reported by authorities; and the total number of forms processed. The associated staff costs fell by 90% for the intervention group. This is largely because, for the HNL model, the default action for households with no change in composition is to not respond - resulting in a large reduction in the number of returned forms.

Finally, as above, there are no household canvassing costs for the intervention group. As shown in Figure 6 and Figure 8, the HNL pilot model does not include a household visit. This was a key driver of savings for the intervention group relative to the control canvass. Indeed, across the participating authorities, approximately 40% of costs incurred when conducting the control canvass were attributed to household canvassing.

Figure 8 represents the streams for the intervention and control canvasses, with the average unit costs taken from across the participating authorities. It should be noted that these figures are not representative of a single authority; at each stage, the average unit cost is calculated for each authority individually. The figures above represent the mean average cost, at each stage, across all of the authorities that conducted the HNL model.

Figure 8: Average cost per stage of delivering the HNL model in the control and intervention groups



Each of the two postal stages in the intervention group cost less than the postal stages for the control canvass. As above, this is largely due to the omission of return postage and envelopes within some of the participating authorities, in addition to smaller form sizes. Of the nine authorities, five chose not to include return postage at stage one, whilst four chose to include it. For those that included return postage, the average cost to post one HNL was £0.40; for those that did not include it, the average cost was £0.24. The average cost of an updated HNL was therefore £0.24 as no return postage was required for this form. Similarly, for the HNL control route, some authorities chose to combine stages three and four. Thus, the lower average cost of stage three '2nd Reminder' stage is due to the different composition of authorities.

The two different control streams in Figure 8 represent the different ways of conducting the control canvass. LAs are able to determine at which stage to carry out their household visits. In some instances, LAs choose to combine the second reminder HEF with a household visit. This has a lower unit cost than separating the steps due to the reduced printing and postage costs. However, combining the two stages is likely to increase the volume of household visits that are conducted. Whether or not it is cost effective to combine the second reminder HEF stage depends upon the rate of response to this second reminder HEF. Given that we cannot observe the differential in response rates within LA for combining the second reminder with the household visit, we make no attempt to determine which option is more cost effective.

5.3.4. Supplementary Analysis

The overwhelming feeling from EROs that piloted the HNL model was that the canvass was easy to deliver, easy to manage, and in line with what they were expecting before and after delivery.

The HNL was seen by all authorities as cheaper and more user-friendly than a HEF, and also generated significant savings in time, resource, and money. EROs were able to avoid recruiting temporary staff, an activity that is usually commonplace under the legislated canvass. Several EROs also believed that the removal of the household visit under the alternative canvass had largely contributed to the overall cost savings, with visits usually costing £1.73 to deliver per household.

EROs received minimal feedback from electors during the canvass period. When electors did contact electoral service teams there was an overwhelmingly positive reaction, with HNLs reported to be simple, clear, and easy to understand. It was felt that electors liked not having to respond if there was no change, and that it matched the way the world operates in other areas, such as insurance.

One of the primary objectives of the pilots is that the volume and quality of the information supplied to EROs as a result of alternative canvass activity is the same or higher than the legislated canvass. Alongside the MI analysis, we asked EROs if they believed the alternative canvass had negatively impacted the electoral register.

EROs provided a mixed response, with one ERO firmly believing the HNL had degraded the electoral register in their authority, and stated there was a risk that electors could be disenfranchised. However, two EROs believed their electoral registers had stayed the same size with the HNL having no adverse impact. The MI data explored in section 5.3.1 and 5.3.2 shows that despite some authorities capturing high quality information, there was less overall change recorded, suggesting that the quality of the electoral register is likely to be lower.

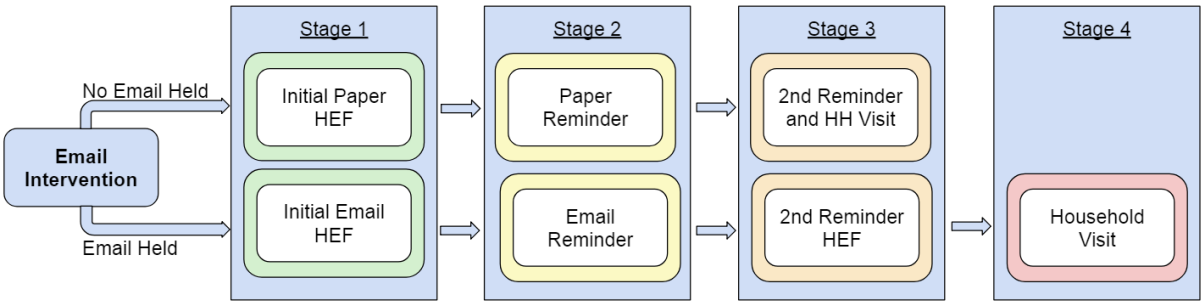
There was a general perception that response rates had been poor under the HNL canvass, as Table 1 shows. Most EROs stated they had been expecting this, with one referring to the snap 2017 UK Parliamentary General Election (UKPGE) as a potential explanation, as electors had recently registered just two months prior to the start of the canvass period. However, given that HNLs do not require a response unless there has been a change in household composition, it is logical to expect this model to experience low response rates.

EROs were also unsure whether non-responders actually had no changes to report, and believed there was a lack of firm confirmation that all changes in a household had been captured and processed through a HNL. Table 1 shows that the HNL was capturing significantly less change responses than the control group. Despite this, one ERO suggested that the HNL canvass was a ‘failsafe’ way of ensuring an elector is not deprived of their vote by inadvertently removing them from the register.

5.4. Email Model

The email model was piloted by Bath & North East Somerset, Coventry, Derbyshire Dales, Hounslow, and Woking. The model diagram is shown below.

Figure 9: Email canvass model high level workflow



Key Findings

- Overall, the email model as a whole was just as effective as the legislated canvass in gathering the same volume and quality of information.
- The average response rates for the two emails sent in the intervention group were 28% and 22% - lower than the response rates for the equivalent first two stages of the usual canvass (two paper HEFs) in the control group, which were on average 53% and 37%.
- On average, before the household visit stage, 31% of households contacted initially by email in the intervention group still needed to respond whereas, before the household visit stage in the control group, only 28% of households still needed to respond.
- However, the cost of emails (£0.07 per email) is lower than the cost of posting HEFs (£0.41 per paper HEF) and the end to end process, which includes two emails, one HEF and a household visit, seems more effective at capturing change than the legislated canvass.
- The email model also saved an average of 22% compared to the control canvass.
- The use of emails led to an average saving of 70% for processing costs, which was the second largest saving in processing costs. This is because e-HEF responses are electronically processed.
- The email model had the largest variance of all models, with the largest registered saving at 40% and the smallest at 3%.
- Most EROs stated they had had a very positive experience throughout the process and believed it was a viable model to be considered for canvass reform.
- Emails were viewed by EROs as a cost effective and efficient way of contacting a large amount of households. When used in conjunction with one postal step and visit where necessary, EROs are able to capture a higher proportion of changes to household composition.
- However, there were common problems across authorities regarding emails, including elector mistrust, technology issues, and concerns over security of the emails.

5.4.1. Volume of Information

As Table 5 below shows, the email model captured a similar level of change responses compared to the legislated canvass delivered in the control group.

In Bath & North East Somerset, the email canvass outperformed the control group, but in every authority even marginal differences between the control and intervention groups were not statistically significant.

This shows that the email model is equally effective at capturing information about changes in household composition as the legislated canvass.

Table 5 - Percentage of change responses captured in the control and intervention groups under the email model

Local Authority	Control Group	Intervention Group	Difference in % change response rate between the Intervention and Control Groups
	Change Response Rate	Change Response Rate	
Bath & North East Somerset	15.3%	15.6%	+0.3
Coventry	13.4%	12%	-1.4*
Derbyshire Dales	10.3%	9.7%	-0.5
Hounslow	19.1%	17.2%	-2*
Woking	11.3%	11.2%	-0.1

**denotes where difference is statistically significant*

5.4.2. Quality of Information

Table 6 - Total additions to the register and percentage of change responses converted into additions to the register under the email model

Local Authority	Control Group		Intervention Group	
	Total Additions	Addition Conversion Rate	Total Additions	Addition Conversion Rate
Bath & North East Somerset	1159	34%	1122	31%
Coventry	2167	52%	1894*	52%
Derbyshire Dales	645	63%	556*	100%
Hounslow	2274	54%	2070*	51%
Woking	714	45%	657	42%

**denotes where difference is statistically significant*

The addition and deletion conversion rates (as seen in Table 6 above, and Table 7 below) across the intervention and control groups were very similar, and using this as our measure for quality of information, there was no significant difference between the quality of information captured by either canvass.

There were some differences in the overall number of additions and deletions however. For example, in the intervention group there tended to be less overall additions, and this was statistically significant for Coventry, Derbyshire Dales and Hounslow. In Coventry and Hounslow, this likely reflects the marginal differences in the volume of information captured as seen in Table 6 above which is also a driver for overall additions and deletions.

Deletions however tended to be higher in the intervention group, with statistically significant differences appearing in Bath & North East Somerset (where deletions were higher) and Coventry (where deletions were lower).

Again, these results do not show a significant difference between the quality of information captured by either canvass.

Table 7 - Total deletions to the register and percentage of change responses converted into deletions to the register under the email model

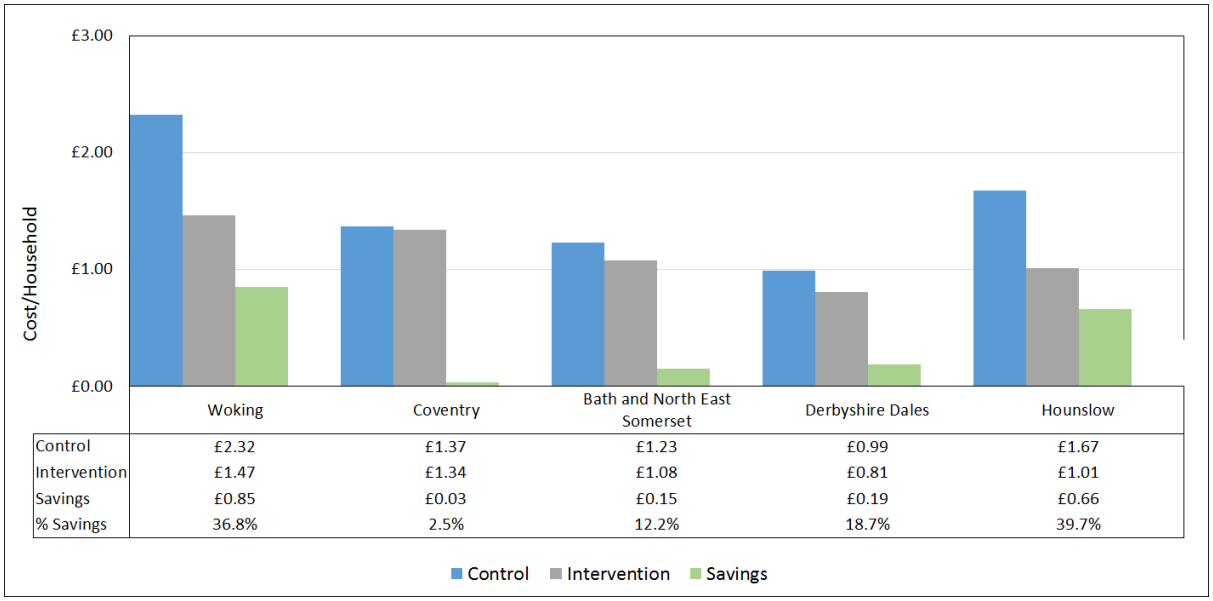
Local Authority	Control Group		Intervention Group	
	Total Deletions	**Deletion Conversion Rate**	**Total Deletions**	**Deletion Conversion Rate**
Bath & North East Somerset	2037	98%	2160*	98%
Coventry	3118	99%	2964*	99%
Derbyshire Dales	874	100%	852	100%
Hounslow	2813	96%	2895	96%
Woking	1120	98%	1127	99%

**denotes where difference is statistically significant*

5.4.3. Costs

The alternative email model was, on average, 22% cheaper to run compared to the control canvass. However, the cost savings were the most varied of all models, ranging from 40% in Hounslow to 3% in Coventry. Indeed, Coventry's intervention registered the lowest saving relative to their control canvass of any participating piloting authority. Figure 10 below shows the cost of running the control and email canvass in the five LAs which piloted this model.

Figure 10: Savings per household in the control and intervention groups for each LA that piloted the email model



As shown below in Table 8, the email model saw savings across each of the cost categories on average. As in Table 4, these savings have been calculated in each LA by taking the total amount spent on each category within each authority, for the control and intervention groups, divided by the total number of households within each group. The averages below have been calculated by taking the average of these costs.

Table 8 - Savings per household in the control and intervention (email) groups for process costs

Processing Cost	Control Cost	Intervention Cost	Cost Saving	% Saving
Print and Post	£0.65	£0.48	£0.16	25%
Staff Processing	£0.26	£0.08	£0.18	70%
Household Visits	£0.53	£0.47	£0.06	11%
Email HEFs	n/a	£0.11	n/a	n/a

The average cost of staff processing was significantly lower for the intervention groups. The average cost across the control groups was £0.26 per household, relative to £0.08 for the intervention groups - a decrease of 70%. This is due, in part, because the email HEFs (or e-HEFs) redirect the respondent to a web-based HEF which, once completed, takes significantly less time to process than paper forms. Indeed this process is often automated and can require no input whatsoever from EROs.

Whilst the savings from print and post costs weren't as large as the savings from staff processing, they were still significant with an average reduction of 25%. These savings are attributable to the reduction in the number of printed forms that needed to be sent, and the reduced cost of sending e-HEFs. On average, e-HEFs cost £0.07 to send, while the average unit cost of sending a regular HEF was approximately £0.41 across the control groups.

Interestingly, the email intervention did not significantly reduce the cost of household canvassing. While there was an average saving overall for three of the participating authorities, household canvassing costs were actually higher for the intervention group. This appears to have been driven by lower response rates to e-HEFs. With only one regular postal HEF after the two e-HEF stages, this resulted in a greater number of household visits.

The variance in savings from this intervention appear to have been principally influenced by two factors: the proportion of email addresses that the LA holds; and the response rates to e-HEFs. Fewer emails held and lower e-HEF response rates ultimately led to reduced savings from staff processing times, increased postage and printing, and an increase in costs from conducting household visits.

Figure 11: Cost per stage of delivering the email model in the control and intervention groups

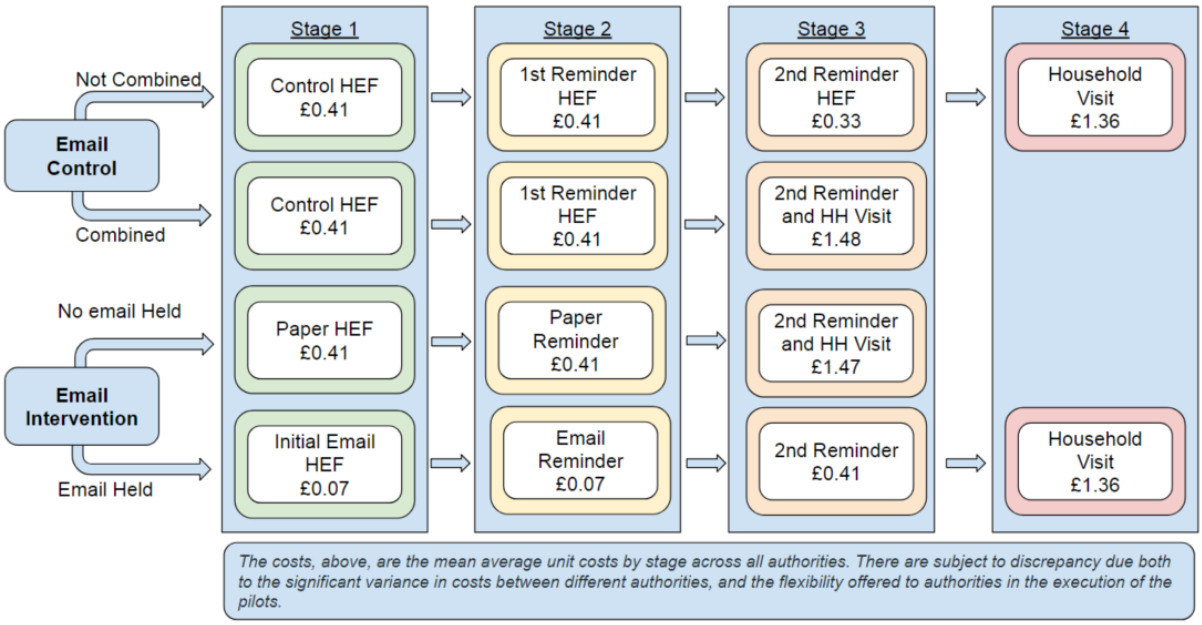


Figure 11, above, provides a breakdown of the comparative costs of each stage. As in Figure 8, costs are calculated by taking the mean average across all of the participating authorities' unit costs by stage. At stage three[29], the reduction in costs for the second reminder HEF stage is skewed, as it only represents the unit cost of one authority - all other authorities chose to combine this stage with a household visit (stage four). Where the HEF is combined with a household visit, it is more expensive, but there is no need to complete a separate fourth stage.

5.4.4. Detailed Email Stage Analysis

Whilst one of the primary policy objectives was to ensure the volume and quality of information collected under the alternative canvass was as effective as the legislated canvass, we have also looked in more detail at the use of emails as a stand-alone stage within these models.

[29] For the intervention, where no email is held, the £0.11 cost is to print one HEF. These HEFs are hand delivered so do not include postage costs. It should also be noted that only one authority (Hounslow) chose not to combine stages three and four for the control group, which skews the cost data for the control group.

As shown in Figure 9 above, the email canvass routes households down two different processes depending on whether the ERO holds an email address to contact the household with. The analysis in this section focuses on the email canvass where an email is held. The conclusions we can make are limited because rather than compare the control group to the intervention group, which through our random assignment we assume to have comparable populations, we are only comparing a small proportion of the intervention group to the whole control group which may not necessarily have a comparable population. While the analysis is limited, we think it is a logical assessment of the performance of this new step.

Our analysis shows that whilst response rates for emails are generally lower than response rates for HEFs, the end to end process that combined email, just one postal contact and a household visit captured a higher volume of change compared to the legislated process that includes three postal contacts and a household visit.

Responses to canvass stages before the household visit

Table 9 shows the proportion of households that still needed to respond following each stage of the canvass before the household visit. Only Hounslow posted their second reminder HEF, whereas all other areas chose to deliver the second reminder HEF at the household visit stage.

Table 9 - Email canvass under email model: Percentage of households still to respond at the end of each stage of the canvass before the household visit stage in control and intervention groups

LA / VJB	Control			Intervention (Email canvass only)		
	Initial HEF	Reminder HEF	2nd Reminder HEF[30]	Initial Email	Reminder Email	Reminder HEF
Bath & North East Somerset	43%	30%	-	67%	44%	29%
Coventry	53%	36%	-	84%	72%	48%
Derbyshire Dales	36%	15%	-	73%	59%	11%
Hounslow	54%	32%	25%	66%	51%	26%
Woking	48%	34%	-	72%	59%	38%

The proportion of households still to respond after the first two emails (the initial email and reminder email) is consistently higher than the percentage of households that need to respond after the initial HEF and reminder HEF. The response rates for individual emails are certainly much lower than HEFs. This was most pronounced in Coventry, where the response rate for the initial HEF was 47% and the response rate for the initial email was 16%.

[30] If posted and not combined with the household visit.

In Bath & North East Somerset and Hounslow, the responses to emails were high in comparison to other LAs piloting the email model, but the response rates for the HEFs sent in the control group were still higher. On average 30% of households still needed to respond after the first two stages of the control canvass, whereas after the first two emails this was 44%. On average, before the household visit stage, 31% of households contacted initially by email still needed to respond whereas, before the household visit stage in the control group, only 28% of households still needed to respond.

Even though emails gathered less responses compared to the HEFs used in the control group, when we look at change responses we can see the entire chasing cycle that combined emails with one postal contact and a household visit was cheaper, and often produced better outcomes than the legislated canvass.

Change responses from the email canvass compared to the usual canvass

Change response rates in Table 10 below indicate that, with the exception of Hounslow, the email canvass captured a proportionally higher volume of information than the control group. Although Hounslow is an exception to this, the change response rate of their email canvass (17%) is the joint highest with Bath & North East Somerset.

Table 10 - Percentage of change responses captured in the control and intervention groups comparing the legislated canvass to the email canvass only

LA / VJB	Control			Intervention (Email Canvass Only)		
	Total Households Contacted	**Total Number of Change Responses**	**Change Response Rate**	**Total Households Contacted**	**Total Number of Change Responses**	**Change Response Rate**
Bath & North East Somerset	11499	1763	15%	4812	811	**17%**
Coventry	21013	2808	13%	7428	1223	**16%**
Derbyshire Dales	9680	990	10%	3646	432	**12%**
Hounslow	15302	2926	**19%**	7434	1262	17%
Woking	8492	961	11%	3082	475	**15%**

Considering all of the above, even though the response rates to each email contact are lower than the equivalent postal HEFs in the control group, when emails are used in conjunction with the other contact methods, the end to end process appears more effective. As discussed in the cost analysis this process is also less expensive than the usual canvass.

As aforementioned, these conclusions are somewhat limited because the entire control group is being compared to only those households for which the ERO held an email for. However, regardless of comparisons to the control group, the change response rates for the email canvass are high and demonstrate a real value in contacting electors in this way.

This has also been corroborated by the experience of the EROs themselves, as seen in section 5.4.5 below.

5.4.5. Supplementary Analysis

For EROs piloting the email model, it was believed to be a valuable and cost effective way of obtaining information for the annual canvass. Most EROs stated they had had a very positive experience throughout the process and believed it was a viable model to be considered for canvass reform.

Overall, there were no serious concerns from EROs that the email model would have a negative impact on the electoral register. However, EROs acknowledged the poor response rates in the email step (section 5.4.4). For those that did pilot the email model (and by extension, the discernment model), there were common problems across authorities regarding emails, including: elector mistrust; concerns over security of the emails; emails being sent to junk folders; security code issues; bounce-backs; and out of date email addresses.

The poor email response rate, as seen in section 5.4.4, can be explained by a range of qualitative evidence from EROs, and seemed primarily linked to electors questioning the legitimacy of the emails they received. A number of EROs reported feedback and complaints from electors regarding the security of the emails. Many were concerned over the validity of the emails, with electors holding a general distrust of the process as it appeared to them as spam or a phishing email.

This was further exacerbated by two factors. The first was that a number of authorities being unable to use council domain email addresses for correspondence, so electors were receiving emails from unknown domains that appeared suspicious and not from an official source.

The second factor was that as EROs were undertaking both an alternative canvass and the legislated canvass in their area, they were unable to publicly advertise the intervention steps. For example, those piloting the email and discernment models were unable to raise awareness about the email HEFs. This inability to publicise the use of emails more widely could have inhibited an EROs ability to reassure electors that the emails they were receiving were authentic, further impacting on the response rates.

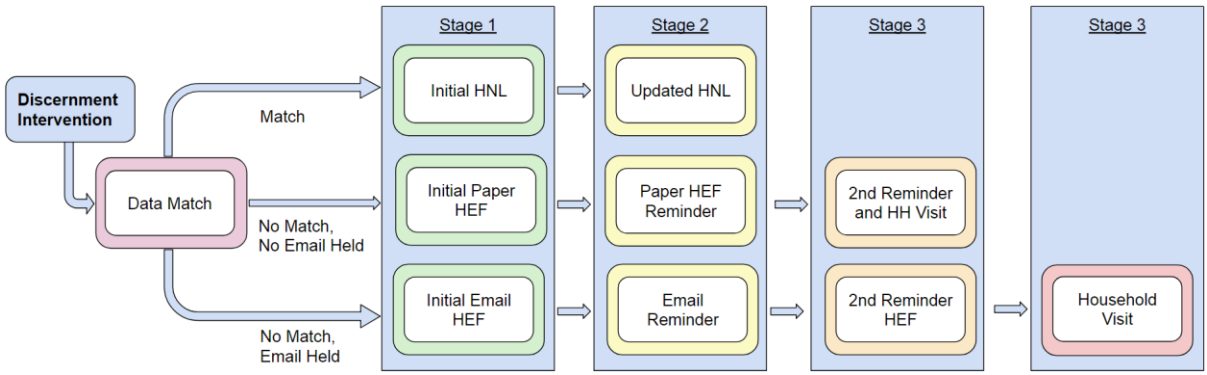
Another common issue reported by EROs was electors in the same household receiving duplicate emails inviting them to complete an online HEF, with only the first completion of the e-HEF being allowed. Furthermore, some authorities reported significant negative feedback from electors about emails that had been sent to attainers or the adult children of the household. Despite these problems, EROs did receive positive feedback from electors, often highlighting the ease of the online system and apparent cost savings the council had made with the avoidance of paper forms.

As demonstrated in the cost estimates above in section 5.4.3, emails were viewed by EROs as a cost effective and efficient way of contacting a large amount of households. A common perception was that emails successfully encouraged a channel shift to online responses which reduced the need for sending out, scanning, and processing forms, and provided savings on printing and postage. EROs also stated cost savings were a result of the increase of online responses that had been encouraged through initial email contacts and the lack of a pre-paid envelope in some authorities.

5.5. Discernment Model[31]

The discernment model was piloted by Birmingham, Camden, Glasgow, Salford, South Lakeland, and Sunderland. The model diagram is shown below.

Figure 12: Discernment canvass model high level workflow



Key Findings

- Overall, the discernment model captured a lower volume of information compared to the legislated canvass, and gathered the same quality of information.
- Given the results from the HNL and email models, it is likely that the HNL (only sent to 'matched' households in the discernment model) captured a lower volume of change compared to the usual canvass and has driven the overall result.
- The change response rates for HNLs used in the discernment model were generally lower than the HNLs sent under the HNL model, which was expected due to the data step being conducted at the start of the canvass that targeted 'no change' electors.
- The quality of data that EROs used to match households and the matching threshold they set (which varied from 66% to 100% match) could also explain why the discernment model did not capture the same level of information as the usual canvass; higher thresholds and better quality of data may have routed households to the HNL route more accurately.
- The average response rates for the initial email and reminder email sent in the intervention group were 22% and 21%. These were lower than the response rates for the equivalent first two stages of the usual canvass (two paper HEFs) in the control group which were on average 43% and 27%
- However, the cost of emails (£0.05 per email) is lower than the cost of posting HEFs (£0.43 per paper HEF) and the end to end process, which includes two emails, one HEF and a household visit, seems more effective at capturing change than the legislated canvass.
- The discernment model included an initial data match step at the beginning of the intervention canvass, which cost an average of £0.08 per household. The composition of these costs was different across authorities.
- The discernment model made an overall saving of 37% per household in the intervention group compared to the control group, with Camden saving the most (66%) and Birmingham saving the least (19%).

[31] To control for inconsistencies in pilot delivery in the presentation of results, we developed a methodology to exclude data from three pilot sites (Camden, Glasgow, and Sunderland). This methodology is explained in Annex E.

- Large variations in savings across piloting authorities could be attributed to the matching service and the match rate, as well as the number of email addresses held.
- For many EROs, the discernment model was less complex than originally thought, and relatively straightforward to implement and deliver.
- EROs expressed similar opinions about HNLs and emails as seen in the respective model sections.

5.5.1. Volume of Information

As Table 11 shows below, the discernment model captured a lower number of change responses compared to the legislated canvass delivered in the control group. This suggests that the discernment model is not as effective at capturing information about changes in household composition as the legislated canvass. For example, in Birmingham there were 3781 fewer change responses in the intervention group, resulting in a change response rate that was over 5% lower than the control group.

The only instance where the change response rate is higher in the intervention group is in Glasgow, where data from their HNL canvass has been excluded. The HNL is only sent to households that 'match' local data and therefore inherently has a lower change response rate. Its exclusion from Glasgow's data explains why their change response rate is much higher in the table below.

This also seems to highlight that the HNL, sent to the majority of households in each LA piloting this model, is driving the low change response rate for the model overall. This is in line with results from the HNL model (section 5.3) and also likely reflects that the data and matching thresholds used to route households to the HNL were not sufficient. Both are discussed in more detail below (see section 5.5.4).

On the whole, even where a small proportion of data has been excluded from Camden, Sunderland, and Glasgow, the change response rates are lower than the legislated canvass.

Table 11 - Percentage of change responses captured in the control and intervention groups under the discernment model

	Control Group	**Intervention Group (Match and No Match Routes)**	**Difference in % change response rate between the Intervention and Control Groups**
LA / VJB	**Change Response Rate**	**Change Response Rate**	
Birmingham	15.2%	9.4%	-5.8*
Camden[i]	15.1%	5.1%	-10*
Glasgow[i]	12.7%	22.8%	-10*
Salford	13.3%	9.5%	-3.8*
South Lakeland	13.2%	10.2%	-3*
Sunderland[i]	10.8%	8.5%	-2.3*

***denotes where difference is statistically significant*

[i] *data from one pilot stage has been excluded (Annex E)*

5.5.2. Quality of Information

The quality of information captured by the discernment model seems generally equal to the quality of information captured by the legislated canvass. For example, in Birmingham the addition conversion rate was higher in the control group and in Camden the reverse was true; both of these differences are statistically significant. On the other hand results in Salford, Sunderland and South Lakeland, while marginally different, are not statistically significant.

Table 12 - Total additions to the register and percentage of change responses converted into additions to the register under the discernment model

LA / VJB	Control Group		Intervention Group	
	Total Additions	**Addition Conversion Rate**	**Total Additions**	**Addition Conversion Rate**
Birmingham	4422*	30%*	2983*	24%*
Camden[i]	1529*	59%*	827*	100%*
Glasgow[i]	3495	32%	-[i]	-[i]
Salford	5603*	53%	4160*	51%
South Lakeland	922*	53%	697*	52%
Sunderland [i]	4194*	54%	3768*	54%

***denotes where difference is statistically significant*

[i] data *affected by inconsistent process from one pilot stage (Annex E)*

Findings are equally mixed in terms of deletions, and again do not demonstrate a clear difference between the quality of information captured in the control and intervention groups.

For instance, the deletion conversion rate in Birmingham is lower in the intervention group. In Salford and Sunderland the conversion rates are almost identical and not statistically significant, yet in South Lakeland the intervention group outperformed the control group in converting information about changes into actual deletions.

More significant perhaps is that total additions and total deletions (Table 12 and Table 13) are consistently lower in the intervention group. Rather than simply reflect the quality of information being gathered, the driver for the lower level of additions and deletions in the intervention group could be the result of the lower volume of change responses captured by this model. As we did not collect additions and deletions data by stage, we cannot assess which branch of this model is causing the difference between control and intervention.

Table 13 - Total deletions to the register and percentage of change responses converted into deletions to the register under the discernment model

LA / VJB	Control Group		Intervention Group	
	Total Deletions	**Deletion Conversion Rate**	**Total Deletions**	**Deletion Conversion Rate**
Birmingham	6711	80%	5572*	77%*
Camden[i]	2960	99%	1423*	100%*
Glasgow[i]	4583	54%	-[i]	-[i]
Salford	6992	99%	6074*	99%
South Lakeland	897	57%	862	63%*
Sunderland [i]	6308	99%	5744*	100%

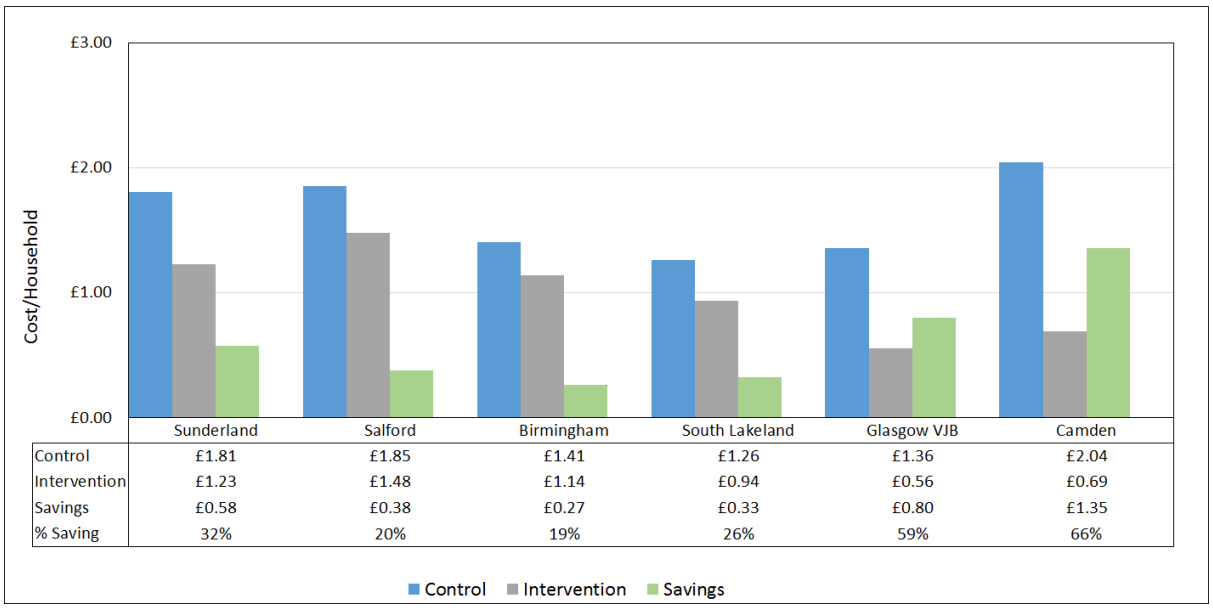
**denotes where difference is statistically significant*

[i] data *affected by inconsistent process from one pilot stage (Annex E)*

5.5.3. Costs

Of the four models piloted, the discernment model made the second largest cost saving overall. Across the six authorities, the intervention group was approximately 37% cheaper than the control group on average. Figure 13 shows the per-household costs and savings across the piloting authorities.

Figure 13: Savings per household in the control and intervention groups for each LA/VJB that piloted the discernment model

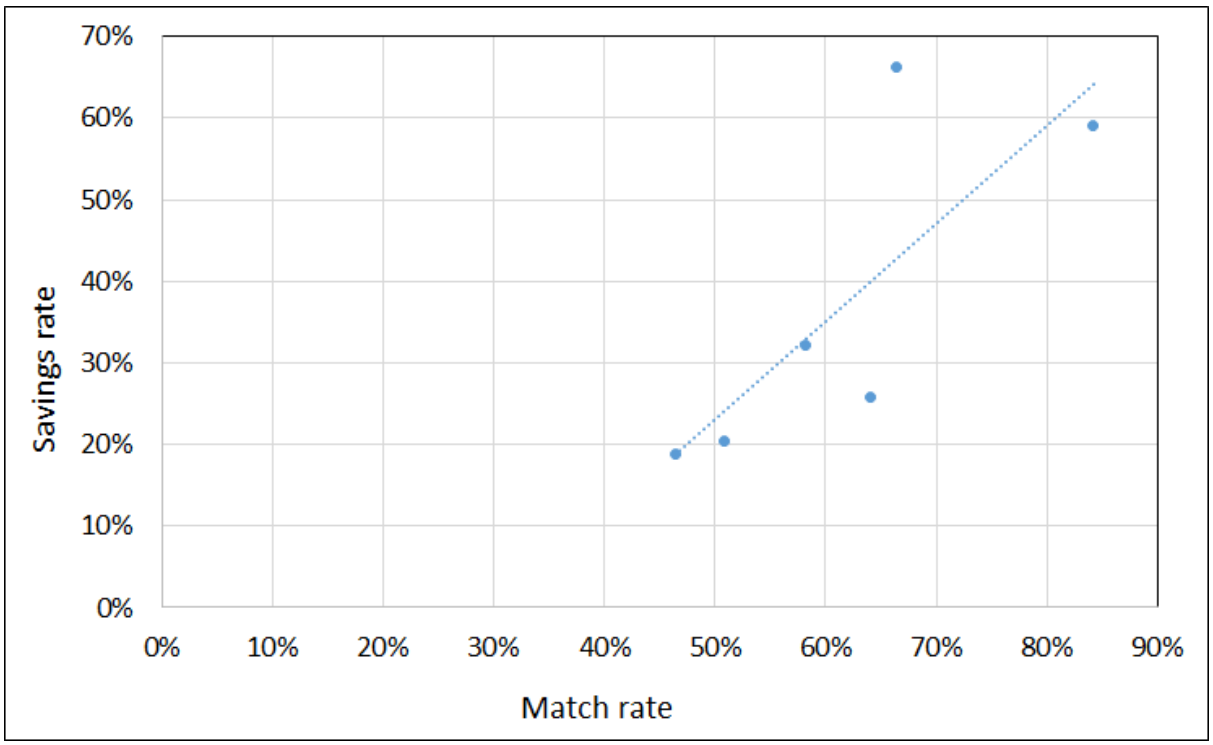


There was a significant variation in the level of savings for the intervention group relative to the control canvass. They ranged from as high as 66% in Camden, to 19% in Birmingham. This appears to have been driven, in part, by LAs/VJBs' data matching rate for households.

As outlined in section 5.5.4, the intervention group contains a data match step in which EROs attempted to match household residents against their local records to identify where household compositions are likely to remain unchanged. The households that were matched were sent a single HNL form. Households which were not matched were either subject to an email based canvass with no household visit, or a standard canvass, depending on whether the ERO had a valid email address for residents of the household.

Camden and Glasgow, who recorded the largest savings for their intervention groups, matched 84% and 66% of their households respectively. On the other hand, Birmingham recorded the smallest savings relative to their control group (19%), and similarly recorded the lowest household match rate of 46%. As below in Figure 14, there is a reasonably strong link between the household match rate and overall level of savings - broadly in line with expectations. The dotted blue line is the line of best fit, and helps to indicate the relationship between the match rate and the savings rate.

Figure 14: The saving and match rates for authorities piloting the discernment model



As above, there is a clear relationship between a higher match rate and a higher savings rate. The impact of a low match rate can be somewhat offset for LAs/VJBs that have a high number of emails on record for those households which are not matched. This helps not only to reduce postage and printing costs, but staff processing costs - and, indeed, removed the need for a household visit.

Table 14 shows the total amount spent per household, for both the control and intervention groups, broken into different cost categories. These have been calculated by taking the total expenditure for each category in the control and intervention groups respectively, and dividing this by the total number of households in each group. This gives us the average cost for each type of cost per household. It should be noted that this does not reflect the average unit cost associated with each process - these are presented in Figure 15.

Table 14 - Savings per household in the control and intervention (discernment) groups for process costs

Processing Cost	Control Cost	Intervention Cost	Cost Saving	% Saving
Data Matching	n/a	£0.08	n/a	n/a
Print and Post	£0.78	£0.50	£0.28	36%
Staff Processing	£0.30	£0.21	£0.09	28%
Household Visits	£0.52	£0.23	£0.29	56%
Email HEFs	n/a	£0.08	n/a	n/a

Across each of the three categories, there was a reduction in costs for the email intervention. This reduction was most pronounced for household canvassing, which fell from an average of £0.52 in the control group to £0.23 in the intervention group - a reduction of 56%. As above, this has been driven by the proportion of households that were matched, negating the need to conduct a household visit.

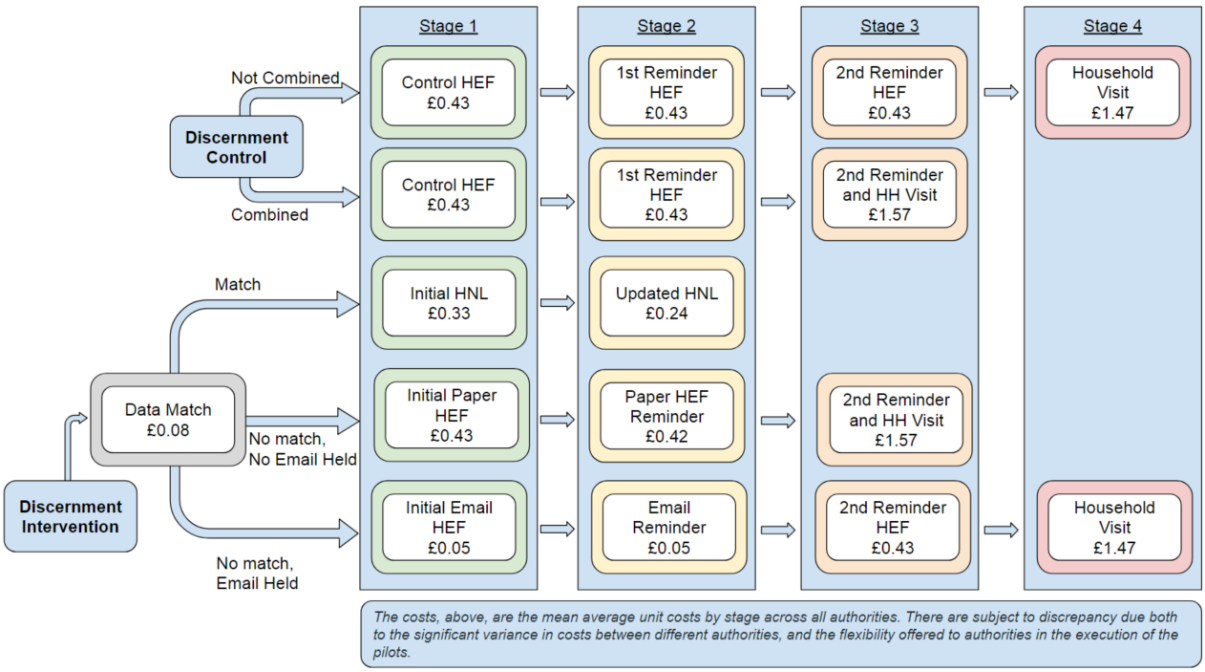
Furthermore, the intervention groups of participating LAs/VJBs registered, on average, lower printing and postage costs than the control group. This is due, in part, to the use of e-HEFs and HNL forms. Only one HNL form is initially sent to each household, with a follow-up HNL for those that report a change in household composition. An eHEF, naturally, does not incur any printing and postage costs, and cost an average of £0.05 to send. This significantly reduced the volume of forms that are printed and posted relative to the control canvass. The reduced form size for HNLs (from A3 to A4) is an additional factor driving these savings.

The use of HNLs and eHEFs is a factor in the reduction in staff processing costs, which were reduced by 40% per household on average. This is due to the reduced quantity of returned forms for HNLs, and the lower response time for staff to process e-HEFs that are returned online.

The discernment model included an initial data match step at the beginning of the intervention canvass, which cost an average of £0.08 per household. The composition of these costs was different across authorities. For some LAs/VJBs, the cost of data matching consisted of internal staff time, whilst others paid for it to be outsourced. One authority had no data matching costs as it was provided for by their EMS supplier. As above, this might not necessarily be the case for many authorities so, excluding these authorities, the average cost of data matching could be higher at £0.13 per household.

It should be noted that three of the six LAs/VJBs included prepaid postage with their HNLs; the remaining three only included one-way postage. The average cost to post one HNL with return postage cost HNL cost £0.42 compared to £0.23 for HNLs which exclude return postage. The updated HNL reminder never included return postage, so only cost £0.24 to post. This is aggregated in Figure 15, with an overall average cost of approximately £0.33.

Figure 15: Cost per stage of delivering the discernment model in the control and intervention groups



5.5.4. Detailed HNL Stage Analysis

A core element of the discernment model was sending a HNL to households that were matched using local data. As seen in the HNL model, this letter does not require a response unless there has been a change in the household's composition.

Table 15 compares the response rates and change response rates of the HNL to both the legislated canvass piloted in each area (the control group) and the HNLs used in the HNL model.

As seen in Table 15, the change response rates for HNLs used in the discernment model were generally lower than the HNLs sent under the HNL model. This suggests that the data step used in the discernment model was effective in targeting households that did not need to report a change in household composition.

However through the results of the HNL model discussed in section 5.3, we know the HNL is not as effective as the legislated canvass in collecting the same volume of information. Considering this and the results of the discernment model, we can infer that although the HNL was more targeted as a result of the data step, it still did not capture as much information on changes in household composition as the legislated canvass. This appears to have driven the overall result for the model.

It is difficult to explain definitively why this was. On one hand, despite the data step, one contact attempt may not be sufficient in gathering as much information as the usual canvass. On the other hand, in every pilot authority the vast majority of households do not need to report a change in household composition, and therefore should not necessarily need to be contacted more than once. The data step applied at the start of the model is then equally important to understanding why this model has underperformed compared to the usual canvass.

Table 15 - Percentage of response and change response rates for the legislated canvass compared to HNLs sent under the HNL and discernment models

LA / VJB	Pilot Model	Control		Intervention (HNL canvass only)	
		Response Rate	Change Response Rate	Response Rate	Change Response Rate
Barrow	HNL	39%	3%	7%	3%
Blaenau Gwent	HNL	45%	8%	5%	3%
East Devon	HNL	57%	6%	14%	6%
Newcastle	HNL	44%	7%	4%	3%
Ryedale	HNL	56%	10%	10%	5%
South Holland	HNL	53%	5%	7%	4%
South Norfolk	HNL	56%	6%	13%	5%
Torfaen	HNL	46%	6%	6%	4%
Wakefield	HNL	47%	9%	6%	4%
Birmingham	Discernment	38%	8%	2%	1%
Camden	Discernment	33%	6%	7%	4%
Glasgow[i]	Discernment	29%	5%	-[i]	-[i]
Salford	Discernment	39%	6%	2%	2%
South Lakeland	Discernment	45%	7%	12%	3%
Sunderland	Discernment	48%	6%	3%	1%

[i] *data from one pilot stage has been excluded (Annex E)*

The data match was undertaken at the ERO's discretion, enabling them to choose what data they matched households against. The data sets used ranged from council tax and housing benefit, to accepting a completed HEF from the previous year's canvass. EROs also decided what threshold constitutes a match and these ranged from 66% to 100%. This meant that depending on the authority and their chosen threshold, the ERO would need to match 66% to 100% of the individuals registered at a household in order to send them a HNL.

In this way, the quality of the data used, the matching thresholds applied, or the fact that EROs complete the data step only once at the start of the canvass, are all factors that could explain why the model has underperformed. Through the HNL model, we found that using one contact and not chasing households for responses caused a lower volume of change to

be captured. At the same time, the data step applied in the discernment model should mitigate this risk by only targeting households that do not need to respond. Both could explain why the model was not as effective as the current canvass.

5.5.5. Detailed Email Stage Analysis

As with the email model in section 5.4.4, we can analyse the email stage of the discernment model in more detail. Although we believe this is a logical assessment to make, the conclusions are limited in two ways. As with the email model, we are only comparing a small proportion of the intervention group to the whole control group, even though they may not necessarily have comparable populations. In addition the households that received an email under the discernment model are those that could not be matched using local data, so are likely to have a higher level of change to be captured.

Despite these limitations, we believe this is a logical analysis of a new process, and our findings match those from the email model in that, while response rates for emails are lower than response rates for posted HEFs, the complete process (that combines email with one posted HEF and a household visit) captures a higher volume of change compared to the control group.

Responses to canvass stages before the household visit

Following the same process as the email model, the email canvass in the discernment model routes households down two different processes depending on whether the ERO holds an email address to contact the household with or not. Table 16 shows the proportion of households that still need to respond before the household visit once each stage of the canvass is complete.

The proportion of households still to respond after the two emails (the initial email and reminder email) is consistently higher than the proportion of households that still need to respond after the two HEFs (initial HEF and reminder HEF). Response rates for the initial email are lower than response rates for the initial HEF across LAs/VJB. The difference was the largest in Salford, where the initial HEF response rate was 47% and the initial email response rate was 16%.

On average, the response rate for the initial email was also lower for the discernment model (18%) than for the email model (28%). Under the email model all households that the ERO held an email for were contacted initially by email. Under the discernment model, households that received an email could not be matched using local data. The difference likely reflects that response rates for emails are lower where the ERO expects there to be change.

Despite lower response rates compared to posted HEFs, when we look at the change response rates, the end to end process that combined email, just one postal contact and a household visit appears to capture a higher volume of change compared to the legislated process that includes three postal contacts and a household visit.

Table 16 - Email canvass under discernment model: Percentage of households still to respond at the end of each stage of the canvass before the household visit stage in control and intervention groups

LA / VJB	Control			Intervention (Email canvass only)		
	Initial HEF	**Reminder HEF**	**2nd Reminder HEF[32]**	**Initial Email**	**Reminder Email**	**Reminder HEF**
Birmingham	56%	42%	-	79%	65%	47%
Camden	76%	57%	26%	-[i]	-[i]	-[i]
Glasgow	61%	47%	43%	87%	73%	58%
Salford	53%	40%	36%	84%	75%	51%
South Lakeland	48%	31%	24%	69%	50%	32%
Sunderland [i]	46%	32%	-	73%	46%	-[i]

[i] *data exclusions apply (Annex E)*

Change responses from the email canvass compared to the usual canvass

As discussed above, response rates to emails are generally lower than HEFs. Looking at the change response rates in more detail however we find that, as with the email model, despite the lower response rate, the entire chasing cycle that combined emails with one postal contact and a household visit captured a higher proportion of change than the legislated canvass. See Table 17.

Looking at the change response rates, the email canvass consistently captured a proportionally higher volume of information compared to the control group. The differences here are more pronounced than the same comparison of the email canvass within the email model (see section 5.4.4).

Taking this into account, but also considering the success of the email model which used the same process without a data step beforehand, we can say that the email canvass is at least as effective as the usual canvass and at best more effective at capturing changes in household composition. In addition, the fact that the difference between the intervention and control group is more pronounced under the discernment model illustrates the utility of using data to inform the canvass process. By having a discernment step ahead of the canvass, resources were targeted to where there was more likely to be a change in household composition and the change response rates were higher.

[32] If posted and not combined with the household visit.

Table 17 - Percentage of change responses captured in the control and intervention groups comparing the legislated canvass to the email canvass only

LA / VJB	Control			Intervention (Email Canvass Only)		
	Total Households Contacted	**Total Number of Change Responses**	**Change Response Rate**	**Total Households Contacted**	**Total Number of Change Responses**	**Change Response Rate**
Birmingham	65054	9894	**15%**	12860	2223	**17%**
Camden[i]	16159	2437	**15%**	-[i]	-[i]	-[i]
Glasgow	42381	5391	**13%**	2612	649	**25%**
Salford	55527	7380	**13%**	11648	2280	**20%**
South Lakeland	10690	1413	**13%**	1405	319	**23%**
Sunderland	58421	6298	**11%**	6059	1409	**23%**

[i] *data from one pilot stage has been excluded (Annex E)*

Given the success of the email model in being as effective as the usual canvass and cheaper, it seems natural that the email canvass in the discernment model is at least as effective as the usual canvass and at best more effective.

5.5.6. Supplementary Analysis

For many EROs, the discernment model was less complex than originally thought, and relatively straightforward to implement and deliver. The data matching and email steps of the discernment model lined up with the processes EROs would use before the introduction of IER.

Some EROs did express that it was important not to underestimate the pre-work involved for the data matching process, and that having high quality data was essential for the success of the discernment model. A minor limitation of the selection process for the discernment model is that only EROs comfortable using data would have volunteered to complete this particular canvass. It was also stressed that the collection of emails during the pre-canvass period had taken considerable resource to ensure a satisfactory amount of emails were gathered.

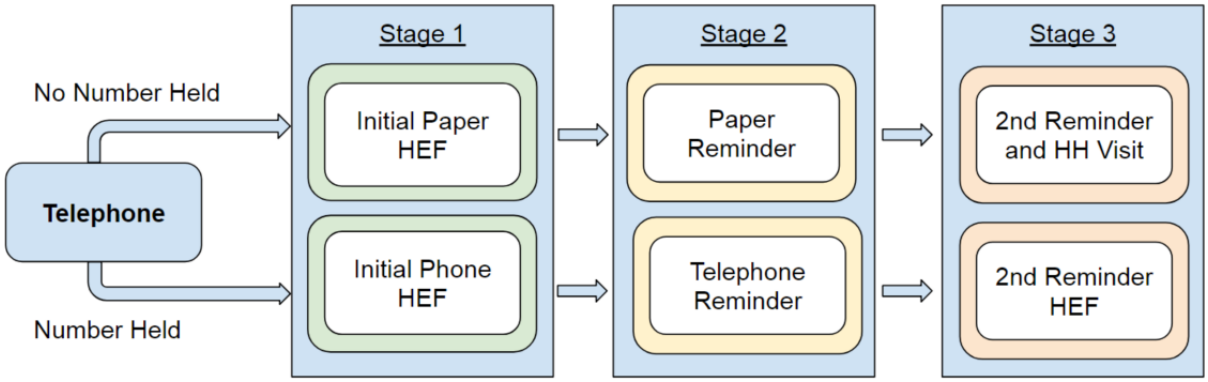
Of all the models that were piloted, those that delivered the discernment model were more likely to indicate that there had been no impact, positive or negative, on the electoral register. However, one ERO expressed concern that the HNL branch within the discernment model could have weakened the electoral register due to the absence of reminders, despite the data matching step.

As the discernment model is a combination of both the HNL and email models, the findings from sections 5.3.4 and 5.4.5 apply, in terms of on financial and resource savings; elector feedback (especially perceived elector concern over email legitimacy); HNL response rates; and wider problems associated with the use of emails.

5.6. Telephone Model[33]

The telephone model was piloted by Dumfries and Galloway, Luton, and South Oxfordshire and the Vale of White Horse. The model diagram is shown below.

Figure 16: Telephone canvass model high level workflow



Key Findings

- Overall, the telephone canvass was just as effective as the legislated canvass in gathering the same volume and quality of information.
- Telephone response rates were equal to or lower than HEF response rates, but the end to end process (including the telephone step) was just as effective as the legislated canvass.
- The telephone model was also cheaper to run than the control canvass, with an average saving of 30% per household.
- There was some disparity between the savings of the three LAs/VJB that pilotted the telephone model. The savings ranged from 16% to 38%.
- The telephone model had the third largest savings on canvassing costs (56%), but the smallest savings from print and post, processing and canvassing costs.
- Qualitative evidence suggests that EROs believed electors were more receptive to receiving a phone call than a door knock.
- One ERO found the telephone model an incredibly useful way to conduct the canvass, but some had concerns over the pressure they experienced during certain delivery stages.

5.6.1. Volume of Information

The telephone model was just as effective as the legislated canvass at capturing information about changes to household composition. As shown in Table 18, the change response rates for each piloting authorities' control and intervention group are very similar, and the small differences (shown in the final column below) are not statistically significant.

[33] To control for inconsistencies in pilot delivery in the presentation of results, we developed a methodology to exclude data from South Oxfordshire and the Vale of White Horse. This methodology is explained in Annex E.

Table 18 - Percentage of change responses captured in the control and intervention groups under the telephone model

LA / VJB	Control Group	Intervention Group	Difference in % change response rate between the Intervention and Control Groups
	Change Response Rate	Change Response Rate	
Dumfries and Galloway	4.2%	3.9%	-0.3
Luton	15.8%	15.8%	-0
South Oxfordshire and the Vale of White Horse	10.2%	10%[i]	-0.1

**denotes where difference is statistically significant*

[i] data from one pilot stage has been excluded (Annex E)

5.6.2. Quality of Information

The telephone model appears as effective at capturing information of the same quality as the legislated canvass, with no statistically significant differences between the addition and deletion conversion rates across the piloting authorities.

The control group did generally outperform the intervention group in overall additions and deletions but the differences were not statistically significant. Table 19 and 20 show this in more detail.

Table 19 - Total additions to the register and percentage of change responses converted into additions to the register under the HNL model

LA / VJB	Control Group		Intervention Group	
	Total Additions	Addition Conversion Rate	Total Additions	Addition Conversion Rate
Dumfries and Galloway	487	23%	486	26%
Luton	1961	32%	1888	32%
South Oxfordshire and the Vale of White Horse	1229	45%	1147[i]	43%[i]

**denotes where difference is statistically significant*

[i] data affected by inconsistent process from one pilot stage (Annex E)

Table 20 - Total deletions to the register and percentage of change responses converted into deletions to the register under the HNL model

LA / VJB	Control Group		Intervention Group	
	Total Deletions	**Deletion Conversion Rate**	**Total Deletions**	**Deletion Conversion Rate**
Dumfries and Galloway	685	90%	667	94%
Luton	2804	92%	2669	88%
South Oxfordshire and the Vale of White Horse	1608	99%	1147[i]	99%[i]

**denotes where difference is statistically significant*

[i] data *affected by inconsistent process from one pilot stage (Annex E)*

5.6.3. Costs

The telephone canvass was, on average, 30% cheaper compared to the control canvass across the three participating authorities. This meant that the telephone model was ranked third of four models in terms of savings. Figure 17 shows the costs per household in the control and intervention groups for each authority, and the subsequent level of savings. Significant savings were made in Luton (38%) and Dumfries and Galloway (35%). South Oxon and the Vale recorded a lower rate of saving, at 16%.

Figure 17: Savings per household in the control and intervention groups for each LA/VJB that piloted the telephone model

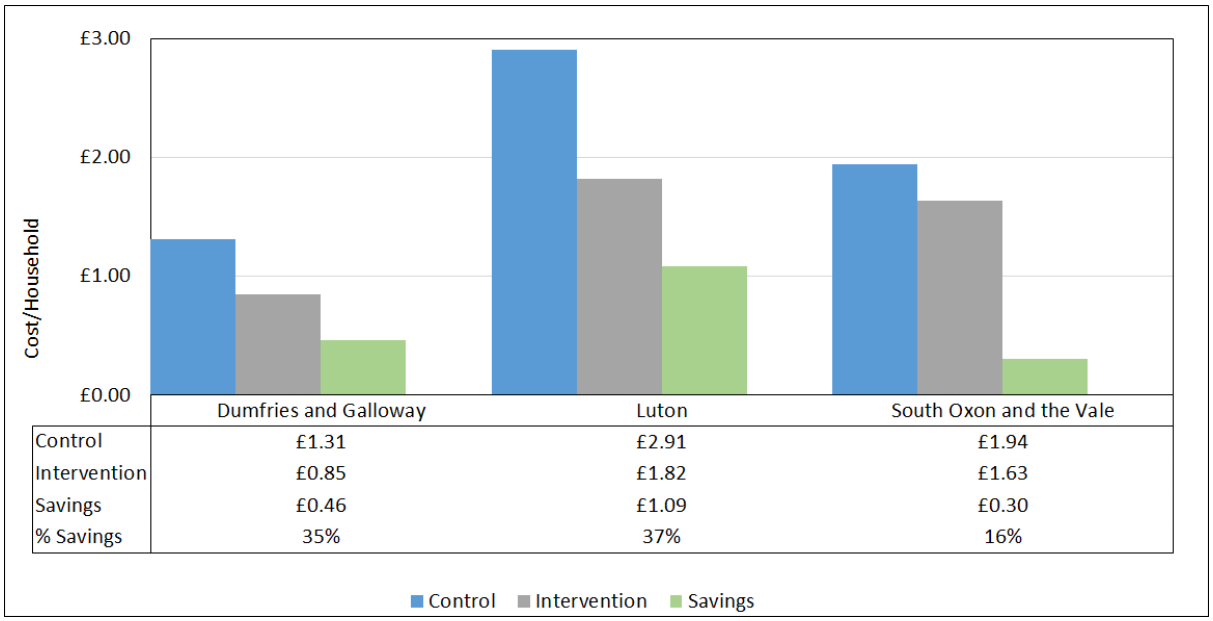


Table 21 shows the average amount spent per household across each of the major cost categories. These have been calculated by taking the total expenditure for each category in the control and intervention groups respectively, and dividing this by the total number of households in each group. This gives us the average cost spent for each type of cost per

household. This is not a reflection of average unit costs associated with each process - these are presented in Figure 18.

Table 21 - Savings per household in the control and intervention (telephone) groups for process costs

Processing Cost	Control Cost	Intervention Cost	Cost Saving	% Saving
Print and Post	£0.72	£0.55	£0.17	24%
Staff Processing	£0.50	£0.27	£0.23	40%
Household Visits	£0.76	£0.30	£0.46	60%
Email HEFs	n/a	£1.95	n/a	n/a

Across the three authorities, print and postage costs fell from an average of £0.72 in the control group to £0.55 in the intervention group, a reduction of approximately 24%. Interestingly, this is the smallest average saving of print and postage costs across the four piloted models. This was a result of the telephone model being the most paper intensive model, with only one of the paper forms being removed when compared with the control canvass model.

The average saving for processing costs was greater, falling from £0.50 to £0.27 per household, constituting a reduction of 40%. This was the result of the use of the telephone reminder, which had a two fold impact on processing savings. Firstly, the use of the telephone had the potential to be much less time consuming than having to process a HEF, which helps to save money on staff time. Secondly, the use of the telephone reminder had a largely beneficial impact on the response rates for the second paper reminder; only 21% of households still had not responded after the second reminder, compared to an average of 34% for those that did not receive a telephone reminder.

The most significant savings were observed for household canvassing costs. This fell from an average of £0.76 to £0.30 per household, a saving of approximately 60%. This is largely attributable to higher responses at earlier stages of the canvass across the intervention groups. This significantly reduced the volume of door knocks that were ultimately conducted.

The average unit costs for each stage are shown in Figure 18. Interestingly, the phone reminder in the intervention group was significantly more expensive than any of the other stages. However, this is due in part to indirect and fixed costs, such as the cost of training staff, and purchasing new equipment. Because of the way the data was collected and provided, it is hard to estimate the direct costs (i.e. excluding fixed and training costs) of calling one household. However, the data suggests that the cost to ring one household lies somewhere between 52p and £1.84. There is a significant difference in these values, but the questions on the form were not overly clear and one of the authorities was not able to provide any breakdown whatsoever.

Figure 18: Cost per stage of delivering the telephone model in the control and intervention groups

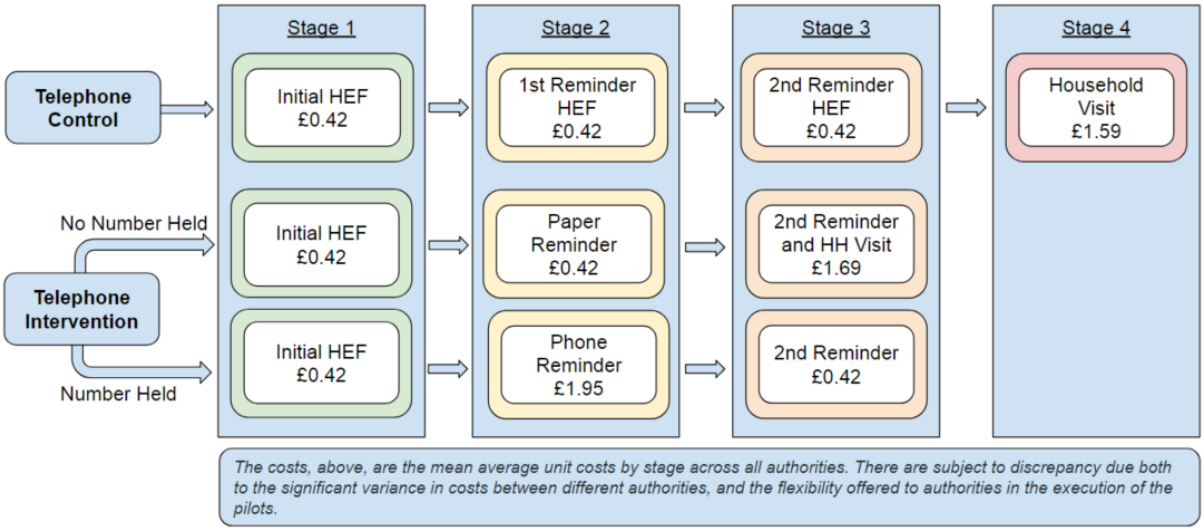


Figure 18, above, shows the average unit costs of the different methods of contact, across all stages of the canvasses. Unlike the other canvasses, every authority in the telephone canvass chose not to combine their household visit with another stage, therefore we have removed the 'combined' strand from this figure.

5.6.4. Detailed Telephone Stage Analysis

As an end to end process, the telephone model appears to be as effective as the legislated canvass. Contacting electors by telephone is thought to be a replacement for household visits, which is often the most expensive stage of the canvass (Table 21). With this in mind, we have compared the response rates and change response rates of the reminder telephone calls and household visit stage in each piloting authority.

The results are mixed, but ultimately show there is real value in contacting electors by telephone. As a stand-alone stage, the telephone step is effective in two of the three piloting LAs/VJB and, as discussed above, when used in a process which combines different contact types, it is as effective as the legislated canvass.

Table 22 shows the response and change response rates for household visits undertaken in the control and intervention groups, alongside the telephone call undertaken in the intervention group.

With only three LAs/VJB piloting this model, we are unable to support firm conclusions with the evidence available.

In Dumfries and Galloway, the response rate to telephone calls were higher than household visits. The ERO was also able to capture a proportionally larger volume of information on changes to household composition, as shown in Table 22 above, by the 4% change response rate, which was four times higher than the change response rate for household visits (0.7%).

In Luton, there was also a high response and change response rate to telephone calls, though in this instance the household visits were more effective in both the intervention and control group.

Table 22 - Percentage of response and change response rates for the legislated canvass compared to households visits and reminder telephone calls under the telephone model

LA / VJB	Control		Intervention			
	Household Visits		Household Visits		Reminder Telephone Call/s	
	Response Rate	Change Response Rate	Response Rate	Change Response Rate	Response Rate	Change Response Rate
Dumfries and Galloway	27.3%	0.7%	33%	3%	56.8%	4%
Luton	60%	20.5%	63%	24%	59.7%	15.2%
South Ox and Vale of White Horse	61.7%	12.1%	-[i]	-[i]	11.1%	1.6%

[i] data *excluded due to inconsistent process at household visit stage (Annex E)*

Response rates were lower in South Oxfordshire and Vale of White Horse where, in isolation, the household visits were much more effective. Despite this, as shown in the analysis above, their pilot overall was as effective as the legislated canvass. This result suggests that telephone calls, alongside a potential replacement for household visits, could also be an effective prompt to return postal HEFs.

As shown in Table 23, although South Oxfordshire and the Vale of White Horse had the lowest response rate to their reminder telephone call, they had the highest response and change response rate to the HEF that followed.

Table 23 - Percentage of response and change response rates for the second reminder postal contact under the intervention canvass

LA / VJB	Intervention	
	Second Reminder Postal Contact (delivered following reminder telephone call/s)	
	Response Rate	Change Response Rate
Dumfries and Galloway	37.5%	4.8%
Luton	27.1%	6.5%
South Ox and Vale of White Horse	48.1%	8.4%

While there is a limited amount of data available, it indicates the potential usefulness of a step that is not used in the legislated canvass. As with the use of emails, EROs could not

publicise the telephone contact method since it was being piloted alongside the legislated canvass.

When comparing the telephone step to the household visits, we are aware that the control group household visits were carried out at different stages in each piloting authority and in different ways. For example, South Oxfordshire and Luton completed their visits at the second stage of the canvass, whereas Dumfries and Galloway completed them at the final stage.

South Oxfordshire and the Vale of White Horse also delivered a second reminder HEF alongside their household visits, yet Dumfries and Galloway and Luton posted these separately (at the final and penultimate stages of the canvass respectively).

As a result, it is difficult to conclude the most effective contact method in a robust way. In particular, the results from Luton and Dumfries and Galloway highlight the effectiveness of telephone calls, and that overall, the telephone model was just as effective in gathering the same volume and quality of information as the legislated canvass.

5.6.5. Supplementary Analysis

We have only been able to provide limited qualitative evidence for the telephone model in addition to the MI presented above, as only three authorities chose to pilot this approach.

One ERO found the telephone model an incredibly useful way to conduct the canvass, as it had been run in their area before the implementation of IER and they were familiar with the process.

There did not seem to be any concerns from EROs over the impact that the telephone model could have had on the electoral register. There was a belief that the authorities were receiving similar response rates under the alternative canvass when compared to the legislated canvass. One ERO stated that they believed response rates to be higher for the telephone step than the household step, as explored in section 5.6.4, and that electors were more receptive to receiving a phone call than a door knock.

EROs reported only receiving a small number of queries from electors concerning the legitimacy of the telephone calls, and wariness to provide personal information over the phone. However, overall EROs believed electors had accepted the alternative canvass with minimal disruption and no complaints. EROs believed electors were willing to engage with the process, but did report negative responses from those that were called in the evening.

Despite the positive MI outcomes and cost data analysis, EROs did state some concerns over the pressure they experienced during some delivery stages. One ERO also commented about the language barriers they encountered when calling electors, and in some cases found it difficult to gather the information they needed when a common language was not shared.

5.7. Additional Findings for all Pilot Models

5.7.1. Financial and Resource Savings

All piloting authorities expressed positive views about the impact of the alternative canvass models on resources and there was a consensus that there had been significant financial and staff savings, driven by the use of data matching, emails and HNLs.

EROs believed the alternative canvass models had produced significant cost savings in printing, postage, and staff. There was no requirement to increase staffing levels to conduct the alternative canvass successfully, as usually experienced under the legislated canvass, and authorities found they were able to use their existing team resources and avoid hiring temporary staff.

Alongside this, the majority of EROs expressed that staff workload had been significantly reduced during the running of the alternative canvass models, and that the canvass period was considerably less stressful compared to previous years. The pressure on staff was greatly reduced with no overtime required, and some EROs were able to approve annual leave for staff that would usually be impossible.

It was suggested that reduced workloads allowed EROs and electoral service teams to focus additional activities on other areas of the electoral registration system, such as specific targeting of under-registered groups. Some EROs found they were able to split their resources equally between the annual canvass and ongoing boundary reviews, which in previous years had been impossible.

The reduction in paper, especially through the use of emails and absence of reminders and pre-paid envelopes for some areas, was cited as being a sustainable way of conducting the canvass alongside making significant savings across the year.

5.7.2. Pre-Paid Envelopes

The majority of authorities piloting the discernment and HNL models chose not to include a pre-paid envelope with HNLs in order to drive a channel shift, resulting in a small amount of queries from electors over the exclusion of the envelope. EROs felt that when they explained no change responses were not needed, electors appeared to be pleased that councils were attempting to save money.

It was felt that not including pre-paid envelopes did encourage people to respond via telephone or online, but one ERO believed that if a HNL included a pre-paid envelope electors would still opt to use it even if there had been no change. This suggests that it is difficult to encourage a channel shift with the inclusion of a pre-paid envelope, as electors will automatically use one if provided.

Despite this, one ERO piloting the discernment model believed that not including a pre-paid envelope, even if they were included in reminders, resulted in a lower response rate and did not cause a channel shift to online response methods.

Discretion was given to piloting authorities as to whether they included pre-paid envelopes for HNLs and HEFs in the intervention branch of each model, and the MI that was collected did not provide response channel rates for each step of the alternative canvass processes. As a result, we have been unable to fully evaluate whether a channel shift has indeed taken place.

5.7.3. ITR Cycle

Some EROs commented on how they believed the alternative canvass processes had positively impacted the ITR cycle.

Electors receiving emails were able to follow a link and complete both HEF and ITR forms at the same time, as the HEF online response mechanism provides a link to the Register to Vote government website, allowing electors to complete an online ITR immediately after completing a HEF.

It was believed that this use of emails simplified and streamlined the two-stage process and reduced elector confusion about receiving an ITR after completing a HEF.

5.7.4. EMS Supplier Feedback

EMS suppliers suggested that the current alternative canvass models used in the pilots were designed for monitoring and reporting rather than for ease of user experience, so additional changes would be required in order to make them suitable for long-term use under canvass reform, including user interface; training; reporting; and how emails are included and excluded.

The discernment model was recommended by one supplier as the preferred option for canvass reform, as it provided data matching alongside the main features of the other three models. Following on from earlier comments, it was acknowledged that the discernment step would need to be flexible with improved functionality, and one supplier suggested it would have to be redesigned for LAs/VJBs that do not have suitable data, in order for them to match electors successfully.

Similarly, the suppliers suggested that the email step also needs greater flexibility, with integration of the single occupancy tick box functionality.

5.7.5. Under-Registered Groups

Although not an objective of the pilots, we were interested in seeing whether the alternative canvass processes had impacted on under-registered groups (URGs).

Most EROs did not believe there had been an impact either way, but several did suggest they had more time than under the legislated canvass to concentrate resources on encouraging URGs to register to vote. Some EROs were able to target their resources towards exploring new engagement methods with different URGs, such as students, and promoting electoral registration in schools.

6. Conclusion

Our primary policy objectives were to assess whether alternative approaches to canvassing could result in the same or a greater volume and quality of information, at a lower cost, compared to the process prescribed in legislation. With these objectives in mind we set about answering three research questions:

1. Do more efficient and at least as effective alternatives to the legislated canvass exist and, if so, can they be successfully implemented?
2. What impact, if any, did the various elements of the alternative canvass have on the quality and quantity of information collected, and on the cost of the canvass?
3. What, if any, are the other important costs or benefits to the alternative approach?

Overall we found that while each model was successfully implemented, only the telephone and email canvass models were both cost efficient and as effective as the legislated canvass. The HNL and discernment models, though more cost efficient, were not as effective as the current legislated canvass.

The alternative pilot models all cost less than the usual canvass. On average the telephone model was 30% less expensive and the email model 22% less expensive than the usual canvass. As well as achieving a saving, both were also as effective as the usual canvass and captured the same volume and quality of information.

The HNL and discernment models made even larger savings. Using a HNL meant the requirement to contact most households more than once was removed. This led to an average 65% saving for the HNL model and 37% saving for the discernment model. However, both of these models also captured a lower volume of information compared to the legislated canvass and as a consequence were not as effective as the usual canvass.

Under the HNL model this result can clearly be attributed to the HNL. Contacting electors only once did not elicit enough responses from households that needed to report a change. Under the discernment model the cause is less clear. One aspect to consider is that although HNLs were only sent to households that matched local data, contacting households once may simply not be sufficient enough to gather information on changes in household composition where they are required. Another contributing factor may be that in every pilot authority, the vast majority of households do not need to report a change in household composition, and therefore should not necessarily need to be contacted more than once. Considering this, the quality of data used by EROs to route households to the HNL is also a factor in explaining why the discernment model was not as effective as the usual canvass.

While the discernment model needs to be refined, our analysis did show that there were benefits to the new processes it introduced.

Firstly, we found that the change response rate for HNLs used in the discernment model was generally lower than the HNLs sent under the HNL model. This indicates that, though the quality could be improved, using data is both effective in targeting households that do not need to report a change in household composition, and a cost saving measure.

Secondly, in both the email and discernment models, using two emails alongside one posted HEF and a household visit resulted in a proportionally higher volume of change compared to the legislated canvass. The difference between the control and intervention groups was more pronounced under the discernment model; again indicating that data can equally be used to target resources where changes in household composition are more likely.

With between 57% to 83% of households across the pilot sites reporting that there had been no change to their household composition, a data driven approach that targets resources appears both an effective process and cost saving solution.

In 2016 there were twice as many additions to the register outside of the canvass period[34], pointing towards the decreasing importance of the canvass process in its current form. While the legislated canvass implemented in each control group was used to assess each alternative model, EROs emphasised their reservations about returning to the current legislated approach. A collective belief that the current process is costly, repetitive and results in few positive outcomes reiterates clear support for these modernisation attempts.

Whilst the telephone and emails models did achieve both primary policy objectives, there is equally as important evidence from the discernment model that can be taken forward for canvass reform.

[34] Electoral Commission, Analysis of the December 2016 electoral registers in the United Kingdom, March 2017
https://www.electoralcommission.org.uk/__data/assets/pdf_file/0010/222877/Analysis-of-the-December-2016-electoral-registers-in-the-United-Kingdom.pdf

7. Annex A - Selection Process

The three pilot areas in 2016 were self-selecting. While there would be benefits to random selection, this was not practicable for this initial efficacy study.

In the first instance, a selection of authorities were invited to express an interest in participating and those applying were then invited to submit more detailed proposals. However, there was insufficient information in most proposals and LAs/VJBs were asked to supply a business case outlining their problem, proposed solutions, and preferred approach to piloting, potential risks, and assumptions, along with any supporting data.

Cabinet Office reviewed the business cases and these were returned to LAs/VJBs with the opportunity to make amendments ahead of assessment by a senior panel, comprising the Deputy Director of Modern Electoral Registration Programme (MERP), Deputy Director of Elections Division (ED), and Head of Research at the Electoral Commission (EC). It was only after the panel's recommendations were agreed by the Programme Board for the Electoral Registration Transformation Programme (ERTP) that EMS suppliers were fully consulted, as up until this point, the scale of the required changes was unclear.

Given the announcement of the EU referendum and their existing commitment to deliver short term cost optimisation measures, one EMS supplier was unable to commit to delivering the changes required for piloting in the given timeframe, effectively excluding their customers from participation. A second supplier had just one customer wishing to pilot and this customer later withdrew from piloting. A third supplier had two customers wishing to pilot the same approaches, however they were unable to provide the required additional information in sufficient time.

This meant that just one supplier, and three local authority areas, were involved in piloting two alternative approaches to canvassing in 2016.

Several business cases were not taken forward in the 2016 pilots, and these ERO-led ideas were used as the foundation for designing the 2017 canvass pilots. We originally developed five alternative canvass models and these were subjected to intense scrutiny by electoral administrators and EROs, the EC, the Association of Electoral Administrators (AEA), and Scottish Assessors' Association (SAA) through a range of forums. Following detailed feedback, four options were decided to be taken forward for piloting.

A full briefing pack was sent to all EROs across Great Britain on 30 August 2016 which confirmed the approach to piloting and set out how they could apply to participate. The pack included a Q&A annex which was aimed at providing clarity on the frequently asked questions from electoral administrators and other stakeholders raised during the consultation period. A series of workshops were conducted in September 2016 to speak to EROs interested in applying and to give them the opportunity to seek clarity on any outstanding questions or concerns.

Cabinet Office received 71 applications, and these applicants were placed into a template that was populated with data on the characteristics under consideration, including estimate of population churn; population size; geographical location; and EMS supplier. We also took into account any external factors, such as elections in 2017, that could have affected the level of risk attached to pilots in particular LAs/VJBs.

Successful applicants were informed of the opportunity to participate in the pilots during October 2016 and Cabinet Office visited the sites during the autumn to extensively discuss

and plan the delivery of the alternative canvasses. All sites were assigned a Delivery Manager that became the main point of contact for EROs throughout the pilot process.

Given the applications submitted, it was not possible to achieve a perfectly even spread across all key characteristics. We believe that the twenty-four chosen areas met the selection criteria best given the constraints presented by the applications. We believe that the selection process was conducted in a fair and analytical manner in accordance with our pre-approved decision criteria.

7.1. Selection Process Methodology

Below outlines the basic step by step method used for applying the selection criteria to the LAs/VJBs who applied to participate in the canvass pilots.

1. Information from application forms and further supporting data was brought together. Because geographical region was our priority criteria, LAs/VJBs were grouped by region.
2. To decide which authorities should be taken forward in each region initially, each applicant was ranked from highest to lowest based on their 'potential/suitability'. This was calculated using data provided by applicants, such that those with the most email addresses, telephone numbers or 'no change' responses for the greatest proportion of households were ranked at the top. EROs who did not supply this information in their application form were placed at the bottom of the list[35].
3. To get an even geographical spread for each region, the top two authorities were then taken forward, unless the region included one of the three 2016 pilot areas, in which case they were selected instead. This resulted in twenty-two local authorities being initially selected.
4. This list of authorities was then checked to ensure that there was a reasonable spread of characteristics across all other criteria, in the following order of priority:
    a. Across high, medium and low churn areas
    b. Across the four pilot models
    c. Across commercial EMS suppliers.

    We also sought to ensure that where possible, EMS suppliers were piloting a range of different models.
5. The check revealed the following issues with the authorities selected:
    a. High churn areas were under-represented, whilst medium churn areas were over-represented.
    b. Model 1 was over-represented, whilst models 2 and 4 were under-represented.
    c. EMS suppliers 1 and 3 were under-represented, whilst supplier 5 was over-represented.
6. Where we were unhappy with the spread across the above criteria, we sought to swap the selected authorities to improve the spread. This was done in order of the priority of the criteria, and where all other characteristics were the same, or where the swap improved the spread for another characteristic (or at least did not worsen the spread for a higher priority characteristic).

[35] Note that whilst churn, amongst others, is a higher priority criteria than 'potential/suitability', sorting first by 'potential/suitability' allowed us to assess the spread across the key criteria and then adjust. While we could also sort by 'churn' within each region, this would not change the order in which LAs/VJBs are selected and would make the manual process of selection more difficult.

7. Because models 2 and 4 were under-represented, where there were applications for models 2 or 4 in a region, these were selected and swapped in to replace a previously selected authority. The authority that was then removed (of the two that were selected for that region) to make room for the new selection, was whichever was the lowest ranked (in terms of 'potential/suitability') that was piloting model 1. Eight LAs that were piloting model 1 were swapped for five authorities piloting model 2, and three authorities piloting model 4.
8. There were only three applications from authorities using EMS supplier 1, and supplier 5 was over-represented. Where there were applications for supplier 1 in a region, these were selected and swapped in to replace a previously selected authority (where possible without altering model spread). The authority that was then removed (of the two that were selected for that region) to make room for the new selection, was whichever was the lowest ranked (in terms of 'potential/suitability') that was using supplier 5. Only one swap was possible.
9. Selections to pilot with EMS supplier 3 were also under-represented. Where there were applications for supplier 3 in a region therefore, attempts were made to select these and replace a previously selected authority (where possible without altering model spread). In this case because there were no possible swaps that could be made from authorities using supplier 5 (of the two that were selected for that region) without altering higher priority criteria (model and churn), the authority that was removed to make room for the new selection was whichever was the lowest ranked (in terms of 'potential/suitability') that was using supplier 2, which was the next most highly represented supplier. Only one swap was possible.
10. Finally, because supplier 3 was only selected to pilot 1 type of model, a swap was made to ensure more diversity in the models piloted by this supplier. Only one swap was possible.
11. By making the above swaps, we also ensured that our higher priority criteria of churn was now equally spread. Below shows the full list of twenty-four authorities selected, and the spread across characteristics:

Selected Authorities	Region	Churn	EMS Supplier	Model
South Holland	East Midlands	Medium	Supplier 5	1
Derbyshire Dales	East Midlands	Low	Supplier 1	2
South Norfolk	East of England	Medium	Supplier 5	1
Luton	East of England	High	Supplier 2	4
Camden	London	High	Supplier 1	3
Hounslow	London	High	Supplier 2	2
Newcastle	North East	High	Supplier 5	1
Sunderland	North East	Low	Supplier 5	3
Barrow	North West	Low	Supplier 1	1
South Lakeland	North West	Medium	Supplier 2	3
Dumfries & Galloway	Scotland	Low	Supplier 4	4

Glasgow	Scotland	High	Supplier 3	3
South Ox & Vale of White Horse	South East	Medium	Supplier 5	4
Woking	South East	Medium	Supplier 5	2
East Devon	South West	Medium	Supplier 5	4
Bath & North East Somerset	South West	High	Supplier 2	2
Torfaen	Wales	Low	Supplier 3	1
Blaenau Gwent	Wales	Low	Supplier 3	1
Birmingham	West Midlands	High	Supplier 2	3
Coventry	West Midlands	High	Supplier 5	2
Ryedale	Yorkshire	Medium	Supplier 2	1
Wakefield	Yorkshire	Low	Supplier 3	1

7.2. Rationale

The chosen selection criteria were based on the factors most important for testing and evaluating different approaches to canvassing, and for providing the best evidence for canvass reform[36]. The table below lists these in order of priority as determined by the project team.

Criteria	Justification
Geographical location Scotland Wales North West England North East England Yorkshire and The Humber East of England West Midlands South East England East Midlands South West England London	To ensure that the 'whole' of the UK is represented in the pilots and help make the case for canvass reform in parliament (i.e. so that it cannot be claimed that the pilots only work in specific areas).
Population churn[37] high - top 25%	To test whether approaches different to the standard canvass are suitable across different types of LAs. Churn (i.e. people moving in

[36] In addition to the above, 'LA type' (rural vs. urban) and 'Population density' were also considered as a possible selection criteria, however a preliminary analysis showed that these characteristics were largely represented by 'churn' (i.e. the majority of rural areas were low density and low churn etc.)

[37] Adapted from data from the Office for National Statistics licensed under the Open Government Licence v.2.0
Internal and International Migration for the United Kingdom
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/internalandinternationalmigrationfortheunitedkingdomintheyearpriortothe2011census/2014-11-25

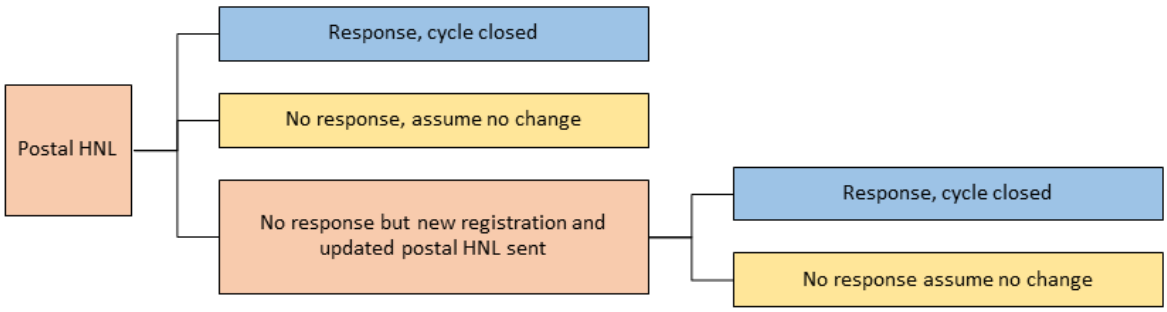
medium - medium 50% low - bottom 25%	and out of the area) is one of the most important factors in maintaining a complete and accurate register. This will help make the case for canvass reform in parliament (i.e. so that it cannot be claimed that the pilots only work in specific types of LA)
Pilot model Option 1: HNL Option 2: Email Option 3: Discernment Option 4: Telephone	To ensure that a range of different options to the standard canvass are possible, and to ensure that a range of LAs have the option to participate (by having an option appropriate for them). Pilot model was prioritised over EMS because if there were no applications from a supplier for a particular model, then increasing the number for a supplier would not give more value.
EMS supplier In-house Halarose Xpress Democracy Counts Idox	To ensure that we did not interfere with competitive *commercial* markets, and to ensure that all EMS suppliers will be capable of delivering when permanent change to legislation is made. We also attempted (where possible) to ensure that EMS suppliers are piloting a range of different model types. Note: we will not force EMS suppliers to develop particular models, but instead try and ensure a reasonable level of equality.
Potential/suitability **Option 1: HNL** % of 'no change' responses to HEF **Option 2: Email canvass** % of emails held for households **Option 3: Discernment, HNL or Email canvass** % of 'no change' responses to HEF and % of emails held for households **Option 4: Telephone canvass** % of telephone numbers held for households	To ensure that the model chosen by an LA was appropriate for their area. This was only used as a final determining factor for choosing between similar LAs.

8. Annex B - 2016 Alternative Canvass Models

8.1. Ryedale

Ryedale tested an approach whereby every household was sent a HNL. The HNL, issued by post, listed the details of everyone registered to vote in that household and advised that where the details held were no longer up to date, the household should respond. If there were no changes to the details given in the HNL, no response was required. If there was no response to the HNL but a new registration was received at the property, or the ERO obtained sufficient evidence to remove an elector, the household received a second HNL, showing the updated details of electors in the household and reminding the household to inform the ERO of any further changes.

Figure 1: HNL canvass model high level workflow



8.2. Birmingham and South Lakeland

Birmingham and South Lakeland tested an approach whereby initial data matching[38], against locally held data sets, routed households to one of two canvass cycles.

Route 1: Where the ERO believed the data did not indicate a change in the electors at a given residence, that household was sent a HNL. The HNL, issued by post, listed the details of everyone registered to vote in that household and advised that where the details held were no longer up to date, the household should respond. If there were no changes to the details given in the HNL, no response was required. If there was no response to the HNL but a new registration was received at the property, or an ERO obtained sufficient information to remove an elector, the household received a second HNL, showing the updated details of electors in the household and reminding the household to inform the ERO of any further changes.

Route 2: Where the ERO believed the data indicated a change in the electors at a given residence, that household was subjected to one of two more intensive canvass processes:

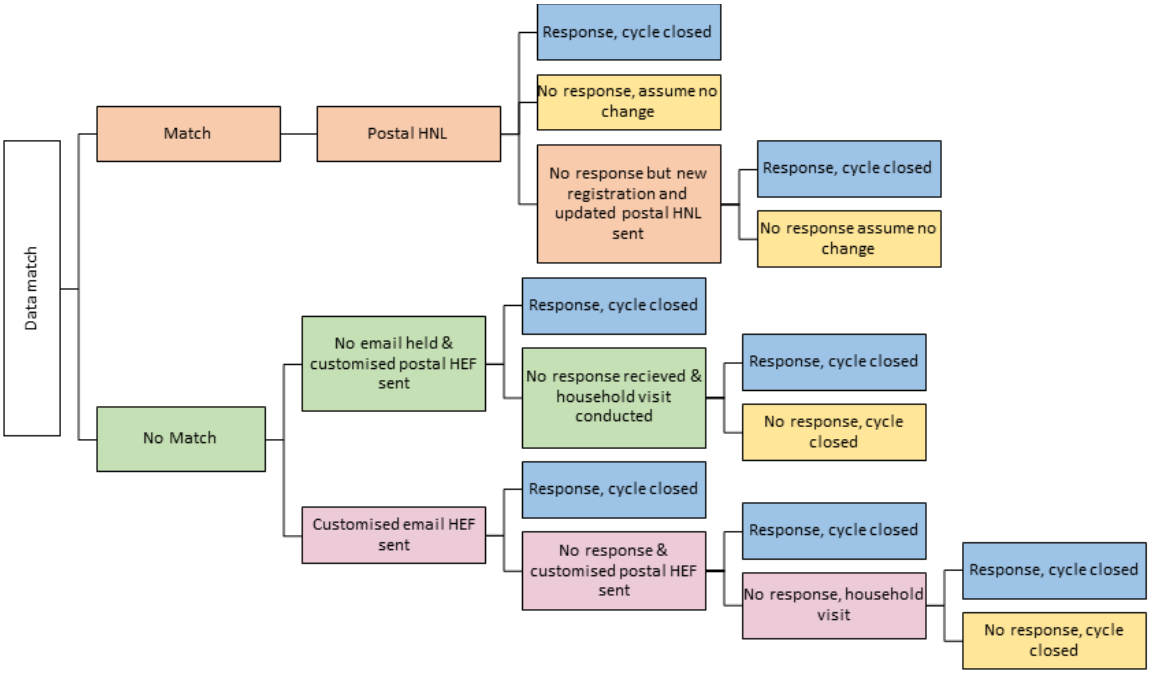
Route 2b: Where no email address was held against individuals over the age of 18 or the household, that household was issued an initial paper HEF, containing a link to an online canvass form and with an option to reply by post using a pre-paid envelope. If there was no response to the initial paper HEF, the household was visited by canvalternaiassers. If there was no response at this stage, the chasing cycle was closed.

Route 2b: Where an email address was held against either an individual over the age of 18 or the household, that household was issued an initial email containing a link to an online

[38] A strict matching threshold of 100% was used in South Lakeland, meaning that all electors in each household had to match. A lower threshold of 75% was used in Birmingham, meaning that 3 out of 4 electors in each household had to match.

canvass form. If there was no response to the initial email, the household was posted a paper HEF, containing a link to an online canvass form but with an option to reply by post using a pre-paid envelope. If there was no response to the first reminder paper HEF, the household was visited by canvassers. If there was no response at this stage, the chasing cycle was closed.

Figure 2: Discernment canvass model high level workflow



9. Annex C - RCTs

9.1. Rationale

In order to ascertain how effective and efficient the alternative canvass models are, we need to test them and compare the outcomes to the current legislative process. We need to be confident that we can say that if there are different outcomes, these can be solely attributed to the alternative approaches.

RCTs are widely accepted as the most rigorous way of determining whether a causal relationship exists between an activity and the outcome. By using control and intervention groups to compare the results of two approaches delivered at the same time, we can show that the difference in outcomes is due to the presence or absence of the alternative canvass process, rather than other changes that could affect canvass response rates.

The households are randomly allocated to each group as this ensures there are no systematic differences between the groups that may affect the outcome e.g. demographics, population characteristics, or external factors. This allowed us to measure the size of any difference in outcomes and attribute this difference to the solution being tested. This would not be possible with other approaches.

It is paramount that the trial delivers clear results so that we can be certain of the impact and evaluate the outcomes robustly. This will ultimately provide the best outcomes for all as we can be confident we know which approaches, if any, are effective and we will have sufficient evidence to make a case for change. For these reasons both the Cabinet Office and Electoral Commission decided that this would be the best approach.

9.2. Rejected Alternatives to RCTs

9.2.1. Comparisons with previous IER canvass years

Instead of RCTs, one option could have been to roll out the alternative canvass across a whole LA/VJB in place of the legislated canvass, and compare key measures with those from 2016 and 2015. However, canvass costs and outcomes in previous years will be affected by the low incentive to register following the major elections of the past two years, including the UK Parliamentary General Elections in 2017 and 2015, and the EU Referendum in 2016.

The 2015 canvass was also unique as it was the first IER canvass, where EROs and electors alike were still becoming accustomed to new processes. There is a risk that the volumes of information collected in the months after a poll would be lower than in other years, and this would have an impact on costs as the HEF chasing cycle could be longer and more expensive, but could result in fewer and therefore less expensive ITRs.

In addition, using this method requires sufficiently comparable and in depth data from 2015 and 2016. While we do hold some data from 2015, we are not confident it would be sufficiently granular to answer our specific questions.

9.2.2. Comparison with another matched local authority

Another option could have been to roll out the proposed alternative across an entire authority in place of the 2016 canvass and compare key measures in 2016 with those from a ‘similar’ authority where the canvass was completed according to current legislative requirements. In this case there are potentially many other factors that could influence outcomes, most obviously that the piloting authority is self-selecting and could be more forward thinking and innovative in other ways than the authority they are using for a comparison.

Another key issue would have been ensuring that data was provided by an authority not involved in the canvass piloting and therefore not listed in the pilot legislation. It would not be possible to require an authority not named in pilot legislation to provide this data and it would likely be resource-intensive to acquire and not to the same standard as the other authority. We would also be concerned that the methods used to collect the data would differ in approach and standard between the two authorities.

9.3. Sample Sizes

For the 2016 pilots, 5% of the households in the canvass were randomly assigned to the control group, and the remaining 95% were assigned to the intervention group. As such, our RCT for 2016 had unequal intervention and control groups.

For each authority selected to participate in the 2017 pilots, we carried out a 'power analysis' to identify the minimum number of households required for the pilot sample, to be confident that outcomes from the trial were not just due to chance. Some households that required a separate canvass process, such as care homes, were excluded from the pilot by the ERO.

Following this, all remaining households were subject to the randomisation process that assigned a set proportion of households to the control and intervention groups. The sample sizes that were set for each LA/VJB can be found below:

LA/VJB	Control Group Size	Intervention Group Size
Barrow	30%	30%
Bath & North East Somerset	15%	15%
Birmingham	15%	15%
Blaenau Gwent	30%	30%
Camden	15%	15%
Coventry	15%	15%
Derbyshire Dales	30%	30%
Dumfries & Galloway	15%	15%
East Devon	10%	90%
Glasgow	15%	15%
Hounslow	15%	15%
Luton	15%	15%
Newcastle	15%	15%
Ryedale	35%	35%
Salford	50%	50%
South Holland	25%	25%
South Lakeland	20%	20%
South Norfolk	20%	20%
South Oxfordshire & Vale of White Horse	15%	15%
Sunderland	50%	50%
Torfaen	25%	25%
Wakefield	15%	15%
Woking	25%	25%

10. Annex D - Data Sources

10.1. EMS Management Information

The EMS supplier built reporting functionality and supplied data, which was used to help assess the volume and quality of information gathered through the two canvass approaches and to gain some understanding of what factors contributed to these outcomes. The specification was designed by the Cabinet Office and agreed to by the EC. This data also supported our assessment of the cost of the four canvass approaches.

Upon publication of the revised registers, EROs were able to generate a report containing management information (MI) directly from the EMS. The report provided detailed counts of households (or individuals if appropriate) at each stage of the canvass workflows in both the intervention and control groups. This tells us for every stage, the number of responses received, whether these indicate change/no change and what, if any, the subsequent changes are resulting from their response.

This enabled us to answer the overarching questions around volume and quality of information gathered and contributed to answering questions around costs.

10.2. In-Flight Interviews

We conducted semi-structured interviews with EROs and electoral administrators from each piloting LA in November 2016, just before the end of the 2016 canvass, and eight LAs/VJBs from a mixture of 2017 piloting authorities during September to November 2017. Each interview was recorded and transcribed by an external company. The transcripts were thematically analysed by researchers to draw out and verify key findings, similarities and differences across the LAs/VJBs.

The exercise helped us capture the views of electoral service team staff on what worked and what did not while the pilots were still 'live', ensuring key lessons were not lost. We collected LA/VJB views on the pilot delivery as well as on the new canvass approach. For 2017, we additionally discussed the idea of legislation change and what the canvass could possibly look like after reform.

Findings from the interviews were used to shape the process questionnaires issued at the end of the canvass period.

10.2.1. 2017 Interview Topic Guide

The new canvass (35 mins)
What has it been like to deliver the new canvass? - What have you found the most difficult? Did anything surprise you?
What was the impact on resources if any? - Has the new process been more or less time consuming than the usual canvass (control)? - Has headcount grown (by how much, what roles - e.g. management)? - Have extra hours been needed (how many)? - What impact has the new canvass had on the team's well being?
To what extent, and how, have these outcomes been a result of the EMS software and supplier? - How did you find the training?
Do you have any insight into any impact on the elector user journey? - Have you had a different number of complaints or calls from electors this year? - Has the nature of their feedback changed at all?

How do you think the new canvass will affect register completeness and accuracy? - Do you think you have been notified of the same amount of change in each group? - Do you think there is any difference in the number of changes reported in a canvass response that are being realised in terms of changes to the register?
Do you have any insight into any impact on under-registered groups in your area?
Have there been any other impacts from the new canvass, positive or negative? - Did the new canvass introduce any other costs? What was the environmental impact?
National Roll out (20 mins)
Reflecting on this, would you run this same canvass model again in the future? - Would this new canvass work as well/as badly in a non-election year? - Can you think of any other external factors that can impact on this canvass model in the future? - Are there any ways in which you would want to change this model to make it work better in your area? - Do you think including/excluding pre-paid envelopes has an impact? What and how? - Do you think the response channels offered has had an impact? What and how? - What about to make it work in other areas?
Do you have an early indication of preferring the existing or alternative canvass? Why?
You mentioned earlier/Our Delivery Managers noted you deviated from your plans/experienced issues with XXXX. Tell me more about this? - What prompted the change? - How did you resolve the issue? - How might you prevent it in future? Or would you envisage this being an improved approach to delivery? - Do you think this issue will have affected the impact of the canvass at all?
Do you think that this canvassing model could be successfully implemented in other LAs?

10.3. Process Questionnaires

Open-ended questionnaires were delivered to electoral service teams at the end of each canvass period and after the publication of the official register, offering authorities the opportunity to share their views following a period of reflection. For 2017 piloting authorities, we additionally asked for LA/VJB opinions on canvass reform and legislative change. Seventeen of the twenty-three LAs/VJBs responded in full to the 2017 survey.

Similarly, EMS suppliers were also issued questionnaires at the end of each canvass period, prompting the supplier to consider key stages of the pilots and reflect on what, if anything, was effective and what, if anything, was problematic for both the pilot delivery and new canvass approach. We used data collected from the 2016 survey to make improvements on the alternative canvass models for the 2017 pilots, and to better understand key obstacles to rolling these out across other LAs/VJBs in the future.

Responses were received by a mixture of emails and an online survey tool.

10.3.1. 2017 ERO Survey

1. Please can you tell us your opinion of the canvass model you piloted in 2017?

2. Did you experience any issues or challenges with the new pilot model (or specific stages of the model) that you did not expect to arise, and any issues that could have been forseen?

If so, please explain what these issues were, how they were handled, and how you might avoid or mitigate them in the future.

3. Having had time to reflect, do you think you would want to use the model you piloted again or would you want to revert back to the normal, legislated canvass?

4. Do you think the new canvass models could be easily rolled out nationwide?

5. Thinking about the future and legislative changes to the canvass, how much flexibility do you think local authorities/valuation joint boards should have in canvassing?

6. Reflecting on the overall process, do you have any additional comments about your experience of delivering a 2017 canvass pilot?

10.3.2. 2017 EMS Supplier Survey

1. Thinking about developing and supporting models during the 2016 and 2017 canvass pilots:

   a. Was the process of rolling out and extending the 2016 pilot models to other authorities in 2017 as easy as you previously predicted? If not, why?
   b. How challenging was it for you to support double the number of areas in 2017 as you did in 2016?
   c. How did you find developing and delivering two additional models in 2017? Did you face new challenges?

2. Thinking about the EMS Functionality that you developed for the canvass pilots:

   a. How likely is it that you would be able to roll out the models as used in the canvass pilots to all of your customers ahead of the 2018 canvass? Please give your answers on a scale of 1 to 5. (Please select the number that best represents your answer, 1 being the least feasible and 5 being extremely feasible).
   b. And if you were asked to roll out in 2019? (Please select the number that best represents your answer, 1 being the least feasible and 5 being extremely feasible).
   c. What additional work would you foresee needing in order to make these models available to all of your customers to run in place of the existing canvass if desired? (For example, if the exact canvass pilot models are delivered, and not modified, modular options).
   d. How likely is it that you would be able to offer bespoke options to all of your customers in time for the 2018 canvass, where they could combine different types of contact attempts to build a workflow? (Please select the number that best represents your answer, 1 being impossible and 5 being certain).
   e. And if you were asked to offer bespoke options in 2019? (Please select the number that best represents your answer, 1 being impossible and 5 being certain).
   f. Can you offer a more flexible (i.e. providing functionality to switch between canvass models) or a more rigid approach (i.e. retaining the same model year on year) when providing alternative canvass models? Why would this be the case?

3. Thinking about the EMS Functionality training and support you would be required to provide in the event of permanent change:

   a. How much support, if any, do you think the local authorities will require following the initial training, and will it be more or less than usual? Do you think particular aspects of functionality might require more support than others?
   b. How long do you expect it to take for you to design and deliver training to all local authorities for them to be able to confidently use different options in the EMS?

(Please select the number that best represents your answer, 1 being a week and 5 over a month).

c. What barriers, if any, would you face in designing and delivering training to local authorities in the time frame specified above? Would you face similar barriers over a longer or shorter time period?

4. Would you expect to encounter any issues or obstacles when working with the local authorities to deliver alternative canvasses nationwide? If yes, please detail: what you expect to happen; why you think this is likely to happen; steps you may take to overcome or mitigate against this and any concerns you have regarding your capacity to overcome these issues.

5. Do you have any expectations for Cabinet Office in your working relationship with local authorities in delivering permanent change? If so, what should it be? (For example, would you expect Cabinet Office to produce technical specifications for local authorities)?

6. Thinking about the discernment step:

a. What would you do differently or improve on if you were building this particular model for wider roll out / long term use?

7. Thinking about email communication with households:

a. What would you do differently or improve on if you were building this particular model for wider roll out / long term use? (For example, there were issues with security, or the perception of security issues, with the use of emails. Do you see a way to improve on the security of emails)?

8. Thinking about telephone communication with households:

a. What would you do differently or improve on if you were building this particular model for wider roll out / long term use? (For example, if there were any issues with security, or the perception of security issues, with telephone calls. Do you see a way to improve on the security of telephone calls)?

9. Are there any other key lessons learnt, or additional information, you would like to supply to inform the implementation of permanent change

10.4. Household Visit Data

This data was collected from each LA/VJB via a bespoke form for canvassers to record during doorstep visits. Where applicable, we asked for this data to be recorded separately for control and intervention households. This data supplements and helps ratify the EMS MI, given this is an 'offline' activity, and we are aware of reporting limitations that could potentially distort EMS MI.

10.4.1. 2017 Household Visit Forms

	Intervention Group	**Control Group**
How many households were due to be visited, at the start of the door-knocking stage of the canvass?		
How many households were actually visited by canvassers, by the end of the door-knocking stage of the canvass?		

10.5. Cost (Monetary and Resource) Data

A key question the pilots seek to answer is whether the piloted methods of canvassing will reduce the cost of the canvass. To answer this the evaluation of the pilots will need to consider and compare the costs of the canvass activity for both the intervention and control groups. This will be informed by data collected from the EMS MI, and supplemented by additional cost data collected from participating EROs at the end of the the pilot.

The Cabinet Office provided standardised forms for EROs to record all of the costs incurred throughout the pilot, separated into control and intervention groups. These costs were often difficult to apportion accurately between control and intervention. Several expenses were incurred for items that were used for both control and intervention households. Similarly, it is particularly difficult to estimate with accuracy the proportion of staff time spent implementing the canvass for the control and intervention households.

To mitigate against this, we have utilised volume data from the EMS MI, and combined this with information from the cost data forms. We asked EROs to record batches of orders to calculate unit costs for items such as HNLs and HEFs, and scaled this up using volume data for both groups to isolate the costs of running the control and intervention canvasses. To calculate staff costs, we collected salary data from each LA, and asked EROs to record the average length of time to complete various processes. We combined this information with MI data to calculate the required staff time and subsequent cost for the control and intervention canvasses.

It should be noted that these costs are self-reported. While we produced extensive guidance to achieve consistency in the way these costs were reported, we have not verified the accuracy of the data provided against financial records.

Furthermore, there was a potential discrepancy in costs between control and intervention groups: most LAs had households that were not placed in either the control or treatment group. These households were often all treated in the same way as either the control or the treatment group. As a result, it is plausible that some orders for one group or the other (for example, bulk orders for printing and postage) may have been subject to a discount, relative to the smaller control/intervention group, due to the size of the order. We have made no attempt to adjust our cost data for this, though we expect these discrepancies to be relatively insignificant.

10.6. User Journey Analysis

We asked piloting LAs/VJBs to supply data on the number and nature of canvass related complaints received and supplemented this with information obtained through interviews or follow-up conversations with LA/VJB staff, to create a ‘logic map’ in order to theoretically compare the ‘new’ and ‘old’ steps electors would go through, and what the impact would be on the user journey.

This data has provided some insight into the nature and frequency of complaints that can be attributed to the canvass processes, in order to assess achievement against one of the project’s secondary objectives. We did this for both piloting years.

10.6.1. 2017 Elector Feedback Form

MONTH	1. What type of feedback did you get from electors?	2. What seemed to be the most common type of feedback of all those you listed?	3. Did feedback seem to be different from last year?

JULY			
AUGUST			
SEPTEMBER			
OCTOBER			
NOVEMBER			
DECEMBER			

10.7. Group Interview

We conducted a group interview with the 2016 piloting authorities in January 2018, to capture their thoughts, opinions, and any issues associated with piloting alternative canvass processes. They were able to provide a greater depth of knowledge as they had piloted for two consecutive years.

We used this to assess any longer-term impacts of the alternative canvass processes and to understand any key obstacles and impacts of rolling these out across other LAs/VJBs in the future.

10.7.1. Group Interview Topic Guide

Overall Delivery (30 mins)
How have you found the second year of running an alternative canvass model? - Was it different from the first year? How? - Have you experienced the same issues or benefits as last year, or were there new issues or benefits? Were these anticipated? - What have you found the most difficult this time? Is this different from last year? - How has the 2017 canvass performed in comparison to the legislated canvass?
Have you done anything differently this year when administering and delivering the canvass? - Have you tried different solutions this year to avoid issues you encountered in 2016? - Have any of the processes improved? Or were there new issues?
Was it easier to use EMS this time round for both the intervention and control groups? - Were any stages of the new canvassing model still difficult to do in the EMS? - Could you, or other LAs successfully deliver the pilot without training? - Based on your experience of the pilot, if you had to pick up a new model in EMS next year, how difficult / easy would you expect it to be?
Long term impact on primary and secondary objectives (40 mins)
How do you think the new canvass has affected register completeness and accuracy? - Do you think you have been notified of the same amount of change in each group in 2016 and 2017? - Do you think there is any difference in how the canvass is affecting the cycle for actual registration to vote and final additions / deletions to the register? - After two years, do you feel sufficiently confident about your register to stay with the new model, or would you want to revert to something more intensive?
What was the impact on resources if any? - Over the two years, has the new process been more or less time consuming than the usual

canvass (control)?
- Has headcount grown (by how much, what roles - e.g. management)?
- Have extra hours been needed (how many)?
- What impact has the new canvass had on the team's well being?
- Do you think any savings have been made from the new canvass?

What is your insight into any impact on the elector user journey?
- Have you had a different number of complaints or calls from electors this year?
- Has the nature of their feedback changed at all?
- Do you think electors are getting used to the new canvass faster than they got used to the introduction of IER?
- Have electors specified whether they prefer alternative response channels such as email?

Have there been any other impacts from the new canvass, positive or negative?
- Did the new canvass introduce any other costs? What was the environmental impact?

National Roll out (1 hour)

Reflecting on this, would you run this same canvass model again in the future?
- Would the new canvass work as well/as badly in a non-election, non-referendum year?
- Can you think of any other external factors that can impact on this canvass model in the future?
- Are there any ways in which you would want to change this model to make it work better in your area?

Refer to model specific questions below
- Do you think including/excluding pre-paid envelopes has an impact? What and how?
- Do you think the response channels offered has had an impact? What and how?
- Would you switch around any stages, or what you send out in each stage? e.g. email HNL?
- What about to make it work in other areas?

Would you want to go back to the legislated canvass, stay with your current model or try a different model?
- Why/why not?
- If you had to go back to the normal canvass next year, would there be any elements that you would look forward to, or the opposite?

What do you think we need to consider when designing permanent change?
- Do you think the canvass model you piloted could be successfully implemented in other LAs? Why/why not?
- How much flexibility do you think would be appropriate to include or would prescriptive guidance be useful for delivery?

What do you think we need to consider when delivering permanent change?
- What training and support do you think would be needed?
    - What kind of forums would help other LAs succeed with new models?
- How do you think delivery partners could help ensure success?
- What would be most important to ensure that implementation of permanent change is successful? - Top 3 tips

11. Annex E - Management Information (MI) Data Exclusions

To control for inconsistencies in pilot delivery in the presentation of results, we developed a methodology to exclude data from four pilot sites: Camden, Glasgow, South Oxfordshire and the Vale of White Horse, and Sunderland. These four authorities did not follow the agreed steps of the intervention model they piloted, which impacts the usefulness of the MI data for our analysis.

By including the complete data in our findings we could make a intervention model look more or less effective despite knowing the pilot process was not consistent. The results would therefore not be representative of the actual intervention model they are meant to evaluate. Rather than exclude the MI data from these areas in full, where possible we excluded the data from any step where we know the pilot process was not consistent with the agreed intervention model.

By excluding just one step, we do make the intervention canvass similar to the control canvass. Less difference between the control and intervention canvasses limits what conclusions we can make about the alternative canvass models but despite this, there are at least two more LAs/VJBs piloting each model that was affected by this, and therefore we can still make robust conclusions about the piloted intervention models.

11.1. Volume of Information

We can partially exclude data on change responses by specifically excluding households subject to the incorrect stage and their responses from our analysis. We can then calculate the total level of change garnered from the rest of the model and compare this to the control group.

11.2. Quality of Information

We cannot however exclude data on additions and deletions in the same way as volume of information. Additions and deletions data were not collected at each stage of the canvass. As it cannot be partially excluded in the same way, in our findings, we have excluded it completely for one VJB (Glasgow) and footnoted where data has been affected.

11.3. Camden

Camden piloted the discernment model. Whilst Camden did follow the entire model as prescribed, due to a firewall issue they emailed households outside of the EMS system. As a result we do not have any MI data on the emails sent, the subsequent posted reminder, and the door knocking stage. We have footnoted where this issue is applicable in the data tables of the findings section.

11.4. Sunderland

Sunderland followed the discernment model. Households for which they held an email should have received four contact attempts. This included an email, a reminder email, a second reminder letter, and a door knock, delivering a letter where there is no response.

In Sunderland, the second reminder letter was not posted and, once the email step had been completed, the canvass moved on to household visits. In effect there was only three contact attempts rather than the agreed four.

As a result, we partially excluded the data for the incorrect step. Though we risk making the control and intervention canvasses too similar to one another, by excluding only one step the two processes are different enough to still make meaningful conclusions about the model.

See Table 1 below for the complete data on change response rates in Sunderland prior to this exclusion.

11.5. Glasgow

As part of the discernment model, Glasgow sent Household Notification Letters (HNL) to 'matched' households. Households only need to respond to a HNL if there has been a change in household composition, and an online response mechanism was built to record changes.

However, this online response mechanism directed electors to the 'Register to Vote' (RTV) website, meaning they could register themselves but could not report provide all the changes in the household. The HNL was not being used as a canvass tool but instead for registration, therefore bypassing the canvass cycle completely.

This negatively impacted the pilot findings register, as Glasgow missed the opportunity to identify additional electors at each matched property. We are able to capture overall additions and deletions for the intervention and control groups, and compare the two, but additions recorded via the Digital Service cannot be tracked back to the HNL response as a trackable link was not included.

The change response rate for the HNL will therefore be inherently lower and not suitable for comparison to the control group. As a result we excluded data on change responses from the HNL from our findings. As we cannot partially exclude data on additions and deletions in the same way, Glasgow's additions and deletion data was excluded from the report. In Table 1 below, the completed data on change response rates, additions and deletions is presented.

11.6. South Oxfordshire and the Vale of White Horse

South Oxfordshire and the Vale of White Horse followed the telephone model. Their understanding of the intervention canvass was that no households were to be door knocked, and households that had a telephone number would receive the telephone canvass.

However, they should have door knocked households that they did not have a telephone number for as part of the pilot. Instead, these households only received a second reminder HEF.

Therefore, we partially excluded the data for the incorrect steps followed by South Oxfordshire and the Vale of White Horse. Again though there is a risk of making the control and intervention canvasses too similar to one another, by excluding just one step, the two processes are still different enough to make meaningful conclusions about the model. The complete data for the telephone model is shown in Table 1 below.

11.7. Complete Data Tables

Table 1 - Percentage of change responses captured in the control and intervention groups under the discernment model without data exclusions

	Control Group	**Intervention Group**	**Difference in % change response rate between the Intervention and Control Groups**
LA / VJB	**Change Response Rate**	**Change Response Rate**	
Birmingham	15.2%	9.4%	-5.8*

Camden	15.1%	5.1%	-10*
Glasgow	12.7%	4.5%	-8.2*
Salford	13.3%	9.5%	-3.8*
South Lakeland	13.2%	10.2%	-3.1*
Sunderland	10.8%	9.5%	-1.3*

***denotes where difference is statistically significant*

Table 2 - Total additions to the register and percentage of change responses converted into additions to the register under the discernment model

LA / VJB	**Control Group**		**Intervention Group**	
	Total Additions	**Addition Conversion Rate**	**Total Additions**	**Addition Conversion Rate**
Birmingham	4422*	30%*	2983*	24%*
Camden	1529*	59%*	827*	100%*
Glasgow	3495	32%	2744	42%
Salford	5603*	53%	4160*	51%
South Lakeland	922*	53%	697*	52%
Sunderland	4194*	54%	3768*	54%

Table 3 - Total deletions to the register and percentage of change responses converted into deletions to the register under the discernment model

LA / VJB	**Control Group**		**Intervention Group**	
	Total Deletions	**Deletion Conversion Rate**	**Total Deletions**	**Deletion Conversion Rate**
Birmingham	6711	80%	5572*	77%*
Camden	2960	99%	1423*	100%*
Glasgow	4583	54%	3860	41%
Salford	6992	99%	6074*	99%
South Lakeland	897	57%	862	63%*
Sunderland	6308	99%	5744*	100%

**denotes where difference is statistically significant*

Table 4 - Percentage of change responses captured in the control and intervention groups under the telephone model

LA / VJB	Control Group	Intervention Group	Difference in % change response rate between the Intervention and Control Groups
	Change Response Rate	Change Response Rate	
Dumfries and Galloway	4.2%	3.9%	-0.3
Luton	15.8%	15.8%	-0
South Oxfordshire and the Vale of White Horse	10.1%	11.45%	+1.44

**denotes where difference is statistically significant*