Geodemographics, GIS and Neighbourhood Targeting

A Case Study in the Public Sector

'an interesting application'

Martin.Robson@LBHF.gov.uk (Research Officer)

Hammersmith & Fulham
Serving our Community

Presentation Structure

- Part 1 - Introduction and background
- Part 2 - Geodemographics
- Part 3 - GIS and residents use of Council Services
- Part 4 - Communications Strategy
- Part 5 - Future work

Hopefully by the end of my presentation you'll go away thinking 'oh I didn't know that GIS and Geodemographics were applied like that in local government…"

It seemed sensible to split my presentation into two main sections; Geodemographics and GIS and residents use of Council Services.

Talking about Geodemographics is a good way of describing the Borough and could be used in lots of different of projects within the Council and then the later section looking at Client Index data is more directly related to the project.

Summary

- The head of the Planning division released me to work on this corporate project
- Corporate GIS Spatial Data & ArcGIS
- It was very helpful to have a census based geodemographic classification of the Borough to aid understanding & interpretation of Experian's MOSAIC
- Services data was relatively easily available from the Client Index team.

Its fortuitous that I have a good case study to present for these reasons:

•I have been allowed to spend time working for another department. We felt that the timing was good and my other responsibilities would be covered.

•The GIS set-up here is very good; as well as having the software ArcGIS there is a Spatial Database that holds the latest information.

•Having a census based profile of the Borough was a great aid in understanding how to use the MOSAIC data to its full potential.

•The data on services was very easy to get hold of as the Client Index project manager had spoken to each department and already collected the data.

Part 1 - Introduction and Background

- Research Officer: “providing evidence to support strategic planning policy and other corporate research projects”
- surveys and GIS
- Local Retail Shopping Study, Land Use Survey, Employment Survey, Voluntary and Community Groups Survey and the 2001 Census Reports 1, 2 and 3

Recently I had to come up with a snappy description of my role so I can now say that I work in the Environment Department in the Planning Division and along with my colleague Alan we are the Research Team providing evidence to support strategic planning policy and other corporate research projects.

I am pleased that GIS is not in my job title and that my role is a mix of Surveys and GIS. Surveys such as the Local Retail Shopping Study (from which we created Food&Grocery catchments), the Land Use Survey (which includes Floorspace), recently Atkins completed an Employment land survey for us and along with a Voluntary and Community Groups list (which includes Tenants&residents Associations that are consulted on planning applications) and finally the 2001 Census reports which provide a basis to a lot of our work.

As I was collecting my thoughts to write this presentation I realised a key date that initiated the project that I'm about to talk about is 29th July 2005. Last summer at a regular meeting of researchers from across the Council (which we call CRAIG the Corporate Research and Information Group) I presented the main output of the Deprivation report. I spoke about the work on clusters. We used K-means clustering techniques in SPSS and 30 census variables to classify the OAs in the Borough into 10 categories. At the same meeting Experian were invited to promote MOSAIC, to see if anybody would be interested in purchasing it for their work and also the director of the Customer First department (Chris Naylor) came along to explain his new Customer Access strategy. The Director was impressed with clusters work and later when he realised Census did not include 'channel preference information', he purchased MOSAIC and asked Alan&I to be the research resource in his access strategy project.

Part 2 - Geodemographics

- Quick Outline of the London Borough (LB) of Hammersmith & Fulham
- Why Geodemographics?
- Why MOSAIC?
- Project Limitations
- Why Bespoke MOSAIC?
- Creating Bespoke MOSAIC
- Part 2 Conclusion

In this section I will explain why and how we created a bespoke version of MOSAIC because I think it demonstrates how it was necessary to adapt a product that was developed for nation-wide analysis to suit the needs of a small London Borough.

In September last year I recommended that my organisation purchase MOSAIC for the Customer Access Strategy project. The project is due to be completed by the end of March this year i.e. in a couple of weeks.

I hope that this initial project will spark off wider use of Geo-demographics within my organisation as the project uses data from departments across the council (12 council services were considered) and there has been a focus on keeping departmental directors involved so hopefully the outputs will filter down.

The LB of Hammersmith & Fulham is atypical

Our reason for creating a bespoke version of MOSAIC is that our borough is atypical. Naturally as it is a relatively small area it has local characteristics that are significantly different from the national average.

LB Hammersmith & Fulham

Population

- 1 of 13 inner-London boroughs
- 2001 Census Population 165,242 with a pop density of 101 pp hectare, 4th most densely populated local authority in England and Wales.
- Number of households at 2001 Census was 75,438

Hammersmith & Fulham is 1 of 13 inner-London boroughs on the transport routes between the City and Heathrow. So is home to many major international companies, particularly those in Media and Entertainment, including the BBC site at White City.

At the 2001 Census the population of the Borough was 165,242. With a population density of 101 persons per hectare, this makes us the 4th most densely populated local authority in England and Wales.

Hammersmith & Fulham

Ethnicity

- ethnic minority origin up from 17.5% in 1991 to 22.1% in 2001.
- Black ethnic origin is 11.1% and within that Black or Black British Caribbean origin is 11th highest LA in E&W
- Ethnic minority Pop is lower than Inner (34.3%) and Greater London (28.9%).
- Irish 4.8% is 3rd highest LA in E&W

As we will see later, in the description of one of categories, there are above average proportions of ethnic minorities in the borough and this population is growing.

The proportion of residents of ethnic groups other than white has gone up from 17.5% in 1991 to 22.1% in 2001. The largest grouping is people of Black ethnic origin (11.1%) and within this broad grouping the proportion of people of Black or Black British Caribbean origin is the eleventh highest of any local authority in England & Wales. Also the proportion of Irish as an ethnic group (4.8%) is the third highest of any local authority in England & Wales.

However the ethnic minority population is lower than Inner London as a whole (34.3%) or Greater London (28.9%).

Hammersmith & Fulham

Country of Birth and Household Types

- 33.6% of all residents born outside the UK 15th highest LA in E&W
- 54.7% single people in the adult population 2nd highest LA in E&W
- Four in ten (40.3%) of all households consist of just one person.
- 26.0% of adults who are married or re-married 3rd lowest LA in E&W. 13.1% of adults are living as cohabiting couples.

As well as ethnicity country of birth is also a factor that makes the borough atypical. A third (33.6%) of all Borough residents were born outside the UK, a rise from 28.4% in 1991. The Borough has the 15th highest proportion of any local authority in England & Wales of people born outside the European Union.

In terms of household type the Borough has the second highest proportion of any local authority in England & Wales of single people in the adult population at 54.7%.

Four in ten (40.3%) of all households consist of just one person. Likewise the Borough has the third lowest proportion (26.0%) of adults who are married or re-married. Some 13.1% of adults are living as cohabiting couples.

Why Geodemographics?

A project to improve how residents can contact and deal with the council:

- location and range of facilities at reception offices
- making telephone services more customer friendly
- increasing the breadth of our web services.

So I have described how the Borough is atypical but why are Geodemographics relevant? Well the project that I am working on aims to improve how residents can contact and deal with the council. This is across all services that involve customer contact whether face to face in a reception point, over the telephone or via email and the council's website.

...Why Geodemographics?

- estimate residents socio-economic profile -channel preference
- i.e. do residents prefer contacting and dealing with the council face to face or over phone or using the council website.
- We had a Census - based classification but we had no data on channel preference so...

Whilst there is information held by my borough from the Citizens Panel on residents preferences for contacting and dealing with the Council this information is only available as a Borough-wide statistic, rather than for particular locations within the Borough such as by Ward or by postcode. We do have the 2001Census based classification which gives a socio-economic profile of the residents by location (2001 Census Output Areas) but there is no information on households with an internet connection for example. Therefore we decided the best way to fill this gap was to buy in some external data.

Why MOSAIC?

- MOSAIC Segments
- Channel and Media Preferences included in sections:
  - How We Make a Living
  - Our Home Lives

So once the decision was made to buy in some external data, which product should we choose? Well for our purpose, describing an Inner London Borough, there were two important reasons for choosing MOSAIC.

Firstly MOSAIC Segments is effectively a Sub-Types classification and is a 'finer' level segmentation than available elsewhere. Which allows a greater deal of statistical discrimination between areas.

Secondly there is clear information on channel and media preferences in the accompanying Portrait Literature from the Multi media CD for all the 11 Groups and 61 Types. Though as of last September there was not the same Multi media information available for Segments.

Project Limitations

- Private sector statistics > residents preferences when contacting and dealing with their local council:
  - Pay Bills at the Post Office > visiting council offices
  - Telephone Banking > calling the Council Contact Centre
  - Internet Grocery Shopping > using the Council's website

There are some limitations with using statistics collected for commercial use as proxies to hypothesise the public's preferences when contacting their local council. E.g. we have used:

Handling Money > Type of Banking > Pay Bills at the Post Office - to estimate residents preferences for visiting council offices to conduct financial transactions

Handling Money > Type of Banking > Telephone Banking - to estimate residents preferences for calling the Council Contact Centre to conduct financial transactions

Grocery Shopping Habits > Shopping Channels > Internet Shopping - to estimate residents preferences for using the Council's website to conduct financial transactions

Why Bespoke MOSAIC?

- Before Purchasing MOSAIC we were sent the MOSAIC Profiles of each level of the MOSAIC hierarchy:
  - GROUPS
  - TYPES
  - SEGMENTS

Why Bespoke MOSAIC? Well this goes back to my slides showing the atypical nature of my Borough.

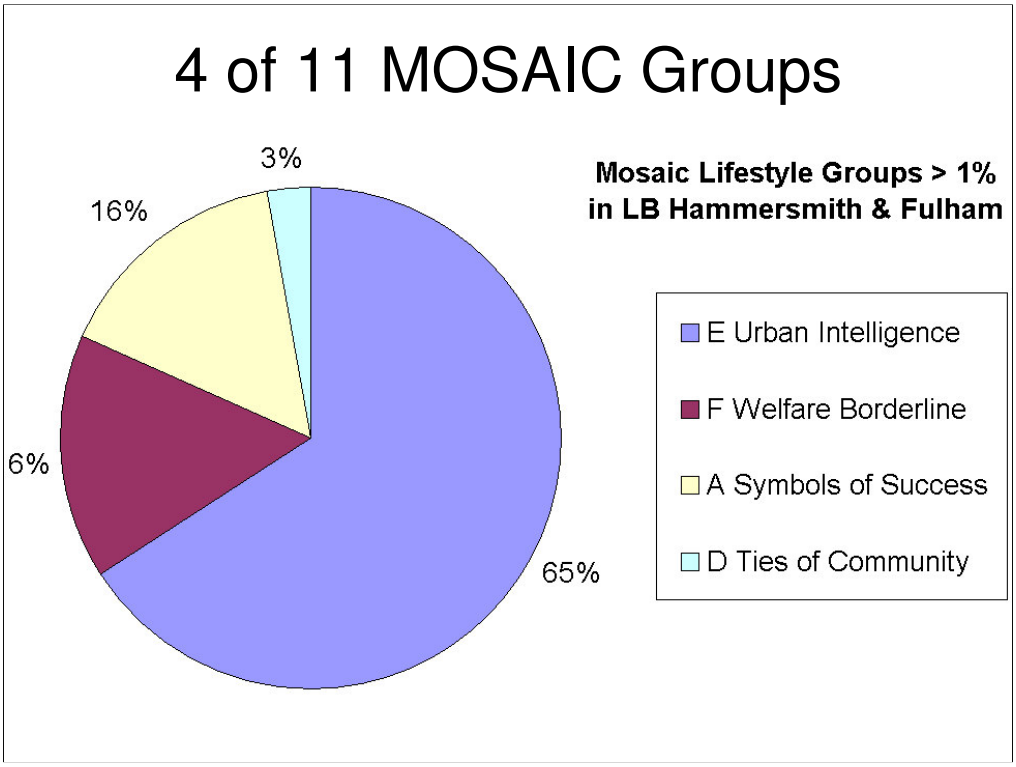
Before Purchasing MOSAIC we were sent the MOSAIC Profiles of each level of the MOSAIC hierarchy:

GROUPS

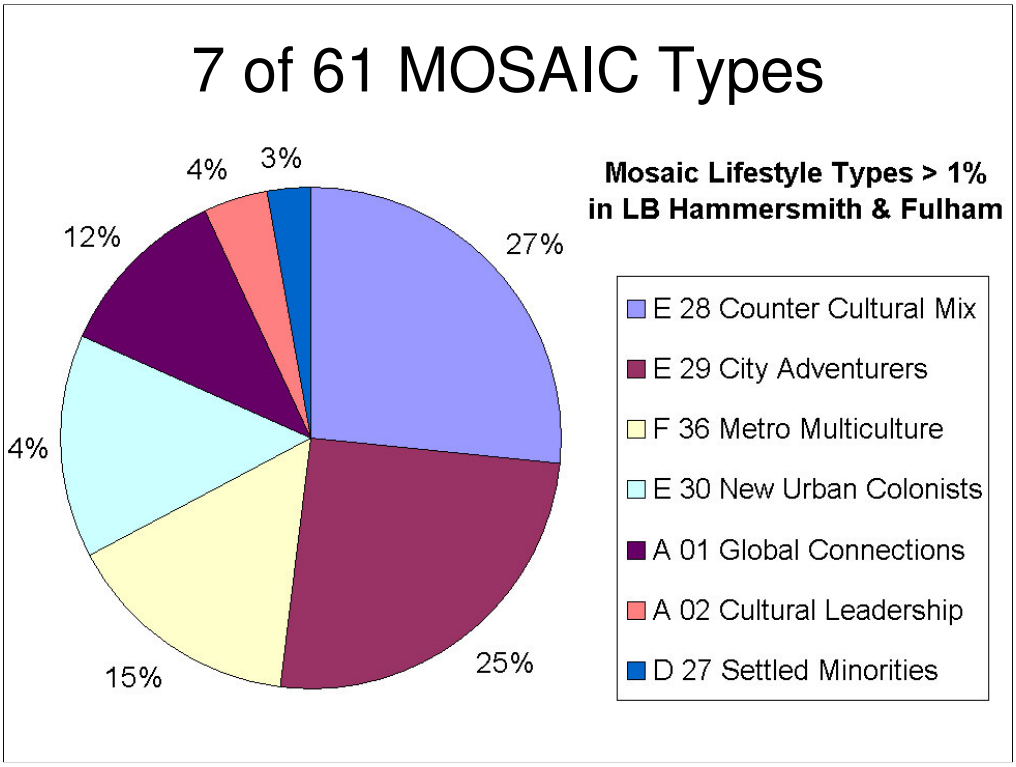
TYPES

SEGMENTS

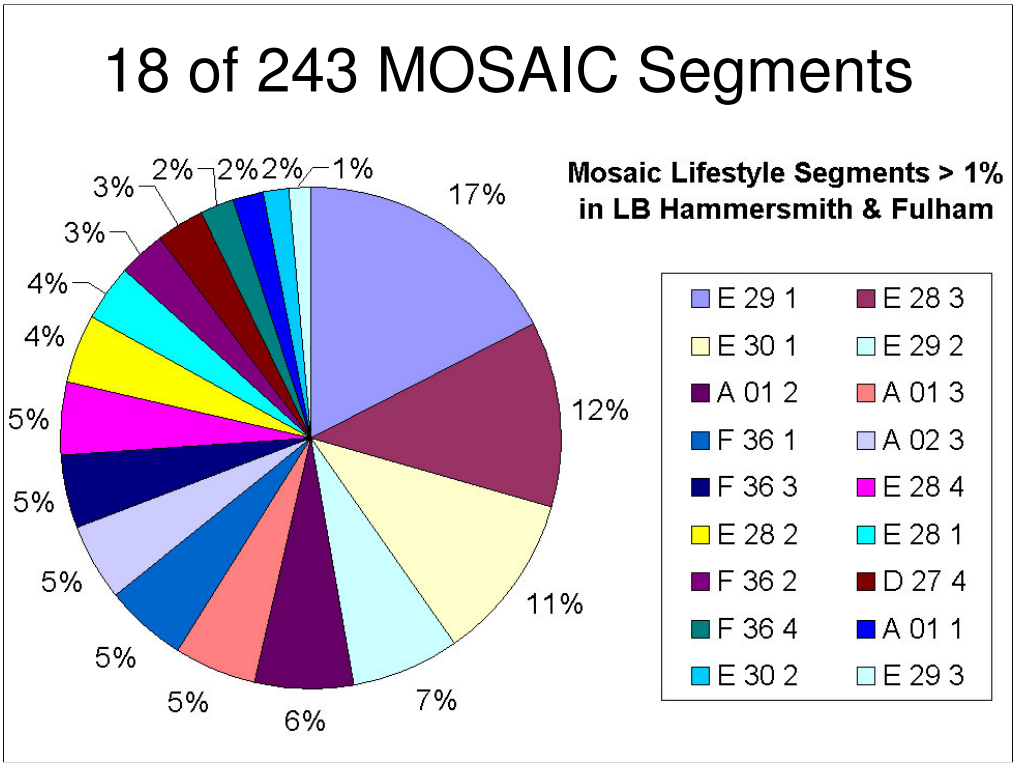
The following slides show the MOSAIC profiles for Hammersmith and Fulham at each of the three levels of the hierarchy.



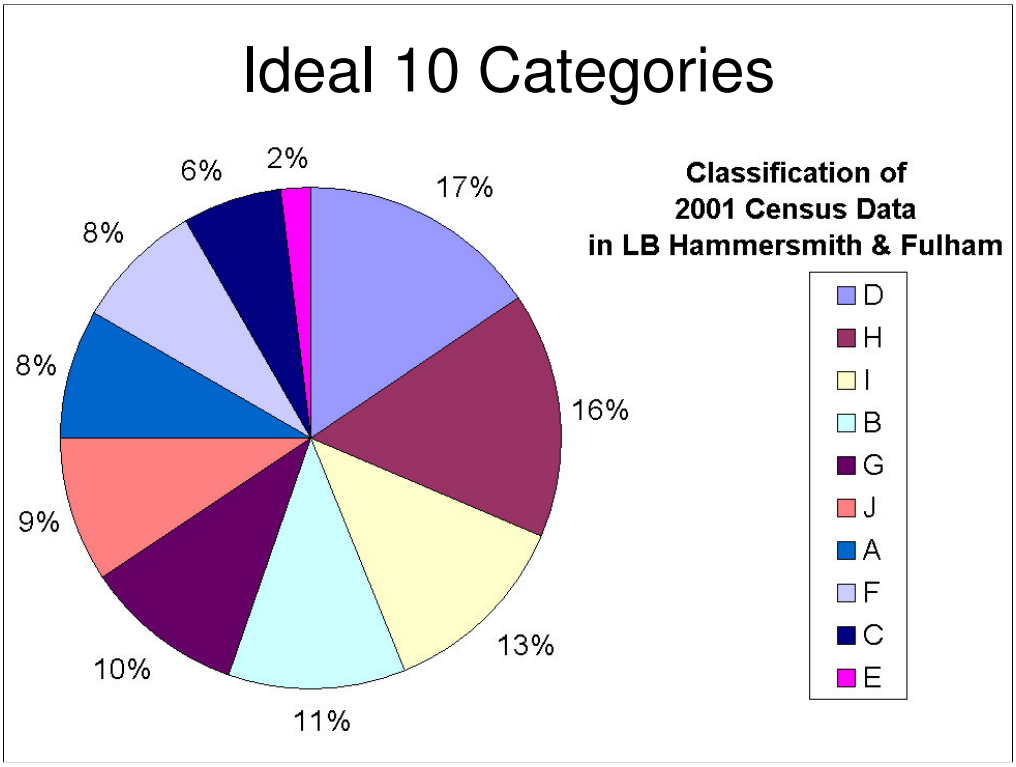
Of the 11 Groups, 4 are found in the Borough (With >1% of the population in each). With the one group, E Urban Intelligence, accounting for 65% of the population. We considered the GROUP level of the hierarchy to be too generalised. So we looked the next level...



Of the 61 Types, 7 are found in the Borough (With >1% of the population in each) and the largest Type is E 28 Counter Cultural Mix with 27%, E 29 City Adventures is the next highest with 25% of the population. So over half of the population are classified as one of two Types, again we thought was too generalised. So we looked at the next level which is MOSAIC Segments...



Of 243 Segments, 18 are found within the Borough (With >1% of the population in each), the highest being E 29 1 with 17%. However whilst this is perhaps an appropriate proportion of the population to be in the largest category, there are too many Segments with a very small proportion of the population.



Our interpretation of the profiles at GROUP, TYPE and Segment level were influenced by our internal Census based profile of the Borough which categorises the population into 10 Groups where the largest category is 17%. We thought this seemed like a suitable proportion in each and there were 10 different categories.

Creating Bespoke MOSAIC

- Using different levels of the MOSAIC hierarchy i.e. a mixture of Groups, Types and Segments.
- One Segment cannot be merged with another Segment but all Segments that have the same Type can be replaced with their ‘parent’ Type.

It was at this point of the project that we had the idea to use different levels of the MOSAIC hierarchy where appropriate i.e. a mixture of GROUPS, TYPES and SUB TYPES to reach a compromise. We discussed the idea with our contacts at Experian and they advised that this was possible.

The important point is that the data variables on lifestyle and behavioural characteristics cannot be merged.

i.e one Segment cannot be merged with another Segment.

Therefore it is preferable to use a combination of the levels in the hierarchy without affecting data quality.

i.e replacing all Segments that have the same Type with their ‘parent Type.

Mapping at Output Area (OA)

- Analysed most detailed level; Segments
- Visualised by aggregating to 2001 Census Output Area (OA)
- 18 Segments with > 1% of population
- 35 Segments classifying OAs (due to small population in 605 OAs)

We decided to analyse the Borough in terms of the most detailed level of the MOSAIC hierarchy; Segments. To visualise the distribution we aggregated MOSAIC at postcode level to 2001 Census Output Areas (OA) by categorising the OA by the MOSAIC Segment with the largest number of postcodes in that OA.

Instead of 18 Segments in the pie chart profile, with greater than 1% of the population, due to the small size of some of the 605 OAs, there were 35 different Segments used to classify all the Output Areas.

Variation between Segments

- Distribution of OAs by 35 Segments analysed alongside variables of 35 Segments
- To see if Segments could be ‘merged’ by using their parent Type.
- 35 Segments > 12 New Categories

Maps of the distribution of the 35 Segments at OA were analysed alongside the variables that constitute each Segment to discover the variation between the Segments and if it was possible in terms of the local characteristics of the Borough to instead effectively merge the Segments by using their parent Type. (There are 4 Segments in each Type). Likewise for Types could they be ‘merged’ by using the Group to categorise the OAs?

The aim was to reduce the number of categories from 35 to approx. 10 as this was the number in our internal census based geodemographic classification.

This process reduced 35 Mosaic Segments to 12 new categories containing between 5 and 139 OAs each.

MOSAIC Hierarchy

- 5 OAs are classified by the MOSAIC Group
- 444 OAs are classified by the MOSAIC Type and
- 156 OAs are classified by the MOSAIC Segment
- Nearest fit was used

In the resulting 12 categories:

5 OAs are classified by the MOSAIC Group

444 OAs are classified by the MOSAIC Type and

156 OAs are classified by the MOSAIC Segment.

There were inevitably some cases where single OAs had to be incorporated into the nearest-fit category where the characteristics were reasonably similar, in order to avoid ending up with a large number of categories. This was done by looking at the individual OAs and deciding with the categorisation using local knowledge.

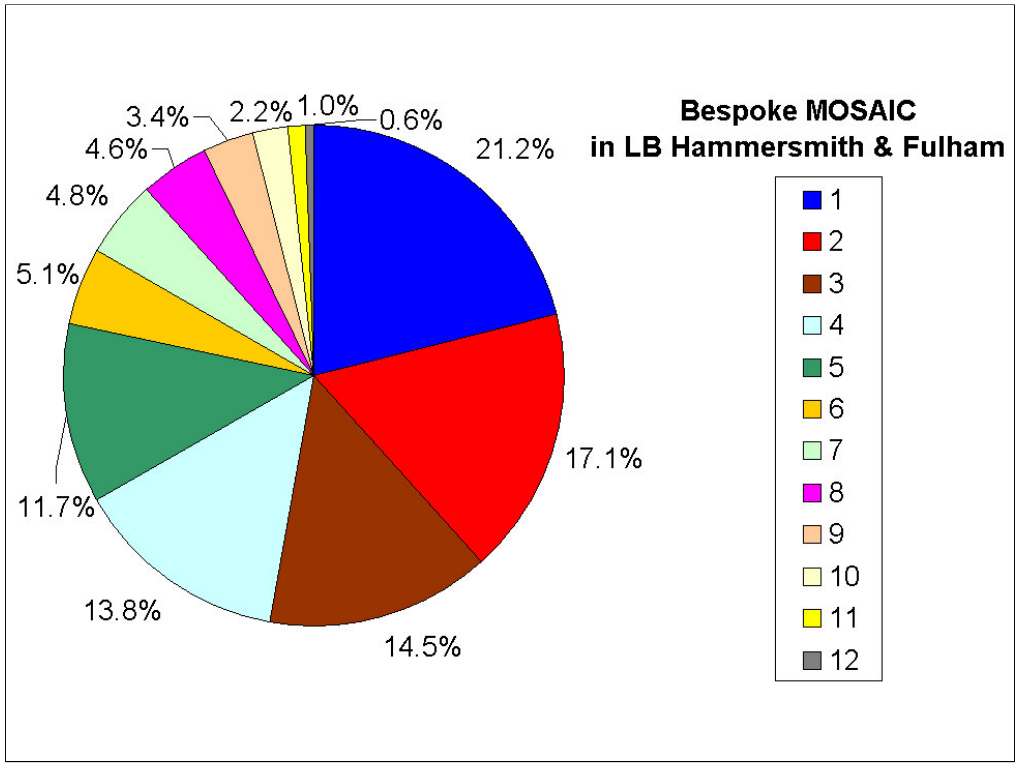
Data lookup created at postcode level

- Lookup table of all 35 Segments and which level of the MOSAIC hierarchy should be used to categorise them.
- Postcode file with three attributes the Group, Type and Segment Codes, re-categorise each postcode with the new Bespoke MOSAIC code
- Accurate at the postcode level and aggregating to OA was methodology.

The crucial output was a lookup table of all 35 Segments and which level of the MOSAIC hierarchy should be used to categorise them.

As we had received the Postcode file for our Borough with three attributes the Group code, Type Code and Segment Code, it was possible to re-categorise each postcode with the new Bespoke MOSAIC code

Therefore Bespoke MOSAIC is accurate at the postcode level and aggregating to OA was just part of the methodology.



This is the resulting profile with the 12 categories shown in a pie chart like the MOSAIC profiles in previous slides. The colours are significant and are used throughout the project.

The largest category contains 21.2% of the population and we decided that this was an appropriate way of classifying the Borough.

MOSAIC Name	Bespoke Number	Bespoke Name	% Pop
E 29 City Adventurers	9	Prosperous Mobile Single Young Professionals	21.2
F 36 Metro Multiculture	11	Deprived Families in Public Housing	17.1
E 28 2 Counter Cultural Mix	7	Mixed Inner City Urban - Modest means	14.5
E 30 New Urban Colonists	10	Prosperous Settled Young Professionsals	13.8
A 01 Global connections	1	Well Off Older Global Professionals	11.7
E 28 1 Counter Cultural Mix	5	Older People Inner City Urban - Low Incomes	5.1
A 02 Cultural Leadership	2	Well Off Families in High Value Homes	4.8
D 27 Settled Minorities	4	Poorer Minority Families	4.6
E 28 2 Counter Cultural Mix	6	High Occupancy - Inner City Urban (Students)	3.4
E 28 4 Counter Cultural Mix	8	Single Mobile Renters Inner City Urban	2.2
B 08 Just Moving In	3	Families in Manual Occupations	1.0
I Twilight Subsistence	12	Older people in sheltered housing	0.6

As MOSAIC was designed as a commercial classification we decided to rename the chosen Group, Types and Sub-Types so that the names would be more understandable (and more sensitive) for use in the public sector.

City Adventures was re-named to Prosperous Mobile Single Young Professionals

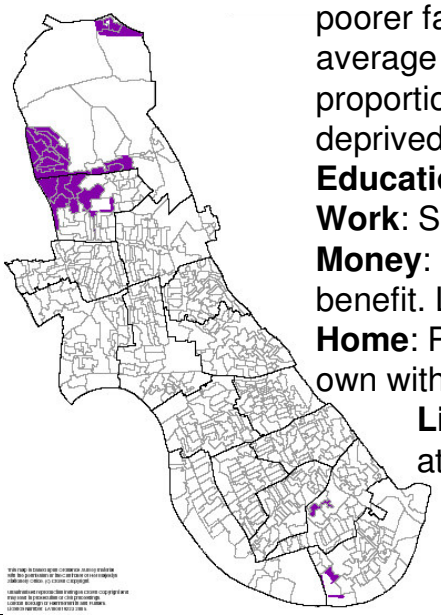
Settled Minorities was re-named Poorer Minority Families

The new names are directly related to the characteristics identified by a detailed analysis of the variables and refer to factors where the group scores fairly or very highly relative to the Borough average.

(Experian have created a new set of ODPM approved public sector names, but they are yet to be published.)

Lets look at these two categories in detail...

Poorer Minority Families

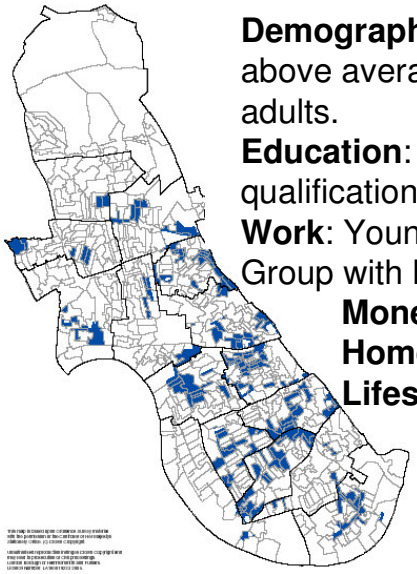


Demography: 4.6% of the population, poorer families, ethnic minorities, lower than average population turnover, above average proportion of 0-19 year olds, relatively deprived.
Education: Moderately low qualifications
Work: Sales or manual occupations
Money: Group has highest rate of child benefit. Low internet grocery purchase
Home: Poorer terraced housing. Quite high own with mortgage and public renters
Lifestyle: Above average paying bills at the Post Office
Channel pref.: Visit

There was some discussion between the project team on the re-named description for this particular category. My research colleague proposed the name to be ‘Poorer Families’ only as there were not significantly more ethnic minorities in this category than in the rest of the Borough. A project colleague from a private sector consultancy that is working with the LB of Hammersmith & Fulham wanted to emphasise the ethnic make up of the category.

Poorer Minority Families

Prosperous Mobile Single Young Professionals



Demography: Fairly affluent, non-family, above average population turnover, young adults.
Education: Over half with degree level qualifications
Work: Young professionals or lower managerial. Group with highest FT working females.
Money: Internet and phone banking
Home: Private renting in converted flats
Lifestyle: Reads books, Internet users
Channel pref.: Web or Phone

Again there was some discussion over wording for this category. The word in question was whether to include Single in the description as I described earlier the whole of the Borough has atypical proportion of single people and therefore perhaps this category did not have a significantly higher number of single people than the Borough average. Albeit it is much higher than the national average.

Mobile refers to the turnover of population. Poorer Minority Families could equally be called Poorer Stable Minority Families.


Prosperous Mobile Single Young Professionals

Part 2 Conclusion

- Bespoke MOSAIC appropriate to describe the atypical nature of the Borough.
- Possible criticism of methodology, aggregating to OA to visualise

In conclusion MOSAIC was created to categorise whole of UK and whilst there are Experian products such as MOSAIC London we thought it was appropriate for ourselves as an Inner London Borough to create a Bespoke MOSAIC.

In retrospect I foresee one possible criticism of our methodology which is how we aggregated Segments to Output Areas to visualise MOSAIC. And then we selected the appropriate levels of the MOSAIC hierarchy using maps of Output Areas shaded by Segments.

...Part 2 Conclusion

- Aggregation of MOSAIC to OA was only to as an aid to mapping the distribution as bespoke MOSAIC is for the full postcode unit.
- Bespoke MOSAIC for postcode unit so can be aggregated up to OA, Ward or Postal Sector.

It is important to state that the aggregation of MOSAIC to OA was only to as an aid to mapping the distribution. The Bespoke MOSAIC is for the full postcode unit. And postcoded data on the number of services used by residents can be given a Bespoke Mosaic code.

Also as the Bespoke MOSAIC is that full unit postcode it can be aggregated up to OA, Ward or Postal Sector.

After looking into the data sources of MOSAIC we decided at the outset to purchase the cheaper postcode level MOSAIC rather than the household level MOSAIC.

Experian

- Peter Cummings, Head of Public Sector, Experian's Business Strategies division, said:
- "It is very rare that Experian brings on a new client who immediately grasps a full appreciation of what Mosaic can do for them and achieves so much in such little time.

I so pleased with the words that I was introduced with at the Experian Public Sector conference in February when did a 20 minute presentation, that I asked them if they could give me a quote to use for the project.

...Experian

- In Martin's case, he has created a custom-built classification of Hammersmith and Fulham in his first two months that captures the unique socio-demographic composition of this borough and allows the development of citizen focused strategies."

Part 3 - GIS and residents use of Council Services

- Distributions of Client Index by OA
- Bespoke MOSAIC & Channel Preferences
- Client Index by MOSAIC
- Service Combinations & Service Clusters
- Ideal Locations

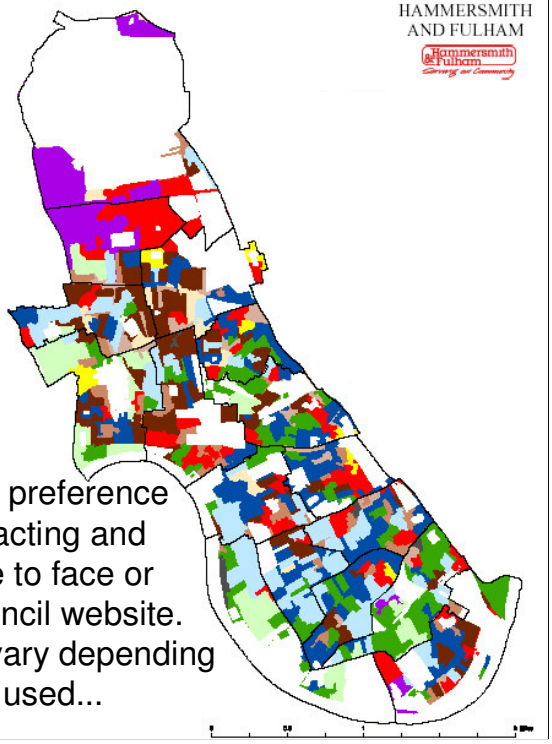
I'll try to and give you a summary of the hypothesis outputs that I have created and guide you through from the initial data explorations to the ideal locations.

Access Strategy

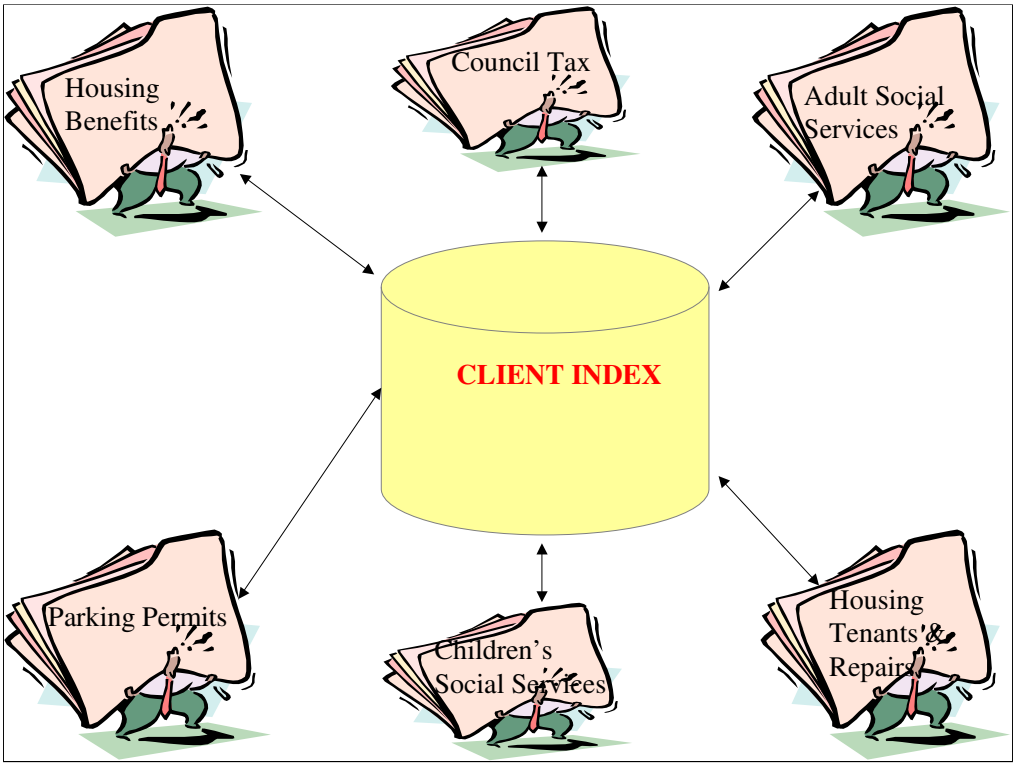
LONDON BOROUGH OF
HAMMERSMITH
AND FULHAM

A project to improve how residents can contact and deal with the council:
•location and range of facilities at reception offices
•making telephone services more customer friendly
•increasing the breadth of our web services.

Estimate residents -channel preference i.e. do residents prefer contacting and dealing with the council face to face or over phone or using the council website. How do these preferences vary depending on which Council Service is used...



To recap…of the three bullet points my involvement in the project has focused on the location and range of facilities at reception points.



The data source that I said in my introduction was relatively easily available is referred to within the Council as the Client Index. I understand that Hammersmith&Fulham are one of the leading local authorities in terms of this form of data integration between different departments. So this was the source of geo-coded data about the Council Services used by each household. The geo-coding was that each record I received had a Unique Property Reference Number (UPRN) attached. The Client Index will in the future enable individual customers to be dealt with in a more efficient way as the data held includes names and information about which Council Services individual residents use.

1. Service Clusters

- Simple Maps of each dataset:
  - Adult Social Services
  - Children's Social Services
  - Housing Tenants
  - Repairs
  - Council Tax Changes
  - Housing Benefit and Council Tax Benefit

The first six datasets that I was given were for the following services…

Adult Social Services

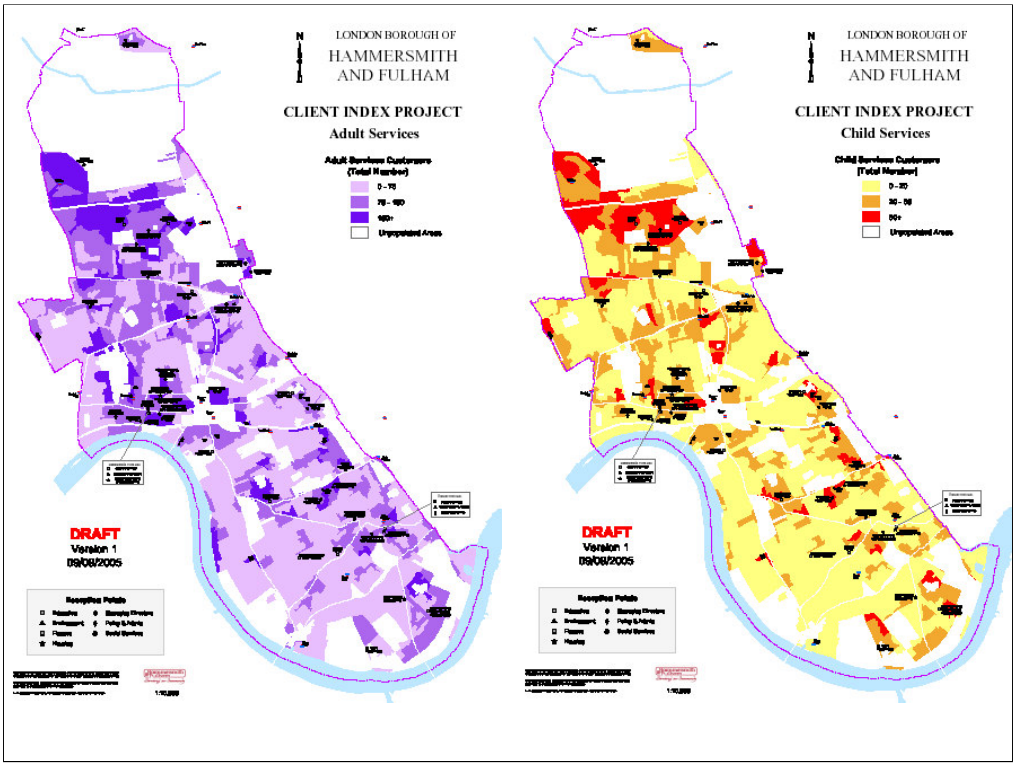
Children's Social Services

Housing Tenants

Repairs

Council Tax Changes

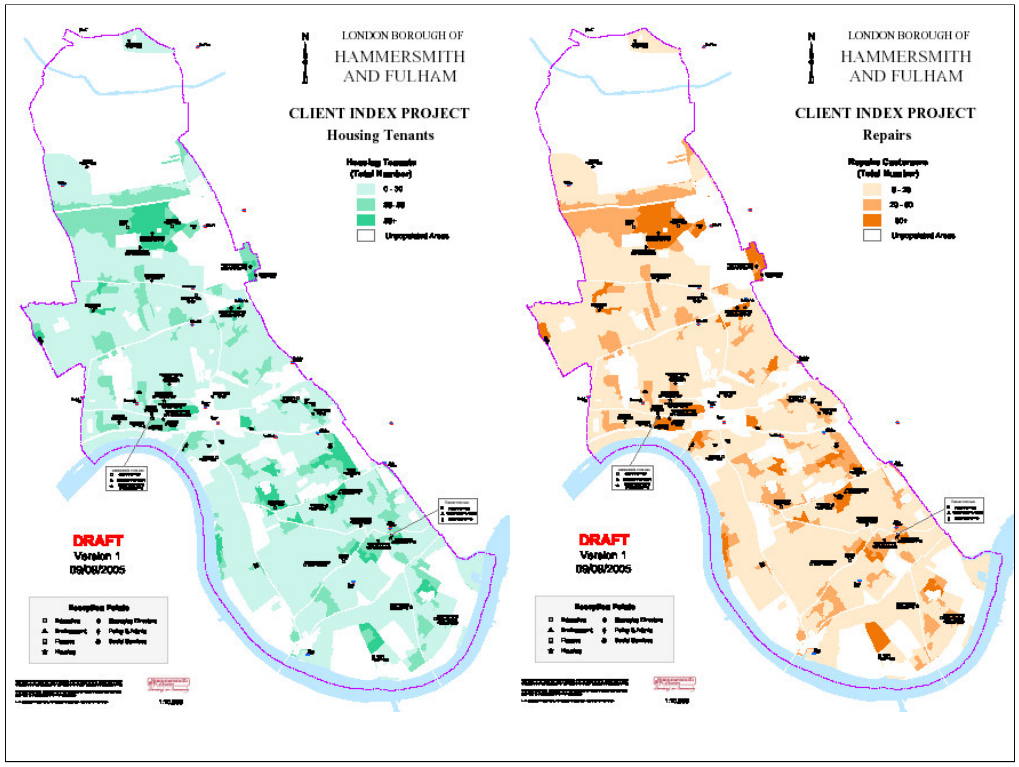
Housing Benefit and Council Tax Benefit



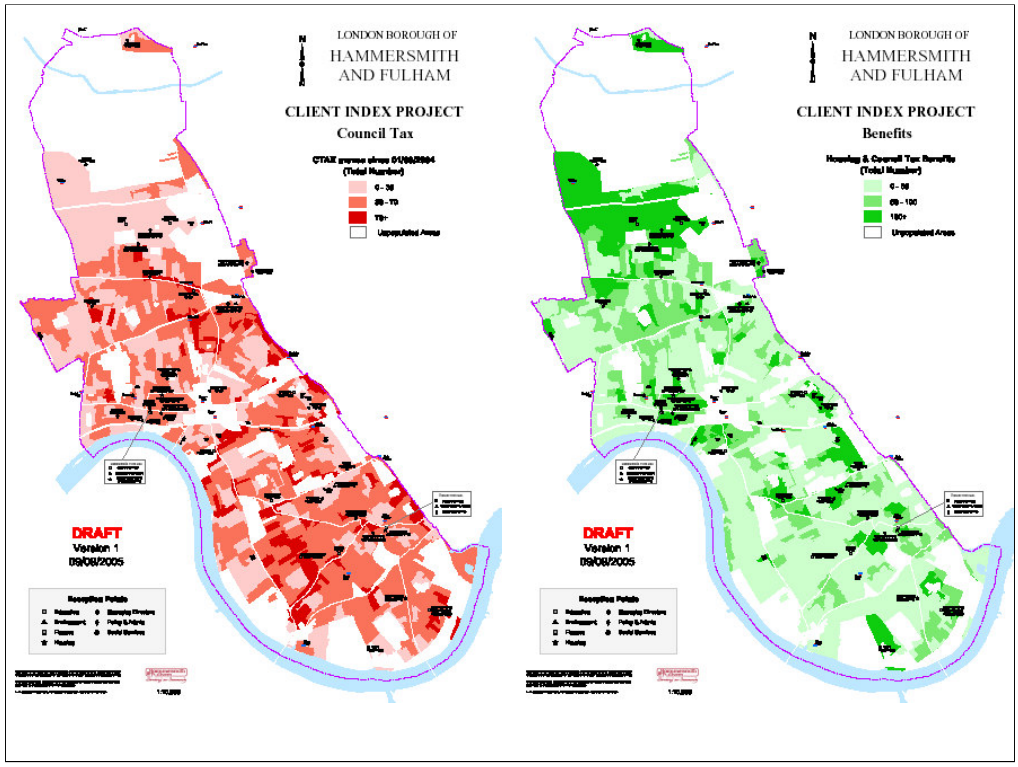
I had lots of support from the corporate GIS team (who are also in the Environment Department) and these maps were created by Shanon for the kick off workshop meeting for the Customer Access Strategy last September.

As a way of exploring the data Shanon and I mapped the household data at 2001 Census Output Area Level.

Dark colours equal high concentrations



…Housing Tenants and Repairs

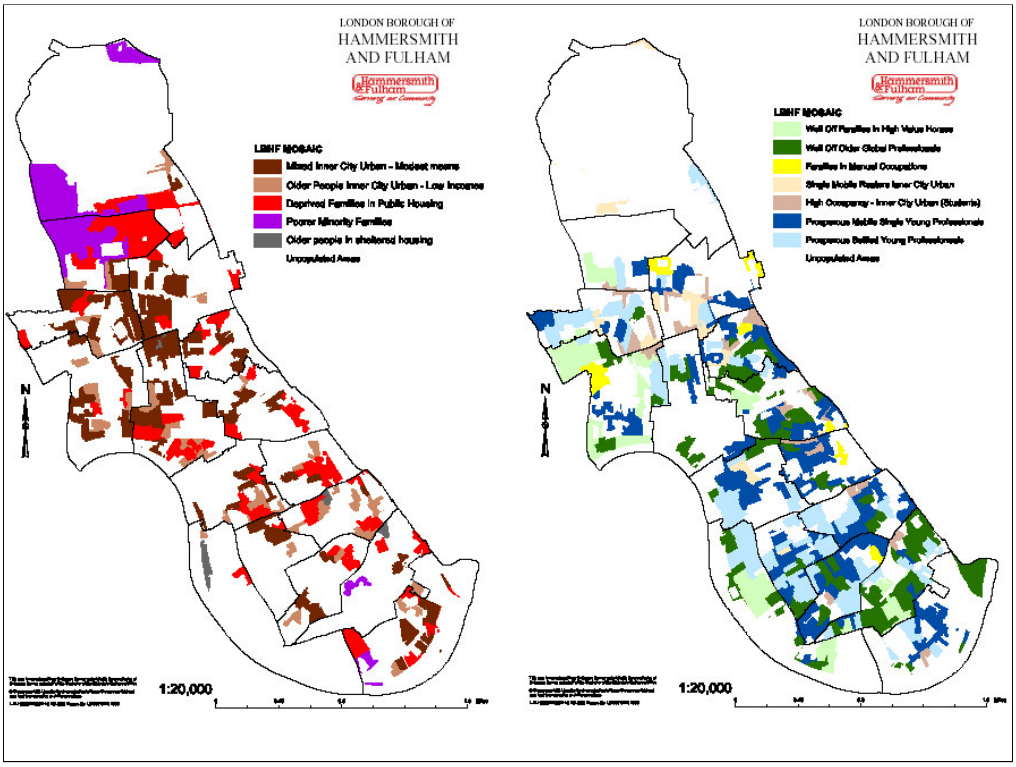


...Council Tax changes and Housing Benefits & Council Tax Benefits

Broad hypothesis channel preferences

Number	LBHF MOSAIC	% of Population	Channel Preference
1	Well Off Older Global Professionals	12	Web/ phone
2	Well Off Families in High Value Homes	5	Web/ phone
3	Families in Manual Occupations	1	Web/ phone
4	Poorer Minority Families	5	Face to face
5	Older People Inner City Urban - Low Incomes	5	Face to face
6	High Occupancy - Inner City Urban (Students)	3	Web/ phone
7	Mixed Inner City Urban - Modest means	15	Face to face
8	Single Mobile Renters Inner City Urban	2	Web/ phone
9	Prosperous Mobile Single Young Professionals	20	Web/ phone
10	Prosperous Settled Young Professionsals	14	Web/ phone
11	Deprived Families in Public Housing	17	Face to face
12	Older people in sheltered housing	1	Face to face

Back to MOSAIC my colleague Alan looked in detail at the channel preference variables in the MOSAIC background tables for the 12 categories and he hypothesised that 7 segments would prefer mainly Web or phone interaction and 5 segments (43% of the population) would prefer a strong degree of face to face interaction. We used this split when creating bar charts of Services by MOSAIC...



Here's a map with the 5 categories that prefer face to face versus the 7 categories that prefer web or phone.

Adult Social Services

- Receipt of Adult Social Services depends mainly on age and disability.
- Physical disability is largely a function of age, so recipients tend to be older. The exception is mental disability, and vulnerability so that some services include higher proportions of younger people.

One of the main datasets for the project was from Social Services. In the Social Services data that we received there were over 50 different types of services (including Children's Services), some with very small numbers of residents using the services. To ease analysis we selected some of the mostly highly used groups. We grouped the high use social services into two Adult Older and Adult Younger.

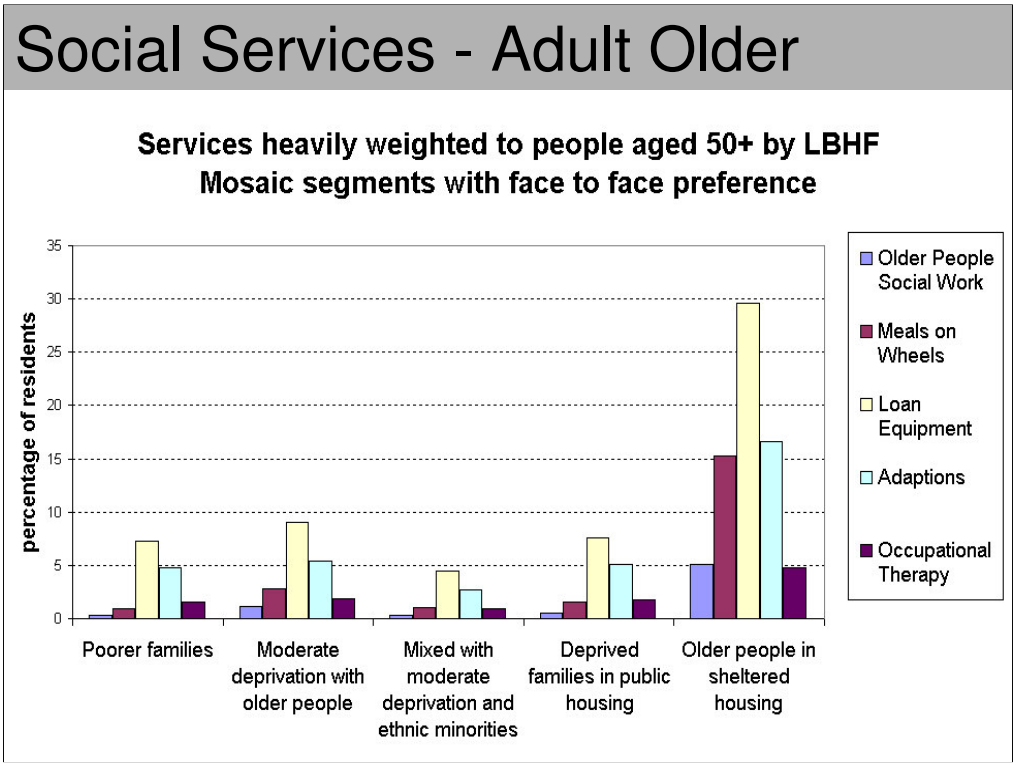
Adult Older Social Services

- Services heavily weighted to people aged 50+ include:
  - older people social work
  - meals on wheels
  - loans of equipment
  - adaptations
  - occupational therapy

Younger Adult Social Services

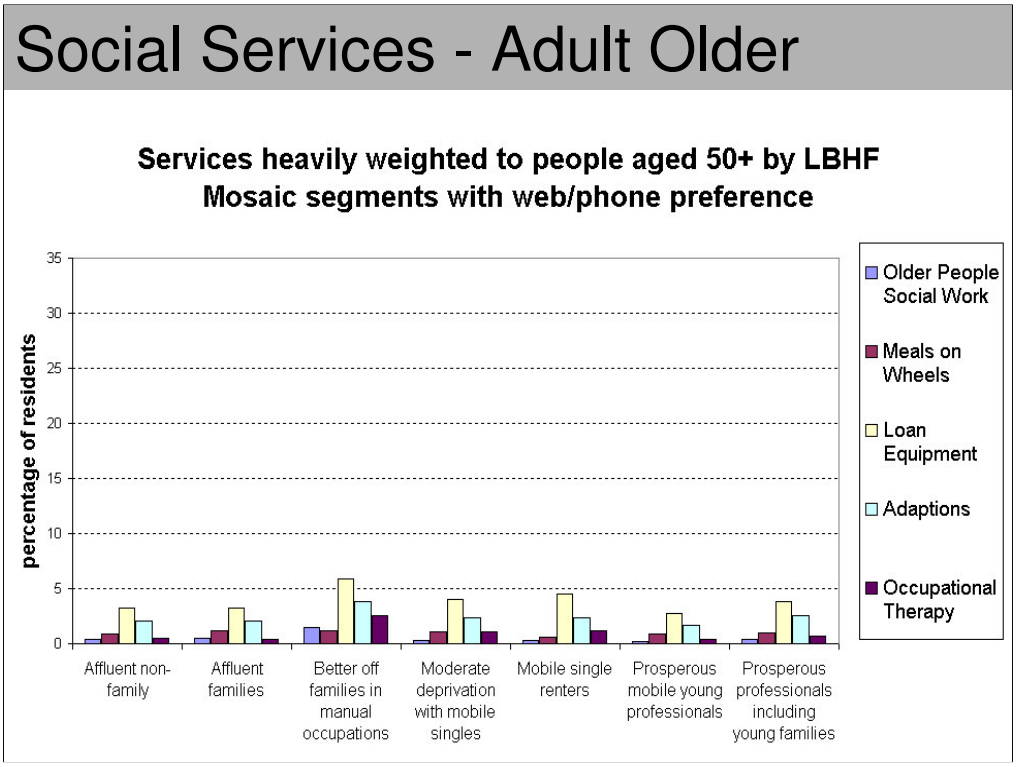
- Adult services with a higher proportion of younger people include:
  - telephones
  - freedom pass
  - blue badge
  - learning difficulty

Social Services - Adult Older



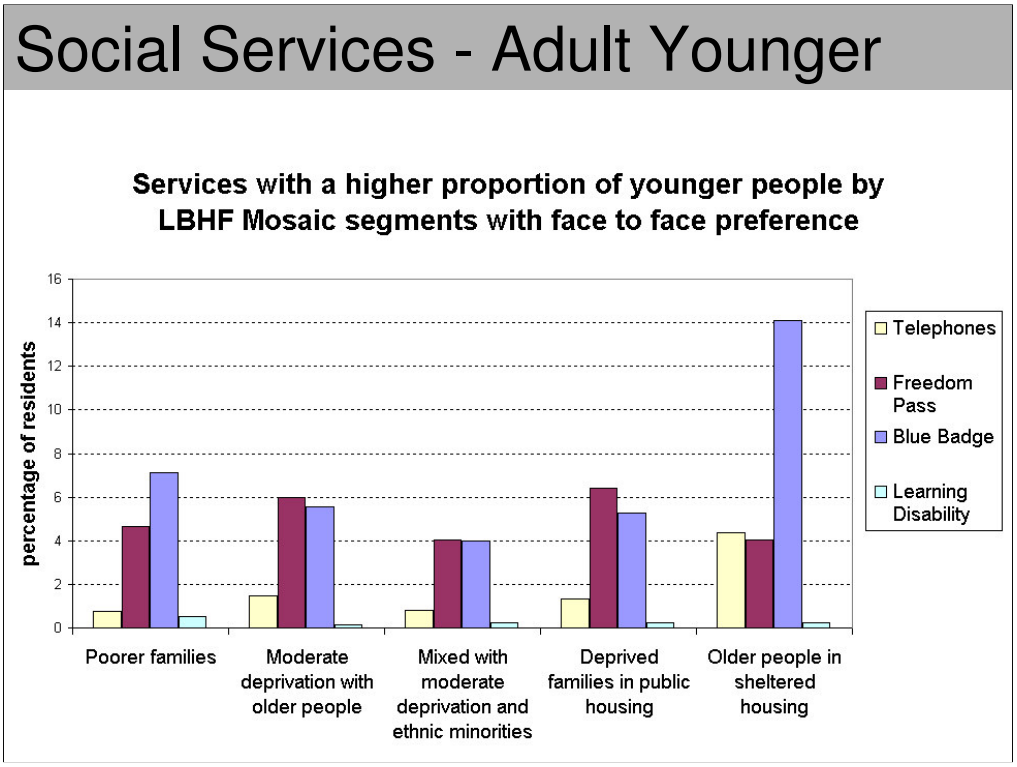
Here is a bar chart of Adult Older Social Services by MOSAIC showing the percentage of residents in a category who use Adult Social Services. The proportion is highest amongst the Older People in Sheltered Housing Group. Though this category represents only 1% of the Borough population.

Social Services - Adult Older



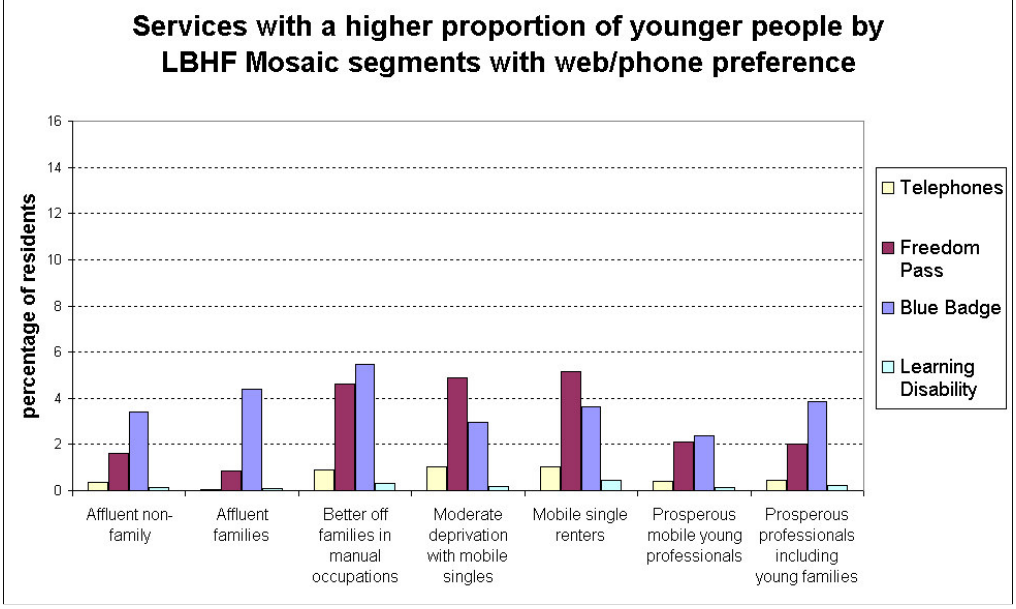
These 7 categories are those that hypothesised to prefer contacting the council by web or phone; their use of Adult Older Social Services is much lower.

Social Services - Adult Younger



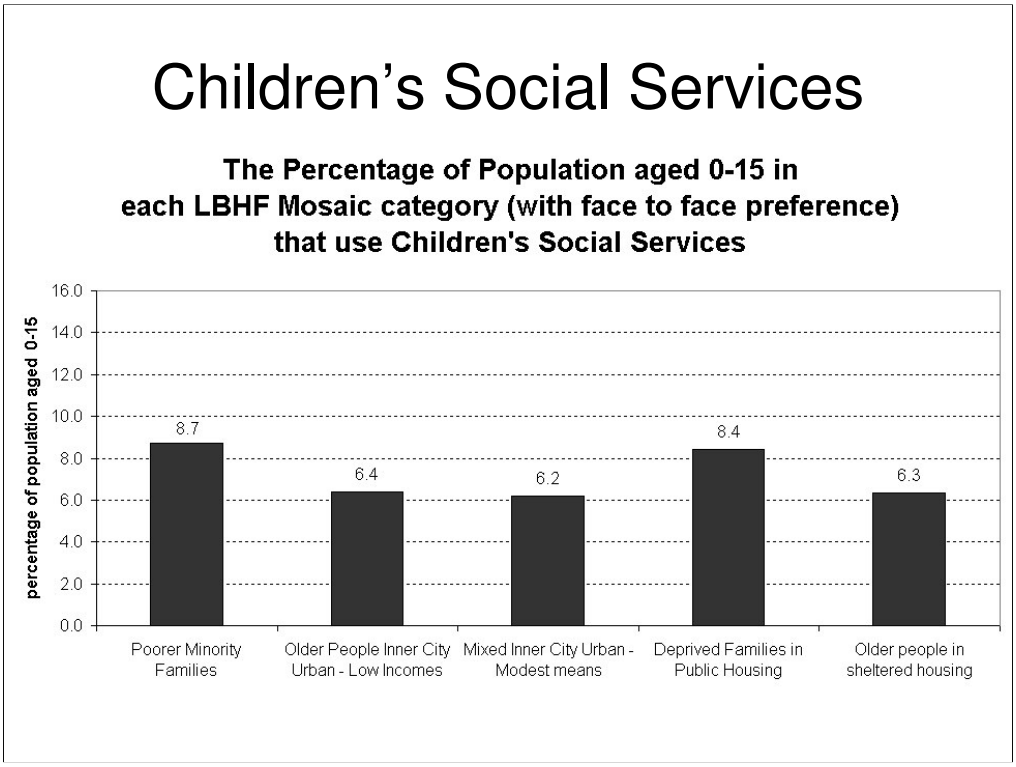
We produced these kind of outputs for all Council services that we had client index data for this one is Adult Younger Social Services - face to face segments.

Social Services - Adult Younger



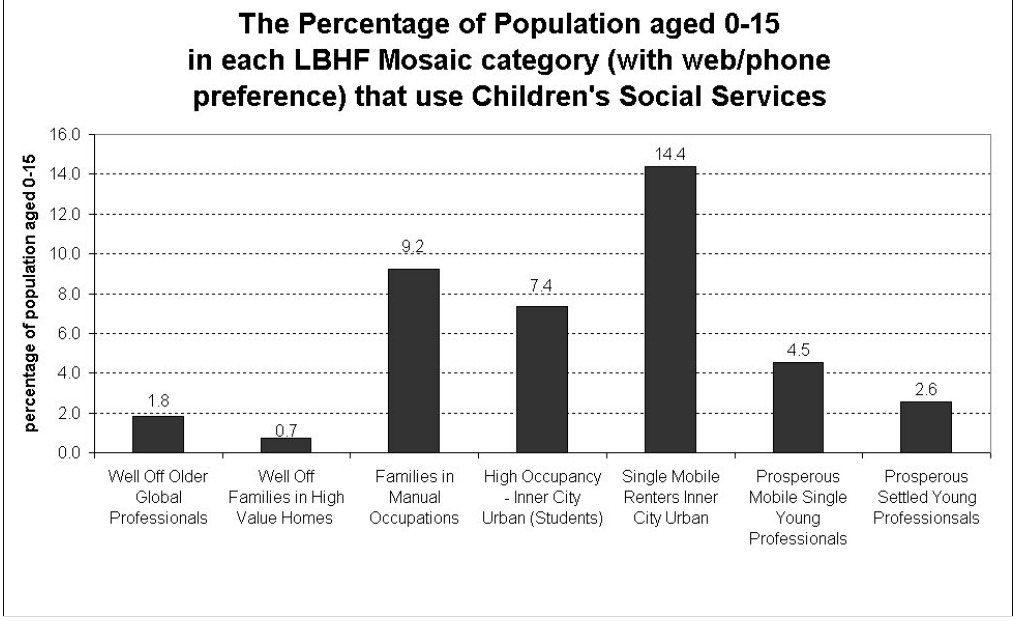
this one is Adult Younger Social Services - web or phone segments.

Children's Social Services



The Social Services data is a particularly important part of the project so here are two charts showing Children's services by MOSAIC. This chart shows the percentage of the child population in each category (with face to face preference) that use Children's Social Services.

Children's Social Services

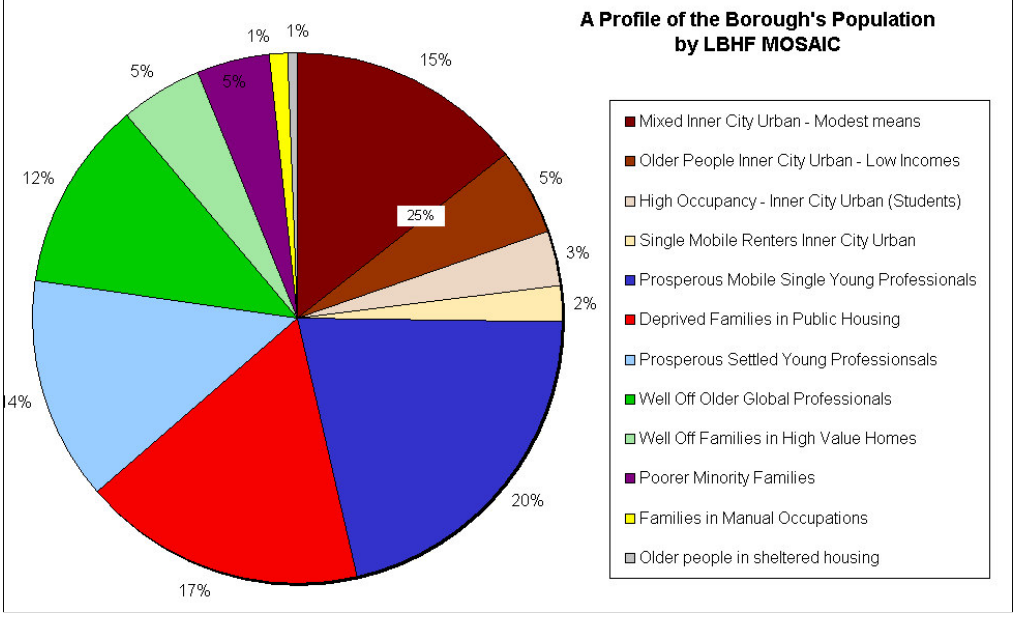


This chart shows the percentage of the child population in each category (with web or phone preference) that use Children's Social Services.

The largest use of Children's Services is in the Single Mobile Renters Inner City Urban with 14.4%. This maybe due to a due number of lone parents in this category.

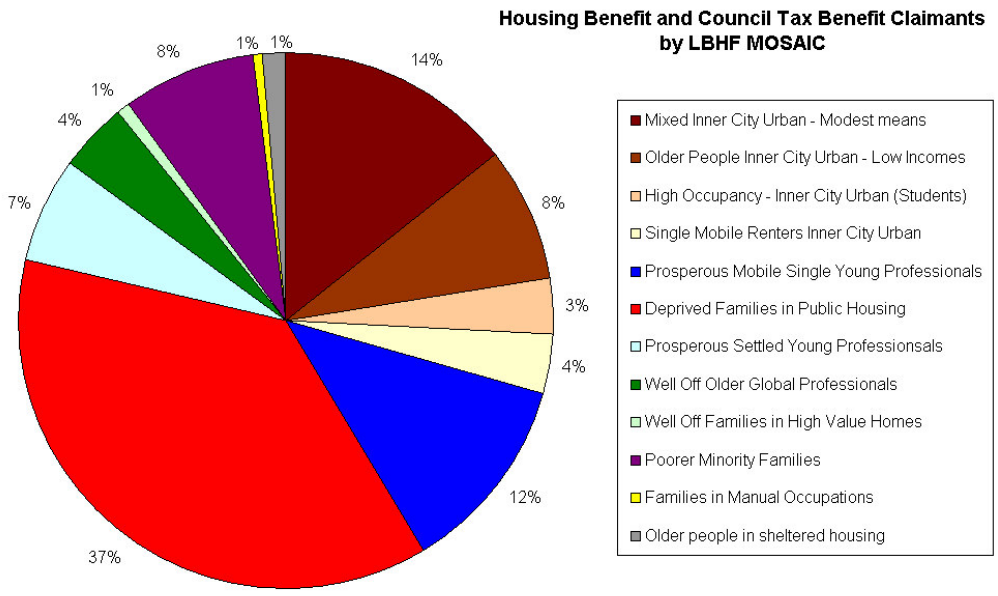
1.8% of residents categorised as Well Off Older Global Professionals using Children's Services highlights the nature of using postcode level MOSAIC data where all households in the postcode are assumed to be the same.

Borough Population

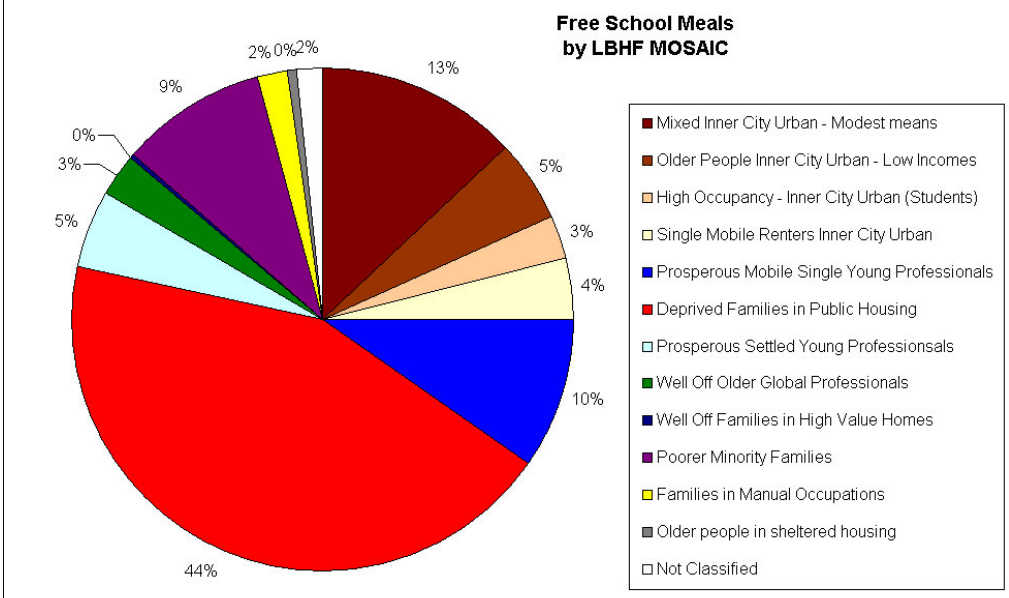


This pie chart shows the proportion of residents in each category of the bespoke MOSAIC classification and is useful o include at this point for comparison with the following slides which show other Council Services by MOSAIC.

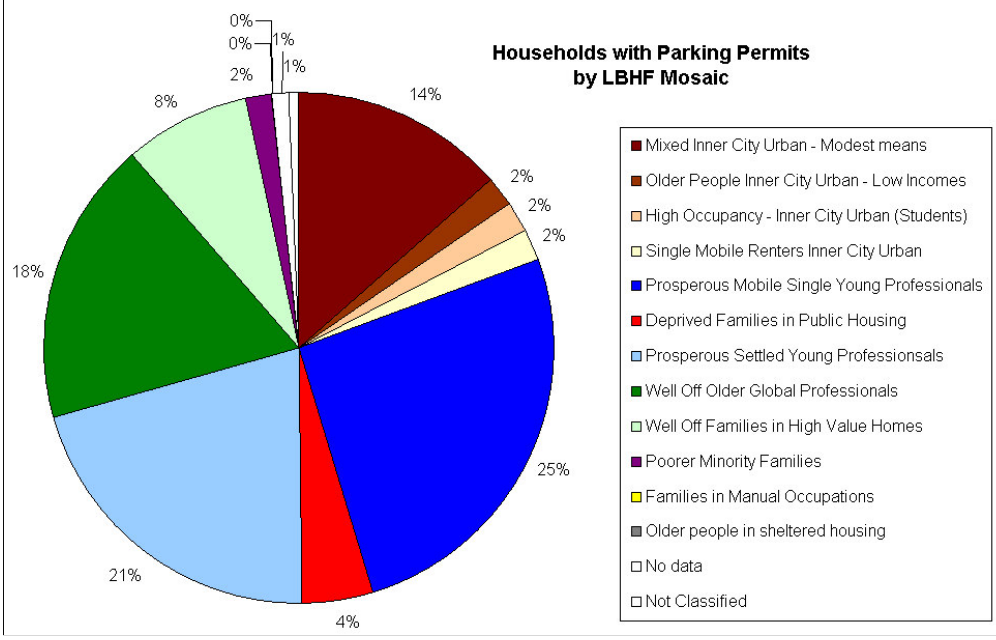
Housing and Council Tax Benefits

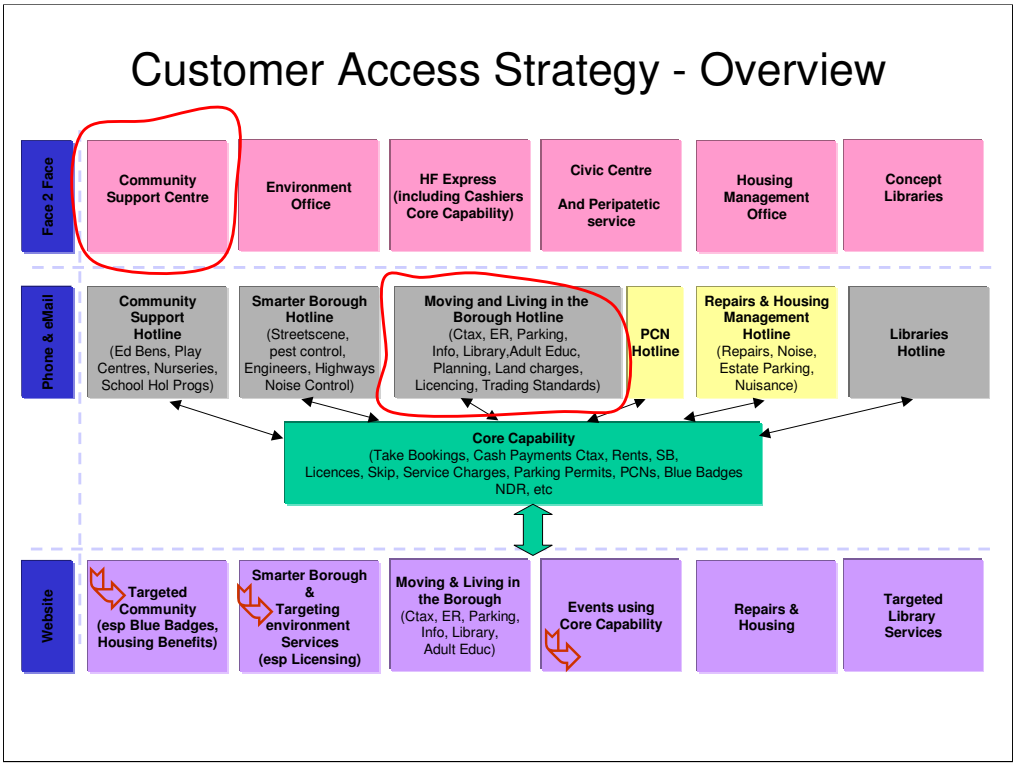


Schools & Education



Parking Permits





The hypotheses aimed to develop a join up of services that made sense from the customers' perspective. Two project colleagues have worked extensively on understanding service provision and they have described several business units which offer clustered services together.

One of these business units would be Community Support Centres that offer Adult Social Services, Children's Social Services and Housing & Council Tax Benefits.

The second main business unit would be HF Express (which I refer to as Living in the Borough).

The other business units would be

- Environment/ Planning Office
- Civic Centre (including Registrars)
- Housing Area Offices

Service Clusters - Community Support

There is a high correlation of service use by the borough's households of the core Community Support services:

Adult Social Services, Children's Social Services, Housing Benefit and Council Tax Benefit and Free School Meals

Our hypothesis is that from the Customers perspective it would make sense to provide a common face to face access point to all these services.

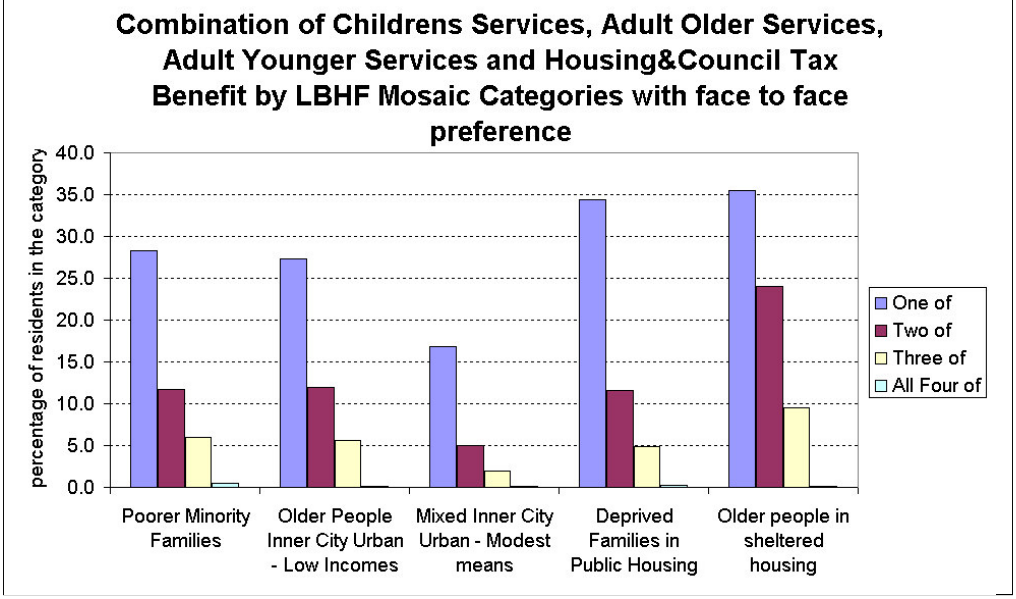
Our Analysis also highlights that the highest concentrations of clustering of these services take place around housing estates and sheltered housing for the elderly: Deprived Families | Minority Families | Older People Sheltered Housing

However, there is significant clustered demand of services for the non highly tenanted segments: Mixed Inner City Urban | Older People Inner City Urban - Low Incomes

This has important implications for F2F delivery point locations

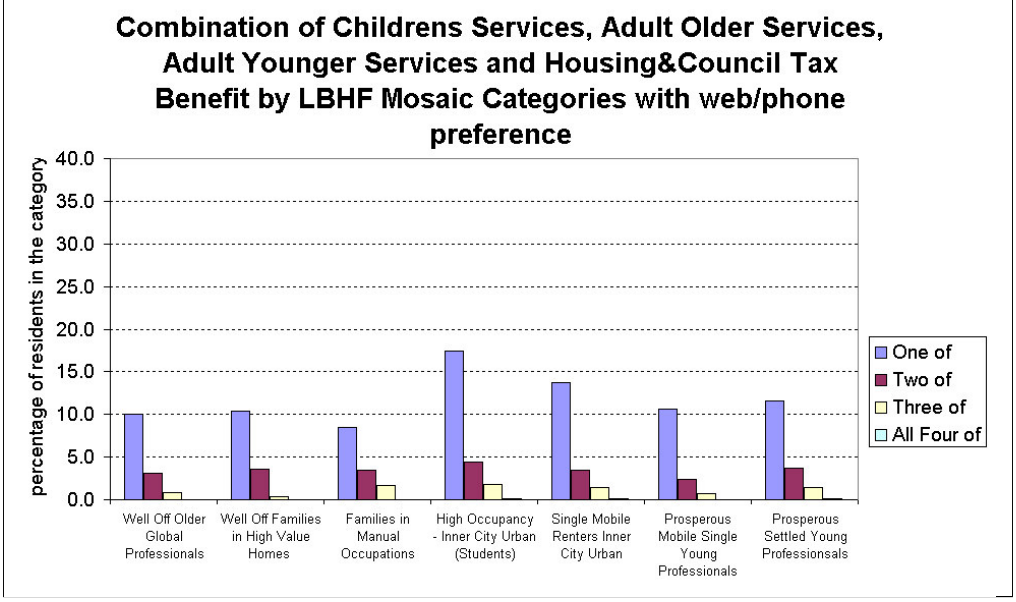
The ideal locations that I mapped for this project came directly out of the analysis of services that could be offered from Community support centres

Service Combinations - Community Support



There is a correlation between high use of Community Support Services and LBHF MOSAIC categories with a face to face preference.

Service Combinations - Community Support

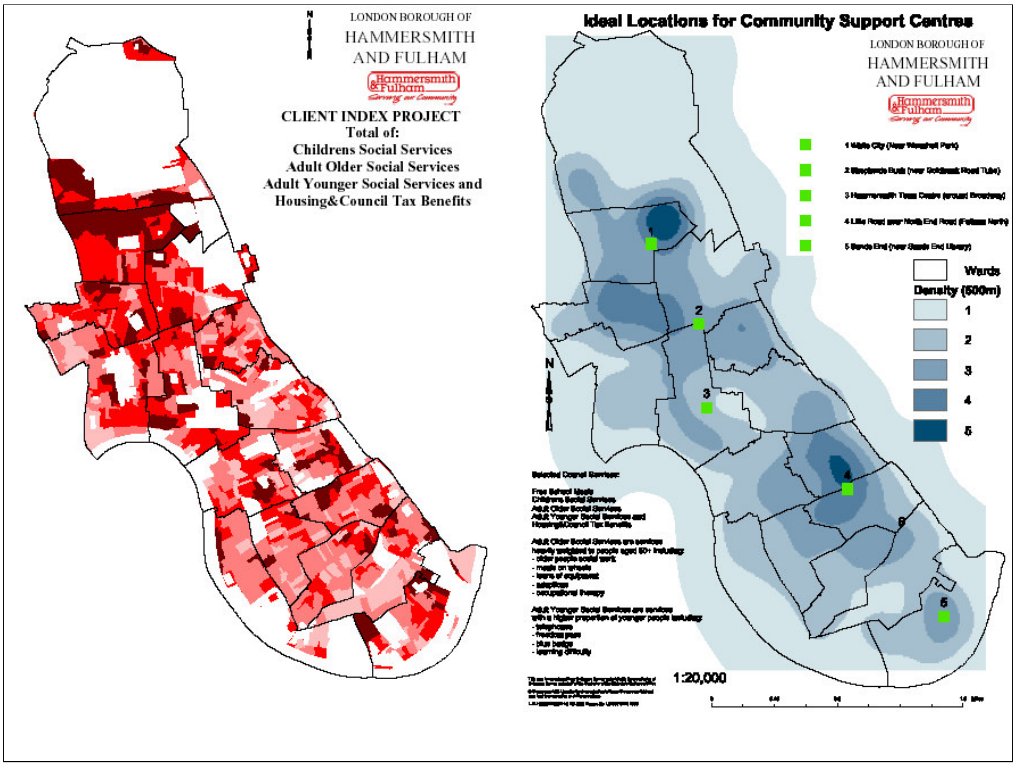


Service use is lower amongst LBHF MOSAIC categories with a web or phone preference.

Use of Council Services by MOSAIC

Segmentation	% Pop	Social Services - Adult	Housing Tenants	Housing and Council Tax Benefits	Social Services - Children's
Well Off Older Global Professionals	12	Low	Very Low	Very Low	Very Low
Well Off Families in High Value Homes	5	Low - Blue Badge Users	Very Low	Very Low	Low
Prosperous Mobile Single Young Professionals	21	Very Low	Very Low	Very Low	Very Low
Prosperous Settled Young Professionsals	14	Some Usage - Blue Badge	Very Low	Very Low	Very Low
Families in Manual Occupations	1	Moderate	Very Low	Low	High
Mixed Inner City Urban - Modest means	15	Moderate	Moderate /Low	Moderate	Moderate
Poorer Minority Families	5	High	Moderate /Low	High	High
Older People Inner City Urban - Low Incomes	5	High	High	High	Moderate
High Occupancy - Inner City Urban (Students)	3	High	High	Moderate	High
Single Mobile Renters Inner City Urban	1	High	Moderate	High	Very High
Deprived Families in Public Housing	17	High	Very High	Very High	High
Older people in sheltered housing	1	Very High	High	Very High	Low

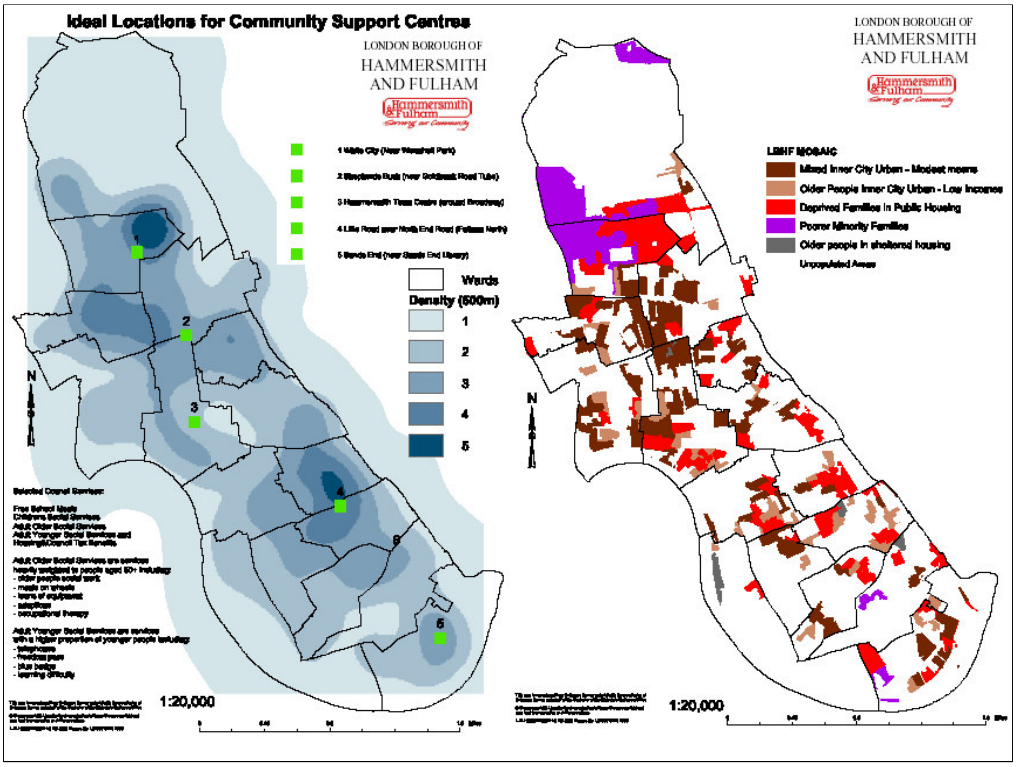
This table is another way of displaying that correlation the LBHF MOSAIC categories are on the left hand side.



The map on the left my first attempt at showing the combined distribution of Adult Social Services, Children's Services and Housing and Council Tax Benefits.

The map on the right was created used Spatial Analyst in ArcGIS and shows a clearer pattern that makes it easier to suggest where ideal locations to meet this demand might be based.

The map shows 5 locations.



These two maps side by side show the correlation between the face to face LBHF MOSAIC categories and the areas with a high density of Community Support Service use.

Survey Questions

- If you had to visit one of the council offices, how convenient would you find each of the following locations?
  - 1. Hammersmith Town Centre
  - 2. Hammersmith Town Hall
  - 3. Fulham Town Centre
  - 4. Around Shepherds Bush
  - 5. Around Sands End
  - 6. Lillie Road near North End Road
  - 7. Around White City
  - 8. Your local post office

In the survey of 1200 respondents that we recently commissioned and have just received the results back from we asked which locations would be most convenient. We can use this to test the hypothesis.

…Survey Questions

- Which of these would be the most important factor affecting your choice of location?
  - 01. Near where I live
  - 02. Close to where I do my shopping or other activities
  - 03. Convenient to where I work
  - 04. Conveniently near a main tube or bus destination
  - 05. Easy car parking
  - 06. Other (Please specify)

I realise that the hypothesis bases the ideal locations around densities of council residents home addresses and this question in the survey is included to discover if the residents find it more convenient to access council services at a reception point whilst on another journey to the shops perhaps.

Service Clusters - HF Express

There is a high correlation of service use by the borough's households of the core HF Express services:

Council Tax changes, Blue Badge, Freedom Pass and Parking Permits

Our hypothesis is that from the Customers perspective it would make sense to provide a one (or two) receptions points and a common web or phone access point to all these services.
Our Analysis also highlights that the highest concentrations of clustering of these services take place in areas and neighbourhoods categorised as:

Well Off Older Global Professionals | Well Off Families in High Value Homes | Prosperous Mobile Single Young Professionals | Prosperous Settled Young Professionals

However, there is also a significant cluster of demand for these services in the following segments:

Single Mobile Renters Inner City Urban | High Occupancy - Inner City Urban (Students) | Families in Manual Occupations

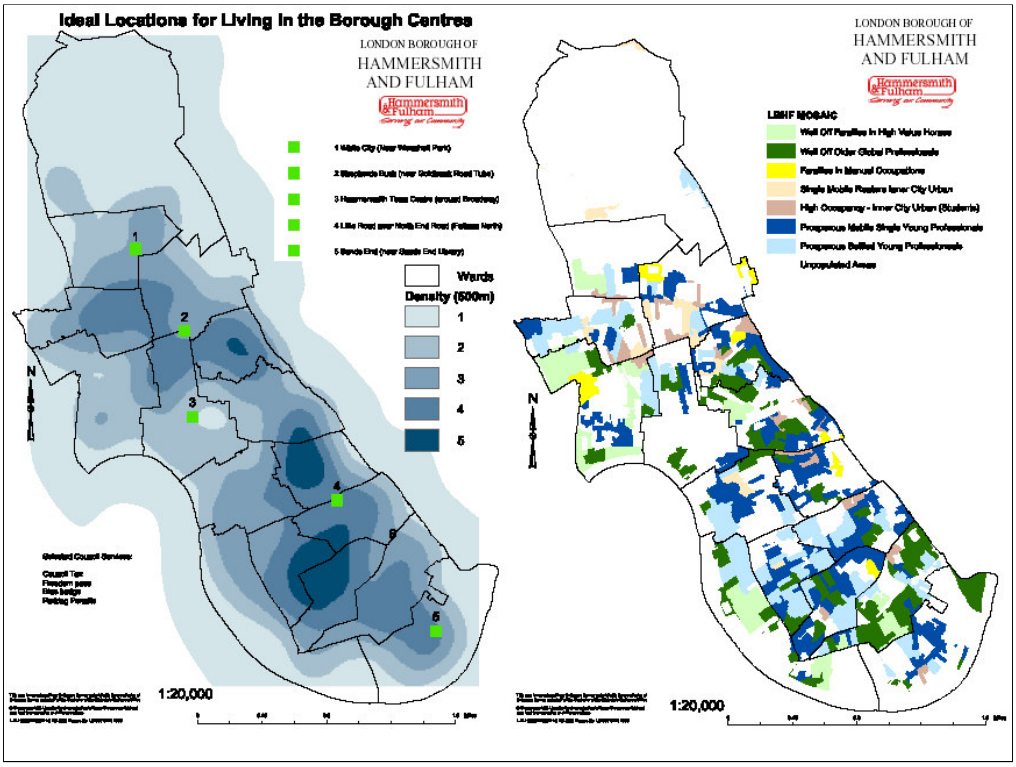
This has important implications for Web or Phone delivery of services.

The second main business unit is HF Express and the idea that Council Tax, Cashiers and Making Payments, Blue Badges and Freedom Passes and Parking Permits can be offered from one (or possibly two) reception points with a large emphasis also on the provision by web and phone. There is not data available on the locations of residents making payments so this cannot be included in the hypothesis analysis. Data will be available from the survey of 1200 respondent however.

Use of Council Services by MOSAIC

Segmentation	% Pop	Parking Permits	Smarter Borough/ Street Scene Hotlines	Council Tax
Well Off Older Global Professionals	12	High	Moderate	High
Well Off Families in High Value Homes	5	High	Moderate	High
Prosperous Mobile Single Young Professionals	21	High	High	High
Prosperous Settled Young Professionsals	14	High	High	High
Families in Manual Occupations	1	High	Moderate	High
Mixed Inner City Urban - Modest means	15	Moderate	Moderate	Moderate
Poorer Minority Families	5	Low	Moderate	Moderate
Older People Inner City Urban - Low Incomes	5	Low	Low	Moderate
High Occupancy - Inner City Urban (Students)	3	Low	Low	Moderate
Single Mobile Renters Inner City Urban	1	Low	Low	Low
Deprived Families in Public Housing	17	Low	Low	Low
Older people in sheltered housing	1	Low	Low	Low

This table shows that Parking Permits, Smarter Borough and Council Tax (changes) have proportionately higher use by residents categorised as LBHF MOSAIC categories with web or phone channel preference.



The map on the left was also created using Spatial Analyst in ArcGIS and shows a significantly different pattern of service use. The green squares are the ideal locations for Community Support centres, which show there are better locations to meet these service needs.

These two maps side by side show the correlation between the web or phone LBHF MOSAIC categories and the areas with a high density of HF Express or Living in the Borough service use.

Part 4 - Communications Strategy

- Using MOSAIC to deliver a more personalised service by advertising or promoting services that are applicable to particular groups/ segments.
- 1) Identifying people in the borough that may be interested in certain types of council activity. E.g. targeting the categories that have preference for internet use when we are advertising internet type things- i.e. local alerts.
- 2) Using MOSAIC with client index to see where we would expect certain services to be consumed but are not. i.e. with benefits. With this data you could then advertise the service to these postcodes.

I included using Geodemographics in the Council's Communications strategy in my summary of what I was going to talk about today as I thought that there might have been developments but whilst I've been to an initial meeting about local alerts there's been no action as yet. I have guided a colleague in the Benefits team to use the IMD2004 in a promotion campaign but I haven't as yet been able to promote the use of either Bespoke MOSAIC.

Part 5 - Future Work

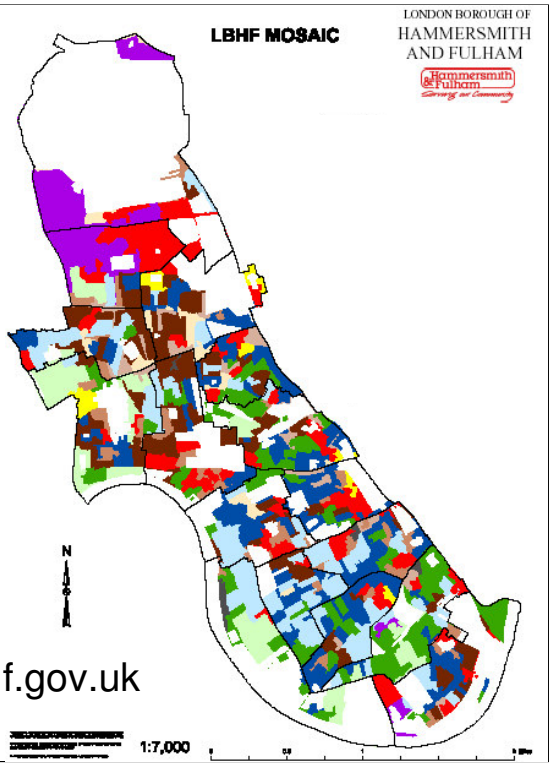
- Hypothesis
  - creating Bespoke Geodemographic Classification
  - analysing Services data by MOSAIC and location
- Testing - analysing survey results
- Pragmatic - making the model into reality
- *Then find another interesting project...*

Future work is to analyse the survey to test the hypothesis.

Any Questions?

Martin Robson
Research Officer
Planning Division
Environment Dept
London Borough
of Hammersmith
and Fulham

Tel: 0208 753 3395
Email: martin.robson@lbhf.gov.uk



There is not any time for any questions but do speak to me today or contact me by phone or email.

Enjoy your lunch