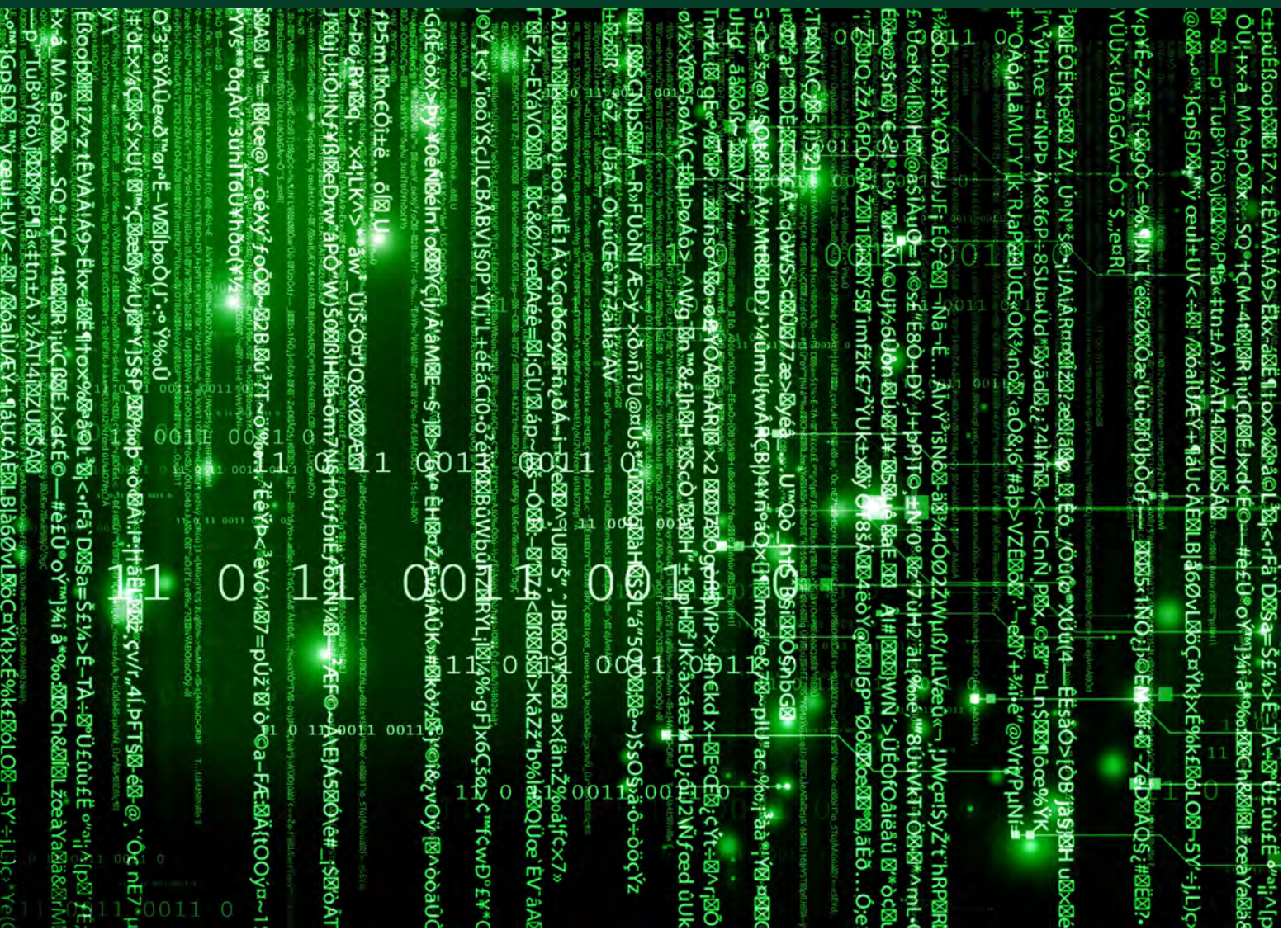


The UK's Electoral Data Democratic Deficit

A vision for digital modernisation





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The 2021 Research Excellence Framework (REF 2021) rated 90% of UEA's research in Politics and International Studies and Law as 4* (world leading) or 3* (internationally excellent), and joint first for its research impact.



Electoral Integrity Project

The Electoral Integrity Project is an independent academic study founded in 2012. The Electoral Integrity Project produces innovative and policy-relevant research comparing elections worldwide. The project is currently directed by Dr. Holly Ann Garnett and Professor Toby S. James and is housed at the Royal Military College of Canada/Queen's University and the University of East Anglia. It was founded in 2012 by Professor Pippa Norris and originally based at Harvard University and the University of Sydney.

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Abbreviations

DWP	Department for Work and Pensions
EMB	Electoral Management Body
EMS	Electoral Management System
ERO	Electoral Registration Officer
GOTV	Get Out the Vote
RO	Returning Officer

Executive Summary

This report outlines the electoral data democratic deficit in the UK and its consequences for democracy. It makes the case for urgently establishing a comprehensive architecture and approach to electoral data to enable a fairer and more inclusive democracy. The UK government, devolved administrations and local government have already made commitments to use data to improve public services. This report provides a short- and longer-term plan for how to do this for electoral data, and aims to strengthen participation and democracy through the better use of data.

The UKs Victorian electoral data system

Data plays an increasingly influential role in shaping the world we live in, the choices we make and the quality of goods and services we access. Data is transforming the relationship that individuals have with institutions, customers with companies, and voters with government. The data revolution may very well prove to be a turning point, perhaps even as great as the first and second industrial revolutions. Yet the UK's electoral machinery was established in Victorian times, and large parts of the data architecture in the electoral world remains Victorian.

The UK government, devolved administrations and much of local government have made commitments to better use data to improve public services. There is therefore a golden opportunity to explore how electoral data can be used to improve many parts of the electoral process and address issues such as low levels of electoral registration amongst some socio-economic and ethnic groups. Without these reforms we are largely left in the dark about the essential underpinnings of our democracy and elections.

Addressing the gaps and developing a data infrastructure fit for the 21st century has huge practical and social value. Both are vital to address the serious problems with participation at UK

elections. Ahead of the 2019 General Election, an estimated 9.4 million people were identified as missing or incompletely registered on the electoral registers. It is estimated that only 63.4% of eligible citizens voted in the 2019 General Election, with 18.5 million people not voting (*see Appendix C*). This is nearly six times the population of Wales. Improving electoral data could also help create more efficient systems for electoral administration, promote greater trust and transparency in elections, as well as enable opportunities for innovation through greater access and usability of data.

The approach used to examine elections data

This report sets out a range of factors that need to be considered when deciding how electoral data is collected, analysed, and published, unleashing the benefits of more open data, whilst also addressing the need to ensure privacy, ballot secrecy and protect voters from intimidation and elections from interference.

This report takes a broad approach to election data, mapping the variety of forms of data that exist across the whole electoral cycle. This includes data on polling station locations, boundaries, the socio-demographic characteristics of candidates, electoral registers, voting records, election results and complaints made. The report examines electoral

data at each point in the electoral cycle, alongside who is using this data and for what purpose. Consideration is given to how data could be better compiled, made more widely available, or where restrictions may need to be put in place.

To carry out the analysis to inform this report, multiple research methods were used including a review of the academic literature and international best practices on electoral data; a review of secondary documents relating to UK elections, such as Electoral Commission guidance; a focus group with civil society groups about their needs; interviews with local electoral officials and local political parties; interviews with academics; correspondence with local journalists; interviews with other stakeholders including suppliers and international organisations; an audit of local election officials' websites to identify the electoral data and information that they do and do not provide; and an online survey of local officials to ascertain how frequently electoral officials were receiving requests to access the electoral registers. Roundtable discussions were also held with stakeholders from across the UK to build understanding and consensus.

The state of electoral data in the UK

The report finds considerable problems with the current elections data infrastructure and approach:

- There are considerable **data blackholes** – electoral data which is unavailable, but which it would be in the public interest to have collected and published. For example, there are no localised estimates of the accuracy and completeness of the electoral register. Citizens are not informed of the names of officials responsible for running elections and there is no data on complaints made. There are a number of areas that severely limit transparency. Data on key demographics, black and minority ethnic groups for example, is particularly poor.
- Data is often collated in **unworkable formats**. For example, candidates' information is not published in a format that is helpful to journalists or useful to inform citizens. Marked registers are stored in mostly hard copy format, which restricts usability severely limiting the ability to develop interventions to improve voter registration and turnout, and for researchers to understand what works.
- There is considerable **inequality in who has access to data**. The larger political parties and those with sufficient resources have the ability to compile much of this data. Civil society groups seeking to promote non-partisan political engagement have no effective tools to measure the success of their activities. Overall, this means that too little is done to address inequalities in participation in elections.
- There are **monitoring gaps** in how key electoral data is used, including individual level data on whether people have voted at an election and their history of voting at previous elections. This is often being used without citizens' knowledge of who and for what purpose the data is being accessed.
- There is **untapped data potential** where electoral data could be used to support citizens to be better informed, for electoral institutions to be much more transparent and for a wide range of actors (including regulators, media, and civil society) to leverage data to promote participation in elections.
- The system has been partially **propped up by civil society groups** who have developed important tools such as polling station search tools and candidate data, but which lack the security of funding. These tasks should be the responsibility of statutory public electoral organisations.

Recommendations to address the elections data deficit

To unleash the potential of electoral data in the UK, and enable a fairer more inclusive democracy, whilst ensuring that data access is transparent and respects privacy, the report sets out an ambitious range of long- and shorter-term recommendations for reform. These look at what data is collected, how it is collected, who could be responsible for making data more accessible and usable, as well as who has access to this data. There is a particular focus on how enabling regulators, media, researchers, and civil society organisations access could increase the public and social value of the data. In total, it outlines 29 recommendations of varying focus, all of which can be seen in [Appendix A](#). Some of the key short- and longer terms reforms are summarised below.

Short-term reforms:

Some reforms could be acted on now.

Civil society groups and academics are eager to find ways to promote voter participation but are inhibited by a lack of data. To improve voter participation across the UK:

- Returning Officers could facilitate digital access to the marked register for civil society groups and researchers. This will enable them to identify 'what works' when evaluating efforts to promote voter participation.
- There should be extended piloting of electronic poll books, already undertaken on a small scale in Wales, so that a digital dataset can be made of who has voted. This could be used to promote voter participation by enabling nudges of non-voters and enable analysis of the effectiveness of voter outreach schemes.

Citizens are not provided with digital information about who they can vote for, and the process

is antiquated. To digitalise and democratise the information:

- Returning Officers should work with suppliers so that candidate data is directly entered into software systems at the nomination stage. The Electoral Commission and respective governments should facilitate standardised data formats.
- Candidate data should feed into a centralised candidate website, so that journalists and citizens can easily see who they can vote for, without relying on the third sector.
- Data on candidates' protected characteristics should be collected to monitor diversity and equality in elections across the UK.

Meanwhile, political parties can make commitments now to enable an electoral data revolution. It is therefore recommended that:

- Political parties across the UK make commitments in public statements and in future manifestos to support the digital modernisation of electoral data.

There is confusion about who should have responsibility for collecting, monitoring and publishing electoral data. The report therefore calls for:

- The Electoral Commission to be re-established as the lead in collecting, monitoring and publishing electoral data.

Long-term reforms:

Many reforms can be made without legislation, but statutory legislation will embed long-lasting change. It will also be required to enable some changes. In the longer-term the digital modernisation of electoral data will require:

- Centralised electoral registers to be compiled to enable duplicates and errors to be identified and eligible missing voters to be encouraged to register to vote. Centralised electoral registers already exist in the hands of credit reference agencies and other non-electoral organisations. However, access is not possible for those seeking to improve the electoral process.
- A new Electoral Data Bill (or provisions for the insertion of proposed ideas into broader future electoral legislation) to be prepared to systematically modernise the process, re-establish responsibilities, and undertake other reforms necessary to address the electoral data democratic deficit set out in the report.

Resourcing and savings

To fulfil the potential of unleashing the power of electoral data, there will need to be greater resources for the Electoral Commission, and greater support for local authorities and all electoral administrators to be able to provide the data. The Association of Electoral Administrators and others have outlined the pressures that electoral administrators, have been and continue to face. Addressing this context is integral to the reform required. However, better use of data may enable cost savings for elections and there are opportunities for greater efficiency through this agenda. There are also likely to be much better improvements in the electoral experience through the management of data than other recent reforms. In line with the data agenda to support public service reform, better data could also support wider agenda's throughout public policy.

Electoral Data and Devolution

The Elections Act 2022 missed the opportunity to respond to long-standing calls to consolidate both electoral law and address the data deficit. Whilst there is unlikely to be a further legislative window in the current parliament, the need remains to build cross-party support for a future

Bill. Although other mechanisms and workarounds could be experimented with, and devolved administrations may be able to take forward some recommendations on a faster timetable, it would be wholly remiss to not make the case for the large-scale changes needed to a system as fundamental as elections.

The current system is fragmented across UK-wide and devolved nation governments, local authority, regulatory bodies and others. Whilst there are advantages to devolved approaches and in some parts of the UK this has enabled an evident appetite for innovation and system reform, a devolved approach to collection and access to data poses challenges. A fundamental shift is required to meet the need for an approach fit for the 21st century, and while there are many aspects of the election system that are successfully decentralised, this report takes the view that a more coordinated, accessible, and managed approach to elections data is needed, in line with international open data standards.

In some areas, consolidation and centralisation go against the grain of devolution both generally and of course in the context of electoral responsibilities. Adopting common data formats and enabling the Electoral Commission to lead, however, should respect the autonomy of the different nations.

A call to action

If we fail to address the data deficits, we will continue to have no grip on transparency, risks to privacy, and will be operating in the dark on how to address the millions of people missing from our elections in the UK. If we want a fairer, more inclusive democracy, better data is the bedrock for the change we need.

Large parts of the data architecture in the electoral world remain Victorian.



1

Introduction

1.1 Background: electoral data in the 21st century

The UK's electoral machinery has Victorian origins. The foundations go back to the Great Reform Act of 1832 which introduced requirements for citizens to register to vote in an election. This task was transferred to local Electoral Registration Officers (EROs) in 1918, who undertake registration through the annual canvassing of properties. Door knocking was used to help establish who lived where and whether they were eligible to vote, in the context of massive movement of people during an ongoing war. Meanwhile, the conduct of the polls was established in 1872 where the principle of the secret ballot was established. Prior to this, going back at least the 1760s, the returning officer would maintain a 'poll book' in which they would record the votes cast. But now votes are cast on paper ballot papers and placed into ballot boxes on election day (*James 2012, 125-34*).

Fast-forward to the third decade of the 21st century, elections are run in an entirely different context. One characteristic of this context is the development of digital technology and the wider availability of data, which it is commonly argued holds much promise for improving public services. But large parts of the data architecture in the electoral world remain Victorian.

1.2 The big data age

Data 'provides the building blocks from which information and knowledge are created' (*Kitchin 2014a, 1*) and is therefore widely considered to be a powerful tool to improve society. The collection of more accurate and complete data allows analysts to describe patterns of behaviour – such as areas of the UK where fewer people are voting. It can also be used by social scientists to generate predictions of future human behaviour based on past behaviours, and to design interventions to shape behaviour such as methods to improve voter registration rates. Meanwhile, qualitative data

can also be analysed to understand and unpick meanings about why people behave in the way that they do.

It has been widely claimed that society has entered the 'big data age'. This has created both a radical increase in the availability of enormous volumes of data, alongside technological advances that provide widespread access to the computing power to compile, analyse and make use of the data. The size of the datasets available helps generate findings which are much more likely to be considered by experts as scientifically robust because of the statistical tests that they pass.

There is a long history of data being used to improve public services and business practices because data has always been recorded by public officials. More recently, however, an open data movement has argued that public services can be radically reformed to be smarter and more efficient in deploying resources through better targeting. Data can be captured in real time, combined with other datasets and analysed to make adjustments to policies and the distribution of resources. There has been a growing number of visions of smart cities where data is collected from all human activities, devices, buildings and traffic to provide information to planners and citizens to enable real-time responses (*Kitchin 2014b; Cardullo, Di Feliciano, and Kitchin 2019*). The availability of data has also been argued to bring about greater democracy by enabling informational justice by providing access to information for citizens (*Johnson 2014*).

A commonly cited document that is seen as a cornerstone of open data practice is the 2015 International Open Data Charter, which brought together organisations from around the globe to try to establish norms for the publication of public data (*Open Data Charter 2015*). They developed six principles, stating that data should be: open by default; timely and comprehensive; accessible and usable; comparable and interoperable; for improved

governance and citizen engagement; and for inclusive development and innovation.

1.3 The UK government's approach to data

The UK government has embraced many of these principles by publishing a National Data Strategy in September 2020 to set out a strategy for how the UK 'can leverage existing UK strengths to boost the better use of data across businesses, government, civil society and individuals' (DCMS 2020). This emphasised the opportunities to transform the government's use of data to drive efficiency and improve public services. This is dependent on high-quality data, which is accessible, mobile and re-usable.

Meanwhile, as part of the UK government's industrial strategy, it has developed 'Next Steps' for the use of smart data to put 'consumers and SMEs in control of their data and enabling innovation' (Department for Business 2020). Digital transformation in local government has also been promoted (Local Government Association 2014).

In Scotland, there has been a commitment to a digital strategy (Scottish Government 2017) and a 'High Level Delivery Plan (HLDP) for the Data Vision for Scotland' (Data Delivery Group 2019). The Digital Strategy for the Welsh government includes a commitment to 'the innovative use of data and data analytics to radically transform the way we deliver public services by delivering new insights' (Welsh Government 2021). In Northern Ireland, there has been a recognition that 'digital technology provides us with a huge opportunity to re-think how our public services are better delivered and to work collaboratively to transform and revolutionise how we do business' (Northern Ireland Government 2017).

1.4 Report aims

A review of the ways in which electoral data is and could be more effectively used within the electoral process is much needed and long overdue. Debates about how technology can transform elections has tended to focus on whether votes should be

cast over the internet, or in polling stations using electronic voting machines. But huge reams of data related to elections exists with or without internet voting and electronic voting terminals. This includes data on who voted, who didn't vote, who is registered, who is standing for election, how much money is spent on elections and more. This report therefore seeks to:

- map the nature, type, and format of current electoral data in the UK
- identify the legal and logistical methods for accessing the information and the barriers that currently exist
- consider how data availability could be increased or decreased to improve and preserve the quality, integrity, and fairness of UK elections

'The coronavirus pandemic showed that there is massive untapped potential in the way government and public services use and share data.'

(DCMS 2020)

Answering these questions not only involves a consideration of which data is published, but also the management and quality of the data that is available. If we want data usage to improve society, it needs to be in a specific format. According to Kitchin (2014a, 1), for example, usable data needs to be:

- Discrete – each datum is individual and separated from others
- Aggregative – it can be built into datasets
- Be labelled with metadata – i.e., there is data about the nature of the data
- Linkable – it can be combined with other datasets for analysis

1.5 Approach and methodology

Elections involve much more than election day. They involve long periods of preparation and planning and activities include voter registration processes, regulating party campaigning and drawing up the necessary legal framework. International best practice requires the effects of any reform to be considered across the whole electoral cycle. An electoral cycle approach is therefore taken in this report. To do this, a rich set of individual, aggregate and organisational data has to be carefully analysed.

There are also a variety of factors that need to be carefully evaluated and balanced. Elections are at their best when there is widespread participation, but they also need to be free of electoral fraud. Citizens also need to have their privacy protected. The report therefore casts the net wide to examine the full range of factors that are important in the electoral cycle and makes recommendations that seek to balance the whole picture.

The research conducted to inform this report used a variety of methods:

- A review of the academic literature and international best practices on electoral data
- A review of secondary documents relating to UK elections such as Electoral Commission guidance
- A focus group with civil society groups about their needs
- Interviews with local electoral officials and local political parties
- Interviews with academics
- Email correspondence with local journalists
- Interviews with other stakeholders including suppliers and international organisations
- An audit of local election officials' websites to identify the electoral data and information that they do and do not provide. A total of 374 websites were audited, with respect to 12 pieces of data
- An online survey of local officials was run in March 2022, to ascertain how frequently electoral officials were receiving requests to access the electoral registers. 110 local authorities took part.

Names of interviewees and organisations are not given so that individuals could speak freely.

1.6 Report structure

The report is structured as follows:

- Chapter 2 outlines the types of electoral data that might exist within a country. Elections are more than just election day. There is an electoral cycle which could create huge volumes of data. This volume of data is increased in the UK because of the huge variety of different types of elections and electoral rules.
- Chapter 3 outlines some principles that should govern data publication and usage. These

principles include increasing transparency and participation, but also maintaining voter privacy and secrecy. The principles need to be carefully balanced.

Subsequent chapters then focus on the type of data generated by each part of the electoral cycle, whether it is available (and to whom), who uses it and for what purpose.

- Chapter 4 looks at the electoral infrastructure
- Chapter 5 looks at candidate data
- Chapter 6 looks at voter registration data
- Chapter 7 looks at data on whether people voted, their preferences and who they voted for
- Chapter 8 looks at election results
- Chapter 9 looks at data on complaints and disputes

Recommendations are made throughout the report with respect to each area and whether the key principles set out in chapter 3 are being achieved – or whether there is an imbalance between them.

- Chapter 10 summarises these conclusions and the key lessons. It sets out 29 recommendations for addressing the UK's electoral data democratic deficit.



2

What electoral data exists in the UK?

This chapter explores what types of electoral data exist. What is captured? What could be captured? There is an enormous range of data generated by elections across the UK – partly because of the multiple forms of elections.

2.1 What is data?

What is data? According to the Oxford dictionary, data is defined as ‘facts or information, especially when examined and used to find out things or to make decisions’.¹

Elections are events which seem to generate huge volumes of data. The TV coverage of elections involves the reporting of votes counted, turnout rates, seat shares, the number of candidates, parties and more.

While it is certainly the case that elections lead to the creation of lots of data, the extent to which it can and does so is still easily underestimated. Too often, ‘data’ is commonly used to refer to information that is statistical and digital, but this focus misunderstands, and underestimates data or information created by elections. Data of course does not also need to be numerical for it to be considered data. Elections are rich lived experiences complete with a full range of emotions, and data points such as tweets, provide qualitative data which could be constructed to measure the feelings and experience of voters in polling stations which are all an important part of the democratic process (Orr 2015). This is rarely captured but could be.

2.2 An electoral cycle approach

Elections are commonly thought of in terms of election days only. The most cited sources of data are therefore the votes cast and voter turnout. The international community and academic research now stress how elections involve more than this. There is an electoral cycle which begins with the establishment of a legal framework in the pre-voting period and continues through to the post-

election period where auditing, evaluation and archiving are amongst the activities that take place (Norris 2013; Norris, Frank, and i Coma 2014).²

An electoral-cycle approach to data is taken in this report. We simplify the stages of the electoral process into six steps to focus on those of core concern (Figure 2.1). Firstly, there is the electoral infrastructure stage – where the necessary legal, organisational, and informational aspects of the election are put into place. Secondly, there is the candidate stage – where opportunities for candidates are opened up, candidates are nominated and selected. Thirdly, there is the stage where citizens are registered. Fourthly, there is the stage where voting takes place. Fifthly, there is the vote counting, tabulation, and results stage before there is any dispute resolution in the final stage.

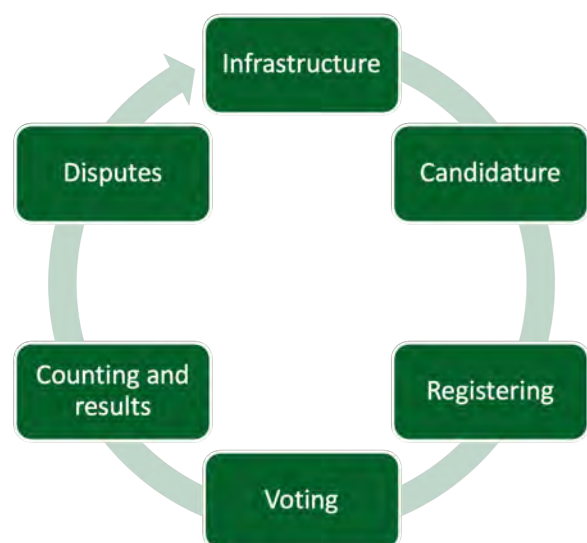


Figure 2.1: Key stages of the electoral cycle

Table 2.1 illustrates the types of data that the electoral processes create. This was constructed by the authors, building on International IDEA (2017, 12). Each line of the table is then explained in more detail in the following sections, and applied to the UK context.

	Aspect of elections	Events, activities and properties	Capturable data
Infrastructure	Legal framework	<ul style="list-style-type: none"> • Consultation process • Drafting of laws and constitutional framework 	<ul style="list-style-type: none"> • Number consultations undertaken • Constitutional Framework • Number of electoral laws
	Electoral management body	<ul style="list-style-type: none"> • Ongoing preparations for the election throughout the electoral cycle 	<ul style="list-style-type: none"> • Meeting records • Financial accounts • Personnel numbers
	Election security	<ul style="list-style-type: none"> • Election risk management processes • Deployment of personnel and electronic security 	<ul style="list-style-type: none"> • Risk management documents • Personnel data
	Voter education	<ul style="list-style-type: none"> • Publication and circulation of campaigning materials • School classes • Voter outreach activities • Informational campaigns (on voting rights, how to vote etc) 	<ul style="list-style-type: none"> • Campaigning activities (e.g., Political party adverts and leaflets, Billboards, social media) • Syllabuses • Implementation reports
	Electoral systems and boundaries	<ul style="list-style-type: none"> • Population size • Electoral rules such as electoral formulae • Spatial data for electoral districts 	<ul style="list-style-type: none"> • Population size • Electoral formulae • Spatial data for electoral districts
	Polling stations	<ul style="list-style-type: none"> • Setting up of polling stations • Staff deployment • Advertising of polling locations 	<ul style="list-style-type: none"> • Number of polling stations • Polling station locations • Facilities for voters • Staff numbers
	Candidates	Political party and candidate registration	<ul style="list-style-type: none"> • Political parties, their manifestos, and organisational characteristics • Candidates, their past voting records, candidate records, campaign promises, demographics
	Campaign finance	<ul style="list-style-type: none"> • Candidate and party income and expenditure • Campaign events • Canvassing 	<ul style="list-style-type: none"> • Party/candidate/third party income (loans/donations), expenditure, annual accounts
Voter registration	Voter registration	<ul style="list-style-type: none"> • Voter registration processes • Voter registration drives • Annual canvasses 	<ul style="list-style-type: none"> • Voter registration records (name, date of birth, national insurance number, nationality, etc.) • Aggregate voter registration accuracy • Aggregate voter registration completeness
Voting	Voter lists	The generation of election specific lists from electoral registers	List of electors per polling station
	Voting records	<ul style="list-style-type: none"> • Casting of ballots • Casting of postal votes • Casting of proxy votes 	<ul style="list-style-type: none"> • Who individuals voted for • Who voted • Number of postal votes • Number of proxy votes • Number of e-votes • Number of rejected ballots • Timing of votes
	Election results	<ul style="list-style-type: none"> • Counting of ballots, postal votes • Vote tabulation 	<ul style="list-style-type: none"> • Aggregate results • Turnout • Rejected ballots
	Voter experience	<ul style="list-style-type: none"> • Registration process • Voting process • Results process 	<ul style="list-style-type: none"> • Wait times • Satisfaction with process • Trust and confidence
	Post-election	Electoral complaints and dispute resolution	<ul style="list-style-type: none"> • Cases of fraud

Table 2.1: Potential sources of electoral data.

2.3 Types of electoral events in the UK

In recent years there has been a greater variety of electoral events in the UK. These include:

- UK parliamentary elections
- Scottish parliamentary elections
- Northern Ireland assembly elections
- Senedd elections
- Local council elections
- Greater London Authority (GLA) elections
- Mayoral elections
- Police and Crime Commissioner elections
- Northern Ireland local council elections
- European parliamentary elections³
- Local and national referendums
- Recall petitions

As a result, there is electoral data in the UK relating to all aspects of the electoral cycle for each of the different types of elections.

2.4 Open data in elections

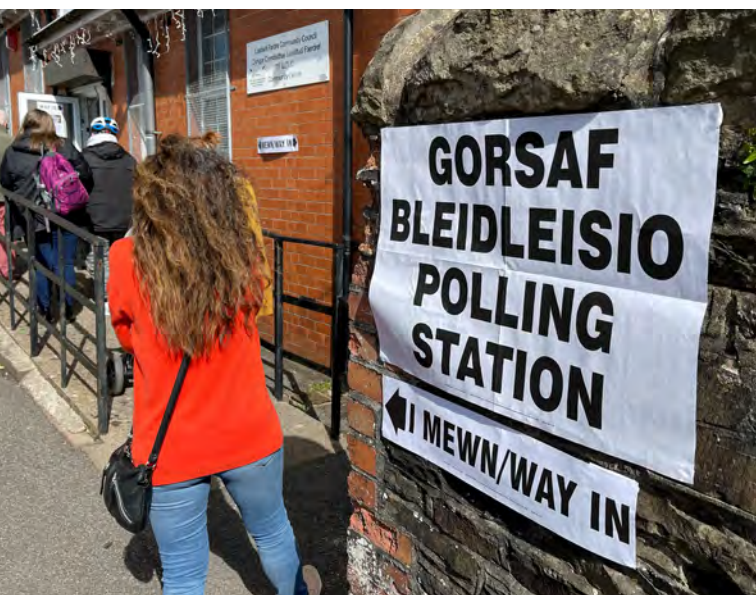
In recent years, international organisations have carried out work focussed on the merits of open data around elections. They have provided much greater clarity about what open data could mean. The Open Election Data Initiative (OEDI) was launched by the American-based National Democratic Institute ('NDI') (*NDI undated*). This aimed to provide civil society, election

administrators and technologists with a framework and assessment guide for evaluating the availability of election-related data. Citizens were actively encouraged to monitor election quality using the open data published by electoral authorities, holding them to account. Building on data principles that had been established more widely, the project sought to encourage the publication of data by electoral authorities which was:

- Timely - data would be made available as quickly as possible
- Granular - available at the finest possible level of granularity or detail
- Available for free on the internet - data should be available without any monetary restriction
- Complete and in bulk - data should be available without any monetary restrictions on its usage
- Analysable - available in a digital, machine readable format can be quickly and easily analysed, such as in CSV, JSON and XML formats
- Non-proprietary - data to be open, it must be in a format over which no entity has exclusive control
- Non-discriminatory - data must be made available to any individual or organisation without limitations based on user identity or intent to truly unleash its potential
- Licence-free - it must be "maximally re-usable" and there should be no barriers for that re-use
- Permanently available - data should be available via a stable internet location for an indefinite time period

The initiative detailed 16 areas of the electoral cycle where data could be published. Their guide set out a series of steps to enable data-led election observation, including information to support the accessibility of electoral data and ways to advocate for increased availability. Educational modules were published to enable citizens to be able to analyse any published data.

More recently, an open and active approach to the publication of data was also encouraged by International IDEA (2017). They profiled examples of where open data principles had been applied to elections, such as the publication of mapping data in Afghanistan, campaign spending in the UK and voter tabulation data in Indonesia. They also developed an action plan for electoral authorities seeking to make the transition towards the open publication of data.



3

Factors that should govern data usage

This chapter sets out features of a democratic election, providing some factors to consider when decisions are made about data storage, publication, and usage.

3.1 The need for democratic criteria

Elections are logistically complex and time sensitive. They play a critical role in democracy and shape policy making and the choices that affect all our lives and public services. They are an important democratic ritual and moment for people to exercise their rights.

Confidence in public institutions and democracy can very quickly be affected. The consequences of elections are dissimilar to most business practices. If there is an error with a bank transfer, then this can be fixed, and a repayment can be made some weeks later. If there is an error with the election results, then there are very serious political, economic, and constitutional repercussions – and they cannot be easily corrected afterwards. Furthermore, if a specific socio-economic or ethnic group does not participate in elections, they will have less influence over the decisions and subsequent policy development.

To understand whether open data can be used to improve elections, it is important to understand the specific features of a fully democratic election. This will enable the distillation of key factors to consider when deciding data usage and availability in elections. To do so, this chapter outlines some key principles that democratic elections seek to achieve, drawing from academic literature (*James and Alihodzic 2020; Garnett and James 2021b*). Whilst we could consider using international standards to do this (*Norris 2015, 4*), technology is moving quickly, and international standards are not always able to provide a suitably up-to-date benchmark.

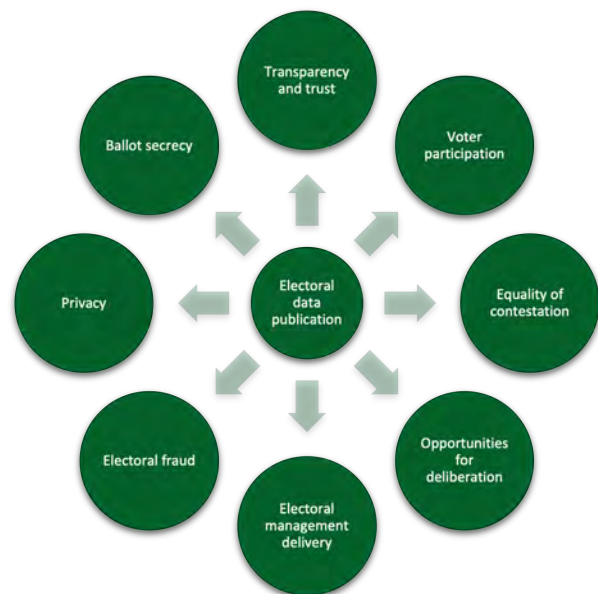


Figure 3.1: Factors to consider when collecting, storing and publishing electoral data

3.2. Transparency and trust

A key rationale for the publication of open election data by its proponents is that it increases transparency – and transparency is a much-prized feature of elections. As International IDEA (*Catt et al. 2014*) note:

Transparency in operational and financial management lays out for public scrutiny the decisions and reasoning of the EMB. Transparency is a basic good practice for all EMB activities. It can help an EMB combat perceptions of and identify actual financial or electoral fraud, or a lack of competence or favouritism toward particular political tendencies, which can enhance its credibility.

Transparency is to be valued in and of itself. But transparency in data can also be valued because it can lead to other outcomes:

- Transparency could be an advantage if it increases confidence in electoral processes and electoral institutions.
- Transparency could be an advantage if it leads to more accurate data. For example, the availability of electoral registers might enable errors to be identified and addressed. Many problems that occur in electoral administration are the result of administrative error. Such errors could be corrected if there are ‘multiple eyes’ on the data.
- Transparency could also potentially provide the conditions for more creative responses to issues.

On this basis, proponents put forward the case for maximising the publication of data to meet open data principles. As societies have increasingly digitalised records, making it easier and lower cost to share data, there has been even greater pressure for this information to be made publicly available and transparent.

3.3 Voter participation

Elections, at their best, should be characterised by high-quality participation. In practice, elections in the UK have often seen millions of people not casting their vote. It is estimated that 67.3% of the eligible electorate voted at the 2019 UK General Election.⁴ Turnout has historically been much lower for many other contests, including for the Scottish Parliament, Welsh Parliament, local elections and Police and Crime Commissioner elections.⁵

These figures overestimate participation. It is conventional in the UK to report voter turnout statistics as the proportion of citizens who are registered. However, many citizens are missing from the electoral register. It is estimated that only 63.4% of eligible citizens voted at the 2019 UK parliamentary election – with an estimated 18.5 million eligible people not voting.⁶

There can also be considerable turnout inequalities in elections with variations commonly found by age, gender, ethnicity, and socio-economic status (*Fraga 2018; James and Garnett 2020b*). It has been estimated that turnout was 47% amongst 18-24 olds at the 2019 General Election, compared to 74% of over 65-year-olds.⁷ Voter turnout inequalities are especially troubling for democracies because they indicate that some groups may have much greater representation in parliament, a greater say in who forms the government and therefore greater influence over public policy.

Levels of electoral registration are low across the UK with an estimated 9.4 million people in Great Britain who were eligible to be on the local government registers not correctly registered or missing entirely (*Electoral Commission 2019a*). Being missing from the electoral register is one key reason why people are unable to vote (*Clark and James 2017*). Table 3.1 shows the percentage point gap between the categories with the lowest and highest level of completeness, against several socio-demographic groups.

⁴ <https://commonslibrary.parliament.uk/research-briefings/cbp-8749/>

⁵ <https://researchbriefings.files.parliament.uk/documents/CBP-8060/CBP-8060.pdf>

⁶ See Appendix C for calculations for these estimations

⁷ <https://www.ipsos.com/ipsos-mori/en-uk/how-britain-voted-2019-election>

	Lowest	Highest	Gap
Age	16- and 17-year-olds (25%)	65+ (94%)	69
Length of residence	Moved within last year (36%)	Remained in property for 16 years (92%)	56
Housing tenure	Private renters (58%)	Own outright (91%)	33
Nationality	Commonwealth (62%) EU (54%)	UK and Irish (86%)	32
Ethnicity	'Other' (62%) Black (75%) Asian (76%)	White (84%)	22
Disability	Mental disability (82%)	Physical disability/condition (92%)	10
Local authority type	London borough (76%)	Metropolitan Borough (86%)	10
Socio-economic group	DE households (80%)	AB households (86%)	6
Highest qualification	GCSE (81%)	BTEC (86%)	5
Urban/rural	Urban (83%)	Rural (85%)	2

Table 3.1: Estimates of the completeness of the local government electoral register, ranked by gap. Source: James and Bernal (2020, 23), based on data from Electoral Commission (2019a).

Inclusive voting practices are defined by James and Garnett as those 'which can reduce turnout inequality between groups and mitigate other inequalities within the electoral process' (James and Garnett 2020b, 113). There are a variety of reasons why citizens do not vote at elections, including the performance and choice of candidates and parties, the closeness of the election and the electoral system (Smets and van Ham 2013). There is lots of evidence showing that efforts to 'Get Out the Vote' (GOTV) can make a difference. These include voter mobilisation techniques such as in-person canvassing, phone calls and text messages sent to citizens encouraging them to participate (Bergh, Christensen, and Matland 2019; Green and Gerber 2019). Recording clearer data on who is registered and voting, and who is not, helps us to better understand group levels of electoral participation. This also allows the implications of this to be mapped at an individual, administrative and national level. Citizens can then be better targeted to address electoral participation inequalities and enable democracy to be fairer and better able to consider the needs of all citizens.

3.4 Equality of contestation

Elections should have a level playing field for candidates and political parties. The rules of the game should not give any individual, interest, or organisation an undue advantage. Electoral laws (such as the franchise, electoral system, voting procedures) have often been criticised where they have been thought to contravene this principle. It is therefore important to consider whether the publication or availability of data gives some candidates or parties an advantage too, or whether it can help to level the playing field in a context where some candidates or parties already hold an advantage because of existing access to data.

One area where this is particularly pressing is electoral campaigning. Campaigning techniques have changed in recent years, with political parties and third parties increasingly using digital data to micro-target specific voters. The availability of electoral data may mean that some parties who are better resourced are more able to leverage the data than others. Whilst the disparity in resources may already exist, a more open approach to the publication of data may help level the playing field.

3.5 Opportunities for deliberation

Democratic elections require opportunities for deliberation and good quality deliberation. Citizens need real opportunities to formulate their preferences. At a minimum this means, freedom to form and join organisations, freedom of expression, the right to vote, the right to compete for public office, and alternative forms of information. More demandingly, democracies work better when elections involve widespread debate and discussion about policies and electoral choices. Good deliberation requires good quality information, substantive balance, a diversity of viewpoints, conscientiousness, and equal consideration of the arguments. The publication and well-designed curation of electoral data therefore has the potential to affect this too.

3.6 Electoral management delivery

Electoral laws can be designed in ways which support and strengthen democracy and increase transparency, but like all public policies, they require successful implementation on the ground (James 2020).

The UK currently has a very decentralised system for the delivery of elections, relying on local Electoral Registration Officers (EROs) and Returning Officers (ROs). Electoral Registration Officers and Returning Officers are supported by relatively small teams of permanent staff, who in turn need to support larger pools of temporary staff to deliver elections (Clark and James 2021). There is evidence to suggest that these teams have been under increasing pressure in recent years, with concerns about increased costs and reduced resources, staff workload, and complex electoral laws (James and Clark 2020a; James 2020). Problems and pressures with the managerial and administrative machinery have been shown to feed into the voter experience. This can increase chances of errors being made, create higher volumes of rejected ballots or cause long queues forming outside polling stations (Gould 2007). There have been high cases of queues forming late at night, which has led to electors being turned away at polling stations and unable to vote, such as in Sheffield at the 2010 General Election (BBC News, 2010).

The positive and negative effects that publishing electoral data has on the management and delivery of the election is an important factor to consider. For example, the costs of collecting data, reporting data, and making data available must be proportionate to the benefits. Yet these benefits could be substantial. Data collection could provide indicators about how well electoral machinery is performing, such as the length of queues at polling stations, or where voter registration rates are low. The publication of data could also enable interventions or encourage higher performance (James 2013).

3.7 Voter intimidation and electoral fraud

A democratic system requires that parties, voters and other actors comply with the rules of the game (Lehoucq 2003). Whether the publication of data might deter or enable electoral fraud to be detected is therefore an important factor to consider. Election forensics is a methodology that involves the analysis of election data such as ballot paper numbers, votes and polling station locations

to identify likely cases of electoral fraud (Deckert, Myagkov, and Ordeshook 2011). It can also be used to identify geographical areas where electoral fraud is most likely, which can be used to inform preventative policy (Zhang, Alvarez, and Levin 2019). Good quality data is clearly required for any post-election audits so that the integrity of the process can be evaluated. Wide publication of electoral registers has often been a method used to remove errors, as parties and candidates can use this then to challenge the integrity of the lists. Reporting tools for voter intimidation can enable patterns to be tracked in real-time. Equally, data publication may enable actors to commit electoral fraud because granular level information about voting may enable people to focus their disinformation efforts. For example, a party agent or a third party could focus misinformation about polling station locations in areas where their opponents are strong. This type of activity is traditionally more common in consolidating democracies (Cheeseman and Klaas 2018), but has also been seen in older democracies. In the 2011 Canadian federal elections, voters in 27 ridings were alleged to have received 'robocalls' containing misinformation about the location of the polling station, which some analysis found to have suppressed turnout (Cornwell and Kessler 2012). Areas where Black voters are concentrated have historically been targeted in the US (Piven, Minnite, and Groarke 2009).

3.8 Privacy

Privacy is notoriously hard to define, but in this context, it can be described as the ability to control, to a degree, what information about you is known by which people. That is, you exercise your privacy by attempting to control how information about you is gathered, and to whom it is made available.

Privacy is protected in law both as a human right (Article 8 of the European Convention of Human Rights) and specifically in relation to data through data protection law. In the UK, that means the Data Protection Act 2018, and in practice what is referred to as the UK GDPR. At present, this is effectively the same as the EU GDPR, but a review of data protection law post-Brexit is currently under way, and it may be that the current protection of personal data in the UK is changed as a result. This is something that needs to be followed carefully in relation to electoral data.

Privacy is important for several reasons. Data about a person, and particularly data that can provide a link to a person in the real world, can



have an impact upon that person in the real world. Decisions about a person can be made based on this information, for example decisions about credit, or about jobs. Profiles of people can be built, and in the political context, this can also be used for campaigning. This can be legitimate and appropriate, but it could also be the basis of manipulation and bad practice. The Cambridge Analytica affair and other issues of electoral manipulation were centred on data analysis. For this and other reasons, the privacy of information on the electoral register needs careful monitoring.

There is another aspect of privacy in relation to electoral data that may be just as important. It is crucial to understand that people care about privacy, in part because they are aware how losing their privacy can be damaging to them. This can be particularly important for marginalised groups that are less likely either to register to vote or indeed to vote. People may be wary of what could happen to them if they register to vote. They might fear that by registering they are losing their privacy, for example people may be concerned that mental health services, immigration services, debt collectors, enemies such as violent ex-partners, or even the police might access the electoral register in order to locate and harm them. To avoid this perceived or potential harm, they might choose not to register. In effect, the risk of losing their privacy acts as a chilling factor, making them less likely to participate in the democratic process.

Dealing with this chilling effect is an important aspect of improving democratic participation, and that means dealing with both what might actually happen to data and with how this is communicated. Data must not just be secure from misuse, and protected from inappropriate access, but this must also be well communicated to people.

3.9 Ballot secrecy

The secrecy of an individual's vote is widely considered as essential to free and fair elections. It is enshrined into international standards of elections in Article 21 of the 1948 Universal Declaration of Human Rights (UDHR) and Article 25 of the 1966 International Covenant on Civil and Political Rights (ICCPR).

Elklit and Maley (2019, 64-6) argue that ballot secrecy is stressed usually for one of three key reasons. Ballot secrecy:

- preserves the right to privacy of political beliefs
- discourages coercion against voters by actors trying to manipulate the result of the election or punish them for voting in a particular way
- prevents vote-buying by actors trying to manipulate the result of the election

There is, however, the risk that a ballot can be traced back to the person who cast the vote. Where ballot papers are given numbers which are linked to voters, officials could identify who cast the ballot Elklit and Maley (2019, 73), warn. The storage and publication of electoral data must consider the consequences for the secret ballot.

3.10 Other externalities

While this chapter has aimed to be comprehensive in identifying possible factors to consider in the publication of electoral data, it is important to acknowledge other unknown effects that might occur. For example, might there be effects on crime, public spending, or other aspects of public policy? With the absence of a civil population register in the UK, the electoral register may enable other important public policy goals to be achieved. Electoral data, particularly in aggregated and analysable forms, may also be helpful for the development of legitimate commercial products and services, provided data privacy can be maintained.

Information on electoral infrastructure is spread across multiple public organisations in a way that is confusing and inaccessible to many



4

Electoral infrastructure data

Electoral infrastructure refers to legal, organisation and informational foundations of elections that are necessary for an election to be held. This chapter maps what data could exist in this dimension of elections, whether this data is published, who uses it and for what purpose. It finds that information on electoral infrastructure is spread across multiple public organisations in a way that is confusing and inaccessible to many. It argues that this could instead be published in a ‘one-stop-shop’ website.

4.1 Legal framework

The legal framework for elections consists of any overarching codified constitution, electoral laws or statutory instruments that are in place to regulate how an election should be contested. These rules are usually drawn up in parliaments and there is usually some consultative process. The legal framework could therefore be compiled in one place and made accessible for all actors. Data on how the consultative process was undertaken and who was involved (e.g., number of stakeholders, meeting agendas/minutes) could also be published.

There is no codified constitution in the UK. Nor is there a single electoral act. Rather, it has been estimated by the Electoral Commission that as at 2015 there are over 50 relevant acts and over 170 statutory instruments that electoral officials may need to have regard to (PACAC 2020, 5). The Law Commission has therefore called for the urgent consolidation of electoral laws, and this has been repeatedly supported by parliamentary select committees (PACAC 2020). Research has shown that this poses a considerable problem for administrators (James 2014).

The National Archives delivers the website legislation.gov.uk which contains all historic legislation. However, this is not a useful tool for those seeking to use electoral law on a regular basis. The guidance documents provided by the Electoral

Commission are therefore the common point of reference for administrators, alongside published guides such as Schofield’s Electoral Law (Posner and Footner, 2022).

Consultation processes on reforms to electoral law are often held by the UK, Scottish and Welsh governments, parliaments and their respective select committees. Evidence, final reports, and responses are published on the respective websites of those leading the consultation.

Aspect of elections	Data	Who holds?	Publicly available?	Primary users
Legal framework	<ul style="list-style-type: none"> Constitutional framework Electoral laws 	<ul style="list-style-type: none"> National Archives 	Yes	<ul style="list-style-type: none"> Legal experts Academics Stakeholders ROs and EROs
	<ul style="list-style-type: none"> Consultations undertaken 	<ul style="list-style-type: none"> Parliamentary websites 		
Electoral management body	<ul style="list-style-type: none"> Meeting records Financial accounts Personnel numbers 	<ul style="list-style-type: none"> Electoral Management Bodies 	Mixed	<ul style="list-style-type: none"> Academics Journalists Policy makers
Election security	<ul style="list-style-type: none"> Risk management documents Personnel data 	<ul style="list-style-type: none"> Unclear 	Unclear	
Voter education	<ul style="list-style-type: none"> Syllabuses Implementation reports 	<ul style="list-style-type: none"> Not compiled 	No	<ul style="list-style-type: none"> Schools Campaigners Political parties
Electoral systems and boundaries	<ul style="list-style-type: none"> Population size Electoral rules such as electoral formulae Spatial data for electoral districts 	<ul style="list-style-type: none"> ONS Ordnance Survey Boundary Commissions 	Yes	<ul style="list-style-type: none"> ONS Ordnance Survey Boundary Commissions
Polling stations	<ul style="list-style-type: none"> Number of polling stations Polling station location Facilities for voters Staff numbers 	<ul style="list-style-type: none"> Returning Officers Democracy Club 	Mixed	<ul style="list-style-type: none"> Public ROs

Table 4.1: Data on electoral infrastructure in the UK

4.2 Electoral organisations

Electoral organisations (or electoral management bodies as they are known internationally) are the organisations responsible for running and delivering elections. In many countries, this may be several organisations (Catt et al. 2014; James 2020). Data might be available on who the responsible organisations are, with detailed and transparent information about who the key personnel are, how to contact them, the financial accounts, meeting records and more. This is known to vary enormously around the world (Garnett 2017).

In the UK there are a huge variety of organisations that play a role in running elections. This adds to the complexity (see Box 4.1). This is in partly the result of devolved elections, but nonetheless this patchwork increases the scope for confusion about which organisation is responsible for each activity.

Few organisations involved in the delivery of elections post data on their overall staff size on their website. Our review of local authority websites found that only 2.7% of local authority websites contained the name of the ERO and 8.6% contained the name of the Returning Officer on their main elections' webpage (Table 4.2). RO details were available only in other parts of the website, such as the Council Minutes where their appointment was confirmed or on the official documents such as the Notice of Poll. These are published in a pdf document format meaning they are not easily usable data (see Appendix B).⁸ Although it is standard to provide a generic email address on elections websites, there is obvious scope to increase the transparency by providing a named

official. As responsibility in law is attributable to the RO and ERO, it follows that they should be publicly accountable.

Officer role	Percentage
Electoral Registration Officer (ERO)	2.7
Returning Officer (RO)	8.6

Table 4.2: The proportion of local authority websites across the UK that list the name of Electoral Registration Officer (ERO) and the Returning Officer (RO).

Another data point that is useful to understand, is how much public money is spent on administering elections. Whilst independent projects have been undertaken to collate this information (James and Jervier 2017a, 2017b; Clark 2019; James 2020; Democracy Volunteers 2021; Clark 2014), there is no regular reporting of this information. This is significant as cuts in budgets have been shown to lead to cuts in outreach work by local authorities to address low levels of voter registration (James and Jervier 2017b).

Concerns have also been raised about Returning Officer pay in recent years, with questions arising regarding the cost-efficiency of the electoral machinery and public trust in electoral officials. ROs are usually local authority employees and receive a salary for this role. If they are appointed to be the RO then they are appointed in an independent capacity. They can claim charges for the expenses incurred or services rendered. Legislation stipulates that maximum amounts claimable are set by statutory instrument, and these maximum values are published for each election. However, it is unclear how much

⁸ See, for example: https://www.norwich.gov.uk/downloads/file/7341/notice_of_poll_-_17_june_2021_city_council_date_accessed_1st_November_2022

is claimed and for what purpose. Reports in the media have suggested that this can be for considerable figures (*Herald* 2017), although it is often argued that these claims are used to remunerate junior staff. The Scottish Local Government and Communities Committee (2017, 7) have recommended 'all costs associated with elections should be processed around the principles of openness and transparency'.

Box 4.1: Organisations involved in running elections across the UK.

- **UK central government:** UK electoral law is set by Parliament, which means in practice, that the government of the day develops relevant bills and secondary legislation. This is undertaken by the Department for Levelling Up, Housing and Communities.
- **Local returning and electoral officers:** These roles have historically been overseen by ROs who are appointed by local government authorities. ROs are responsible for the conduct of the poll and have some discretion over the timing of the count. An ERO is responsible for compiling the electoral register. Both Returning Officers and EROs are local government employees but are independent of both central and local government with respect to their electoral duties. They are instead accountable to the courts system as an independent statutory officer and can be prosecuted for being in breach of their duties. There are some important variations across the UK. In England and Wales, the ERO and RO are often the same person working within the same local authority. In Scotland, electoral registration is organised by Valuation Joint Boards. These organisations undertake the task of valuing properties for the purpose of local taxation. The Assessor in charge of the Valuation Joint Boards is the ERO. In Northern Ireland, one Chief Electoral Officer acts as both the RO and ERO. (S)he is supported by the Electoral Office for Northern Ireland and appointed by the Secretary of State for Northern Ireland.
- **The Electoral Commission** was set up in the UK in 2000. The Commission is not a fully independent body since it is required to report to Parliament via a committee which can have a government majority. This same committee oversees appointments to the Commission. The government are also required to designate a Strategy and Policy Statement for the Commission following the passage of the Elections Bill. The Electoral Commission undertakes several important roles. Firstly, it regulates electoral finance. The Political Parties, Referendums and Elections Act (PPERA) requires political parties, campaigners, members associations and elected officials such as MPs, to report spending or accepting donations and loans above a certain value to the Commission. The Commission can issue sanctions or refer cases to the police for non-compliance. Secondly, it publishes research, reports and guidance to electoral officials (and those more broadly with an interest in elections such as civil society campaigners) to improve the delivery, confidence and integrity of elections. Thirdly, the Commission has power to set performance standards for ROs, EROs and Referendum Counting Officers in Britain. Fourthly, it undertakes some public awareness work relating to elections. Finally, the Chair serves as the Chief Counting Officer in referendums and has a power of direction, meaning that it is responsible for delivering these events.
- **Scottish government:** The legislative responsibility for Scottish Parliamentary and local elections in Scotland is devolved to the Scottish Parliament. The Scottish government therefore has responsibility for developing relevant bills and drafting secondary legislation.
- **Scottish Electoral Management Body:** Has the Convener powers to co-ordinate Scottish Local Government and Scottish Parliament Elections by making directions to ROs and EROs. The Convener has also been appointed the Convener in previous Scottish referendums.
- **Scottish Assessors:** There are 14 assessors in Scotland who are responsible for the valuation of properties for local tax purposes. Local councils have appointed the local Assessor as the ERO by all councils, except the City of Dundee and Fife (see: www.saa.gov.uk/electoral-registration/).
- **Welsh government:** Legislative responsibility for elections to the Senedd and local elections in Wales are devolved to the Senedd. The Welsh government therefore has responsibility for developing relevant bills and drafting secondary legislation.
- **Boundary Commissions:** There are six separate boundary commissions for each nation in the UK, who consider the respective parliamentary boundaries. There are also separate bodies for the local government boundaries.
- **Office for National Statistics:** Collates national data on electoral registration.
- **Ordnance Survey:** Produces maps of electoral districts.
- **Civil society:** Comprises a wide number of groups such as Democracy Club who collate electoral data such as candidate data, Democracy Volunteers who observe elections and Shout Out UK who undertake core voter education work. Individual academics fall under this category, as do research projects and groups such as the British Election Study and the Electoral Integrity Project.

4.3 Election security

Some problems with the electoral process can be averted with appropriate risk management (*International IDEA 2014; James and Alihodzic 2020; Alihodžić 2016*). The deployment of adequate personnel, financial investment, training, and electronic security are key components of this. The publication of risk management plans is one way that shows that required considerations are in place. A study by Brown et al. (2020) mapped the preparedness of electoral authorities in the US states for cyber-attacks, physical attacks and natural disasters by providing a 'environmental scan of the security landscape' (p.185). It is beyond the scope of this report to undertake this research for the UK. However, the evaluation of local election websites undertaken for this report, provided little evidence of the public availability of this information. In the UK, the government has however set a National Cyber Strategy that covers some elements relevant.⁹

4.4 Voter education

Voter education has often been shown to be an important way to enable citizens to make informed decisions at elections and increase voter engagement. Voter education comes in many forms. There is also a broader set of sources of political information, which contribute to political education, such as those produced by educational organisations, the media, political parties, and civil society. However, it could also include some of the voter engagement activities that electoral organisations undertake to engage the wider electorate.

Data could be published about the nature of voter education and frequency of transactions made. Local election teams have historically undertaken outreach work to promote voter engagement and create a more complete local register. This can involve visits to schools or work to engage underrepresented or marginalised groups. The amount and nature of outreach has varied over time, however, and has been shown to be in decline (*James and Jervier 2017a, 2017b*). Our review of local authority websites did not uncover any public information about the amount of voter outreach work undertaken, although this was not one of the information points that was actively monitored. Local authorities could report on the volume of voter outreach undertaken, including specific types of activities, locations such as schools or specific populations, especially when targeting underrepresented demographics.

This could help understand efforts to close the participation gap and enable civil society groups to understand areas of need, target populations to increase participation, and support groups to better understand the effectiveness of their interventions.

4.5 Electoral systems and boundaries

Electoral systems determine how votes are translated when electing politicians to office. A range of data and information is therefore needed by the electorate to understand the electoral system in place. This can include overall and district population data, alongside basic information about the rules of the game for voters, how votes are converted into seats and how many choices they have.

There are multiple different types of elections and electoral systems in place across the UK. Information about the constituency boundaries and electoral system for UK parliamentary elections is widely available through national media sources such as the BBC. The same is also true of Senedd and Scottish parliamentary elections. However, for other types of election information it is much less clear.

We evaluated the information contained on local authority websites. Ward boundaries were published on 58% of websites.

The Boundary Commissions provide proposals for the drawing of electoral boundaries. This is based on the electoral registers, for which they use aggregate data published by the ONS (*see section 6.4.3*). The Boundary Commission for England, for example, was required by legislation to undertake a review of the 2023 boundaries based on registration statistics published by the ONS on 5 January 2021.¹⁰

Electoral boundaries are visually published by the Ordnance Survey. An online tool for Great Britain (www.ordnancesurvey.co.uk/election-maps/gb/) or Northern Ireland allows users to select the type of election and then identify the boundaries. This can be done all the way to parish level and county electoral divisions.

4.6 Polling stations

Polling stations are the main location where citizens cast their ballot paper. Usually this is done on a single day and citizens are assigned a specific polling station in which they need to cast their vote. However, many countries have early voting provisions. This may involve the setting up of

temporary polling stations in convenient locations ahead of polling day.

Data can therefore be collated about the number of polling stations, but also the per capita provision. The quality of polling stations may also vary, with some for example providing better accessibility and staffing than others. There is scope for surveys to be undertaken on polling staff to capture the quality of polling station provisions. Ad hoc academic surveys have been run in recent elections, sometimes in collaboration with the Electoral Commission (*Clark and James 2017, 2018, 2019; James and Clark 2020b, 2020a*). This could be institutionalised by the Electoral Commission in the future and run at all polls. Information may also be readily available to citizens about their polling station in paper or electronic format.

57% of local authority websites provided information on where an elector's polling station was

The electorate is usually notified of their polling station on their poll card. However, as poll cards are not needed to cast a vote many citizens may not retain them. It is vital that eligible voters know the location of their polling station as they can only vote at their designated polling station by law. Data from local authority websites showed that only 57% provided information on where an elector's polling station is located.

Democracy Club is a small Community Interest Company started in 2010 and is a collection of 'full-time software developers, data specialists, geospatial engineers and election experts'.¹¹ Democracy Club built a website [wheredoivote](http://wheredoivote.co.uk) to enable people to find their polling station by entering their postcode. The tool uses data sent to Democracy Club by councils. Some electoral management system software providers have included the functionality to export the polling station data and easily email it to Democracy Club. After successfully showing the effectiveness of this

tool, Democracy Club and the Electoral Commission developed a partnership under the Public Sector Mapping Agreement that allows them to receive data that is in AddressBase (a product developed by the Ordnance Survey that matches Royal Mail postal addresses to geographical co-ordinates). The wheredoivote tool can be embedded into other websites.¹²

Democracy Club has previously partnered with the Electoral Commission, who now also provide a search tool. The Electoral Commission began to request the information from councils, but Democracy Club undertake core work of cleaning up and standardising the data so that the lookup tool can function.

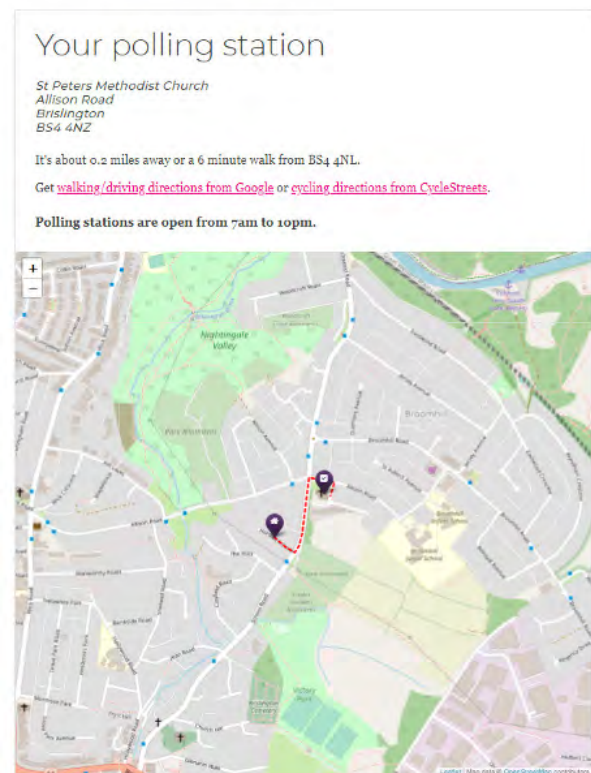


Figure 4.1: Example polling station location, source: www.wheredoivote.co.uk/example/, date accessed 19th January 2022.

4.7 Recommendations

Overall, information on electoral infrastructure is spread across multiple public organisations in a way that is confusing and inaccessible to many. The legal framework comprises of a tangle of different electoral laws, covering different territories and involving multiple different actors. Legislative proposals have already been constructed by the Law Commission to simplify electoral law and this would help make elections easier to understand for

¹¹ <https://democracyclub.org.uk/about/>, date accessed 19th January 2022

¹² <https://democracyclub.org.uk/projects/polling-stations/upload/>, date accessed 19th January 2022

Overall, information on electoral infrastructure is spread across multiple public organisations in a way that is confusing and inaccessible to many

practitioners and voters. Likewise, there is a maze of different organisations responsible for different jurisdictions. This makes accountability mechanisms blurry and the flows of data between organisations difficult to follow. Some organisational simplification may help data be easier to follow. In many countries, a single central electoral authority undertakes almost all of the tasks listed in Box 4.1. The case for consolidating some tasks into a single organisation, or at least one organisation within each nation, should therefore be considered.

The lack of transparency about spending on elections and RO pay has bred distrust and should be remedied with greater transparency. Payment for work undertaken is entirely legitimate and necessary, but the absence of information creates speculation.

There appears to be little information about emergency preparedness across the disparate electoral authorities.

Ways to monitor and review the voter outreach activities undertaken by the myriad of different organisations should be considered.

Electoral boundaries are very effectively published visually on the Ordnance Survey website, but by comparison, information on local authority websites is often incomplete, and is disconnected to the Ordnance Survey website. There might be opportunities for the OS tools to be embedded into local authorities' websites, or for voters to be directed to a single source of information. Information about the electoral rules used for some contests is often not present.

Information about a citizen's polling station location is vitally important for them to be able to cast their vote. Given that this is usually provided on their polling card, most citizens will be aware of their location. However, since many local authorities enable people to search polling stations on their website, and Democracy Club and the Electoral Commission have been able to create a central website, all local authorities should follow this lead and embed this tool as well.

Rather than relying on civil society to provide a nationwide tool to allow citizens to look up their polling station location, this should be provided by a central, publicly funded governmental body.

The Electoral Commission would be best placed to do this. There should be a statutory requirement for local election officials to provide the relevant data to a single national database of polling stations, which is necessary to underpin this.

R1: Electoral law should be consolidated.

R2: There should be a review of the distribution of tasks involved in running elections, with view to some organisational simplification.

R3: Data on spending on electoral processes should be routinely reported, as should expenses claimed by Returning Officers and the purposes for those claims. Greater information about emergency preparations could be made available.

R4: The voter outreach and education activities undertaken by organisations should be monitored and data made available so that areas of need can be identified, and overlap prevented.

R5: There should be a statutory requirement for local officials to publish polling station location data in a standard format, which can feed into a national database, and a single national voter information database. The Electoral Commission should provide a one-stop-shop website with information about the electoral rules, boundaries, and polling station look-up for each election.



The Electoral Commission should provide a one-stop website with information about electoral rules, boundaries and polling station look-up for each election

5

Candidate data

In a representative democracy, decisions are made by successful electoral candidates rather than citizens. Information on candidates is therefore essential for democracy. This chapter considers how data on candidates is collected and made available. It finds that candidate data is not systematically collected by electoral organisations and available technological tools are not being used. The limited data that is available is published in inaccessible formats that inhibits its use, including by the media to report on elections and citizens to make informed choices. The chapter calls for candidate data to be systematically collected and published in a standard reporting format.

5.1 Political parties and candidates

Elections involve a huge volume of candidates who compete for seats, most of whom are affiliated to political parties. Data about the individual characteristics of candidates could be captured, such as their demographic information, but also any campaign promises made or their past voting record. This information can be important for monitoring diversity and equality amongst candidates and in the political system at large. Likewise, political parties commonly generate campaign manifestos at a national level or campaign literature at a local level, in which they make promises about their policies if they are elected. This information plays a vital role in giving citizens informed choice at the ballot box. The organisational and geographical characteristics of political parties and candidates are also important, including where the party is based, where they receive their money from, and how it is spent.

5.1.1 The nomination process

The first stage towards becoming a candidate is the completion of the nomination paperwork. There are some variations in legal requirements according to the type of elections, so for the purposes of simplicity, the UK General Election process is described here, unless stated otherwise.

Box 5.1: Candidate data collected at the nomination stage

- Constituency
- Election date
- Candidate name, address, date of birth
- Candidate commonly used name (if different)
- Constituency address (if different)
- Witness name
- Political party
- Political party nominating officer
- Request for use of emblem
- Agent name and address
- Sub-agent name and address
- Subscribers

To become a candidate, an individual must return a nomination form, a home address form, a consent to nomination and deposit. This information has to be returned before the close of nominations – which for a UK General Election is 4pm on the 19th working day before the poll. If a candidate wishes to stand on behalf of a political party, the party needs to be registered with the Electoral Commission. ROs can check this using the Electoral Commission register of political parties on their website. For UK parliamentary elections, the name of 10 subscribers (who are individuals providing support



to the candidate¹³) that live in the parliamentary constituency are required.

The Electoral Commission provides a template nomination pack that ROs can use, but they can also develop their own forms, if it contains the appropriate requests for information¹⁴.

5.1.2 Digitalisation

Upon receipt of the nomination forms, electoral officials enter the candidate information into their Electoral Management System (EMS) manually. Some EMS suppliers allow candidates to enter application data directly. The law requires them to print these off and submit them in hard copy format with signatures.

5.1.3 Publication of notices

A *notice of election*, stating that an election will be held, must be published within two working days of the receipt of the writ. This is required to contain the nomination process, the date of the poll and the date by which applicants for absent votes must reach the Electoral Registration Officer.

A *statement of person nominated* is required to be published at 5pm on the last day for the delivery of the nomination papers. If there are objections, they must be published before 4pm the following day. This should contain candidate name, candidate home address (or, if they have requested not to make their home address public, the constituency name or country as appropriate), candidate chosen description (if any), and the names of up to 30 subscribers.

A *notice of poll* is required if there are more than two candidates nominated. This should be included with the statement of persons nominated and should state the date and time of the election.

A *notice of situation of polling stations* is also required. The Electoral Commission guidance¹⁵ states that this should be the situation of each

polling station in the area, and the description of voters entitled to vote there.

5.1.4 Notice format

ROs are legally required to publish notices of the polls by displaying hard copies across the electoral area, such as in libraries, local authority offices and other public buildings. The Electoral Commission guidance encourages publication through local authority websites so that information is 'easily accessible to voters'.¹⁶ The guidance recommends that where pdf files are used, steps are taken to ensure that they are compatible with screen readers.

Electoral Commission guidance advises ROs to review whether notices should remain published after the expiry of the petition period since after the electoral period they 'serve no further purpose. Therefore, you should either remove the notices, or remove the personal data contained in the notices, once the petition deadline for the election has passed.'

The guidance also notes, however, that personal data could be stored for longer periods if it is for archiving and in the public interest, or for scientific, historical, or statistical purposes. Notice of election results are encouraged to be retained on the website 'as they are for public interest and historical and statistical purposes'.¹⁷

Interviews with suppliers indicated that many electoral officials generated the pdf notices for their website from the EMS software, using the candidate data that was stored.

¹⁵ <https://www.electoralcommission.org.uk/sites/default/files/2022-10/UKPE%20Part%20C-Administering%20the%20poll.pdf> p.41, date accessed 1st December 2022

¹⁶ <https://www.electoralcommission.org.uk/sites/default/files/2022-10/UKPE%20Part%20C-Administering%20the%20poll.pdf> p.38, date accessed 1st December 2022

¹⁷ Part C Returning Officer guidance - UK Parliamentary elections and local elections in England and Wales ([electoralcommission.org.uk](https://www.electoralcommission.org.uk)) p.4, date accessed 1st December 2022

5.1.5 Use of data

The data on candidates is likely to be used for a variety of purposes, as Table 5.1 summarises.

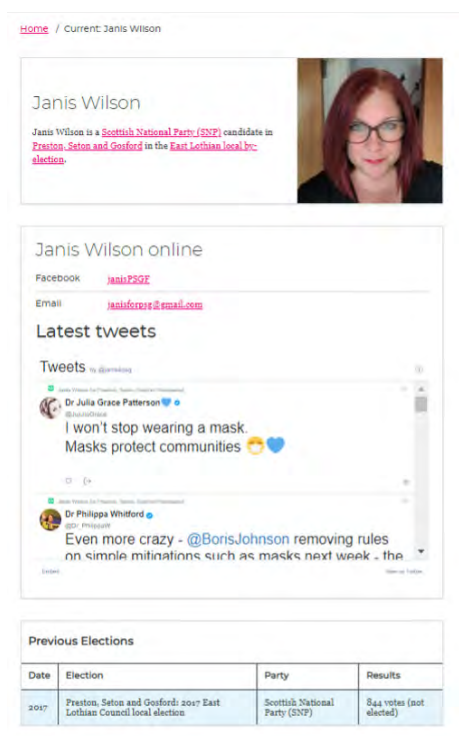
It is used by voters to make their choice. It is obviously also used by ROs to create ballot papers and notice of polls.

A list of candidates is usually published by the local media, using information published by the ROs on their website. This information is not in an accessible format. Local journalists usually have to scan through local council websites to identify key information from pdf files, which is a time-consuming process. The publication of details of local election candidates in the local media is therefore often limited to name and party and provides limited information to the electorate.

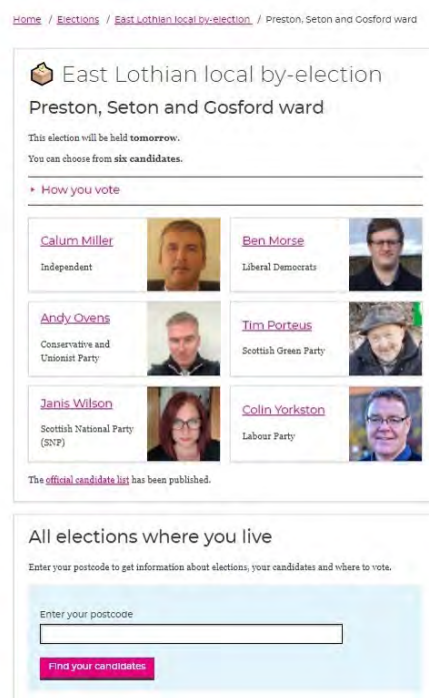
Candidate data has also been used by researchers. A report commissioned by the Human Rights Commission noted that data is not systematically collected on candidates or holders of public office in the UK. The information that was available was piecemeal and usually based on self-selecting surveys. The systematic collection of data on protected characteristics would enable diversity of representation to be monitored (Lamprinakou et al. 2019).¹⁸

Overall, as there is no centralised or easily accessible source of candidate data, it makes it much more difficult than it needs to be for the public, electoral officials, media and others to find and use this information.

In the absence of public sector or governmental information, civil society organisations have made important advances here. Democracy Club (see also section 4.6) developed the site [whocanivotefor](http://whocanivotefor.co.uk) to provide a tool for citizens to search for lists of candidates in upcoming elections using only their postcode.¹⁹ They can also subscribe to an iCal feed, which enables them to receive information about forthcoming elections into their electronic diary. This site proved extremely popular with over 3 million postcode searches at the 2019 General Election, and over 2 million at the 2021 elections.²⁰ The website contains data on the candidates' names and party affiliation. It can also include links to their website, social media feed and their previous election results. The information is compiled by volunteers through a wiki-edit tool. Links are also included to the official list of candidates on the local council website (see fig 5.1 and 5.2).



Figures 5.1 Example of candidate information on the whocanivotefor.co.uk website. Source: www.whocanivotefor.co.uk/person/20457/janis-wilson, accessed 19th January 2022.



Figures 5.2 Example of candidate information on the whocanivotefor.co.uk website. Source: www.whocanivotefor.co.uk/person/20457/janis-wilson, accessed 19th January 2022.

18 In Wales a local candidate survey has been run, but with often with low response rates (Welsh Government 2017)
 19 <http://www.whocanivotefor.co.uk/>, date accessed 19th January 2022
 20 <https://democracyclub.org.uk/about/impact/>, date accessed 19th January 2022

Who	Which data	Why
Public	Candidates and parties	To determine voter choice
Returning officers	All candidate data	Organisation of the poll Monitoring legal compliance
Media	Names and party affiliation Candidate finance data	Writing news content Informing the public
Democracy Club	Name, party affiliation, social media accounts, photographs	Creation of WhoCanVoteFor
Researchers	All candidate data	Research to improve best practices
Electoral Commission	Candidate finance data	Regulation of spending

Table 5.1: Use of candidate data by actor

5.1.6 Recommendations

Our review of local authority websites found that notices of polls were commonly posted on the local authority website. This was in pdf formats. EMS software suppliers explained that these would usually be exports from the EMS.

It is archaic that there is no formal requirement for ROs to make candidate information available electronically and that they are displayed only in public areas such as libraries. The use of pdfs also creates accessibility issues and prevents data being shared widely, contrary to open data standards. The candidate nomination forms also miss an opportunity to collect key demographic information such as information on protected characteristics defined by the Equality Act 2010.

This could be remedied by the systematic collection of data at the point of nomination. Statutory requirements could be established so that candidates are able to apply electronically. This could be collected in EMS and ROs could be required to make this data publicly available in an easy electronic format such as a .csv file. Rather than information being published at the local level only, a central candidate website could enable citizens to view candidates in their area. This kind of website could be developed further to also contain candidates' social media pages, links to their website and a self-authored biography. This could be one way to expand voter knowledge about the range of candidates available and create a more level playing field. This is core to an effective democracy in the modern age. Again, this is not an area that should be left to chance, and whilst the efforts of Democracy Club have helped cover up the most glaring omissions, this is an area that should be a core public service.

'I think a central database sounds like a great idea. Anything to make it easier for people to find out who their candidates are sounds like a big help for democracy.'

Regional Democracy Journalist

5.2 Campaign finance

Political parties and candidates are dependent on resources to fund their campaigns. Information about the sources of revenue and their expenditure is vital for a number of reasons. Firstly, it ensures that everyone is abiding by the rules. Secondly, it ensures that elections are not decided by the candidate who has the greatest resources by ensuring that expenditure limits are abided to. Thirdly, it ensures revenue sources are not from overseas actors. Key data therefore includes campaign spending, donations and loans, annual accounts. Data on non-party campaigners can also be useful for the purposes of full transparency.

5.2.1 Party, campaigning, and other groups' data

Political parties, campaigners and other groups must report their finances to the Electoral Commission. This includes donations and loans that they have received, their expenditure and annual accounts. This data is published online via the Political Finance Online tool (search.electoralcommission.org.uk/). This provides a searchable dataset, by time period, date range, donation date, donor status and other fields.

It is notable that this was used by International IDEA (2017, 11) as a case study to demonstrate the benefits of open data. The case study focused on when the Electoral Commission published the Labour Party's 2015 General Election accounts in January 2016. Journalists used this information to identify gaps in the spending data, which enabled the Electoral Commission to uncover unintentional mistakes in the data return by the party. The party was then fined £20,000.

The wider availability of data in this area of elections is considered a best practice approach, which shows the potential of this practice for other areas of UK elections.

R6: At minimum, data on candidates' protected characteristics, as defined by the Equality Act, should be captured at the nomination stage. This should be made available for statistical analysis for the purposes of monitoring and promoting equality in the electoral process. Access should be restricted to use for this narrow purpose.

R7: Candidate data collected at the nomination stage should be entered into the EMS software in electronic format.

R8: Data from the EMS software should be fed into a national candidate website where the public can view the profiles of candidates ahead of election day. Data on personal characteristics should be excluded from this, but aggregate data should be reported on by the Electoral Commission.

R9: Statutory requirements should be established requiring Returning Officers to publish candidate data in an accessible format.

R10: Prior to any statutory requirement about the publication of candidate data, election officials should be encouraged to voluntarily request data on protected characteristics from candidates and provide this data to the Electoral Commission. Anonymised data should be published and analysed.

6

Voter registration data

To be able to vote, you need to be registered. This chapter sets out how voter registration data is collected, stored, and distributed. It also considers who uses this data. Electoral registers are spread across a patchwork of multiple organisations. A number of actors including civil society groups and academics have relatively little access to relevant data, and do not have what they need to promote electoral participation in a fragmented system. This chapter therefore calls for a major redress of data storage and availability.

6.1 Background

Nearly all elections worldwide operate on the basis of an electoral register. This contains a list of eligible electors for a forthcoming contest. Globally, there are very different methods used to compile the electoral register. In some countries the electoral register is generated ahead of an election from the population register. Citizens do not have to take any further action to register. This type of electoral register may contain information such as date of birth, social security number and gender, from other data sources. In other countries, including in the UK, the electoral registers are compiled through other methods such as individuals responding to canvasses or a requirement to submit personal data through an online webform (Garnett 2021; Garnett and James 2021a).

The accuracy of the electoral register has been usefully defined as the extent to which there are 'no false entries on the electoral registers' (Electoral Commission 2016b, 5). The completeness of the electoral register is the extent to which every person who is entitled to be registered, is registered.

The quality of electoral registration data is a huge issue in many countries. Research has found that electoral registers may often contain missing information, as well as erroneous addresses and names. Electoral registers may potentially include duplicate entries or even miss eligible electors entirely (Merivaki 2020). The electoral

register should include all citizens eligible to vote. The reality, however, is that a combination of organisational, demographic, and political factors mean that millions of electors are often missing from the electoral register as we already highlighted in chapter 3.

There are times when the number of voter registration applications is also important data. The number of registrations that take place within a specific window, such as during a voter registration drive, could be captured to give insights on changing patterns in registration. This data could also be made available at the level of electoral districts and the demographics of who is applying.

A number of actors including civil society groups and academics have relatively little access to relevant data, and do not have what they need to promote electoral participation in a fragmented system.

6.2 Data collection: the voter registration process

In the UK there are two main pathways that citizens can apply to register to vote.

6.2.1 Online voter registration

Eligible people can register to vote via a website hosted by the UK government (www.gov.uk/register-to-vote). To do this they must provide their name, date of birth, national insurance number, address, any second address, and an old address if the individual has moved in the past 12 months. There are also options to opt out of the 'open register', apply for a postal vote and provide contact details in case of queries (email address and telephone number).²¹

Each application goes through the Cabinet Office's Individual Electoral Registration Digital Service (IERDS) to verify the applicant. This attempts to match the applicant's National Insurance number, date of birth and name against the DWP Customer Information System (CIS). The CIS contains a record for all individuals who are registered and have been issued with a National Insurance number (DWP 2018).

EROs are provided with the application data by the IERDS, and whether there is a 'pass' or 'fail' in the matching process. This can then be used to assess whether the individual should be added to the electoral register. EROs are also allowed to use locally held data to make this decision. The digital matching process does not check nationality so is not a guarantee of eligibility. If applicants do not submit a National Insurance number, EROs have the discretion to decide whether they still register an individual based on whether they consider them eligible.

6.2.2 The annual canvass

The annual canvass is a yearly check on the completeness and accuracy of the electoral register at each property. It was recently reformed so that all electors are not approached in the same way.²² The first stage is a 'data discernment step' where properties on the register are matched against national and local data sources. Where a match is made, EROs are required to send a written letter to each property asking for notification of changes, but citizens are simply re-registered unless there is a response.

Where national and/or local sources do not match against the electoral register, the residents of the property are contacted asking them to respond

to the canvass. EROs are required to chase non-responses, and there must be at least three attempts to contact the property, at least two of those must have involved visits to the property. There is a different approach required for specific properties such as registered care homes, student accommodation, Houses of Multiple Occupancy and hostels, where a 'responsible person' can be approached for a list of the names of the residents. If no response is received within a reasonable time, a full canvass of that property must be conducted.

6.3 Data storage

Electoral registration data comes in four main forms:

- A live electronic database of currently registered citizens is stored by EROs on their Electoral Management Software (EMS) locally. Local electoral officials informed us that this contains names, dates of birth and addresses. The databases also contain National Insurance numbers to enable eligibility to be checked, but this is redacted in the system. It also stores whether the elector had opted out of the edited electoral register, whether they have registered anonymously, and any local notes that officials may have about the register.
- Annual electoral registers are created each year, although there are monthly updates.
- Polling station registers are also published for each electoral event. These are created from the live database, printed off in hard copy and provided to staff in the relevant polling station on election day. They are therefore a snapshot of the register at a given moment in time.
- Marked registers for a specific election are stored locally (this is discussed in chapter 7). These are the hard copies of the election-day registers from polling stations which indicate whether each registered person voted or not (but not who they voted for). They are sometimes stored as scanned pdf files.

6.4 Use of the electoral register

The electoral registers are used by multiple groups of individuals and organisations.²³

6.4.1 Electoral officials

The full electoral register is obviously used by electoral officials for the purpose of running an election. It is the master record of who will be allowed to vote in an election. It is used to generate

poll cards, identify the number of polling stations needed and other key electoral tasks for running the election. It is also used to check whether those signing candidate forms to propose a candidate are on the register.

6.4.2 The Office for National Statistics (ONS)

In England and Wales, the ONS requests data on the number of electors on the parliamentary and local government registers from each ERO, shortly after a reference date of 1 December, for each local government area. The ONS aggregates this data. If EROs do not respond, data from the previous year is used or data is requested from the Boundary Commission. For Scotland and Northern Ireland, the ONS uses information from the National Records of Scotland (NRS) and the Electoral Office for Northern Ireland (EONI).

The ONS uses this to publish annual statistics on the number of citizens on the electoral registers, with detailed breakdowns for constituent countries of the UK, English regions, local government areas and Parliamentary constituencies (ONS 2020). Data is available at the time of writing from 2000-2020. The statistics are usually published annually around two months after the reference date (February or March each year).

6.4.3 Boundary Commissions

The Boundary Commissions are provided with a full copy of the register of electors in electronic format so that the Commissions can know the number of electors in each geographic area. This is used to undertake the statutory duty of reviewing constituency boundaries.²⁴ The Boundary Commissions also use aggregate data generated by the ONS for this purpose.²⁵

6.4.4 The Electoral Commission

The Electoral Commission does not hold data on electoral registration. However, it is entitled to receive a full copy of the register in electronic format.

It has published studies estimating the accuracy and completeness of the electoral registers (*Electoral Commission 2019a, 2018b, 2016a*). This is based on surveys of households, comparing the citizens resident against the actual electoral register. These therefore provide the most comprehensive picture of the gaps and inaccuracies in the register. However, these estimates are periodic and dependent on the research budget and priorities of

the Electoral Commission. They also only cover a sample of local authorities, and the raw data from their surveys is not published.

6.4.5 Jury Central Summoning Bureau

The full register is provided to the Jury Central Summoning Bureau who use the register to identify jury members. EROs are required to inform the Jury Central Summoning Bureau which electors are over 75, and therefore not eligible for jury service.

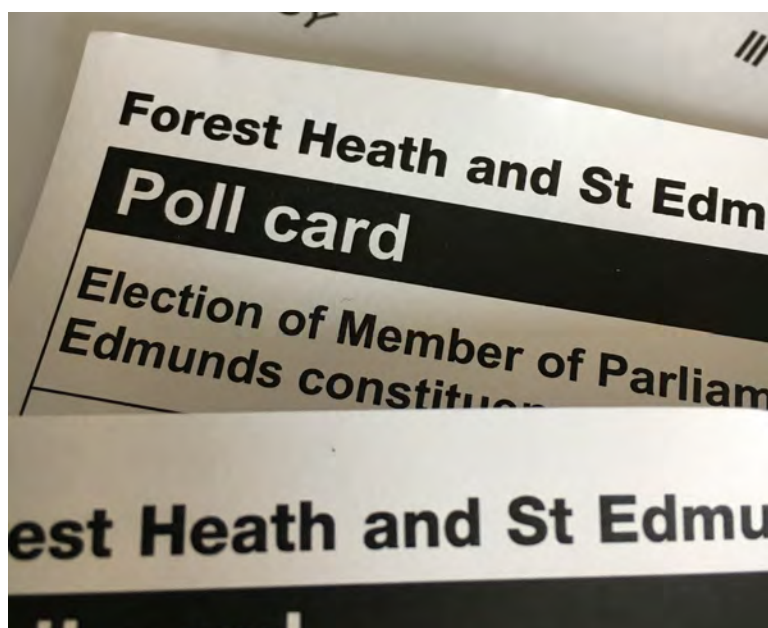
6.4.6 Elected representatives

Elected representatives such as MPs, MSPs, members of the Senedd, local councillors, Police and Crime Commissioners and Mayors can request the relevant part of the full register for their area. This is an essential task to enable them to identify and represent their constituents. Office holders can also request the register for to check the eligibility of donations (donors need to appear on the electoral register).

6.4.7 Candidates and Political Parties

Candidates, election agents and local constituency parties are entitled to request copies of the full electoral register, for the relevant area.

This is used, alongside data from the marked register (and other data), for the purposes of political campaigning. This is therefore discussed below under section 7.4.1.



²⁴ E.g. see: <https://boundarycommissionforengland.independent.gov.uk/data-and-resources/>, 23rd January 2022

²⁵ <https://boundarycommissionforengland.independent.gov.uk/data-and-resources/>, date accessed 27th January.

6.4.8 Civil society groups

We spoke to several civil society groups who worked to promote voter participation.

Promoting voter registration

As section 3.3 explained, there are an estimated nine million unregistered citizens, and under-registration is highest amongst younger people, those who rent their homes, and ethnic minority groups. To help close the gap in registration, a number of civil society organisations work to increase registration and participation in elections through activities like voter registration drives and other educational interventions (*Bite the Ballot, James, and ClearView Research 2016; Deacon 2021*). Data on electoral registration is important for these groups in three respects. Firstly, at an individual level, information about whether a citizen is on the electoral register allows civil society groups to target them and encourage them to register to vote if not already registered. Secondly, data at a group level is important to identify where there are low levels of voter registration so that activities could be targeted. Lastly, access to this data allows these groups to understand the impact of their efforts through evaluation.

Respondents told us that they felt they were acting in the dark, with a lack of data about who is not registered, the areas where electoral registration is low, and no good ways to measure how successful their attempts have been. One organisation worked to boost turnout and organised digital hustings events in 12 different schools in Greater Manchester. They used self-reporting surveys to establish whether they were effective at increasing turnout. However, as they placed an additional administrative burden, they were felt to be not as effective as they wanted, and they worried that they may make it less likely for schools and young people to participate.

Another metric that was used to understand impact was website traffic monitoring, including

the number of clicks on either organic or paid-for social media adverts. This provided data on how many people are directed to the government register to vote webpage, but does not tell them whether the individual then went on to register to vote or whether they were missing from the register in the first place. They therefore only provide a proxy measure of success. Nonetheless, there is greater scope to use this data, especially where more detailed data could be made available by the Cabinet Office segmenting website traffic as a start. It would be possible to compare voter registrations during the advertisement period to a non-registration period using data from the [live voter registration dashboard](#). This allows the live monitoring of voter registration activity. Data is provided at the level of elector type (UK resident, British citizens abroad, armed forces etc), age

and nation and updated in real time every five minutes. It is estimated that around 50% of voter registrations are duplicates immediately ahead of General Elections, although this ranges across local authorities (*Paine 2017*). To make the data more usable for voter registration drives, data could be published at a more granular level, such as at the level of local ward. Civil society groups could then target their activities within narrow time frames to allow effects to be measured, for example.

**Are we reaching out
and working with the
right schools or the right
colleges in the right areas?
At the moment it's just so
difficult to know exactly
where the cold spots are.**

Non-profit organisation

Promoting voter participation

Polish Migrants Organise for Change (POMOC) are a non-profit organisation who have sought to increase voting in the Polish community. In 2021 as part of their approach, they purchased copies of the open register in areas known to contain greater numbers of the Polish community. In 3 areas of London, roughly 3,000-4,000 people with surnames of Polish origins were sent a letter to encourage engagement in the elections, including information about candidates in Polish. However, POMOC found that they were unable to see whether those contacted went on to vote because they 'haven't been able to get our hands on a marked register'. To get this information the team had written to the Local Authority and approached political parties.

Responses to the request were mixed. Some political parties said that they could be provided with their copies of the marked register if they paid them ‘a certain price but then the conversation trailed off, and we didn’t pursue it further’.

It is important to note that while many commercial organisations or major political parties hold electoral data, such as whether individuals are on the register or voted at the last election, this is not easily available to civil society groups who are seeking to promote voter participation. This is partly because of legal restrictions, but also the resources available to these groups.

6.4.9 Credit reference agencies

Credit reference agencies are entitled to purchase copies of the full electoral register, where they have permission under the Financial Services and Markets Act 2000 to furnish persons with information relevant to the financial standing of other persons. The Financial Conduct Authority (FCA) provides a website with a register which electoral officials can search to check the criteria www.register.fca.org.uk/ShPo_HomePage. EROs can request information from the FCA to verify this.

6.4.10 Crime and law enforcement

The full electoral register can be requested by a variety of crime and law enforcement agencies: any police force in Great Britain, the Police Service of Northern Ireland, the National Crime Agency, and any body of constables. This can be in data format.²⁶

6.4.11 Libraries

A public library or local authority archive can request a copy of the full electoral register. They can be provided this in data or printed format for the relevant part of the register.

EROs are required to supply a printed and electronic copy of the full electoral register to The British Library, National Library for Wales, and National Library of Scotland. The British Library has the full electoral register going back to 1832. Some of the registers have been digitised for the period 1832-1965 and are available online. Electoral registers are made available for inspection in the reading rooms, but they do not allow an electoral register to be photographed or photocopied until 10 years after its publication date.²⁷

While commercial organisations or major political parties hold electoral data (such as whether individuals are on the register or voted at the last election), this is not easily available to civil society groups who are seeking to promote voter participation.



²⁶ <https://www.electoralcommission.org.uk/sites/default/files/2019-08/List%20of%20people%20entitled%20to%20be%20supplied%20with%20the%20electoral%20register.pdf>, date accessed 19th January 2022

²⁷ <https://www.bl.uk/collection-guides/uk-electoral-registers#>, date accessed 19th January 2022

6.4.12 Academics and researchers

Academics may wish to access the registers for research purposes, for example research on the effectiveness of interventions to improve voter registration rates or to better understand why people do not participate in elections.

Whilst they can theoretically request copies of the edited register for each area and piece these together to provide a picture of the whole country, the costs are prohibitive and the removal of names of people who have opted out may make establishing any research findings very difficult. Academics, like any individual or organisation, also have access to the marked register, but access is restricted and

must be under the supervision of electoral officials. As marked registers are usually held in paper format, or at best, scanned pdfs, to look at them for research purposes is a very time-consuming process. Our interviews with researchers revealed that the process made research too labour intensive, expensive and time consuming. By contrast, the electoral data that academics could make use of is largely held by private sector companies and major political parties who had to expend resources to pay for the data and collate it.

Overall, this means that research on voter registration rates and political participation is severely restricted by financial and logistical issues. As a result, there is very little work on understanding ‘what works’ in this field. This poses challenges for research councils and others to understand what to invest research resources into, but most importantly means there is too little known about how to improve things like inequalities in electoral participation.

6.4.13 Individual citizens

Our interviews with local electoral officials found that a small number of individuals may contact them from time to time asking to access the electoral registers. Possible reasons given included historical research, when people are trying to locate other family members, or landlords chasing tenants.

6.4.14 Private sector

The private sector can purchase copies of the

open electoral register. Reasons to do this can be varied. One purpose might be for the development of mailing lists to increase sales for commercial products. While costs can be prohibitive for individuals or smaller organisations, larger organisations with sufficient resources are able to patch together a nation-wide database, and this can be used to generate commercial activity.

6.4.15 Other usage

The range of actors who use the open register is ultimately unknown. The universal availability of the edited/open register to anyone has privacy implications. People may not be fully aware of the implications of their choice not to be removed from the edited register, so their

choice not to opt out is unlikely to be a genuinely *informed* choice.

There have been concerns about foreign interference in elections around the world from overseas state and non-state actors (*Dowling 2022; Garnett and Pal 2022*), and there is a more hostile global environment. One method of interference is micro-targeting individuals to spread disinformation about the electoral process and public policy in general. It would be possible for malign actors to target individual electors using information that is available on the open register. There is evidence already of how voters could be targeted with false information about the location of their polling station, identification requirement or polling procedures (*Garnett and James 2020; Pal 2017; Piven, Minnite, and Groarke 2009*).

It therefore seems that making individual level electoral registration data freely available without any safeguards is a policy out of line with the likely threats to democracy and elections and provides no obvious benefits for the electoral process itself. There should be careful monitoring, at the least, of who is purchasing this information and for what purposes. But on balance, it would be safer to cease to publish the electoral register in an open format.

Table 6.1 provides a simplified summary of who has access to the electoral register and the purpose which may justify this. Some users are collapsed into broader groups.

Research on how voter registration rates and political participation is severely restricted by financial and logistical issues.

Who?	Which data?	Justification/purpose
Electoral officials	All registers	Running the election
Office for National Statistics	Full, electronic	Publishing aggregate statistics
Boundary Commissions	Full, electronic	Drawing electoral boundaries
Electoral Commission	Full, electronic	Statistical research
Jury Bureau	Full, electronic	Jury service
Elected representatives	Full, electronic, for area	Representing constituents
Candidate and parties	Full, electronic, for area	Campaigning
Credit reference agencies	Full, electronic	Credit checking
Government departments	Full, electronic	Prevention and detection of crime Vetting employees and applicants for employment
Crime and law enforcement	Full, electronic on request	The prevention and detection of crime
Libraries	Full, electronic, for area (unless national library)	Archival record Public access
Academics	Open – upon purchase Marked register – local paper	Research on promoting voter participation
Private sector	Open – upon purchase	Commercial sales
Anyone	Open register, electronic Marked registers, paper	Any purpose

Table 6.1 Access to the electoral register and the purpose

6.5 Data on use

We conducted an online survey of local officials in March 2022, to ascertain how frequently electoral officials were receiving requests to access the electoral registers. Table 6.2 summarises the responses from 110 local authorities. The mean number of requests is provided. This suggests that the number of requests are low and virtually non-existent from researchers and campaign groups. However, as we have highlighted, both awareness of the ability to access this information, and the need for this information to be easy to access and in more usable formats are likely to be substantial factors affecting the frequency of requests for access.

	Estimated requests received per year for each register type		
	Full	Marked	Open
Local councillors	20.26	2.06	0.06
Individual citizens	8.13	0.09	2.06
Credit reference agencies	5.06	0.01	0.53
National parties	3.39	1.19	0.05
Local parties	3.28	2.98	0.02
UK Government departments	2.32	0.06	0.06
MPs	1.63	0.23	0.02
Libraries	1.01	0.02	0.17
Police and/or crime agencies	0.84	0.01	0
Researchers	0.42	0.05	0.27
Other businesses/corporate organisations	0.37	0.02	0.77
Landlords	0.2	0	0.49
Police and Crime Commissioners	0.14	0.02	0.01
Campaign groups	0.12	0.01	0.12
Students	0.11	0.01	0.04

Table 6.2: Estimated requests received by Electoral Registration Officers per year for each register type. Results from a survey undertaken by authors in March 2022.

6.6 Recommendations

6.6.1 Necessary access?

The electoral register is currently split across a patchwork of different local electoral organisations. Political parties and organisations with sufficient legal, economic, and logistical resources can harvest the data into a centralised dataset. This access can be positive for democracy and political participation, especially as parties play a key role in mobilising voters. There are also important non-electoral uses of the register such as that by credit reference agencies. However, the wide and unrestricted access to some data could pose threats for democracy because of the increasing risks of things like micro-targeting and misinformation campaigns.

The open register is available for anyone to purchase and there seems to be no effective regulation over who has access to the details of millions of people's information. It is therefore recommended that access and use of the open electoral register is reviewed.

There is also no effective control of what those who receive the registers do with that data, nor any rules about what they can do with the data. One solution to this could be to require those who receive the registers to provide an annual report on how they have been using the data. These annual reports would form part of the information used to monitor the use of election data.

6.6.2 Completeness and accuracy measures

For organisations like the Electoral Commission, local officials and civil society organisations seeking to promote registration and voting amongst low-participating groups, the electoral registers remain fragmented and inaccessible. Responding to the problem of the 'missing millions' is therefore hugely difficult if these organisations have one hand held behind their back. There are no regular aggregate statistics published on the accuracy and completeness of the electoral registers to help campaigners and political parties focus their work to increase voter registration rates.

One solution would be more regular and comprehensive electoral register accuracy and completeness reports. However, this would likely be expensive, and time might be better invested in developing data-matching tools and aspects of automatic voter registration (see: *James and Bernal 2020*).

One possible interim makeshift solution could be for the Electoral Commission to provide a warning system about under-registered areas. The Electoral Commission publishes Mid-Year Population Estimates which seek to estimate the number of people who are "usually resident" in the UK for 12 months, excluding short-term migrants, and counting students at their term-time addresses. Information is available by the same geographical units as the electoral statistics but there is a breakdown by age and gender (*ONS 2021b, 2021a*). It is therefore possible to calculate an estimate of the number of eligible electors from the ONS Mid-Year Population Estimates by identifying citizens. For example, for



contests where the franchise is 18 (such as the UK General Election), the number of people who are 18 or over can be calculated. A crude measure of the completeness of the electoral register could be constructed with ONS data by dividing the number of people on the register by the over 18 (or 16) population estimate. These measures could also be included in the Electoral Commission's performance standards scheme.

It should be acknowledged that this might be too crude to be helpful, and it certainly wouldn't solve the challenge of understanding the types of activities that best support certain individuals and communities to register and participate in elections. The population estimates also do not provide information on nationality, so they will over-estimate the number of eligible electors. Electoral registers could also include the same person more than once, and of course population estimates are only estimates.

A third solution could be the construction of a single national electoral register. To do this data could be merged from local lists into a single data source. This could enable a much better analysis of the state of the overall electoral register. It would also be in line with principles of the government's open-data strategy. Appropriate mechanisms could be developed to make data available to those who need access for the purposes of promoting democracy, organising elections and legitimate purposes in the public interest. These would be:

- electoral officials
- elected representatives for the purposes of providing representation (but only for their respective area)
- governmental bodies for the purposes of organising elections (*ONS, Boundary Commissions*)
- civil society groups seeking to promote participation via the Electoral Commission
- the Electoral Commission for the purposes of statistical research
- academics for the purposes of academic research via the Electoral Commission
- credit reference agencies for the purposes of credit reference checking
- crime and law enforcement agencies for the purpose of prevention and detection of crime
- Jury Central Summoning Bureau for the purpose of identifying jurors
- Libraries for the purpose of historical archiving

The Electoral Commission could serve as a gatekeeper to help coordinate access for government departments when this is appropriate. They could also support effective use of and control of the register to promote electoral participation. Any individual or organisation being granted access would need to have their access and reasons noted.

Whilst there is a potential privacy concern about all the data being held in one dataset, it is important to note that datasets of this type have already been constructed by credit reference companies and political parties. By supporting a body like the Electoral Commission to hold this, a more accountable, usable and controllable repository could be established.

R11: Publish data on the government's voter registration dashboard about voter registration applications at the level of ward.

R12: The open electoral register is reviewed.

R13: Annual reports on the accuracy and completeness of the electoral register should be undertaken by the Electoral Commission or local authorities.

R14: The Electoral Commission could be mandated to publish statistics for the number of eligible electors for each election compared to population estimates. This could be published online and made available for campaigners and political parties so that they can target under-registered areas.

R15: A single UK-wide electoral register should be established and made available to those using it on the basis of public interest only.

R16: Recipients of data from the electoral register should be required to sign a statement for how they intend to use electoral registration data. A voluntary statement could be made initially ahead of a statutory requirement. Data on electoral register use should be collated and reported on by a central agency such as the Electoral Commission.

Governmental bodies, civil society groups and academics who may seek to encourage broader public participation have very limited tools available because of the poor quality and format of electoral data



7

Voting Data

Voting data covers voters' preferences, whether they voted, and who they voted for. This chapter shows that larger political parties and other actors have access to data that enables them to focus on canvassing specific voters at election time, rather than engaging the broader electorate in a public conversation. However, governmental bodies, civil society groups and academics who may seek to encourage broader public participation have very limited tools available because of the poor quality and format of electoral data. Measures are proposed to redress this.

7.1 Voter preferences

An individual's voting preferences may include their ideological position, policy preferences and their disposition to vote for particular parties and candidates. Voting preferences are not formally recorded in any way. However, it has been thought that they can be identified in a variety of ways including through people's usage of social media and the internet. This data is therefore held by social media companies and website providers. The Cambridge Analytica scandal involved a leak of information from 50 million Facebook profiles. Cambridge Analytica, without the users' knowledge, used this information to build models about their likely voting preferences so that they could be targeted with campaign messages in US elections (*Cadwalladr and Graham-Harrison 2018; Kitchgaessner 2017*).

It has been speculated that this data was also used in the campaign for Vote Leave in the Brexit referendum, including concerns about possible Russian involvement, but the Information Commissioner's inquiry reported that Cambridge Analytica was not involved in the Leave campaign 'beyond some initial enquiries' (*Denham 2020*).²⁸ Nonetheless, many companies do hold information about people that can be used to identify voter preferences such as their demographic and socio-geographic characteristics. This data is collected

from a variety of sources including website cookies, social plugins and tracking pixels. As the Electoral Commission notes, these tools 'track your browsing habits, likes and social interactions across the internet in order to build up a profile about you.'²⁹ This type of data has often been used to inform political and broader campaigning strategies such as targeting voters through social media and postal communications. Data on individuals is therefore a potentially vitally important campaign tool and should be considered as 'electoral data' in the broader sense and therefore needs to be monitored.

Microtargeting at an individual level is an important and fast-moving field in advertising, and the overlap between advertising and electoral campaigning techniques, technologies and indeed the people and companies involved is considerable.

7.2 Voter experience

Voter experiences vary around the world. Some eligible voters may be forced to wait for long periods of time at the polling stations before they can cast their ballot. Sometimes the electorate experiences intimidation and fear as pressure is put on them about who to vote for (*Schneider and Carroll 2020; Birch and Muchlinski 2018*). Some countries have practices in place to monitor the experience of the voter with surveys. These measure waiting times at polling stations, for example (*King 2019*).

²⁸ Also see: Intelligence and Security Committee of Parliament. 2020. *Russia*. HMSO: London. https://isc.independent.gov.uk/wp-content/uploads/2021/03/CCS207_CCS0221966010-001_Russia-Report-v02-Web_Accessible.pdf, which concluded that 'The UK is clearly a target for Russia's disinformation campaigns and political influence operations', date accessed 18th March 2022

²⁹ <https://www.electoralcommission.org.uk/i-am-a/voter/online-campaigning/your-data-and-targeting-online-political-ads>, date accessed 18th March 2022.

Voter experience data has been collected in the past through ‘winter tracker’ surveys undertaken by the Electoral Commission. These have tended to focus on whether they find elections in general well run, whether it is easy to register and whether they have concerns about fraud.³⁰ Some poll worker studies have been undertaken to capture data about the experience of poll workers – which could be read as a proxy for the citizens’ experience (Clark and James 2021; James and Clark 2020b; Clark and James 2017). However, there is no systematic monitoring of voter experience.

Poll workers could be required to complete incident reports which would report on the frequencies of different types of problems such as voter intimidation, problems with queues, voters missing from registers and other issues. This data could enable electoral officials to identify national patterns and identify problematic areas where procedures and resource levels might need to be changed. Uneven wait times are known to be a problem in some contests in the UK. Electors are also thought to be commonly turned away from polling stations (Clark and James 2017). There is a case for more regularly collecting data on voter experience.

7.3 Voting records

Voting records at an individual level cover:

- **Whether they voted:** Many citizens do not cast a ballot at all, with huge variations in turnout levels (James and Garnett 2020a; Birch 2010). Whether an individual who appeared on the voter list cast a ballot is the first step
- **How they voted:** Votes are cast in many ways around the world. The traditional method has been for citizens to cast their ballot in person in a designated polling station, during prescribed hours. However, it is also possible for citizens to be able to cast their vote through the post, over the internet (although not currently in the UK) or by a proxy (whereby someone else casts the vote on their behalf)

- **Who they voted for:** Ballot secrecy is an important international standard in elections which is held up as often being synonymous with free and fair elections. Nonetheless, who a citizen voted for must be recorded for votes to be counted. Their vote also needs to be available for any post-election audit. Under some electoral systems citizens may be able to mark a list of preferences and/or vote for a party and a candidate. There is therefore a complex array of data created by casting a vote. The physical and/or electronic storage of their individual vote therefore needs to be considered.
- **Whether their vote was valid:** Votes can be rejected for a variety of reasons such as an ineligible response.

This information can be aggregated at different levels ranging from the polling station, electoral district, or a collection of electoral districts.

In the UK, data on whether people voted and who they voted for are stored in three locations which are discussed next: ballot papers, polling officials’ marked registers and political party records.

7.3.1 Ballot papers

Completed ballot papers are required to be stored securely by ROs for one year in case there is a legal challenge. Thereafter they are required to be destroyed. No access to these is allowed.

This seems to be an appropriate measure and we are not aware of any issues raised about their storage.

7.3.2 Marked registers

When citizens cast a vote, polling clerks mark the electoral register to indicate that an elector has voted. This register is known as the marked register. It therefore contains individual-level data of who has voted in a particular election.

³⁰ https://www.electoralcommission.org.uk/sites/default/files/pdf_file/Winter-Tracker-BMG-Report-2019.pdf, date accessed 28th January 2022.

Currently, there are no requirements for election officials to put this information into a database. Instead, paper copies are retained and when electronic versions are created, they tend to be pdf scans.

There is also a marked list of postal voters, a list of proxy voters and a list of proxy postal votes.

Guidance to EROs from the Electoral Commission³¹ states that, under Regulation 118 of the Representation of the People (England & Wales) Regulations (RPR) 2001, any person may inspect the marked register and any notices amending it, plus the marked copies of the list of postal voters, the list of proxies, and the list of proxy postal voters. The request must be made in writing and must state:

- which register or document they wish to inspect
- whether they wish to inspect a printed or data copy (where appropriate)
- the purposes for which any information will be used
- where the request concerns the marked register or lists, why inspection of the full register or unmarked lists would not be sufficient to achieve the purpose
- who will be inspecting the documents, and the date on which they wish to make the inspection

Electoral officials can refuse to allow inspection of these documents if they are satisfied that for the purposes of the request, they could use the full electoral register. Otherwise, documents should be made available within ten days of the receipt of the application.

Inspections must take place under supervision, but in any location that the ERO chooses. Those inspecting the marked electoral registers can make copies of the registers and lists using handwritten notes only.

Those requesting the marked register and marked absent voting lists are charged a fee set out in law. The charge for data copies is £10 plus £1 per 1,000 entries or part thereof, and for paper copies it is £10 plus £2 per 1,000 entries or part thereof.³²

7.3.3 Political party canvassing

Political parties will regularly door-knock or reach out to electors (via messaging or telephone) to ask them which party they intend to vote for. This data is then stored in a database at either the local and/or national level. Repeated calls and canvasses over many years enable a very detailed record of voting intentions of electors.

7.3.4 Political party records

Political parties often place local party members or volunteers outside of polling stations and ask electors to give their name as they enter the polling station. This provides political parties with a list of who has or has not voted on the day, at a given moment in time.

EMS suppliers informed us that it would be possible for electoral officials to collate this data electronically. Electronic poll books could be used instead of paper copies of the marked register, and polling stations can tick citizens' names off the register on an electronic tablet when they have voted.

One advantage of this would be that reminders could be issued to those who had not voted, late on in the election day. If email addresses and telephone numbers were stored as part of the electors' records, they could be reminded instantaneously. This could be valuable to pilot to understand its impact. Insights from this could be hugely valuable and used for public interest research to identify 'what works' in expanding electoral participation.

7.4 The users of voting records

From our interviews with electoral officials, it seemed that the only people who were collecting information from the marked registers were political parties, candidates, and agents. In fact, they thought that few people would be aware that other people could check whether they voted and may be concerned if they knew that they did this.

We did identify two other groups, in addition to political parties, who would like to use to the data for the purposes of research and increasing voter participation: civil society groups and academics. We now discuss each of the three groups in turn.

³¹ <https://www.electoralcommission.org.uk/running-electoral-registration-england/access-and-supply-electoral-register/inspection-marked-registers-marked-absent-voter-lists-and-other-election-documentation>, date accessed 18th March 2022

³² <https://www.electoralcommission.org.uk/running-electoral-registration-england/access-and-supply-electoral-register/supply-marked-register-and-marked-absent-voting-lists>, date accessed 18th March 2022

7.4.1 Political party usage of voting data: voter profiling

Local political parties are one key group who use the marked electoral registers. Our communication with political parties found that some were not very forthcoming about how they used the electoral register. One declined an interview stating ‘although we act within the letter of the law when it comes to using data, I’m not really willing to go into any detail on how we use the marked register or Experian/ collected data to strategise election campaigns.’

Others were more open. One Liberal Democrat local party branch informed us that they used software called Connect which ‘gives us a record of every voter that we have. Every voter is recorded, and we are able to add the various items that we would want to add, to the various fields.’

They added ‘so, we will be able to dial up an individual voter on Connect, and know whether they actually voted in the last election. We know whether they are one of our members, and whether they have declared themselves as one of our supporters when we canvassed them. The Connect, itself, is kept data protected by Lib Dem headquarters as far as I am aware. So, they have all the data.’

Local parties, of all political persuasions, play a key role in data gathering. They receive a copy of the full electoral register, which they are legally entitled to. They use this to conduct door knocking and telephone and text message canvassing. This does not usually involve lengthy conversations with the elector, but simply aims to ascertain who they were most likely to vote for. Apps are available for canvassers to use their mobile phone to upload this information directly. Information is then collected from the marked electoral register as to whether people had or had not voted. This is then entered into a central database alongside party membership data.

At the national level, political parties provide the election software to be able to co-ordinate this activity:

- The Conservative Party uses software called Votesource.
- The Labour party uses software called Contact Creator³³
- The Liberal Democrats use software called Connect³⁴
- The Vote Leave campaign used software called VICS³⁵

7.4.1.1 Voter profiling

Alongside this data, political parties are also adding other data to undertake ‘voter profiling’. The Conservative Party privacy statement details, for example, how they use ‘personal data about electors (which is provided by local authorities to all political parties under electoral statute) with data from canvassing, the marked register of electors, from external data analytics and research partners, data brokers (such as Experian), opinion polling partners, fulfilment channels such as mail/ telephone/Facebook, public bodies such as the Office for National Statistics, etc.’³⁶

Concerns have already been raised by the Information Commissioner’s Office about political parties use of data. A 2018 report *Democracy disrupted?*³⁷ reported how political parties and campaign groups were ‘using personal information and sophisticated data analytic techniques to target voters. The behavioural models widely used in the commercial sector have in recent years been adopted in political campaigning’.

The Commissioners identified a number of areas where there was ‘significant shortfall in transparency and provision of fair processing information’ (p.3). This included the use of personal data from the Electoral Register. A more recent audit re-emphasised these concerns.³⁸

Figure 7.1 below illustrates the richness of the political party data held based on the interviews and the privacy statements. Political parties hold an abundance of data on electors, much of which electors themselves will not be aware of.

33 <https://labour.org.uk/members/activist-area/tools-for-activists/campaign-technology-support-team/what-is-the-marked-register/> date accessed 18th March 2022

34 <https://www.markpack.org.uk/136630/lib-dem-connect-login/>

35 <https://dominiccumings.com/2016/10/29/on-the-referendum-20-the-campaign-physics-and-data-science-vote-leaves-voter-intention-collection-system-vics-now-available-for-all/>, date accessed 22nd March 2022.

36 <https://www.conservatives.com/privacy>, date accessed 22nd March 2022

37 <https://ico.org.uk/media/action-weve-taken/2259369/democracy-disrupted-110718.pdf> date accessed 22nd March 2022

38 <https://ico.org.uk/media/action-weve-taken/2618567/audits-of-data-protection-compliance-by-uk-political-parties-summary-report.pdf> date accessed 22nd March 2022

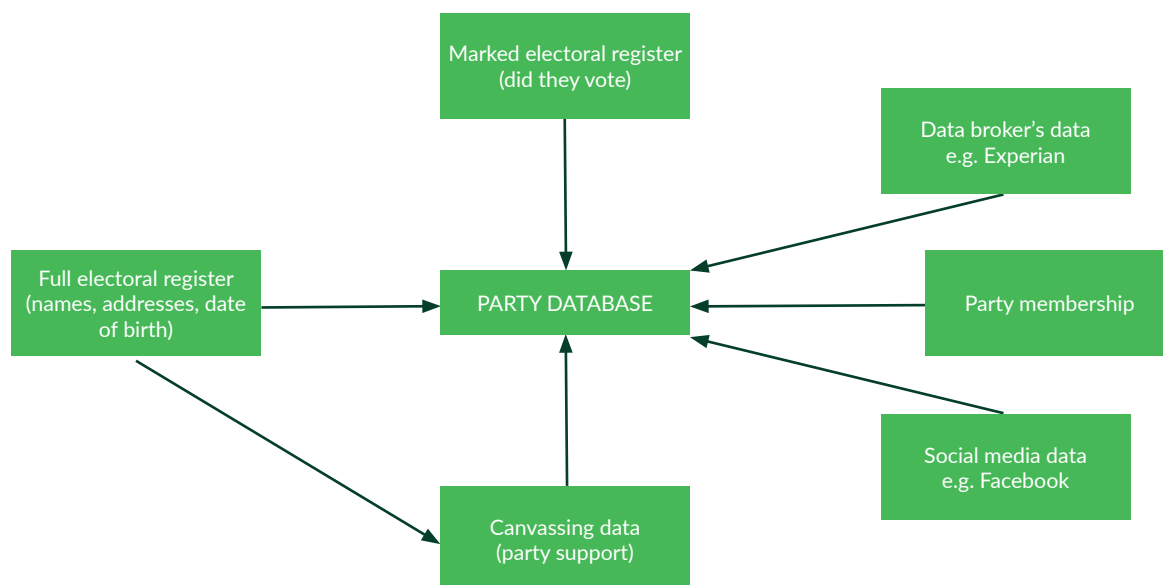


Figure 7.1: Data collected by political parties

7.4.1.2 Use of data

The voter profiling data is used in a number of ways:

1. **Postal Voting:** Political parties identify people who have said that they are supporters, but whom the marked register shows are not regularly voting. These electors are targeted to encourage them to vote by sending them postal votes. Attempts to get potential supporters to register for postal votes are thought to be a major aspect of local campaigning (Cowley and Kavanagh 2018, p.303), although studies have shown it is not necessarily effective (Townsend and Turnbull-Dugarte 2020).
2. **Knocking up:** Political parties may use live data from polling stations to identify who has not voted, by, for example, 7pm, and then door knocking their supporters to remind them to vote or even 'give them a lift'.
3. **Campaign materials:** Campaign materials such as leaflets can be targeted at potential supporters.
4. **Targeting financial support:** According to the Conservative Party Privacy Statement voter profiling data is used to identify potential financial contributors to the party (Conservative Party 2022). Other party statements were similar.

7.4.1.3 How widespread are practices?

Data from surveys of agents undertaken by Justin Fisher and colleagues is helpful (Fisher, Fieldhouse,

and Cutts 2020). Table 7.1 shows the proportion of local activists who reported using a computerised electoral register. Table 7.2 shows that most parties are using a national system of some sort (with the exception of the Brexit Party in 2017). Although the use at the local level varies, roughly three-quarters reported using a computerised system and software provided by party HQ.

Party	2015	2017	2019
Conservative	82	79	75
Labour	84	74	78
Liberal Democrats	83	74	78
SNP	87	78	77
Plaid Cymru	60	67	67
UKIP / Brexit 2019	70	54	57

Table 7.1: Use Computerised electoral registers by political parties. Source: Fisher, Fieldhouse, and Cutts (2020)

Party	2015	2017	2019
Conservative	80	80	86
Labour	85	74	73
Liberal Democrats	72	67	76
SNP	90	87	96
Plaid Cymru	80	71	75
UKIP / Brexit 2019	16	4	78

Table 7.2: Use election software provided by party HQ by political parties. Source Fisher, Fieldhouse, and Cutts (2020)

7.4.2 Civil society groups

As noted above in section 6.4.8 in more detail, civil society groups concerned about levels of electoral turnout, especially amongst marginalised populations, have sought to access the marked register. The marked register was useful because it enabled them to identify whether citizens had voted, and so they could judge whether their intervention was effective or not.

Some experienced slow responses from electoral officials who were not used to giving them access. More problematically, the current data format of marked registers made using the registers logistically difficult and expensive in terms of time. Being only granted access to paper copies under observation and not provided with electronic copies was difficult with one group stating, 'we don't have the capacity, as a small non-profit, to go through 7,000 names and mark them off our spreadsheets.'

The data that civil society groups held or were able to access was remarkably limited compared to that held by political parties. Recommendations are made below to address this.

7.4.3 Academics

Academics have also sought to use data from the electoral registers to conduct experiments including control trials to identify the interventions that work in improving voter registration and turnout rates. There is a considerable research literature which explores whether making registration easier or using 'get the vote out' tactics can lead to increases in participation. However, to test whether this works in the context of the UK, requires good quality data on the electorate.

Professor Peter John of King's College London and Florian Foos at London School of Economics undertook a series of projects that sought to test which mechanisms could work. One project was able to do this by gathering electoral registration data using a collaborative agreement with a local party. However, to test whether interventions had affected voter turnout, data was needed from the marked register to indicate whether participants in the study had actually voted. Although local experiments were useful, to fully test an experiment, a much larger area was needed to develop more robust results. This, however, can be enormously costly and time consuming to collect. Despite attempts to get data in a usable electronic format, one project involved sending research

assistants to visit local authorities around the UK to manually transcribe data for each of the 40,000 citizens whose names were on the register.

A further research project sought to collaborate with a renter association who held data on residents' names, addresses and contact details through their membership. This would have allowed an under-registered community to be specifically targeted to identify 'what works' for an under-registered community. However, there were legal problems relating to GDPR because it was not possible to gain consent from members and no data transfer was therefore undertaken.

These are just some examples that show that the current system does not provide practical access to researchers, and it is therefore very challenging to effectively learn how to increase registration and participation of millions of people in our democracy, whom are often the most marginalised in society.

7.4.4 Comparative practices

There is no comprehensive dataset of laws on access to voter lists around the world, and collating one is beyond the scope of this report. However:

- A similar practice of marked register is used in Canada, but only political parties have access. Polling officials are required to indicate 'beside the name of the elector on the list of electors, that the elector has voted'. After the election, they are then required to create 'a document permitting the identification of every elector who has exercised his or her right to vote on that day' which should be provided on request to candidates' representatives. Political parties can also request to see the live record during the day no more frequently than every thirty minutes. The list is referred to by parties as the 'bingo card'.³⁹ These documents are stored in hard copy format – and access only allowed for political parties.⁴⁰
- In the United States, there are a myriad of different practices, varying by state. In the state of Ohio, it is possible to download the full electoral register from the website of the Secretary of State without prior registration or a declaration of intention of use. We were able to immediately download a .txt dataset of the electoral register for each Congressional district. This included name, address, date of birth, party affiliation, and whether the citizen voted in each of the elections since 2000 – over twenty years. The file was last updated on the

day of access.⁴¹ In the state of Illinois, access is completely restricted. According to the Electoral Assistance Commission, it is common for there to be concerns about electoral data being sold on the dark web, but there is a large volume of information already available. Once the voter information is released, they noted, there was no technical limitations on how the data is reused, redistributed, or consolidated with other data sources. The whole state register was available in many states for a price range of \$0 to \$37,000 (*Electoral Assistance Commission 2020*). A detailed breakdown is provided by the National Conference of State Legislators.

- Anecdotal evidence from our interviews suggests that it is common for the full electoral register to be available, at least for political parties. Data on who voted is often collated by central authorities in countries where voting was compulsory because fines need to be issued for non-compliance. It seemed exceptionally rare for data on who voted to be accessible to anyone other than political parties or electoral administrators. International experts that we spoke to could not identify another country that allowed this.

7.5 Recommendations

Local and national political parties have harvested huge volumes of data on likely voting preference, stated voting intentions and whether citizens have voted, potentially going back many years and elections. While voting intentions may not be entirely reliable because they are based on self-reporting, this is extremely politically sensitive data. Political parties are also collecting data from other sources to profile voters. The data being compiled by parties from the marked register may also partially compromise ballot secrecy. It seems unlikely that people will know how this information is being used and for what purposes.

Political parties play a central role in democracies. They offer voter choice and mobilise the electorate on election day. They therefore very positively contribute towards voter participation. However, the collection of more precise data enables them to micro-target specific voters. This means that they are less likely to seek to appeal to the wider electorate and spend resources engaging them, instead mobilising those few who are pivotal to the election. Micro-targeting therefore undermines the deliberative aspect of elections in which everyone is involved in a public conversation about policy and

the future direction of the country, instead focusing the conversation to a narrower group with very specific messages.

We supply the data in accordance with the legislation in place, so it is not for me to determine whether that data is abused once it has left us... it becomes [the recipients'] responsibility on transfer. I don't believe there is sufficient regulation on the use of data once it has left us. Once supplied it is not sufficiently regulated and monitored and I am certain that the data is sold on - especially by credit reference agencies.

Local elections official

It is also unclear how political parties use their records, and what they do with the data afterwards. We received concerns from electoral officials about how data was used after it was transferred to parties and other actors. A record could be kept of all those accessing the marked register and the purposes to which they have put it. This data could be stored and reported on by a body such as the Electoral Commission.

Using marked registers to promote participation

Bodies such as the Electoral Commission, civil society groups and academics, who are concerned about voter participation are left unable to access the data that they require to conduct research and outreach activities to increase voter participation. A mix of legal restrictions, logistical problems, data format, and a lack of resources prevents them gaining access to data on who has and has not voted. Data protection issues (under the UK GDPR) may now prevent local political parties sharing personal data under data sharing agreements.

⁴¹ <https://www6.ohiosos.gov/ords/f?p=VOTERFTP:CONG::#congDistFiles>, date accessed 29th January 2022

It would be hugely advantageous for civil society groups and academics seeking to promote engagement at the ballot to have access to data on the marked register in an analysable dataset that complies with open data principles.

It would be hugely advantageous for civil society groups and academics seeking to promote engagement in elections to have access to data on the marked register in an analysable dataset that complies with open data principles. Civil society groups could use this to target non-voters to encourage them to participate in elections. Researchers could also better develop research projects to test 'what works' in boosting voter turnout, enhancing society's ability to create a more inclusive and fair democracy.

There are obviously several financial and logistical barriers to this. This could involve a considerable amount of additional time for local election teams to enter the data from the paper copy of the marked register into the EMS so that it is in an accessible and usable format. In the short term, piloting the creation of marked register datasets in a small number of local authorities would be a helpful way to assess the actual costs involved and the benefits.

In the longer term, a digital dataset of the marked register could easily be created in real-time by using electronic poll books in polling stations. These are widely used overseas and were in place in 36 states in the 2018 US elections.⁴² Voters would be checked in using an electronic tablet. A digital record of attendance would automatically be created in a standard data format. The data could be integrated into a central database held by the Electoral Commission after the election. Electronic poll books were successfully piloted on a small scale in Wales in May 2022.⁴³ Access could be provided to those with a specific public interest such as those

seeking to promote voter participation. This could include civil society groups, governmental bodies, local election officials and academics. The use of automatic electronic reminders could be piloted alongside electronic poll books.

What Can E-Poll Books Do?

- Allows voters to sign in electronically
- Allows poll workers to easily redirect voters in the wrong location to the correct polling place
- Allows poll workers to look up voters from a wider region
- Provides a real-time voter history
- Notifies poll workers if a voter already voted at a polling station, postal vote or in advance of the election
- Produces live turnout numbers and lists of who voted
- Enables non-voters to be reminded of the election, close to the polling station closing time

Further piloting of electronic poll books should therefore be encouraged as soon as possible. Devolved governments can lead this, but UK government should also be proactive in introducing these pilots for the elections for which it is responsible.

A second concern about wider access to the marked register is that people may use it for malign reasons. At present, anyone can request access to the marked register, and they can create digital datasets where they have sufficient time and resources. At the level of individual citizens, this is problematic in an era where there have been concerns about 'family voting' (*Sobolewska et al. 2015; Hill et al. 2017*). There is also potential for one person to intimidate an individual and use the marked register to check whether not they voted. At a wider level, there is a threat that groups of voters could be targeted with misinformation and encouraged not to vote in the future. Given concerns about possible overseas influence in elections, this is problematic. One interviewee from an international democracy assistance organisation was surprised to hear that whether a citizen has voted or not was not secret in the UK. A lack of knowledge amongst the public about the existence of marked register, electoral officials told us, may be preventing concern.

⁴² <https://www.ncsl.org/research/elections-and-campaigns/electronic-pollbooks.aspx>, date accessed 1st November 2022

⁴³ <https://www.electoralcommission.org.uk/who-we-are-and-what-we-do/our-views-and-research/our-research/advance-voting-pilots-evaluation>, date accessed 1st November 2022

Long term, the marked electoral register should be stored in as a digital dataset that can be used to increase public interest research and efforts to boost participation. But access should remain restricted and monitored.

R17: Poll workers should be required to complete incident reports at polling stations so that problems such as queues or eligible electors missing from the registers can be identified. Results should be aggregated and published by the Electoral Commission and data made available for re-analysis.

R18: A record should be kept of all those accessing the marked register and the purposes for which they have used this. This data should be stored and reported on by a body such as the Electoral Commission. Access for civil society groups and academics seeking to promote voter participation should be facilitated. Long term, the marked electoral register should be stored in as a digital dataset that can be used to increase public interest research and efforts to boost participation. But access should be limited to those groups listed in section 6.4.

R19: If digital versions of the marked register are produced (for example through a digital/tablet-based marking system at polling booths) then additional restrictions should be placed on their use.

R20: The use of the marked register should be regularly reviewed to see how it has been used, and the possibility of restricting its use further, particularly if in digital form, should be available. This could be part of the regular review of the use of electoral data.

R21: The introduction of electronic poll books should be further piloted, potentially in devolved elections initially. But this should also be piloted in elections for which the UK government is responsible.

R22: The use of electronic reminders from electoral officials should also be piloted.



Local election results are published in ways not in line with open data principles. Going forward a centralised website for all election results is needed.



8

Results Data

The clear communication of election results is important to inform the public who has won the election. Past election results are also vitally important for informing citizens about who has a realistic chance of winning the next election and can therefore shape their voting choice. This chapter considers how the results of elections are made available and outlines ways in which they could be made more accessible for the public. An analysis of websites shows that local election results are published in ways not in line with open data principles. Going forward a centralised website for all election results could be a huge step forward.

Election results are the aggregate level data summarising individual voter choices and actions. Key data that can be recorded includes turnout, the vote shares and tallies for each party and candidate, as well as the number of rejected ballots. These can potentially be delivered at a very granular level, down to the polling station level.

8.1 Publication of results

ROs are legally required to publish the name of the candidate elected, the total number of votes given to each candidate and the number of rejected ballot papers.⁴⁴ The convention is that the RO makes an oral announcement at the end of the counting process. Vote tallies for each candidate tend to be stored in excel spreadsheets locally, but EMS also tends to have the functionality to store these results.

The Electoral Commission guidance encourages the publication of the results on local authority websites, but there is no statutory requirement for this.⁴⁵

The Electoral Commission requests that ROs send them data after the election (*Electoral Commission 2019b*).⁴⁶ Following the 2019 General Election they were asked to do this through an online platform by 17th January 2020, rather than as an excel spreadsheet, and EMS suppliers were notified about this so that they could set up the appropriate templates. The data request covered electorate

size, ballot papers rejected, postal ballot numbers, rejected postal ballot numbers, use of proxy votes and waivers, voter registration numbers and some miscellaneous information. This does not include election results themselves.

Academics have historically collected local election results in the UK. Professors Colin Rallings and Michael Thrasher of Plymouth founded the Elections Centre in the 1980s and set about collecting results.⁴⁷ This includes election results from 1973 to 2018. They also published volumes such as *British Electoral Facts 1832-2006 (Rallings and Thrasher 2006)*. However, following their retirement there are no academics, that the authors are aware of, undertaking this monumental task.

The House of Commons Library has published summary results for General Elections from 1918-2021.⁴⁸ This includes overall vote and seat shares for parties, but not results for each constituency.

⁴⁴ <https://www.electoralcommission.org.uk/sites/default/files/2022-10/UKPE%20Part%20F%20After%20the%20declaration%20of%20result.pdf> p.5, date accessed 1 December 2022

⁴⁵ <https://www.electoralcommission.org.uk/sites/default/files/2022-10/UKPE%20Part%20F%20After%20the%20declaration%20of%20result.pdf> p.5, date accessed 1 December 2022

⁴⁶ https://www.electoralcommission.org.uk/sites/default/files/2020-01/User%20Guide%20for%20Post%20poll%20data%20collection%20General%20Election%202019_0.pdf

⁴⁷ <https://www.plymouth.ac.uk/news/connect/spring15/specialist-election-analysis>

⁴⁸ <https://commonslibrary.parliament.uk/research-briefings/cbp-7529/>

Media outlets such as the BBC publish the distribution of votes for each candidate at the level of constituency for the General Elections.⁴⁹ For local elections overall council seats and control was published in 2021, but not data at ward level. A postcode search tool instead listed the local council responsible, which users could then access.⁵⁰

We audited local authority websites to ascertain the granularity of election results:

- 100% had local election results online
- 95% had parliamentary election results online
- 90% had PCC election results online
- 51% had up to date information about when the next election was
- On average, election results were published as far back as 2009, but there was huge variation (see Figure 8.1 below)

8.2 Election results users

Users of election results information obviously include citizens, administrators, and the media. They are important for transparency. They are also helpful for civil society groups looking to boost participation.

8.3 Recommendations

Some electoral authorities around the globe tend to publish much more granular information. For example, the Commission on Elections in the Philippines produces an election results portal. This allows results to be identified at the 'precinct' (polling station) level. In the example in Figure 8.2 below, the electorate size was 358 and it is possible to see how many electors voted for each candidate and who did not vote.

It is possible to collect data at the level of polling station without compromising ballot secrecy. Concerns have sometimes been raised about publishing data at a granular level in some countries because it might encourage community level voter intimidation ahead of the polls. This is not a concern in the UK, however.

Results could easily be entered into the EMS by the local electoral team. Given that the Electoral Commission already uses a feed to gather data from local authorities, this would be technically easy to do. This data could be used in a national portal for public, media, political parties, civil society organisations and academics to all use and analyse. This could be a huge advance in providing

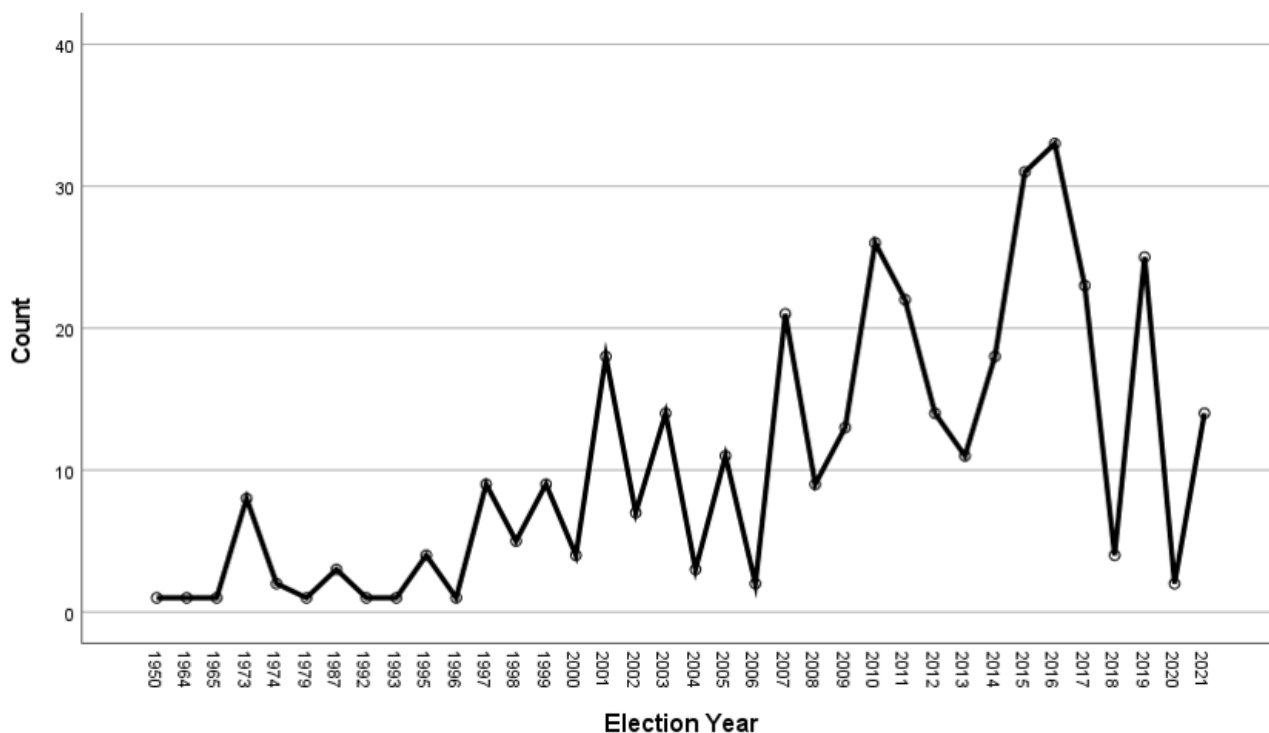


Figure 8.1: Distribution of oldest election results published on local authority websites

49 2019 General Election, see: <https://www.bbc.co.uk/news/politics/constituencies>
 50 <https://www.bbc.co.uk/news/topics/c481drqzv7t/england-local-elections-2021>

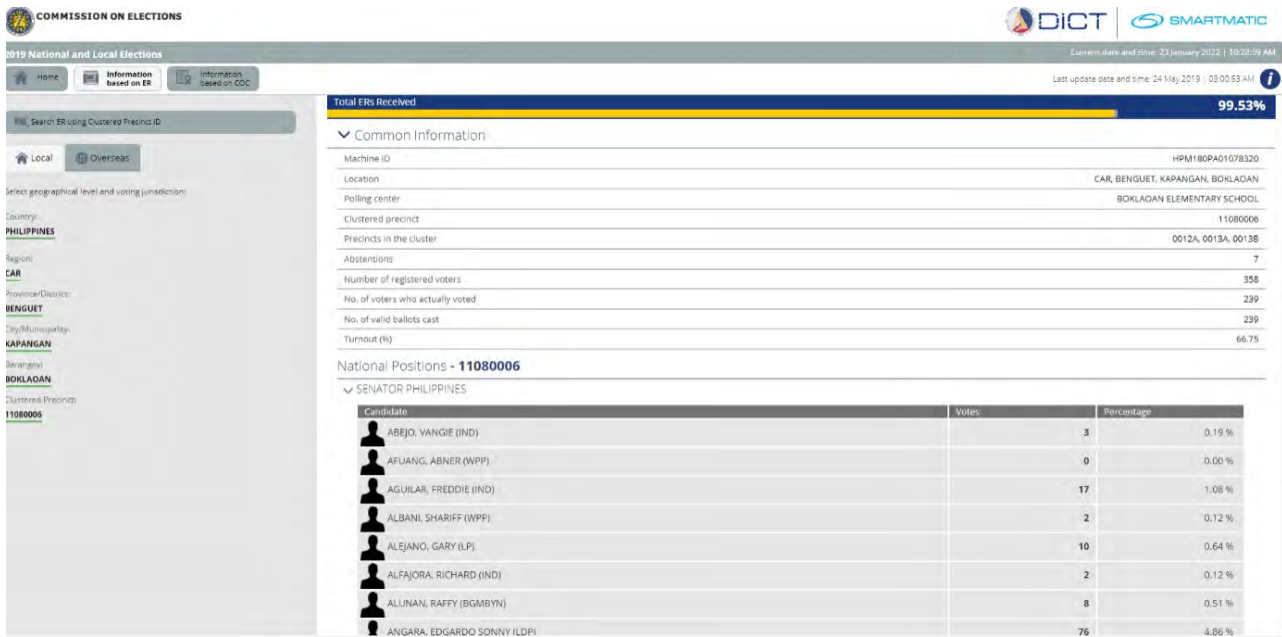


Figure 8.2: Screen capture from the Commission on Elections of the Philippines (COMELEC) 2019 election results portal.⁵¹

rich information about uneven levels of turnout and democracy deserts. It could also enable voter registration and outreach campaigns to be more effectively evaluated.

The Electoral Commission should require EMS suppliers to report results data (and all other data) in a standard data format protocol to enable data to be exported electronically from local EMS to central datasets. This is essential to minimise work at the local level and data can be integrated centrally. Open data principles can therefore be helpful here.

R23: Election results should be collected by the Electoral Commission after the election and made available through a single portal.

R24: The Electoral Commission should require EMS software suppliers to report data in a standard data format protocol to enable data to be exported electronically from local EMS software to central datasets.

R25: Election results should be made available at the most granular level possible (polling station level).

⁵¹ <https://comelec.gov.ph/>, date accessed, 23rd January 2022

9

Electoral complaints and dispute resolution

This chapter notes the absence of data about electoral complaints and disputes in the UK. It recommends a centralised complaints system to be run by the Electoral Commission, with data on complaints publicly available.

Elections do not end after election day. A key aspect of the electoral process is the provision of opportunities for citizens, candidates, officials, and parties to contest the results if they have evidence of malpractice or fraud. The transparent publication of data on the number of complaints, the number of judicial challenges and the outcomes of these cases are important for identifying problems within the system.

9.1 Electoral disputes in the UK

A candidate or citizen can seek to overturn the result of an election, but to do this, they must use an election petition system. This is a practice which dates to Victorian times. These were thought to be redundant, but there has been a resurgence of cases since the 1980s. The process for raising disputes and concerns is fragmented and confusing in the UK. The Electoral Commission has a clear complaints page on the website, but it refers eligible electors to their local authority RO or ERO for issues relating to electoral registration, voting or polling station issues (with different arrangements in Scotland and Northern Ireland) (*Electoral Commission 2018a*). Local EROs and ROs can pass on evidence of electoral fraud to the police. The Crown Prosecution Services are responsible for taking action.

Accountability systems are weakened by the fact that ROs and EROs are exempt from Freedom of Information requests because they are not a public authority under the Freedom of Information Act 2000. Nor is it clear how they process complaints, with no data available on how many they receive. Meanwhile, the only way in which the result of an election can be contested in the UK is by

formal legal proceedings called election petitions. Petitions can be raised by candidates if there is an error made by an election official such as the inaccurate counting of the votes, or if there is an electoral offence committed by an opposing candidate or their agent. The petition is heard in an open court, presided over by a judge without a jury. The court can declare the election void or another candidate elected (*Electoral Commission 2012, 6-8*).

The system of raising an election petition, however, has been heavily criticised by the Electoral Commission and senior members of the legal profession. Firstly, the system is not seen as accessible or transparent for many candidates wishing to lodge complaints. The initial costs alone of a parliamentary petition is over £5,500. This is especially problematic when unclear electoral law makes it difficult for candidates to be certain that they are likely to be successful. Costs might therefore increase substantially if a case proceeds to a hearing. ROs or the Electoral Commission are not able to bring forward cases on behalf of candidates, despite being well placed to do so because of their knowledge and expertise. Secondly, the process is time consuming. Complex cases can take nearly two years before a decision. Cases where an inadvertent error is made by an electoral official can even take many months to be processed. In the meantime, the declared winner remains in office and there is political uncertainty for the electorate, candidates, and parties (*Electoral Commission 2012*).

The Electoral Commission should establish a centralised complaints system for citizens to be able to raise concerns or report problems. Data from the complaints system should be made available to the public.

There is no centralised dataset on disputes. Data has been collated by two academics, Caroline Morris and Stuart Wilks-Heeg (2019), on petition cases, from 1900-2016. This should, however, for the purposes of transparency be collated by a public authority.

It is also concerning that there is no systematic way in which data is collected about complaints or concerns of a more minor nature from members of the public. There have been concerns about unevenness in the quality of the delivery of elections, partly because of pressures on funding. The availability of data would draw attention to areas where a high volume of problems occur and enable further investigation. Some electoral authorities, such as the Central Electoral Commission of Moldova, list complaints made to the Commission.⁵²

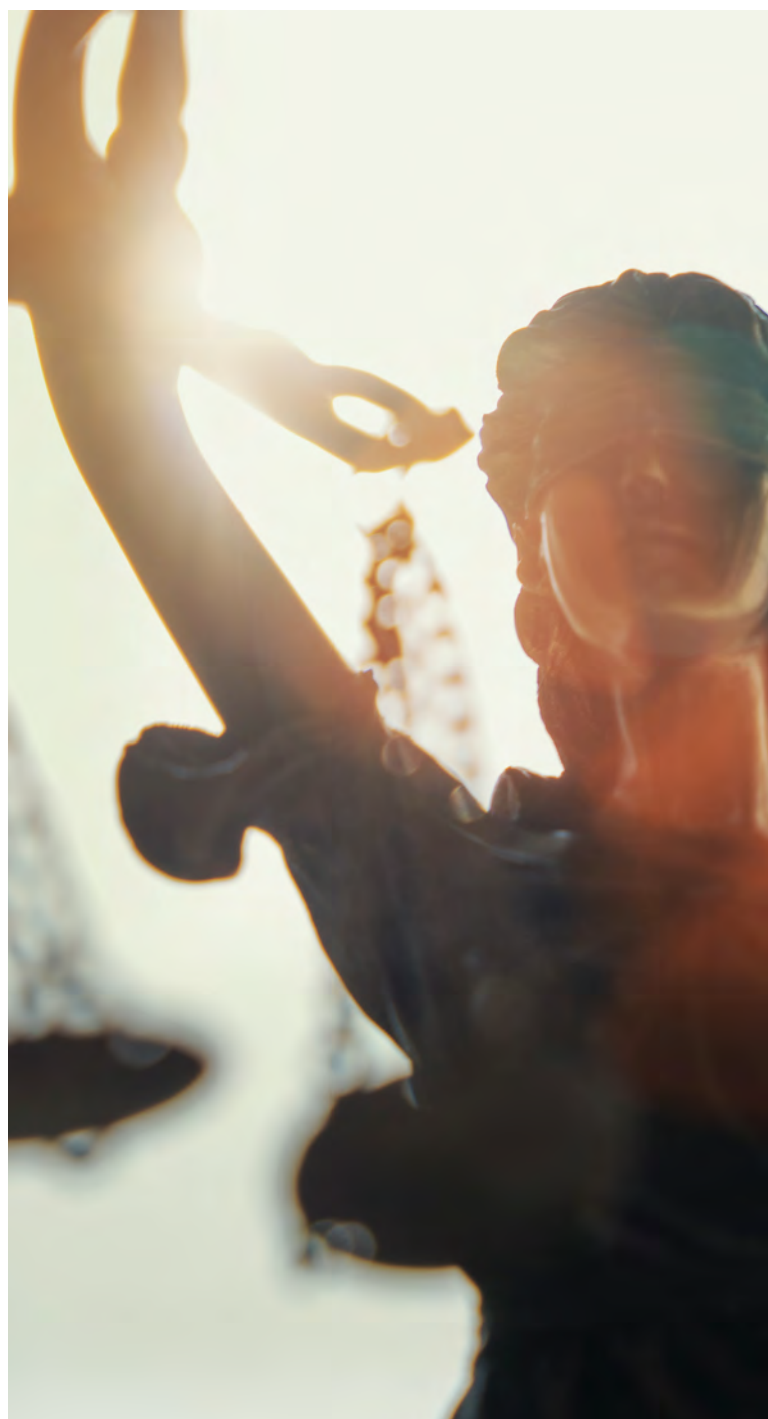
9.2 Recommendations

For the purposes of transparency and monitoring, there should be a central organisation responsible for the collection of data regarding disputes and complaints. This data should be published by local authorities so that any patterns are identifiable, and problems can be discussed and resolved by relevant actors.

R26: EROs and ROs should not be exempt from Freedom of Information.

R27: The Electoral Commission should establish a centralised complaints system for citizens to be able to raise concerns or report problems – without having to undertake judicial action.

R28: Aggregate level data from the complaints system should be made available to the public.



⁵² <https://a.cec.md/en/complaints-submitted-to-the-central-electoral-commission-8526.html>
date accessed 23rd January 2022

10

Conclusions: the need for an electoral data revolution

This chapter reviews the core lessons of the report and identifies the short- and longer-term steps towards establishing an electoral data democracy fit for the 21st century across the UK.

10.1 Six core problems

As we have outlined, the UK's electoral data architecture is creaking. The UK government, devolved administrations and local government have made commitments to use data to improve public benefit and public services. There is therefore a golden opportunity to explore how electoral data can be used to improve many parts of the electoral process and address issues such as low levels of electoral registration amongst some socio-economic and ethnic groups. However, given wider concerns about data privacy, there is also an opportunity to take stock of what electoral data is accessed by whom and for what purpose.

This report has sought to also identify the legal and logistical methods for accessing the information, and the barriers that currently exist. To do this, it firstly established key factors for assessing whether data should be made available. The availability of data can strengthen democracy, ensure greater transparency, boost societal knowledge, encourage deliberation, detect electoral fraud, and encourage participation. But restricting the publication of data may also be important to protect privacy and ballot secrecy. A balance is therefore needed.

This report argues that this balance is not currently in place. Instead, an electoral data democratic deficit exists, which has the following six characteristics.

1. **Data blackholes**

There are **considerable blackholes** of missing data which it would be in the public good to collect and publish centrally. For example, local election results are spread out across hundreds of websites and data is not captured on the candidates. The

electorate are not informed of the names of officials responsible for running elections.

2. **Unworkable formats**

Data is often collated in **unworkable formats**. For example, candidates' information is not published in a format that is helpful to journalists and many other actors, and marked registers are stored in mostly hard copy format, which does not enable research and interventions to improve voter turnout.

3. **Unequal access**

There is **considerable inequality** in who has access to data. The larger political parties and those with sufficient resource have the power to compile rich pools of data on citizens. By contrast, civil society groups and academics seeking to understand and promote political engagement have no effective tools to target interventions and understand what works.

4. **Untapped data potential**

There is **untapped data potential**. Electoral data could be used to support the electorate to be much better informed, it could support electoral institutions to be much more transparent and it could be leveraged to promote political participation. Interventions could be developed to nudge the electorate to participate and encourage people to cast their vote with real-time communications.

5. **Unsound foundations**

The system has been **propped up by civil society groups**, who have stepped in to provide important tools such as polling station search tools and candidate data. Yet, these groups lack the security of funding, and they have undertaken tasks which should be the responsibility of statutory public electoral organisations.

6. Monitoring gaps

There are **monitoring gaps** in how key electoral data, including individual level data on whether people have voted at an election and their history of voting at previous elections, is being used by organisations without citizens' knowledge. It is noticeable that there is no effective regulation of the use of the open register which could open opportunities for foreign interference in UK elections. Meanwhile, at the individual level, anyone could check the local marked register to see whether their family member or neighbour has voted.

A number of people we interviewed noted that there was not much evidence of misuse of the electoral data. They also agreed, however, that this might be because much of the data is difficult to obtain or exists in a form that makes it difficult to analyse (e.g., the paper form of the marked register). If the data becomes easier to obtain or exists in a more usable format, misuse could become more of a risk.

R29: A central body should monitor and regularly report on how electoral data is being used across the UK. This body should report to Parliament. The Electoral Commission would be best positioned to do this.

10.2 Planning an electoral data revolution

This report proposes a range of solutions to these problems, each of which are described within the respective areas of the report. It is possible to separate these out into shorter- and longer- term measures.

Many of the policy reforms do not require legal change. The Electoral Commission could easily add to the range of data that it requests from local election officials. EMS suppliers could develop standard reporting formats in collaboration with the Electoral Commission so that local officials can input the data and export it from their systems. The Electoral Commission also has performance standards at its disposal which can be used to be align with the necessary data capture.

Some reforms will require legislative changes, however. Legal change will make mechanisms much more enforceable. It is therefore suggested that a UK-wide Electoral Data Bill is developed. Respective Electoral Data Bills could also be developed in Scotland, Wales, and Northern Ireland. Table 10.1 summarises stage 1 of the proposed electoral data revolution. In this first phase, the Electoral Commission could lead by designing standard templates to capture the information and then request it from local officials on a voluntary basis. EMS suppliers could support this by providing standard reporting templates, developed in co-ordination with the Commission and local officials. Key to parts of the data revolution is the deployment of electronic poll books. Governments across the UK could pilot these in local elections.

A key role for political parties is to make policy and manifesto pledges towards an Electoral Data Bill for the next Parliament.

In the second phase, an Electoral Data Bill could be proposed to the respective parliaments – the UK, Wales, and Scotland. This would make much of the voluntary practice compulsory, alongside any other longer-term legislative changes that this report has proposed. Sufficient resourcing will be important for the Electoral Commission to be able to undertake these tasks.

Electoral Commission	Local officials	EMS suppliers	Political parties	UK, Scottish and Welsh governments
<p>Design data feeds, surveys and post-election audit forms to gather data on:</p> <ul style="list-style-type: none"> • ERO/RO spending (R3) • Emergency preparations (R3) • Voter outreach and educational activities (R5) • Candidates' protected characteristics (R6) • Candidate data (R7) • Polling station locations (R5) • Election results at polling station level (R23) <p>Provide a UK website for electoral data, including candidates, results, boundaries, and rules etc. (R5)</p> <p>Undertake annual reports on the accuracy and completeness of the electoral register (R13)</p> <p>Publish data on areas where voter registration is likely to be low (R14)</p> <p>Design voluntary scheme to monitor the use of electoral data such as the marked register (R16, R18). Report on findings.</p> <p>Design polling station incident report forms and/or staff surveys (R17).</p> <p>Establish a centralised complaints system (R27) and report on aggregate patterns (R28)</p>	<p>Collect (and enter into the EMS) data as required.</p> <p>Review websites for completeness of information.</p> <p>Direct websites to a centralised Electoral Commission page.</p> <p>Encourage and facilitate access to the marked register for civil society groups and academics who are seeking to promote political participation. (R18)</p>	<p>Design templates and enable exports from local EMS systems to the Electoral Commission</p>	<p>All political parties make policy and manifesto commitments to an Electoral Data Bill</p>	<p>Further piloting of electronic poll books and use of e-reminders about voting</p>

Table 10.1: First steps in developing an electoral data democracy.

Proposed Electoral Data Bill

Establish statutory requirements for ERO/ROs to report data in real-time to the Electoral Commission on:

- ERO/RO spending (R3)
- Emergency preparations (R3)
- Voter outreach and educational activities (R5)
- Candidates' protected characteristics (R6)
- Candidate data (R7)
- Polling station locations
- Election results at polling station level (R23, R25)
- Polling station incident reports (R17)
- Marked register data (R18)

The Electoral Commission should require EMS software suppliers to report data in a standard data format protocol to enable data to be exported electronically from local EMS software to a central dataset (R24).

Require the Electoral Commission to publish a central election data website (R23) making the above data available in an open data format.

Establish single electoral registers for UK and devolved elections (R15)

Roll out electronic pollbooks and e-reminders (R19, R21, R22).

Enable access to the full register and marked register for public good purposes, such as for civil society groups and academics seeking to promote voter participation (R18).

Require Electoral Commission to develop a statutory scheme monitoring the use of electoral data (R18)

Review the open register (R12)

Ensure that EROs and ROs are not exempt from FOI (R26)

Require the Electoral Commission to develop a centralised complaints system and publish aggregate data (R27, R28)

Require the Electoral Commission to monitor and regularly report on how electoral data is being used across the UK (R29)

The distribution of tasks involved in running elections is reviewed, with view to some organisational simplification (R2).

Appendix A:

Full list of recommendations

Electoral infrastructure

- R1: Electoral law should be consolidated.
- R2: There should be a review of the distribution of tasks involved in running elections, with view to some organisational simplification.
- R3: Data on spending on electoral processes should be routinely reported, as should expenses claimed by Returning Officers and the purposes for those claims. Greater information about emergency preparations could be made available.
- R4: The voter outreach and education activities undertaken by organisations should be monitored and data made available so that areas of need can be identified, and overlap prevented.
- R5: There should be a statutory requirement for local officials to publish polling station location data in a standard format, which can feed into a national database, and a single national voter information database. The Electoral Commission should provide a one-stop-shop website with information about the electoral rules, boundaries, and polling station look-up for each election.

Candidate data

- R6: At minimum, data on candidates' protected characteristics, as defined by the Equality Act, should be captured at the nomination stage. This should be made available for statistical analysis for the purposes of monitoring and promoting equality in the electoral process. Access should be restricted to use for this narrow purpose.
- R7: Candidate data collected at the nomination stage should be entered into the EMS software in electronic format.
- R8: Data from the EMS software should be fed into a national candidate website where the public can view the profiles of candidates ahead of election day. Data on personal characteristics

should be excluded from this, but aggregate data should be reported on by the Electoral Commission.

- R9: Statutory requirements should be established requiring Returning Officers to publish candidate data in an accessible format.
- R10: Prior to any statutory requirement about the publication of candidate data, election officials should be encouraged to voluntarily request data on protected characteristics from candidates and provide this data to the Electoral Commission. Anonymised data should be published and analysed.

Voter registration data

- R11: Publish data on the government's voter registration dashboard about voter registration applications at the level of ward.
- R12: The open electoral register is reviewed.
- R13: Annual reports on the accuracy and completeness of the electoral register should be undertaken by the Electoral Commission or local authorities.
- R14: The Electoral Commission could be mandated to publish statistics for the number of eligible electors for each election compared to population estimates. This could be published online and made available for campaigners and political parties so that they can target under-registered areas.
- R15: A single UK-wide electoral register should be established and made available to those using it on the basis of public interest only.
- R16: Recipients of data from the electoral register should be required to sign a statement for how they intend to use electoral registration data. A voluntary statement could be made initially ahead of a statutory requirement. Data on electoral register use should be collated and reported on by a central agency such as the Electoral Commission.

Voting data

- R17: Poll workers should be required to complete incident reports at polling stations so that problems such as queues or eligible electors missing from the registers can be identified. Results should be aggregated and published by the Electoral Commission and data made available for re-analysis.
- R18: A record should be kept of all those accessing the marked register and the purposes for which they have used this. This data should be stored and reported on by a body such as the Electoral Commission. Access for civil society groups and academics seeking to promote voter participation should be facilitated. Long term, the marked electoral register should be stored as a digital dataset that can be used to increase public interest research and efforts to boost participation. But access should be limited to those groups listed in section 6.5.
- R19: If digital versions of the marked register are produced (for example through a digital/tablet based marking system at polling booths) then additional restrictions should be placed on its use.
- R20: The use of the marked register should be regularly reviewed to see how it has been used, and the possibility of restricting its use further, particularly if in digital form, should be available. This could be part of the regular review of the use of electoral data.
- R21: The introduction of electronic poll books should be further piloted, potentially in devolved elections initially. But this should also be piloted in elections for which the UK government is responsible.
- R22: The use of electronic reminders from electoral officials should also be piloted.

Results data

- R23: Election results should be collected by the Electoral Commission after the election and made available through a single portal.
- R24: The Electoral Commission should require EMS software suppliers to report data in a standard data format protocol to enable data to be exported electronically from local EMS software to central datasets.
- R25: Election results should be made available at the most granular level possible, polling station level.

Complaints and disputes

- R26: EROs and ROs should not be exempt from Freedom of Information.
- R27: The Electoral Commission should establish a centralised complaints system for citizens to be able to raise concerns or report problems – without having to undertake judicial action.
- R28: Aggregate level data from the complaints system should be made available to the public.
- R29: A central body should monitor and regularly report on how electoral data is being used across the UK. This body should report to Parliament. The Electoral Commission would be best positioned to do this.

Appendix B:

Example Notice of Poll

NOTICE OF POLL

Selby District Council

Election of a District Councillor for

Byram and Brotherton Ward

Notice is hereby given that:

- A poll for the election of a District Councillor for the Byram and Brotherton Ward will be held on Thursday 20 January 2022, between the hours of 07:00 am and 10:00 pm.
- The number of District Councillors to be elected is one.
- The names, home addresses and descriptions of the Candidates remaining validly nominated for election and the names of all persons signing the Candidates nomination paper are as follows:

Name of Candidate	Home Address	Description (if any)	Names of Signatories Proposers(+), Seconders(++) &	
ASHTON Georgina	Granstable House, Biggin Lane, Little Fenton, Sherburn in Elmet, LS25 6HQ	Conservative Party Candidate	Jeanette Orr (+)	Adrian Halton (**)
BURTON Matthew Keir	7 Abbeystone Gardens, Monk Fryston, LS25 5FS	Labour Party	Ian Rawden (+)	Linda Rawden (**)
WATERS Cherry Elizabeth	(Address in Selby District)	The Green Party	Mandy J Bellas (+)	John R Bellas (**)

- The situation of Polling Stations and the description of persons entitled to vote thereat are as follows:

Situation of Polling Station	Station Number	Ranges of electoral register numbers of persons entitled to vote thereat
Brotherton Parish Hall, Old Great North Road, Brotherton	1	BYB-1 to BYB-544
Brotherton Parish Hall, Old Great North Road, Brotherton	1	BYR-1 to BYR-1091
Fairburn Community Centre, Great North Road, Fairburn	2	BYUJ-1 to BYUJ-678
Fairburn Community Centre, Great North Road, Fairburn	2	MBS2-1 to MBS2-1

Dated: Wednesday 12 January 2022

Janet Waggott
Returning Officer

Printed and published by the Returning Officer, Civic Centre, Doncaster Road, SELBY, YO8 9FT

Source: <https://www.selby.gov.uk/sites/default/files/Documents/Notice%20of%20Poll%20-%20ByramandBrotherton.pdf>, date accessed 18th January 2022.

Appendix C: Voter turnout at the 2019 General Election estimate

Voter turnout is often calculated in the UK as the percentage of votes cast divided by the percentage of registered voters. It is therefore widely reported that turnout for the 2019 General Election was as 67.3% (for example, see: www.commonslibrary.parliament.uk/research-briefings/cbp-8749/). This calculation is based on 32.1 million votes cast and 47.6 million people registered to vote.

Many other countries, including the US, tend to calculate turnout as the percentage of people who voted out of the 'voting age population'. The 'voting age population' includes all those citizens who are eligible to vote, but not registered. In the UK, there are many people who are not registered.

Using this approach, we estimate that voter turnout was actually 63.4%.

Unfortunately, it is only possible to estimate because there is no civil population register of all eligible citizens, complex eligibility requirements and considerable uncertainty about the number of eligible overseas electors.

British, Irish or qualifying Commonwealth citizens can vote in General Elections, over the age of 18. EU citizens are not eligible.⁵³ UK citizens living overseas were able to vote for up to 15 years after leaving the UK at the time of the 2019 General Election, although this limit was later changed by the Elections Act 2022.

Method

The estimate is calculated by using data from the ONS mid-population estimates, ONS data on nationality based on Labour Force Surveys and other sources.

Voting age population =

- All UK resident citizens who were 18 in 2019 (row A in the data source table below)
- Minus citizens who were ineligible to vote at a General Election because they did not have UK nationality citizens (non-UK born) (row B in the data sources table below)
- Plus those who do not have UK nationality, but who are eligible to vote (row C in the data sources table below)
- Plus UK citizens who are living overseas, but who were entitled to vote for 15 years after leaving the UK under the law at the time (row D in the data sources table below)

This calculation would under-estimate the eligible electorate because it does not contain people living in the UK from non-qualifying countries that have successfully become British Citizens.

Based on this approach:

- Estimated UK Voting age population at 2019 General Election = 50,668,202
- Votes cast = 32,132,029 (row E in the data sources table below)
- Eligible non-voters in 2019 = 50,668,202 - 32,132,029 = 18,536,173
- Turnout = 32,132,029 / 50,668,202 = 63.42%

⁵³ <https://www.electoralcommission.org.uk/i-am-a/voter/which-elections-can-i-vote>, date accessed 1st November 2022

Data sources:

		Number	Source	Table/cell
A	All UK-resident citizens over 18 in 2019	52,990,202	ONS 2019 mid-year population estimate	'Population Estimates Tables' column H
B	People resident in the UK, but not born in the UK	7,667,000	ONS Population of the UK by country of birth and nationality	July 2020 to June 2021 data, Table 1.2, column H7
C	Those born abroad from qualifying Commonwealth countries and the Republic of Ireland	3,945,000	ONS Population of the UK by country of birth and nationality	July 2020 to June 2021, Author analysis of Table 1.3. Countries listed below.
D	Overseas registered electors	1,400,000	Houses of Parliament	p.27
E	Total votes cast	32,132,029	Houses of Parliament	Note that this includes 117,919 rejected b

Country of Birth	Estimated citizens
India	896,000
Pakistan	456,000
Republic of Ireland	412,000
Nigeria	312,000
South Africa	298,000
Bangladesh	223,000
Australia	165,000
Kenya	144,000
Sri Lanka	131,000
Ghana	130,000
Jamaica	122,000
Zimbabwe	122,000
Canada	121,000
New Zealand	79,000
Malaysia	71,000
Singapore	63,000
Cyprus	59,000
Mauritius	37,000
Zambia	37,000
Malta	35,000
Tanzania	32,000

Overseas-born population in the United Kingdom by country – most common countries. Source: ONS Population of the UK by country of birth and nationality, Table 1.3.

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