

Quantitative Analysis of Library Service Requirements - FAQs

Introduction

This document supplements the 'quantitative analysis of service requirements,' which was prepared as part of the ongoing consultation on the future of the library service in Oxfordshire.

The purpose of the document is to clarify the principles behind the quantitative analysis, to provide answers to some specific questions we have received, and to provide more detail on the methodology and sources.

What are the basic principles of the analysis?

The quantitative analysis document published with the consultation document began from the following position:

1. The analysis should focus on the future potential rather than current or historic patterns of use.
2. The core of the service should be made up of those libraries which are accessible to the highest numbers of people.
3. Individual libraries are not only accessible to people who live near them – for example, they may also be accessible to people who work or shop near them.
4. All library-sites should be assessed against the same set of criteria
5. The approach should be able to incorporate groups with particular needs.

Why have you not looked at current users?

- Current usage patterns, while interesting and useful, have limited use when thinking about different configurations of the service.
- For this reason, we consider the network from a 'zero-base.' This simply means that the analysis would not be based on historical patterns but would measure libraries against a set of neutral, forward-facing criteria – as if there were no current network.
- Of course, we would have been concerned if our analysis produced a potential model of the service that didn't broadly match up with current usage patterns. This is why we then checked our results against a table of current usage, noted any significant discrepancies, and produced the resulting table the paper (see table 7, page 19 of the report).

You use a radius of only half of a mile between libraries. Does this mean that people who live outside of this area have not been counted?

- It's important to note that when we drew the half-mile boundary around each library, we were not assuming that the library would only serve people *already living* within that boundary.
- In fact, we assumed it would include many more people than this –for example, people who worked or studied nearby, but happened to live some miles away.
- The overall goal was to compare the relative levels of activity in the area immediately around each library-site, since this would give us an indication of whether or not a library had the potential to be used by a high number of people in the future.
- Current usage of the library had no bearing on this: no library was advantaged or disadvantaged by whether its current users came from inside or outside the half-mile boundary that we used.

Are you assuming that people shopping within half a mile of a library are residents of that area, or can they come from outside the area also?

- We have very deliberately not drawn any distinction on the point of origin of people for any of the criteria. What we are particularly interested in, in this analysis, is whether or not the area around a library caters for a high number of people on all or most of the criteria.

Why have you not analysed libraries in each area on their own terms? Comparing, for example, North Leith with Banbury is not comparing like with like.

- For the purposes of fairness and transparency we felt it important that all libraries should be considered according to the same criteria. Our aim here was to identify criteria which gave us a reasonable indication of the relative levels of need around each of our library sites. To allow meaningful comparisons to be made, it was essential that all libraries were assessed by the same criteria.
- These criteria are intended to give an indication of general 'footfall' around each site, and to give us a tool to compare levels of relative footfall across the network. They are not intended to measure the relationship of each library with its immediate residential area.

Why have you not provided full referencing? Isn't that a basic academic standard? How can you claim to be transparent?

- In response to feedback, we have provided full referencing at the end of this document.

Your shopping data gives a number for people shopping in my town that doesn't ring true. I'm also not sure that the shopping 'areas' included are statistically significant. And doesn't the fact that you don't count smaller shops produce a bias against rural areas?

- We wanted to use shopping as one of our criteria since it is an activity which almost everyone carries out on a regular basis. It's a useful measure of 'footfall' i.e. where people often are, and where they often go.
- To help with this measure, we purchased some data from the National Survey of Local Shopping Patterns (NSLSP). This is the leading industry measure of local shopping patterns in the UK and is used by a wide range of public and private sector for activities such as planning, benchmarking, forecasting, risk assessment, and market measurement, among other things. We were mindful that this data doesn't include smaller stores and that there are many smaller shops in more rural parts of the county as well as well as a great preponderance of small convenience shops in towns and cities.
- In the analysis, we checked the effect of this criteria on the overall rankings by creating an index which excluded the shopping criteria. We then compared these rankings with those in the original table (see page 22 on the report). This showed that the shopping criteria had very little impact on the final rankings of individual libraries.

Isn't there an urban bias in these results? Inevitably, your measures will lead to core libraries being in larger conurbations.

- As stated before, for the purposes of fairness and transparency we felt it important that all libraries should be considered according to the same criteria.
- These criteria are intended to give an indication of general 'footfall' around each site, and to give us a tool to compare levels of relative footfall across the network. The analysis aims to provide a comparative index of each library's strengths in relation to our criteria. We accept that this approach does lead to higher rankings for urban areas as they, by their nature, are greater hubs of activity (i.e. where more people live, work, study etc.).
- This does not however, equate to bias in the analysis. Data has been interpreted, analysed and presented consistently for all sites, irrespective of their geography.
- Under the proposal all 43 libraries would remain open.

Older people in Oxfordshire tend to be concentrated in rural areas. Have you considered this? Why have you not made special provision for areas that have proportionally much higher numbers of older people?

- For all wards in the county, we have considered, alongside a number of other targeted groups, the proportion of people aged over 65. Page 24 of the analysis identifies those libraries located in a ward with a particularly high proportion of a particular group, i.e. within the top 20% of wards countywide. Pages 40 to 47 look at how these indicators of need relate to the proposed network.
- Under the Equality Act 2010, Oxfordshire County Council is required to assess any significant changes made to services and understand the impact on protected

groups. The council complies with this duty by producing Service & Community Impact Assessments and an 'initial' impact assessment (SCIA) has been developed for this proposal. The SCIA assesses the impact on protected groups (e.g. gender, age, disability etc.), in addition to the impact on urban and rural communities and takes an evidence-based approach.

- As stated, an 'initial' impact assessment for this proposal has been developed and this will be further refined post consultation to take account of feedback. The SCIA will be considered by cabinet to inform their final decision on this proposal.

Data sources and how we used them

This section provides information on the datasets and methodologies used in calculating our indices of library need.

Population Data

What data was used when producing figures on population?

Postcode level population statistics came from *Experian Marketing Information Services* – a leading UK information services provider. The dataset contains an estimated population for each Oxfordshire postcode. This is calculated using a wide variety of small area data including:

- Census 2001 results
- PAF (Postal Address File) counts
- Lifestyle data

How was the data used in the analysis?

Using Mapinfo software we identified all postcodes falling within a half mile radius of each library. We then aggregated the population estimates for all relevant postcodes for each library.

Where can I see a copy of this data?

The dataset has been purchased under commercial license and cannot be distributed in its unaggregated format.

Employment Data

What dataset was used to calculate these figures?

Employment figures were taken from the *Office for National Statistics Inter-Departmental Business Register*. This dataset lists the number of people employed by businesses/organisations operating within the UK. 99% of all UK economic activity is included in the register.

Again this has been filtered by postcode using Mapinfo to give the figures for people employed in businesses/organisations within a half-mile radius of each library site.

Does it include people working in the Public Sector?

Yes

Does it include people working voluntarily?

No. Anyone not paying income tax through a PAYE scheme will not be included in the statistics. This may also include some self-employed people and businesses with a very small turnover.

Can I see this data?

Again, this dataset has been purchased under commercial licence and cannot be distributed in its unaggregated format.

Schools Data

How was the data for school pupils calculated?

We used the Council's own figures for pupils enrolled in Oxfordshire schools for the year 2010/11. This included nursery, primary, secondary, and special schools. Data was taken from the January 2011 census.

We used Mapinfo to identify all schools within a half-mile of each library and aggregated the totals.

Do the figures include rolls for independent schools?

The data only includes schools maintained by the local authority. Academies are included in the figures.

Can I see a copy of this dataset?

A copy of this dataset can be seen here:

[\[LINK to be embedded in the online version\]](#)

Shopping data

Does the shopping data show the actual number of people observed shopping over a given period of time?

No. The figure is an estimate calculated from responses to the National Survey of Local Shopping Patterns for 2009. This dataset was produced independently by CB Richard Ellis Ltd and was purchased under commercial license.

What sampling methods were used for the survey?

For all UK postal sectors (e.g. OX4 1, OX14 3, etc.), CBRE Ltd asked a random sample of households where they did their main, regular convenience goods shopping (i.e. groceries). The average (mean) sample size for postal sectors was 100. 192 postal sectors contained residents regularly shopping within Oxfordshire.

How were the shopping data totals for individual libraries created?

The proportion of households within each postal sector sample who shop at a particular store was multiplied by the total population for the postal sector to give an estimated total for the sector. Postal sector estimates were then aggregated for each store to give an estimated total number of people shopping regularly at a given store.

e.g.

Store	Postal Sector	Sector Population	Sample size	Respondents using store	Estimate
Tesco (Henley)	RG9 1	8039	90	45	4020
Watrose (Henley)	RG9 1	8039	90	21	1875
Tesco (Henley)	RG9 2	2718	105	47	1223
Sainsbury's (Didcot)	OX10 7	4974	115	14	606

*Estimate = Respondents / Sample Size * Population*

*From the table above the final figure for the number of people regularly shopping for convenience goods at Tesco in Henley would be **5243** (the sum of all postal sector estimates relating to the store).*

To apply these figures to individual library sites we filtered the store totals to show only those stores within a half mile radius of a given library. These were then aggregated to give a total for a library.

e.g.

*Using only the figures from the table above, the total for Henley library would be **7118**. The figure for Didcot library would be **606**.*

NB – The figures presented here are for illustrative purposes only. Under the licensing agreement with the data provider, we are unable to share the actual unaggregated data.

* To ensure that sampling errors weren't prejudicing our results, we also ran the analysis without the shopping data. The resulting tables of library rank can be seen on page 22 of the final report.

Transport data

What is a PTAL and how does it relate to libraries?

PTAL refers to the public transport accessibility level. These were calculated internally by our Public Transport Development team using a methodology developed by Transport for London. This creates an 'Accessibility Index' taking into account:

- Walking time from the point-of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and
- The level of service at the public transport access points - i.e. average waiting time.

It therefore gives a useful comparative measure for calculating the density of public transport around a point of interest (in this case a library).

Further information on the methodology can be found here:

<http://data.london.gov.uk/documents/PTAL-methodology.pdf>

How suited to rural Oxfordshire is a methodology which has been developed to assess the London Transport network?

When used by TfL the final PTAL score gives a descriptive value from 'Very poor' to 'Excellent' based on the Accessibility Index. These bandings have not been applied in the analysis since they do not describe Oxfordshire public transport requirements accurately. The Accessibility Index is value-neutral so provides a robust comparison between different sites irrespective of their particular geography.

Can I see a copy of this dataset?

A copy of this dataset can be seen here:

[\[LINK to be embedded in the online version\]](#)

How did you determine whether a postcode was included or excluded from the half mile radius in your analysis?

Mapinfo (the GIS system used by the council) will calculate the centre point of a postcode. If the centre point was inside the half mile radius it was included, if it was outside the half mile radius it was excluded.

All postcodes in Oxfordshire whether they begin with SN, OX, GL, RG, MK etc. are included if they fall within the half-mile radius.

For clarification, the link to the Cabinet Office below provides technical definitions of postcode, postcode area, postcode sector etc.

<http://interim.cabinetoffice.gov.uk/govtalk/schemasstandards/egif/datastandards/address/postcode.aspx>