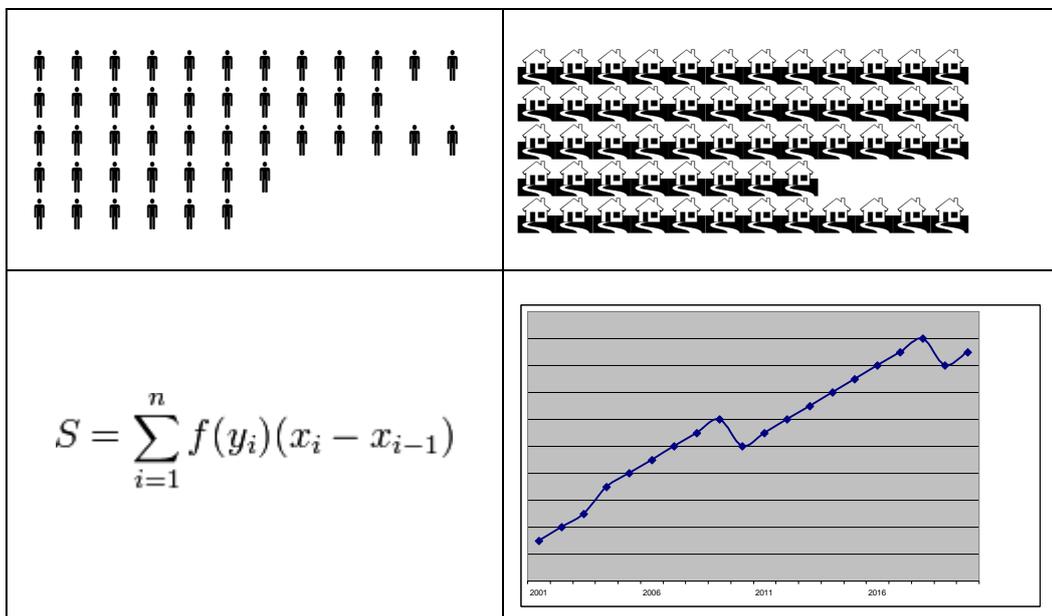


Electorate Forecasts

– A Guide for Practitioners



October 2011

What is the Local Government Boundary Commission for England?

The Local Government Boundary Commission for England (LGBCE) is independent of central and local government, and political parties, it is directly accountable to Parliament through a committee of MPs chaired by the Speaker of the House of Commons.

The Commission's objectives are:

- to provide electoral arrangements for English principal local authorities that are fair and deliver electoral equality for voters.
- to keep the map of English local government in good repair and work with principal local authorities to help them deliver effective and convenient local government to citizens.

We are responsible for, among other things, conducting three types of review of local government:

Electoral Reviews – These are reviews of the electoral arrangements of local authorities: the number of councillors, the names, number and boundaries of wards and electoral divisions and the number of councillors to be elected to each.

Principal Area Boundary Reviews (PABRs) – These are reviews of the boundaries between local authorities.

Structural Reviews - Advising the Secretary of State, at his request, on proposals he receives from local authorities to change from two-tier to unitary local government.

In broad terms, we are required to have regard to:

- the need to secure equality of representation;
- the need to reflect the identities and interests of local communities; and
- the need to secure effective and convenient local government.

Included in community identities and interests is the desirability of boundaries which are and will remain easily identifiable, and which will not break local ties. We take into account factors such as the location and boundaries of parishes and the physical features of the local area when drawing boundaries.

When variances in representation become significant, we consider the need for an electoral review. We regard variances as significant when more than 30% of an authority's wards/divisions have an electoral imbalance of more than 10% from the average for that authority; and/or it has one ward/division with an electoral imbalance of more than 30%; and the imbalance is unlikely to be corrected by population change within a reasonable period.

Electoral Equality

Electoral equality is when every vote has the same weight: each councillor represents a similar number of electors. Dividing the number of electors by the number of councillors for an area gives the electoral ratio. Electoral inequality is when the electoral ratio for a ward differs from the average ratio for the council as a whole.

Because we are concerned with equality of representation, we have to consider the number of electors in an area. This differs from the size of population in a number of ways:

- children and young people under 18 are not eligible to vote on account of their age (although 17-year-olds who will reach voting age during the 'life' of a register may be included).
- people who are of voting age but not resident in the district in which they are present, or who are not a British, Irish, Commonwealth or EU citizen, cannot register to vote.
- often, people who are eligible to vote choose not to register, forget to do so or fail to do so because they don't understand their entitlement or the registration process.

However, the electoral ratio and the electoral variance from ward to ward change over time. There are four principal reasons for this:

- natural demographic change, leading to the names of those residents who have died being removed from the register and those who reach voting age being added
- migration, leading to those who move into an area being added to the register for that area – and if they have been included in an area's register, removed from it if they move away.
- registration campaigns conducted in the main by local authorities encourage those residents of an area who are eligible to register, but who have not yet done so, to register. (Sometimes, the imminence of an election can serve to stimulate such registration)
- "cleansing" of registers, by which local electoral administration services make a particular and concentrated effort to ensure that the names of people who have died or who have moved away are removed from the register.

A local authority provides services to those people who are not registered to vote and a Councillor may represent them, but it is through our consideration of community identities and the convenience and effectiveness of local government that those people come into our reckoning. When we talk about the equality of representation, or electoral equality in a review of a local authority's electoral arrangements, we are therefore referring to those people who are on the electoral register and entitled to vote in local government elections.

Our request for and use of review information

When we begin a review, we ask for statistics relating to the numbers of electors from the local authority. We don't ask for the numbers of electors who turned out to vote at the last or any previous election and we don't ask for the number of votes cast for any candidate: those things are not matters which we take into account.

The data we require will normally be the electorate from the 1st of the month during which the review formally starts. This will provide statistics which reflect the changing nature of electoral registers kept up-to-date by rolling registration. However, we are willing to consider the use of the register published the previous December if reasons for not using up-to-date information are given. A standard spreadsheet format, for submitting the information is available on our website. Our spreadsheet provides for information to be presented by ward or division, parish and parish ward and polling district. However, we are not constrained to retaining existing polling district boundaries when we formulate recommendations for new wards.

Schedule 2 to the Local Democracy, Economic Development and Construction Act 2009 also states that we should take into account any change to the number and distribution of electors that is likely to take place within the five years following the *end* of a review. This requirement means that, at the *start* of a review we ask local authorities to provide us with *six-year* forecasts of electorate changes.

We ask the local authorities under review to provide electorate forecasts because they are best placed to know about the factors of change in population and electorate. They will know, for example, about planning permissions granted, the likely pattern and timing of future development in the area and, as a consequence, how that is likely to impact on the number of electors in the area. This does not mean that others cannot submit forecasts to us or comment on those prepared by local authorities. We will not however, apply any lower tests to forecasts prepared by others in order to satisfy ourselves that we can accept them with confidence.

Once we are content that forecasts are a soundly-based reflection of the electorate expected in six years' time, we will publish the figures on our website so that everyone can use the same data when making proposals to us.

We use forecasts of electorates in order to be as sure as we can be that the electoral wards and divisions which are created at the conclusion of a review have acceptable electoral ratios at the time of implementation of a review and at a point five years thereafter. In doing this, we recognise that in any ward or division, the electoral ratio may change over that period, and that similarly, the variance of a ward or division's electoral ratio from the average for the authority will also vary.

Forecasting the electorate – it *can* be done

Populations and electorates, change over time. They may increase or decrease and they may change gradually or by periods of rapid change followed by periods of relative stability or even reversal of past changes. Furthermore, the registered electorate may change differently from the population as a whole.

Whilst we recognise that forecasting is a form of science, it is also an inexact one. However, when we looked at how electorate forecasts turned out, we found that for the majority of wards and divisions put in place by electoral reviews, forecasts predicted fairly well, the future number of electors. For 68% of wards and electoral divisions, the number of electors five years after implementation of a review was within 5% of the forecast number. Forecasts for 91% of wards and divisions proved to be within 10% of the actual number.

Our study also showed that, in general, the accuracy of forecasts of electoral variance at ward level is higher when the overall total number of electors in an authority is more accurately forecast.

Whilst we endeavour to create wards and divisions which at implementation and in the future, have an electoral ratio close to the authority average, some wards and divisions are created with initially high variance;

- because we think they will correct over time, and/or
- because we think they are the best reflection of communities, and/or
- because accepting them means that we can get good solutions elsewhere, and/or
- because we reflect geographical characteristics and make strong boundaries.

In the reviews we studied, over 50 wards and divisions were established with a base-year variance from the average electoral ratio exceeding 10% and remained, as expected, at a high level of variance. A similar number were established with a high level of variance but, as forecast, were within 10% after five years. These account for 7% of all wards in our study.

This suggests that for the most part, when the Commission creates a ward with a high variance, forecasts generally serve us well. However, from time to time, and from place to place, reviews have created wards with a high initial variance on the basis of expected change which has not materialised. This has led to long term electoral inequality: it means that the benefit we hope to bring to electors hasn't been maximised and creates potential for more frequent reviews than might otherwise have been necessary. Advice to forecasters is to treat with caution expectations of exceptional housing growth.

Preparing Electorate Forecasts

In describing approaches to forecasting electorates, we draw on work done by the Local Authorities Research and Intelligence Association (LARIA) for the Estimating With Confidence project and published in 1998. Further, we draw on the methodologies adopted by a number of local authorities for specific electoral reviews conducted in the period 2009-11.

We ask for current electoral statistics and forecasts at polling district level. This is forecasting for a greater level of geographical detail than local authorities, or anyone else, would normally attempt. Preparing such forecasts generally means the interpretation of authority-level and ward-level demographic and housing characteristics.

We have found that local authorities have tailored methodologies to match the information and research capacity they have available and we recognise that those resources will not be available to every authority in equal measure in the future. Further, the driving force behind population and electorate change is not the same in every area – in particular, housing development leads directly to more population change in some areas at some times whilst in others, population movement occurs to a greater extent within the existing housing stock. Our guidance therefore offers practical cues to local authorities rather than a single methodology without which we will not be prepared to accept forecasts made by local authorities.

However, forecasts and comments upon them should be underpinned by sound evidence. We expect officers preparing forecasts to reflect ONS sub-national forecasts and to consider the impact of likely housing and economic developments, expected migration into, out of and within the authority and the expected difference between the number of adults in an area's population and the number of electors. We stress that our experience has found that an increase in development in one part of a council's area does not necessarily result in an increase in electorate across the whole authority.

New developments and housing clearance schemes are generally identifiable in advance by their specific location, and so can be worked into polling district level forecasting, but they can happen sooner than forecasters think they will, or often, later.

Electoral reviews generally result in the alteration of ward boundaries, but before any new boundaries can be confirmed, we need to consider the electoral variance, in terms both of current and forecast data, that they would give rise to. This may require us to count the number of electors in a part of one or more polling districts and add the effects of demographic change to that electorate and the expected incidence of new housing development in order to form current and future electorates for new wards. It is the potential for this that we need to be able to look at the location of current and future electorates in the finest detail.

Information sources for electorate forecasts

When Commission calls for electorate forecasts based on sound evidence, it will have more confidence in forecasts which have been prepared using information which has been published by; the local authority, its local partners, or by regional and national agencies. However, the timing of electoral reviews may not match the chronology of published data and some adaptation of it may be required. Similarly, the definitions of some types of data may not reflect the purposes of electorate forecasting. This means that it may be necessary to establish and apply ratios published material in order to relate it to the purposes and chronology of an electoral review to address, for example;

- the particular time periods being considered in the review
- electoral geography
- the discrepancy between electorate and resident population of voting age.

Electoral information

Electoral registers are published by local electoral registration authorities (unitary councils and two-tier districts councils) on 1 December each year and are updated monthly (from January to September). This means that for any review, very accurate electoral data are available, with a residential address for every elector, enabling us to place them with regard to current and prospective electoral geographies. It may be the case that the electoral register does not include everyone in an area who would, by age and residence, be entitled to vote, but our calculation of electoral equality can only be based on those registered.

If looking at historical electoral data in order to try to identify patterns of change, users of data need to be aware of registration campaigns and register cleansing. These can lead to significant changes in the number of people registered to vote which are unrelated to demographic trends or housing stock changes.

The introduction of a new system of individual electoral registration (IER) will present a discontinuity of data across which comparisons may not be valid.

Most electoral registration systems contain data giving the number of dwellings with electors. This can be used at polling district level to illustrate broad differences in the numbers of electors per dwelling in areas of different types of housing. By cross-referencing with other forms of housing stock information, it is also possible to illustrate differences in registration or occupancy rates.

Demographic information

The 2001 census provides extensive population and household data, although its relevance to the understanding of any particular area diminishes

over time. Small area information is produced for electoral geography except that where a parish has only a very small number of electors, data for that parish will be added to that of one or more others in order to ensure that publication of census results does not reveal anyone's personal details.

From 2013 onwards, data and analyses resulting from the 2011 census of population will become available. These again will provide small area demographic, housing and social information, illustrating and allowing interpretation of differences between the various parts of local authority areas.

The Office for National Statistics (ONS) publishes estimates of population by age group for local authorities and wards, and projections of population change by age group for local authorities. These are generally reflected as mid-year figures.

Some councils produce population estimates and forecasts at authority and sub-authority level. In two-tier local government areas, district level forecasting is often done by the county council. These estimates and forecasts may be prepared by bespoke or by branded products.

When forecasting electoral change, some councils use births and deaths data from their local primary care trust (PCT) and National Health Service patient migration data in order to formulate assumptions about the elements of population change; natural change and migration.

Housing Stock Information

Electoral review does not directly concern itself with housing and its physical quality. However, from housing stock information, we can gain some understanding of the number of dwellings in an area, the presence of speciality housing – for older people or for students for example, the number of houses in multiple occupation, and the impact of high density housing, including tower blocks, which might constrain the drawing of new ward boundaries. This helps in the illustration and understanding of the distribution of the total electorate and the likely consequences for electoral registration of new housing development in particular localities.

Housing stock information will be found in:

- Council Tax Records;
- Census of population;
- Electoral registration systems.

Most councils' planning service keep housing stock information, some keeping running totals by updating a baseline figure by site-specific records of completions of new dwellings, conversions and sub-divisions and demolitions.

Housing change information

Often, the largest factor contributing to increases in the number of electors in small areas is the addition to the total housing stock from new housebuilding.

Housing demolition can have similarly profound impact. Council planning services generally hold comprehensive detailed records relating to;

- Broad trends in house building and what is anticipated
- Strategic planning documents currently in force or in preparation
- Housing land availability
- The number and specific location of dwellings built in recent years
- The number and specific location of dwellings under construction
- The number and specific location of dwellings with planning permission
- The amount and specific location of land allocated for development
- The progress anticipated in the development of major sites over the period of the electoral forecasts
- Trends in unforeseen 'windfall' sites and likely future trends.
- Demolitions, conversions and changes of use.

Simply identifying where new housing *may* be built is not adequate: it will be the completion and occupation of new housing which will add to the electorate of an area. Forecasters will need to identify which of the identified potential housing developments are likely to come to fruition in the period for which forecasts are prepared. We have seen how those preparing forecasts are more likely to over-estimate, rather than under-estimate the number of new dwellings which will be built and occupied.

Planning authorities prepare Strategic Housing Market Assessments as part of the evidence base they rely on to prepare spatial strategies and local development documents. They are intended to give a thorough understanding of the needs of areas, particularly the opportunities and constraints that exist. They can provide:

- Estimates of current dwellings in terms of size, type, condition, tenure
- Analysis of past and current housing market trends, including balance between supply and demand in different housing sectors and price/affordability.
- Description of key drivers underpinning the housing market
- Estimate of total future number of households
- Estimate of current number of households in housing need
- Estimate of future households that will require affordable housing
- Estimate of future households requiring market housing
- Estimate of the size of affordable housing required
- Estimate of household groups who have particular housing requirements eg families, older people, key workers, black and minority ethnic groups, disabled people, young people, etc.

Information from councils' Land Charges service can also be a good indicator of the economy as well as the number of property sales.

Geography

In most electoral reviews, new electoral ward and division boundaries are drawn. The inclusion or exclusion of a single cul-de-sac, housing estate, block of flats, or site for housebuilding can have a significant effect on the electoral ratio for a ward either at the point of implementation, five years after that, or both. The products of forecasting must therefore be capable of detailed spatial interpretation.

The making of electorate forecasts generally begins, however, with consideration of established levels of geography. These levels will include;

- Authority area
- Wards and Electoral Divisions
- Civil Parishes
- Polling Districts.

At the start of a review, we ask local authorities to provide us with the current number of electors in each area and forecasts of the expected number of electors in six years' time at these separate spatial levels.

In an *electoral* review, there will be no change to the boundary of the local authority or of any parish. A *Principal Area Boundary Review* may lead to changes in those boundaries.

Polling districts may be used initially as building blocks in the definition of wards, but their areas are often divided when new wards are drawn. The implementation of electoral reviews is usually followed by changes to polling districts to reflect new ward/division boundaries.

For the national Census of population and other statistical purposes, the country is divided up into census output areas, which are themselves aggregated to Super Output Areas. Some social and demographic information available for these statistical areas may help to demonstrate differences in the characteristics of one part of a local authority's area compared with those of another part. Those differences may then be reflected in the preparation of forecasts. Normally, data from the electoral register are not presented in ways which reflect this statistical geography. However, some authorities use Geographic Information Systems (GIS) to map the location of the electors on their registers and this allows the direct correlation of demographic data for statistical areas with the current electorate. This might facilitate the preparation of electorate forecasts. However, we will not dispense with our requirement for electoral data to be presented to us according to electoral geography.

Some councils have established their own boundaries for area or neighbourhood working. Often these relate directly to electoral or statistical geographies described above. Where this is not the case, and unless the council concerned has undertaken some specialised demographic research, those areas or neighbourhoods have little practical value to the preparation of electoral forecasts.

A Step-by-step approach to forecasting the electorate

Local Authority Review and Forecast

At the outset, it is helpful to form an overview of the future size of the population and electorate in the authority as a whole. This is because forecasts which rely purely on bottom-up approaches which aggregate polling district level forecasts of total population can run a great risk of compounding errors of demographic assumptions (or lack of any) and mis-forecasting housebuilding. It is recommended that any authority approaching forecasting should “constrain” the total population figure which they reach to either the ONS projections or projections developed from some other tested methodology for authority-wide forecasting.

A. Adult Population Forecast: for the Local Authority for six years beyond the commencement of the review.

B. The ratio of electors/adult population

Calculation Electors in a future year = A x B

Notes:

Selection of forecast: ONS periodically produce population projections by age group for local authority areas. Projections are based on the latest available mid-year population estimates, a set of demographic assumptions about future fertility, mortality and migration based on analysis of trends and expert advice.

Some local authorities produce their own forecasts at authority and sub-authority level by using bespoke or by branded products. These forecasts may incorporate assumptions about the effect of policy on population change – for example, the impact of a policy which encourages greater migration than has previously occurred.

Because the tendency has been for local authorities to over-estimate population and electorate growth, the Commission’s guidance recommends the use of ONS projections. Authorities who use their own forecasts of growth should provide firm evidence to justify selection of those forecasts. In particular, they should explain any differences between ONS migration assumptions and their own.

Some authorities have prepared *ad hoc* population forecasts for the purposes of electoral review. In some cases, they have made very broad assumptions: that births and deaths will cancel each other out or that there will be no future change in the number of persons per household for example. They have then forecast the number, type and distribution of dwellings to be built: some have concluded that all new housing will be occupied as a result of net inward migration, others have estimated household formation from the existing population then “topped up” the occupation of new housing by using inward migration assumptions. By adding the total net migrants to their forecast for the existing population they reach a forecast population for the authority as a

whole. Such approaches are unlikely to be as accurate as the ONS projections.

Adult Population to Electorate Ratio: The registered electorate does not necessarily equate to the population of voting age: it is not only children and young people under 18 who can't vote, but also those who are ineligible or who choose not to register or fail inadvertently to register. For example, one authority estimated that in 2010, registration rates ranged from 75% in one ward to 99% in another.

A ratio to be applied to forecast populations may be found from the average ratio observed at authority level in recent years or by extrapolating by eye or by regression analysis, those observed data. We accept that neither approach offers a guaranteed representation of actual ratios in the future.

We would caution against calculating an adult population to electorate ratio from data from a single year. To do so would introduce a risk that the ratio calculated may not be representative. Change in the electorate can be much more volatile than in the population as a whole. This may be because of a particularly effective, or ineffective, electoral canvass or because a vigorous cleansing of the register has taken place.

Changes to the process of electoral registration, from 2014 onwards may result in a change to an authority's adult population to electorate ratio. However, all electorate forecasts for reviews made in 2011 and onwards will be envisaging a time when Individual Electoral Registration is in place. One of the aims of this change to registration processes is to obtain a more complete and accurate electoral register, although some fear that the opposite effect may be seen. If any authority includes any assumptions about the effect of the change to voter registration in their forecasts, they should make those assumptions clear to the Commission when presenting their methodology.

Attainers: Those young people who will become eligible to vote within the "life" of the electoral register may be included on it, denoted by the date on which they reach (attain) the age of 18: electoral registration systems indicate the number of attainers on any register. Their registration rate may, however, be lower than the rate of registration of people aged 18+ and, if authorities find this to be the case, they may wish to apply a ratio which is different to that used for adult population to electors.

Students: When someone studies away from home, they are eligible to vote in local government elections both in their town of origin and also the town where they reside as a student. Where a local authority has within its area, a higher education institution which attracts a large number of students from outside of its area, the impact on the overall electoral roll can be significant. The number can fluctuate dramatically however, dependent on the vigour with which electoral registration campaigns are conducted. Authorities presenting methodologies to the Commission should set out the considerations they have made with regard to student sections of their population.

Analyse small area data, housing data and choose a method for forecasting the electorate of small areas.

The forecast of local authority electorate should, ideally, take account of:

- Expected new housing development; and
- Movement within the existing housing stock.

In some areas, population change is highly associated with housing development. However, in most areas, the majority of population movement triggered by new housing development will be local and within, rather than into, the local housing market. For example, in a local authority with 100,000 electors living in households, and an average of 1.8 electors per household, 55,555 dwellings would be required. If after six years, the average number of electors per household has fallen to 1.75, a total of 57,143 dwellings would be required, simply to accommodate the original number of electors. The implied building rate to deal with this need would be around 265 dwellings per year.

Forecasts based on housing development tend to over-estimate the population growth associated with new housing. However, population change *can* be rapid even where there is little new housing. This is often the case in inner urban areas which have experienced either depopulation or new immigration and in urban areas with changing populations of students or armed forces.

Plot on a spreadsheet the total electorate for each ward in recent years and the net number of dwellings completed (accounting for demolitions, conversions and new-build housing). Use this data to examine whether in the recent past, electorate change has been associated with housing development.

In wards which show electorate change unrelated to housing development, reflect this change in the forecast for the ward and smaller areas within it by continuing the recent past trend in electorate before applying the additional effect of the expected housing development:

Initial future electorate forecast =
current electorate + change in electorate in the last six years.

Now consider the effect of additional new housing:

New housing addition =
net new dwellings expected in the next six years – net new dwellings created in the last six years. (This may produce a negative number)

Convert this new housing addition to electors

Additional electors from new housing=
Number of new dwellings x electors per dwelling

Complete the area forecast:

Initial future electorate forecast + Additional electors from new housing

In wards which show a strong relationship between electorate change and housing development:

Initial future electorate = current electorate

Now add the effect of new housing:

New housing addition = the net number of new dwellings expected in the next six years.

Convert this new housing addition to electors

Additional electors = New housing addition x factor for vacant dwellings x electorate per dwelling factor

Complete the area forecast:

Initial future electorate forecast + Additional electors from new housing

(If there are no historical data available, use this method for all parts of the local authority area).

Notes:

If the electorate is changing for reasons other than housing change, consider *why* it is changing and whether it will continue to change in the same way.

Identifying future housing development: This should rely on a selection from a list of known housing sites. The selection should be based on firm evidence and realistic expectations. Because their inclusion will involve a site-by-site assessment of the likelihood of development, the specific locations of each site can be allocated to the appropriate polling district. Where development sites straddle boundaries, estimate or use site plans to determine the number in each polling district.

Blanket assumptions that all sites with planning permission or allocated in land-use plans will actually be developed within the six-year forecasting period are generally unrealistic. When deciding whether or not to include a housing site, consider any constraints on their development, the level of housing market activity in the surrounding area and an overall assessment of housing development pressures. Those sites which engender a low level of certainty of completion generally should be excluded.

A housing development which is under construction at the time of making the forecast is more likely to contribute additional dwellings to the housing stock in six years' time than is a site which has been allocated for housing in a development plan but for which no planning permission has been granted – especially if there are known development constraints such as a requirement for decontamination, or a requirement that highway infrastructure improvements precede development or its occupation. The inclusion of a site which does not even have a planning permission will require particular justification.

There may be an expectation that a very large housing scheme will be started but not completed in six years' time. Assumptions about the rate of housebuilding on such sites can be formed by considering the rate of progress on similar schemes within the same housing market. Again, consideration should reflect on whether there is a requirement for major on-site and/or off-site infrastructure works before any housebuilding commences.

The consideration of housing sites described above will allow comparison of the total additional housing with past completion rates and with published housing trajectories.

Some authorities have sufficiently detailed information to enable them to identify, assess and plot all expected housing development. It is generally not necessary to do so for small sites, of up to 10 dwellings, but if detailed information for smaller sites is readily available, then use it.

A windfall site is defined as one which unexpectedly comes forward during a plan period. Typically they will be spread throughout a local authority's area. As there is no good way of assessing precisely what will come forward and when, it will not be helpful to impute notional assumptions of new housing through windfall sites, because the definition of new ward boundaries requires the ability to be site-specific when testing the impact of new housing on electoral equality.

Housing Occupancy

When using expected levels of housebuilding to make forecasts of change in the electorate of small areas, consideration should be given to the levels of occupancy and vacancy of those dwellings. Assumptions are required but these will be more reliable if they are founded on observable data. Some authorities have examined data from housing areas completed in the years preceding the review. They applied a factor for the number of electors per dwelling having identified the average number of electors in that recent housing to the new housing anticipated in the forecast. In the absence of such data, other authorities have taken the current average elector occupancy rate per property per polling district to calculate the number of electors per new property within each polling district.

It is known that on some sites, new housing will be specifically designed for the elderly, e.g. sheltered accommodation. It would not be appropriate to assume that these new dwellings would house the same number of electors as a family house. Where new housing is known to be for elderly people, an average of one elector per new dwelling is used. In this assumption, dwellings with more than one elector compensate for vacant dwellings in this specialised part of the housing stock.

Vacancy Rates

Local information can also be used to estimate how many of the anticipated new dwellings are likely to be unoccupied, or have no registered electors at

any one time. In forming this estimate, remember that there will be houses completed towards the end of the forecast period which will not have their first occupiers by the end of the period.

Forecasting the electorate for areas smaller than wards and tabulating results

Polling District Level Forecasts

Accurately projecting the future electoral population at polling district level is difficult given that any small fluctuations in the number of deaths, migration, house building or clearance will have a significant effect. An analysis similar to that for wards described above can be conducted for parishes and polling districts. This will facilitate the forecasting of the electorates for new wards if the review changes current ward boundaries. However, for these areas, there may be fewer historical data available. It may be necessary to use conversion factors applicable at ward level in constructing forecasts for these smaller areas.

Constrain the total electorate.

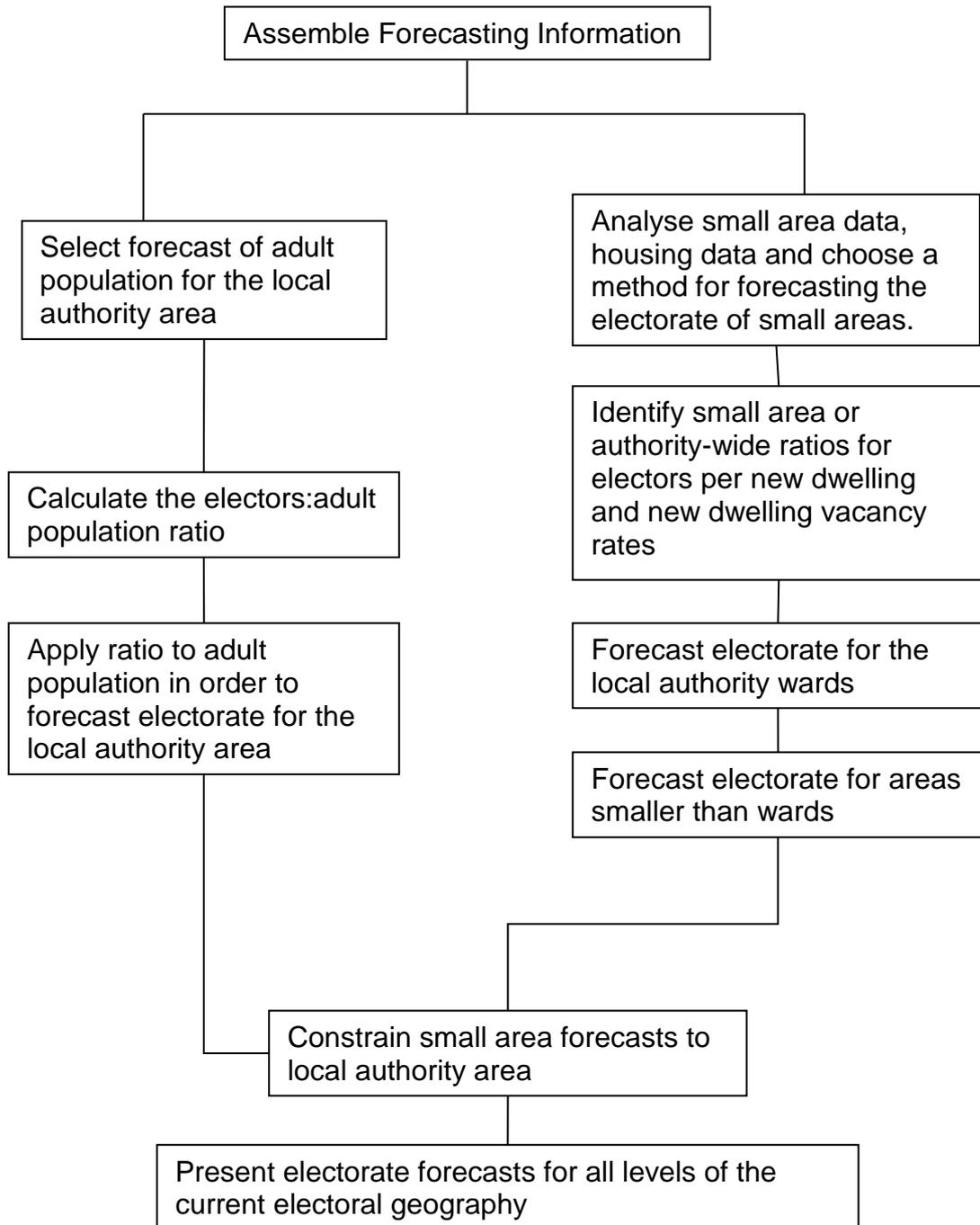
The “unconstrained” polling district electorate forecasts are summed. The whole-authority forecast electorate is divided by the sum of the “unconstrained” polling district forecasts to give a constraining factor. This constraining factor is applied to the unconstrained forecast of the electorate in each polling district to give a constrained forecast of the electorate in each polling district. The sum of these constrained forecasts for polling district will equal the forecast electorate for the authority as a whole.

This constraining exercise reflects the fact that ONS projections and local authority forecasts are based on data from a longer time series and use more sophisticated modelling procedures and hence provide more reliable electorate forecasts than will the sum of the individual projections and forecasts for polling districts or other small areas.

Forecasts for alternative boundaries

As the review progresses, local authority staff may be asked to prepare proposals for ward boundaries. They will also need to provide forecasts for the wards they suggest. Where these new proposals do not coincide with existing polling districts, this will involve counting the electorate from registers (or using the data and address matching facilities of GIS systems and determining in which part new housing developments will take place.

Forecasting the Electorate



Information Management

Experience suggests that a review, from its announcement to the approval of the final electoral scheme may see a large number of alternatives being suggested and worked up in detail, and working up any one scheme may be an iterative process of proposition and test for electoral equality. This means that detailed recording of all the schemes and part schemes is essential, partly to keep track of what is going on and partly because schemes are open to scrutiny by councillors and the public. This needs to include lists of the electoral areas and part areas included in each ward in each scheme and lists of new housing sites in each ward.

Naming wards in each scheme is a useful way of keeping track and distinguishing between different schemes as well as giving some indication of the area covered by each ward. Since at the end of the review each ward will have to have a name, this can be a useful way of testing the local acceptability of potential ward names.

Where it is necessary to split polling districts, it is worth keeping a detailed list of the streets (with house numbers and names) and the number of electors in each part, as this information can often be re-used for alternative schemes.

The Use of Mapping

Some authorities facilitate the preparation of information and forecasts for electoral review using computer based Geographic Information Systems (GIS). These can map boundaries, the electorate and dwelling completions. In guidance relating to its requests to local authorities for information, the Commission sets out some preferences for electronic mapping.

Electronic boundary maps for the district wards, county electoral divisions and parishes and polling districts may be available at the start of a review. Data from electoral registers can be imported into an Access database for Geocoding. This is the process of matching a set of records against another set with similar attributes that also have a grid reference, which can be attached to the original records and enables them to be mapped.

Each new housing site has a grid reference and the expected dwelling completions can be mapped.

Mapping the electorate enables new warding schemes to be tested by overlaying proposed new ward boundaries and summing the electors within the wards.

Those preparing proposals for new ward boundaries may or may not be the same staff who prepare the forecasts. The work will therefore be aided by the preparation by forecasters of clear descriptions of the methodologies, forecasting assumptions and site-specific housebuilding expectations used in the preparation of forecasts.

Making these descriptions available to the Commission will also mean that the Commission's review officers will be able to assess the local authority's proposals for electoral boundaries, along with proposals made by any other organisation or individual and may formulate their own recommendations on the basis of common understanding of demographic and housing change elements.

When the Commission is satisfied that forecasts prepared by the local authority are appropriate for use in the review, it will publish them in order that the forecasts may be used by any other organisation or individual who wishes to prepare alternative proposals for electoral arrangements

Acknowledgements:

Simpson, L. (editor), *Making local population estimates, a guide for practitioners*. LARIA, 1998.

Methodologies reviewed in the preparation of this guidance

Central Bedfordshire
Cheshire West & Chester
Cheshire East
Cornwall
Cumbria.
Daventry
Durham
Gloucestershire
Hartlepool
Mansfield
Northampton
Northumberland
Oxfordshire
Rugby
Sedgemoor
Shropshire
Slough
South Derbyshire
Staffordshire
Stoke-on-Trent
Swindon
Tonbridge & Malling