Using public data sources to improve electoral registration in the UK | Electoral Commission Search Using public data sources to improve electoral registration in the UK You are in the Modernising electoral registration: feasibility studies section Home A modern electoral register Modernising electoral registration: feasibility studies First published: 26 July 2019 Last updated: 8 June 2021 Summary We conducted feasibility studies to explore the potential for giving EROs access to reliable and trusted information from other public sources to maintain accurate and complete electoral registers. Public data sources included the Driver and Vehicle Licensing Agency, HM Passport Office, HM Revenue and Customs, Department for Work and Pensions, Department for Education and the Education and Skills Funding Agency. Policy options included: Policy options included: allowing EROs to access recent transactional data to identify potentially eligible electors and invite them to register; enabling EROs to use data sources to target specific groups of under-registered electors; and more automatic or direct forms of electoral registration, whereby eligible individuals could be added to the electoral register, or have their details updated without their intervention. The implementation scenarios we tested assumed that the Individual Electoral Registration Digital Service could be further developed to act as a conduit, receiving recent transactional data from new data sources and passing this on to EROs, who could download the information into their EMS systems and then target potential electors. We also considered whether these reforms could be taken further to support increased levels of automation within the electoral registration system. We found that digital data sharing, including more automated forms of registration, could be implemented by building on the existing IER infrastructure and without fundamentally changing the structure of the electoral registration system in the UK Data sources and infrastructures Public data sources We began by identifying potentially useful national data sources. We were interested in finding out the types of information recorded in the data sources that could potentially help identify different social groups; the geographical scope of each database; and current uses of the data. Public data sources Driver and Vehicle Licensing Agency (DVLA) databases These contain information about drivers and registered keepers of vehicles in the UK. They can provide transactional data of all new applications for driving licences or vehicle registered keepers. With approximately four million driving licence applications and three million driving licence changes per year, DVLA data could potentially be a very useful source to identify potentially eligible electors. This data source could be useful in identifying movers as drivers are meant to update their address data every time they move (although of course some do not). HM Revenue and Customs (HMRC) databases HMRC hold data on tax payers and citizens claiming child benefit. Several organisations use HMRC data for statistics or to verify datasets against. Their data could be useful to identify eligible electors within a geographical area who have not yet been identified by an ERO. HM Passport Office databases The Passport Office receives an estimated seven million UK passport applications annually, information which could potentially be used by EROs. An advantage of passport data compared to other public data sources is that it includes information about a person's nationality, which is one of the current criteria for determining a person's eligibility to register. Department for Work and Pensions (DWP) databases Electoral registration applications are already verified against DWP data, using full name, date of birth and National Insurance number (NINo). Since only citizens applying for benefits will regularly be in contact with the DWP, there may be limits on the accuracy and currency of other address data held by the DWP. Education databases

There are a number of potentially useful databases in the education sector that could help EROs to identify attainers and other young people. These include databases held by the Education and Skills Funding Agency, including the Learning Records Service, which collects data relating to learners registering for relevant post-14 qualifications. Each learner has a unique learner number (ULN). There is an estimated 1.1 million new ULN applications annually, as well as 1.8 million apprenticeship applications that could be used to identify attainers and potentially eligible 18-25 year olds. In addition, the Department for Education keeps a record of pupils in England attending state schools and colleges and higher education (although not pupils in private education) in the National Pupil Database, while the Scottish Government, Welsh Government and Northern Ireland's Department of Education administer and collate data for their respective Annual School Censuses. Data infrastructures We also wanted to understand the infrastructure requirements needed to support more data-driven approaches to electoral registration. An obvious starting point was the IER Digital Service. This is because it already links all local authorities with a central service capable of verifying people against the DWP system as part of the registration application process. The IER Digital Service was implemented in 2014 and incorporates an "IER hub", which acts as 'link' and coordinator between the website (online application), DWP (application verification) and the EROs' EMS systems (372 registers). We felt that there might be scope to enhance the IER Digital Service by building APIs (Application Programming Interfaces) that would link new data sources with the IER hub. EROs could then download transactional data relating to citizens living locally who had recently accessed a particular government service (for example, DVLA, HM Passport Office) through their EMS system and use this data to identify potential electors who could then be invited to register, or registered automatically. We discussed data infrastructures with representatives from a number of Data Source Organisations (DSOs) in order to examine the scope for linking their systems to the existing IER architecture, and also had conversations with several EMS suppliers to explore potential compatibility with their systems. Making better use of public data: implementation scenarios Based on our understanding of national data sources and infrastructures we developed and tested two implementation scenarios. The scenarios assumed (an assumption tested by the feasibility study) that the IER hub could be further developed to act as a conduit, receiving datasets from a data source and passing it on to EROs who could download it via their EMS systems. The feasibility study showed that both data sharing scenarios could be implemented by building on the existing IER infrastructure and without fundamentally changing the structure of the electoral registration system. Electoral registers would still be compiled and maintained locally, but with EROs being given access to transactional data from DSOs through further development of the IER hub. Issues and challenges in public data sharing While the feasibility studies showed that digital data sharing using national data sources is feasible technically, there are a number of outstanding issues and challenges. Issues and challenges in public data sharing Legal Data cannot be shared by a DSO without legislation, e.g. the Commissioners for Revenue and Customs Act 2005 does not allow the HMRC to share data without a legal gateway. However, we believe that a suitable legal gateway could be created by the Secretary of State making regulations giving EROs power to inspect the records held by specific public authorities. An alternative route based on an individual consenting to the sharing of their data with another public authority could also be pursued. Operational The success of any data sharing arrangements would depend upon the availability of adequate resources with the

necessary skillsets available on both sides of the data sharing link to implement and manage the data sharing process. For example: The DSO would need resources to set up the required infrastructure on their side to share data, e.g. an automated trigger to create and/or send recent transactional datasets to EROs or the IER hub The DSO and Government Digital Service (GDS) would have to work together to set up an interface between the data source and IER hub, e.g. an API GDS technical staff would need to be available for further IER hub developments and support the DSOs and EROs to develop the interfaces The ERO and/or EMS supplier would need technical staff to work with the DSO or GDS to set up the interfaces between the EMS system and the IER hub or directly with the data source systems, e.g. APIs, as well as any other necessary developments or enhancements, e.g. automated processes in the EMS system DSO and ERO staff would have to be trained to ensure they have the right skillset to follow the data sharing process Scheduling Any initiative to introduce digital data sharing using national data sources would require effective coordination to ensure that development and implementation schedules were agreed and all required stakeholders worked together and were committed to delivering the reforms. Any scheduling conflicts between stakeholders would need to be assessed carefully and resolved before any work was commenced. Economic A detailed cost-benefit analysis would need to be completed on the data sharing options to further explore the cost-effectiveness of the proposed reforms. This would require access to public data sources, enabling detailed testing to be undertaken (which would require a legal gateway and incur a cost). One option would be to conduct a pilot scheme matching transactional data from national public databases against electoral registers in a number of areas (covering different demographics) to produce a list of potential unregistered electors for EROs to contact. The transactional data would need to be recent (e.g. the record currency could be restricted to the previous month) and matched against the most recently updated version of the full electoral register in the selected local authority areas. The aim of such a pilot scheme would be to provide a reliable assessment of the proportion of transactional data returned to EROs containing potential new electors. The pilot could also include an assessment of the added value to EROs of allowing access to national data, as compared to local data which they already have access to. In this way, it might be possible to estimate the cost-benefit of national digital data sharing – e.g. by calculating the cost per new elector registered. This could be calculated by dividing the total cost of implementing high-level digital data sharing (i.e. set-up and ongoing costs) by the number of potential new electors identified within the transactional data that resulted in a new registration. It would then be possible to assess whether the initiative was a cost-effective way of getting people onto the electoral register. Other potential cost implications that would need to be explored relate to the commercial arrangements between the DSOs, GDS and EROs, and would need to cover: Set-up costs, including APIs, IER hub development, automation of tasks e.g. triggers to send datasets or letters to citizens Cost per transaction i.e. cost of sending transactional data from a DSO Any charges for accessing an organisation’s data Additional staff and non-staff resources to set up and maintain the solution Maintenance cost of software and hardware Cost of data matching tools Further development and maintenance of the IER hub Automated and automatic registration We considered whether the models of digital data sharing between DSOs and EROs could be taken further and support the implementation of automated or automatic systems of electoral registration. To recap: Automated registration would see reliable data being used as the basis of an individual’s electoral registration application, but the individual would still be required to take some further,

affirmative steps before being added to the register. Automatic registration would see citizens added to the electoral register, or their address updated, without them being required to take any further steps at all. We developed and tested two implementation scenarios – one for a system of automated registration, the other for a system of automatic registration. In developing the scenarios, we also considered models from other countries. For example, in Australia, a Federal Direct Enrolment & Update process has been introduced to enrol or update a citizen's details on the electoral roll using information provided to the Australian Electoral Commission from other government agencies, without the person having to complete an enrolment form. The feasibility studies concluded that both automated and automatic registration could be implemented in technical terms, in theory by utilising the same data sources and infrastructures explored in the better use of data feasibility study. The operational requirements of both reforms would also be similar. However, we identified several important issues unique to automatic registration. Automated and automatic registration Data quality The higher the level of automaticity in the electoral registration process, the greater the requirement for public data sources used by EROs to be trustworthy, current and complete. Clearly, recent transactional data from reliable data sources would offer the most potential in these respects. But the data would ideally need to be complete too, insofar as it would need to contain all of the fields necessary (i.e. name, address, date of birth, National Insurance number and nationality) to initiate an automatic registration. In practice, automatic registration may require EROs to combine information from different datasets, which would make implementation more complex. Automatic registration and individual choice Current legislation requires the individual to make an application to register to vote. There are statutory questions that form part of the electoral registration application process that can only be answered by an individual and cannot be extracted from any other source, e.g. whether the elector would want to opt out of the open register or apply to vote by post. Any move towards automatic registration would need to consider the implications of removing these additional choices that citizens have when registering to vote. More fundamentally, automatic registration would represent a shift away from the current default position that an individual must always take proactive steps to be registered or update their details; it would represent an in principle acceptance of the idea that the state may in certain circumstances proactively register citizens without their consent. Related content Reforming electoral law Find out about electoral law and the changes we want to see A modern electoral register Find out about the changes we want to see to the electoral registration system in the UK Transparent digital campaigning Find out about digital campaigning and the changes we want to see of elections Find out about the accessibility of elections and the changes we want to see