

Borough Data Partnership

Meeting #6

London Fire Brigade

13 December 2016

GREATERLONDONAUTHORITY



Agenda

9.00 **Tea/coffee**

9.30 **Welcome & Introduction**

Andrew Collinge, Assistant Director of GLA Intelligence Unit

Using data analytics to find those most at risk from fire

Andrew Mobbs, London Fire Brigade

London Office of Data Analytics Pilot

Andrew Collinge, GLA & Hilary Simpson, Nesta

London's Charity Sector Data: a hidden gold mine?

Emma Prest, DataKind & Vivienne Avery, GLA

10.40 **break**

Agenda

11.10 Tea/coffee

New Labour Market Indicators:

Joel Marsden, GLA Economics

LB of Islington:: Health Mapping

Ellis Turner, Environmental Health Manager

LB of Waltham Forest: Data to Intelligence

Jean Mallo, Intelligence analyst and visualisation specialist

12.15 close

London Borough Data Partnership Meeting

13th December 2016

Andrew Mobbs – London Fire Brigade
**Using data to find those most at risk from
fire**



LONDON FIRE BRIGADE



Dying for data

LB Data Partnership, December 2016

LFB in numbers, 2016/17

102 fire stations + 1 river fire station

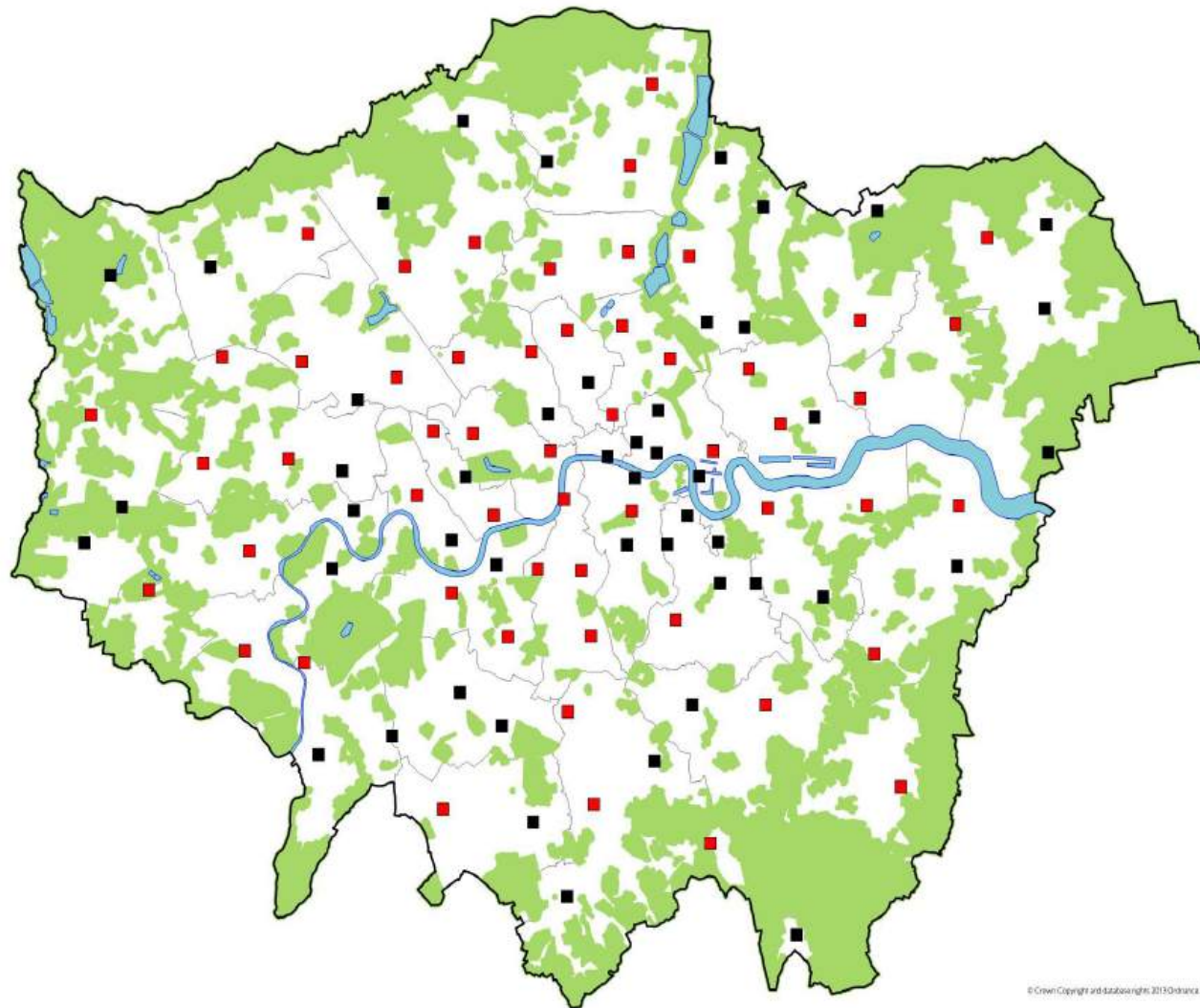
142 fire engines/pumps

70 specialist vehicles (e.g. aerials)

5,000 operational / 800 back office staff

99,000 emergency incidents attended

LFB fire stations

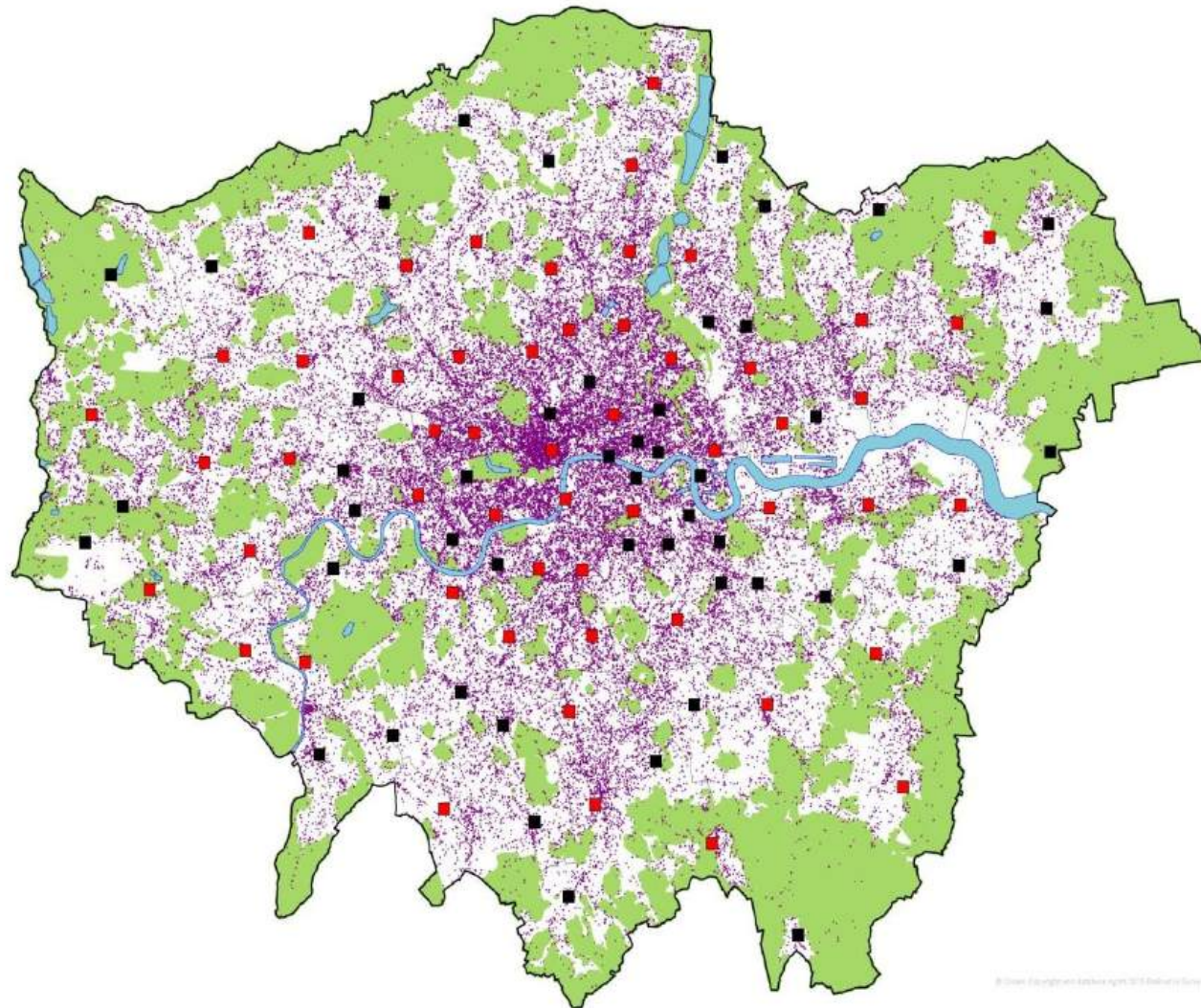


■ Two
pump
station

■ One
pump
station

© Crown Copyright and database right 2013 Ordnance Survey 100048171

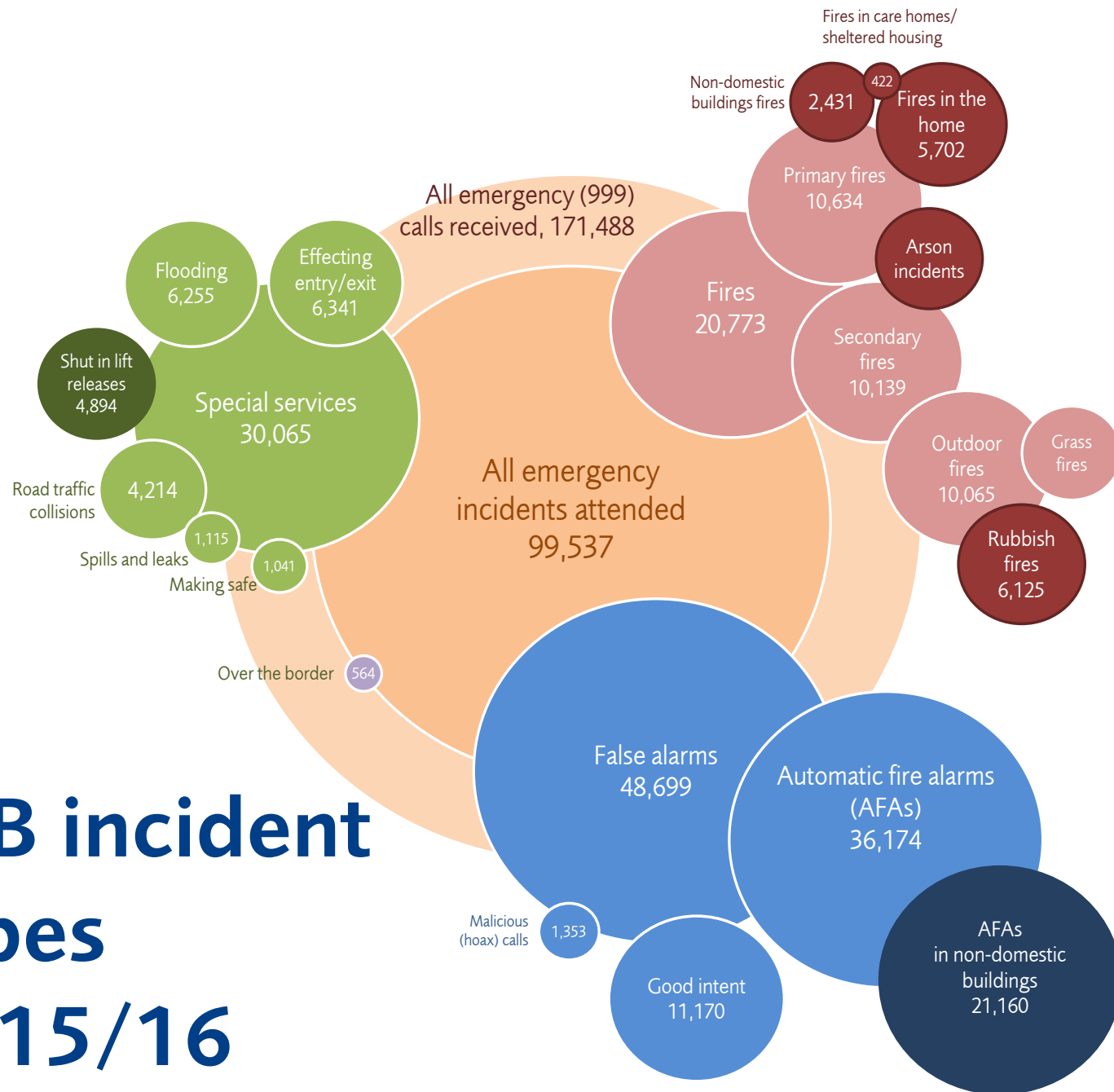
LFB incidents 2015/16



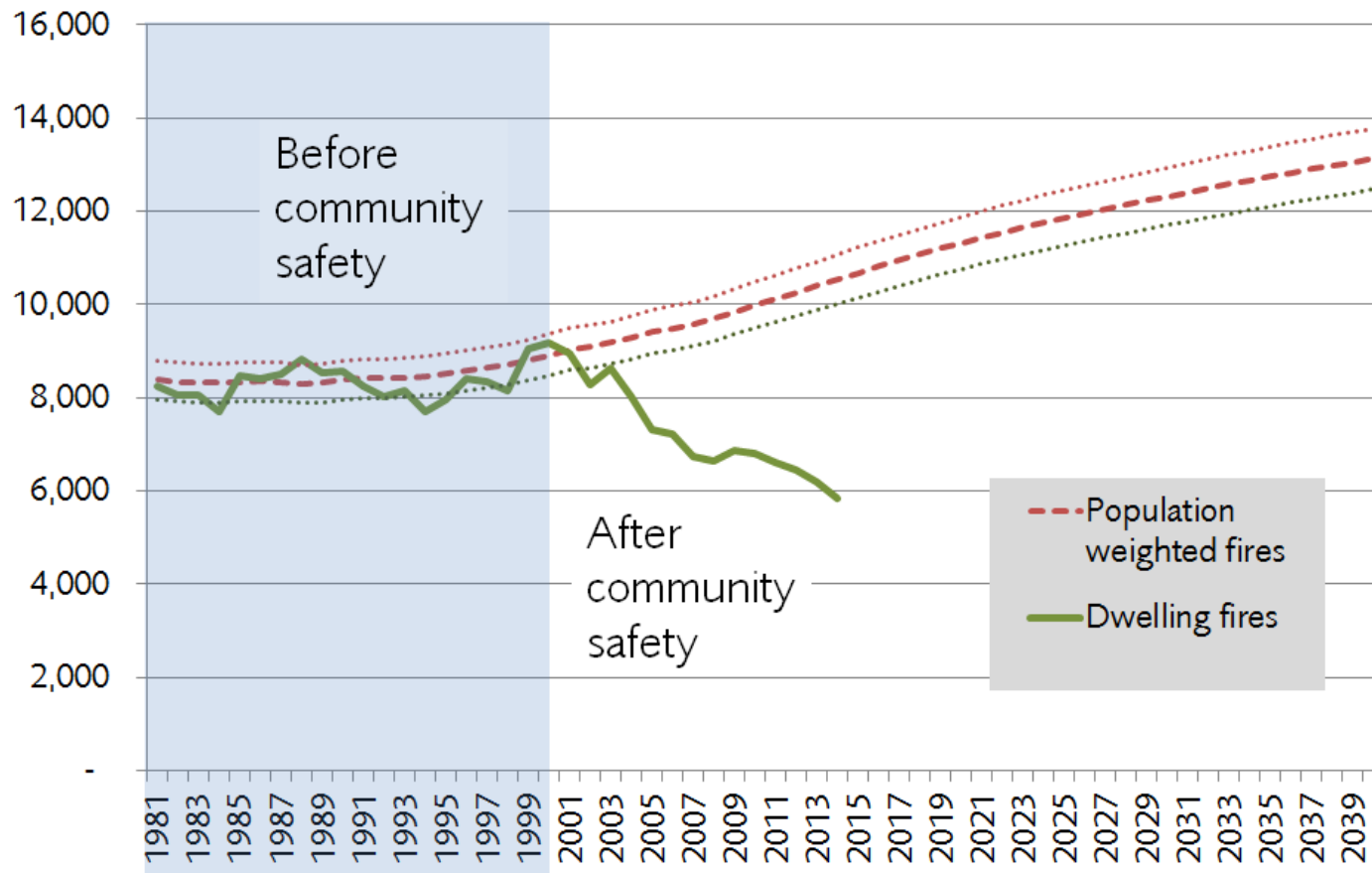
■ Two
pump
station

■ One
pump
station

LFB incident types 2015/16

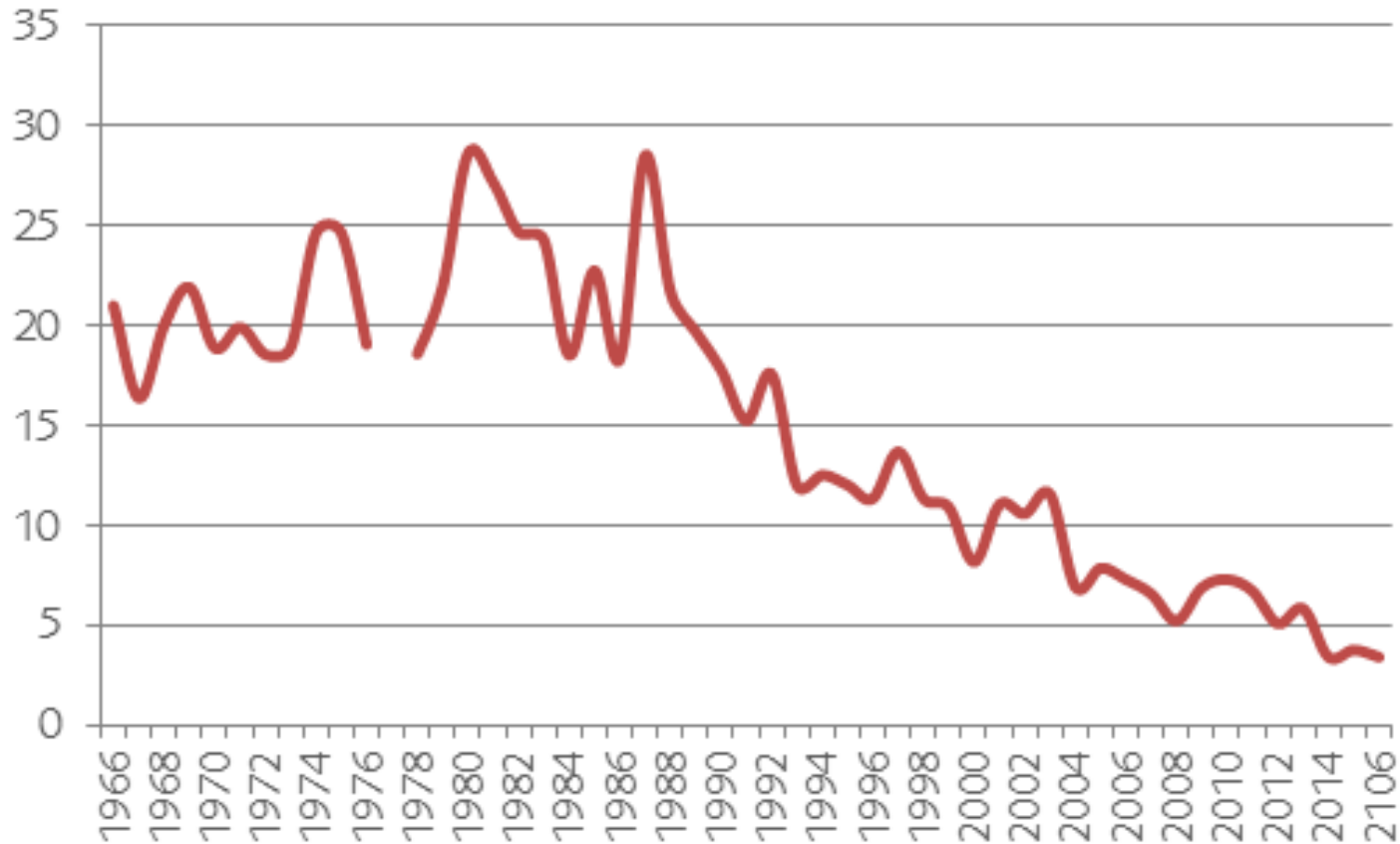


Preventing fires in the home



Rate of fire death

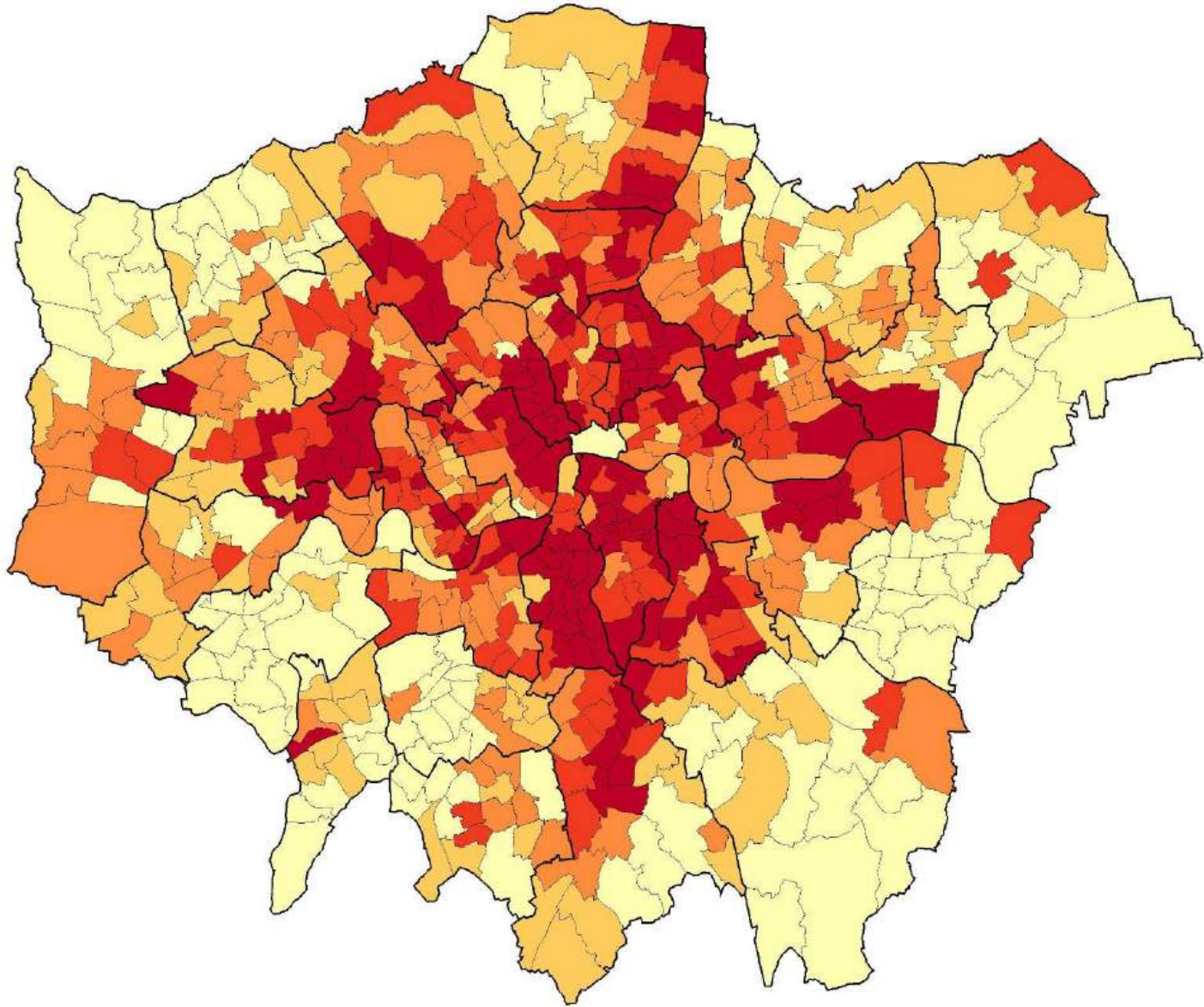
per million resident population



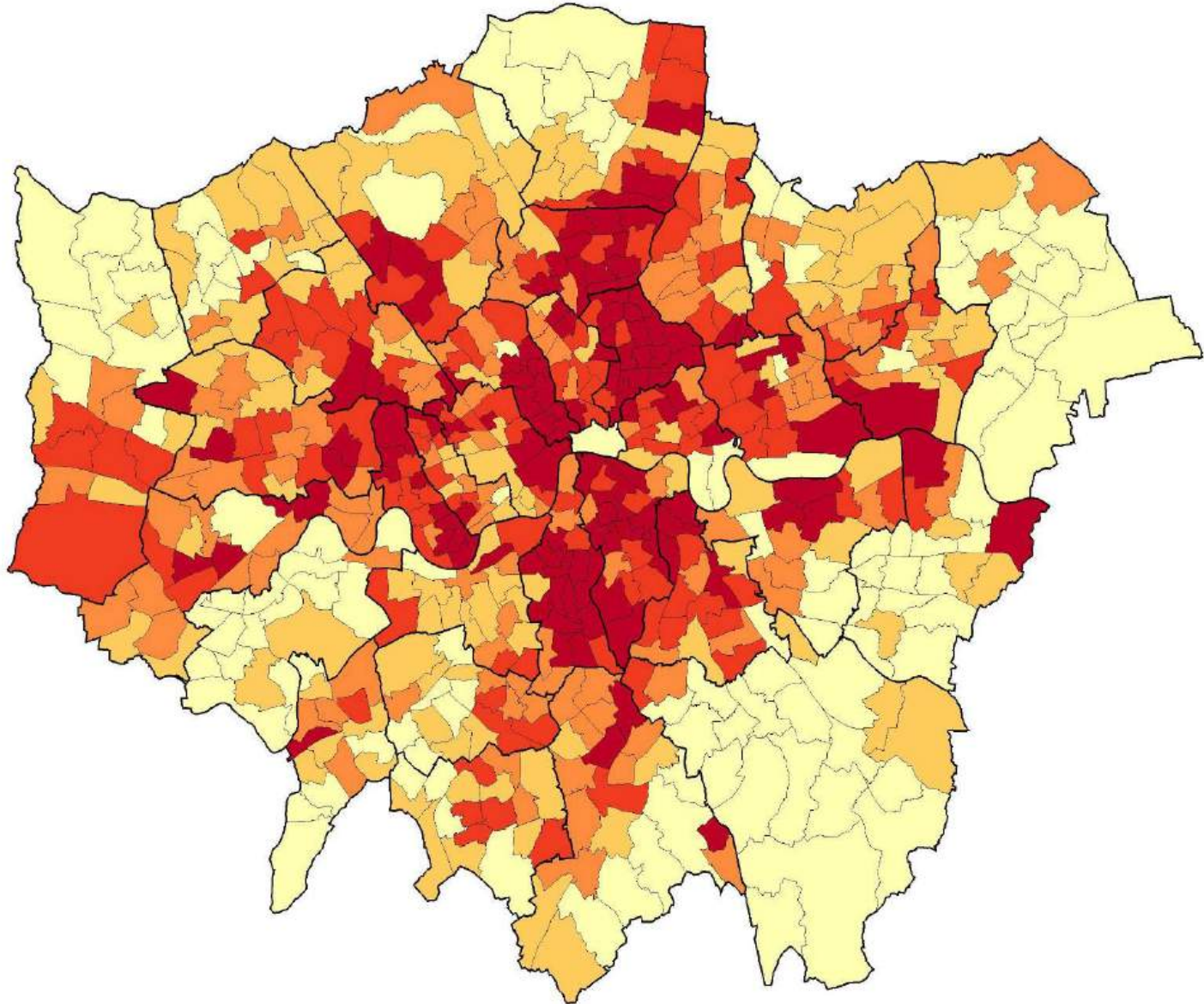
Our goals for identifying risk

- Find a consistent method across London
- Recognise local areas of risk
- Need to be forward looking (ie not just where fires have happened before)
- Make it easier for referral generation
"tell us where to go"

Target by number of fires...



... or by rate (per hh)?



... or what we know about London

- National Statistics 2001 Census
 - Demographics, dwelling types, health, transport
- Ordnance Survey
 - Geographic area, road types and length
- Indices of multiple deprivation
 - Income, employment, health, education, housing, crime, living environment
- Regulatory fire safety site inspections
- Home fire safety visits



IRIS



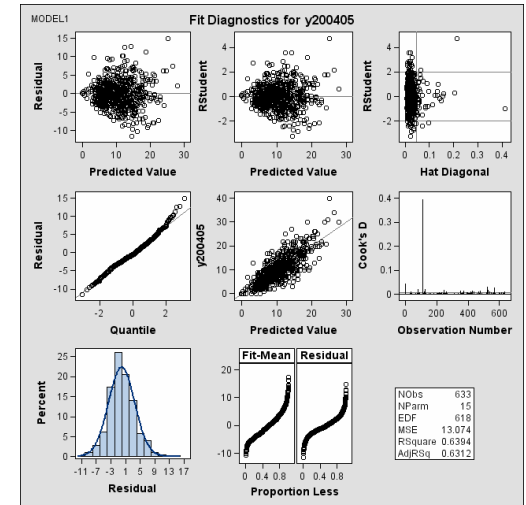
Using a statistical regression model

Over 50 factors modelled for 633 geographies



Multivariate Regression

Finds the best combination of factors to explain the Incident Counts of London Wards

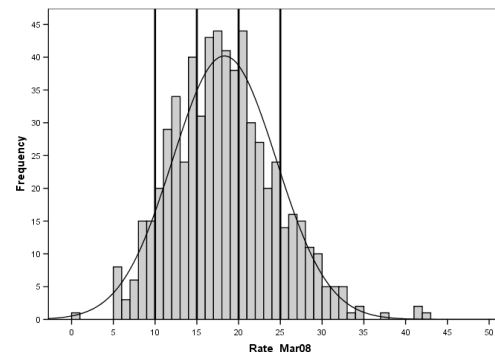
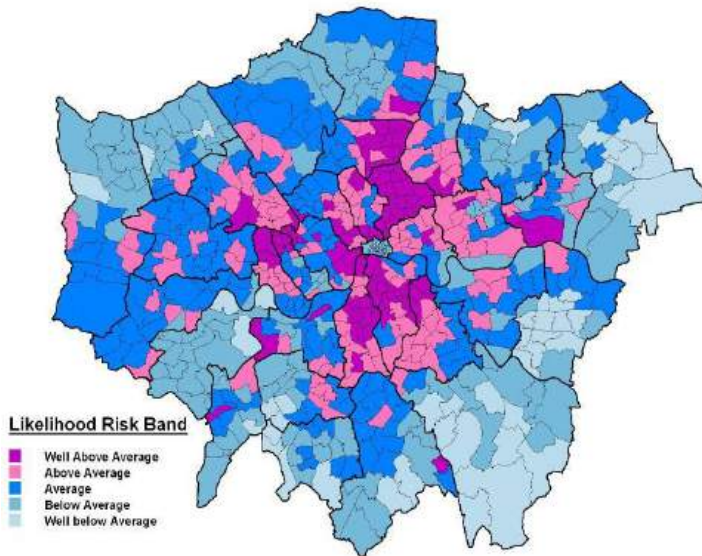


Incident Counts Forecasted

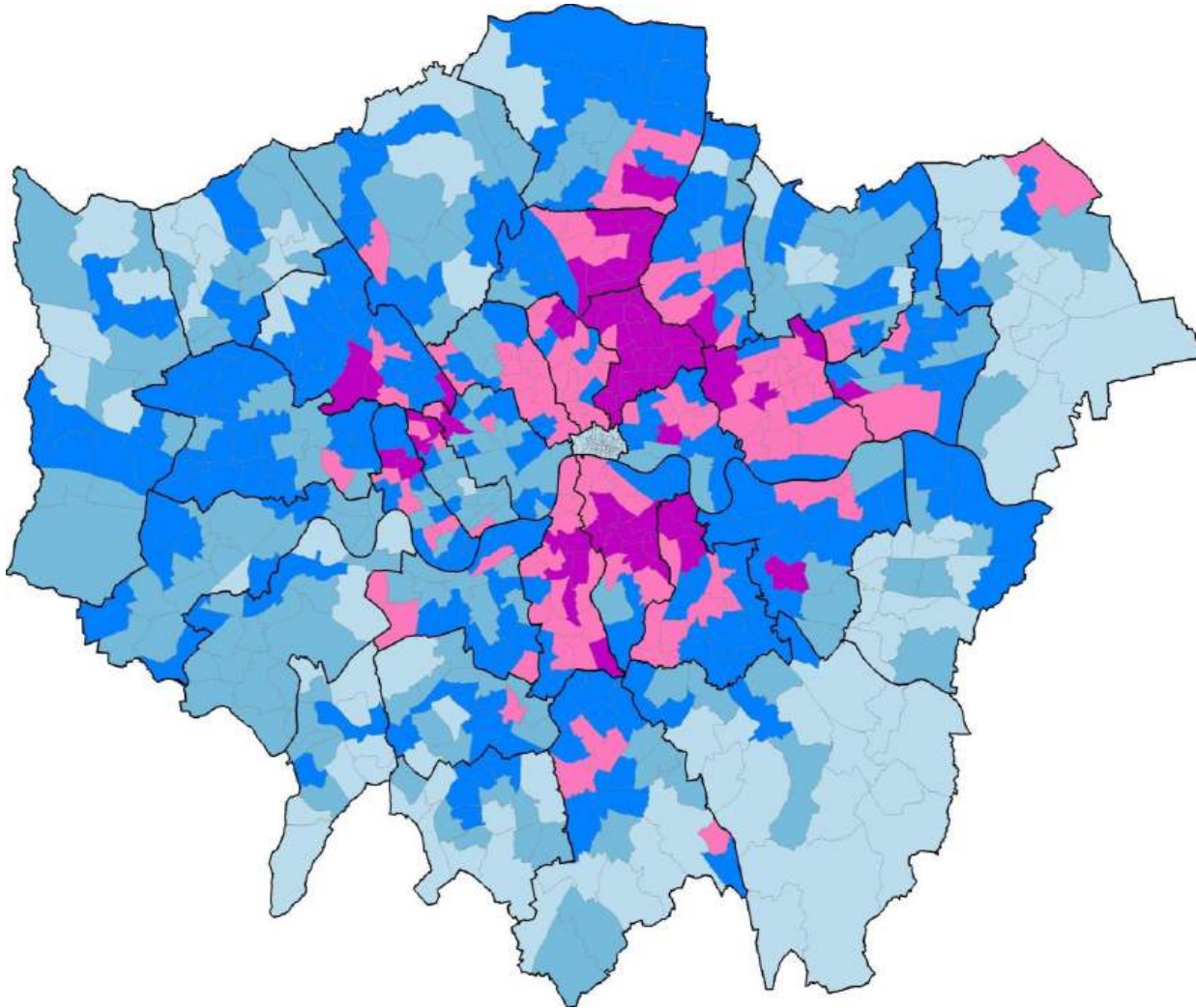
$$\text{Likelihood} = \frac{\text{No of Incidents}}{\text{No of hh's}}$$

Outputs

Map



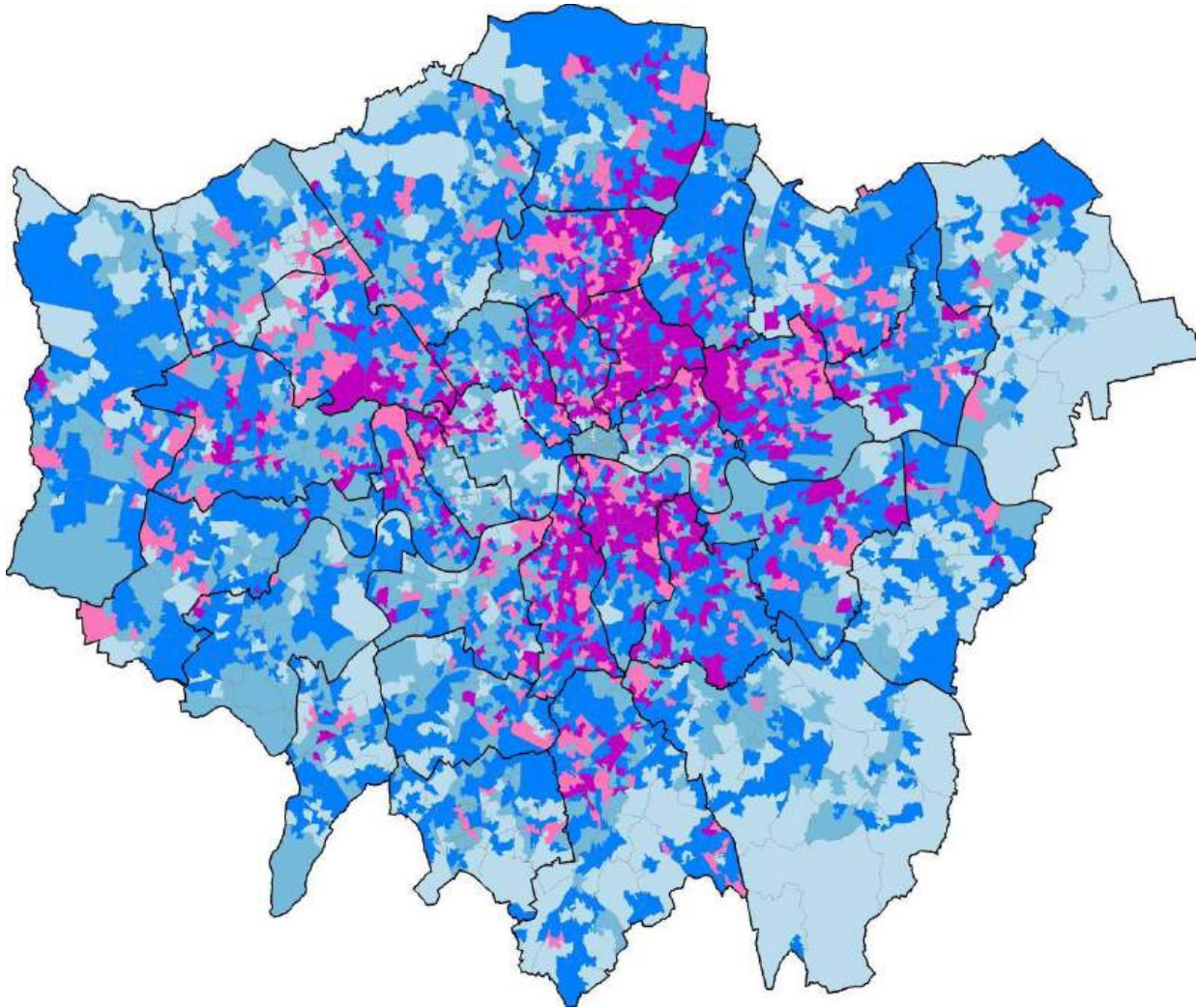
Ward level model (649 wards)



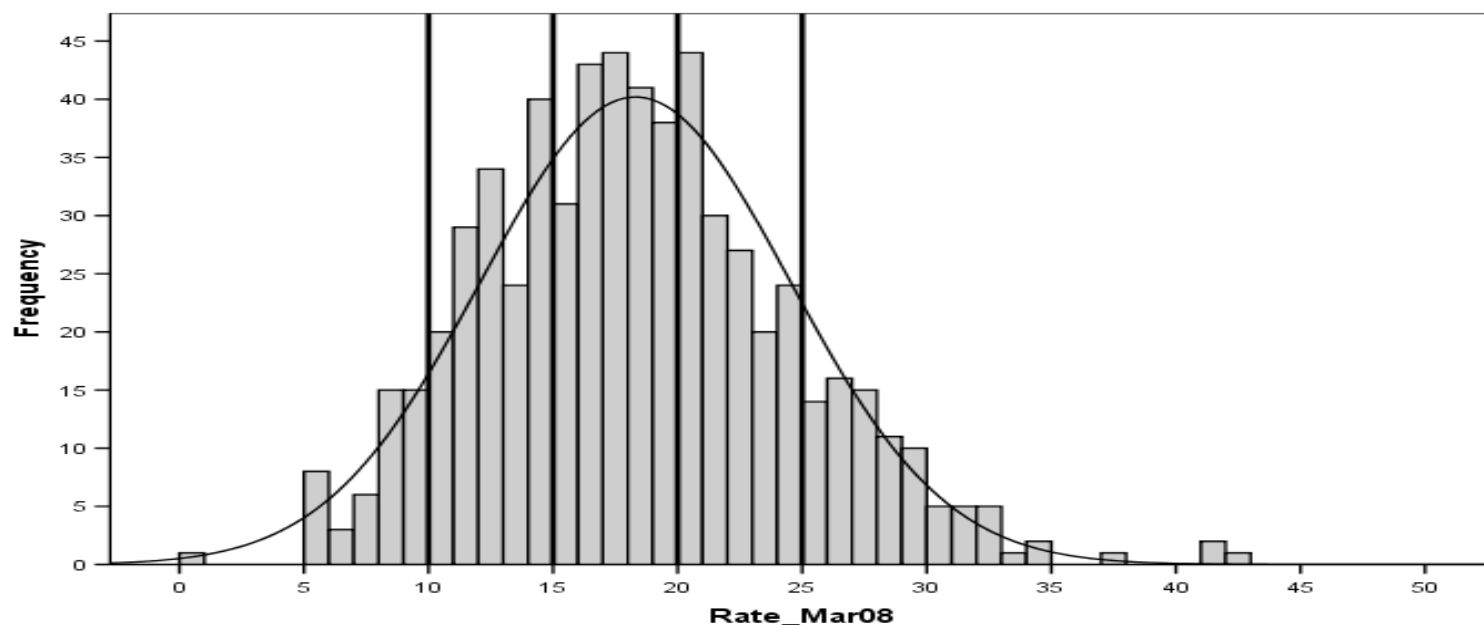
LSOA Level model (4,744 Isoa's)



LSOA Level model (4,744 Isoa's)



Predicted fire rates



	Fires per 10,000 HH	1 fire per X HH (approx)
Well above average	25 <	~ < 300
Above average	20 < and ≤ 25	~ 400
Average	15 < and ≤ 20	~ 500
Below average	10 < and ≤ 15	~ 666
Well below average	≤ 10	~ 1000 <

But fires are started by people



Lifestyle profiling

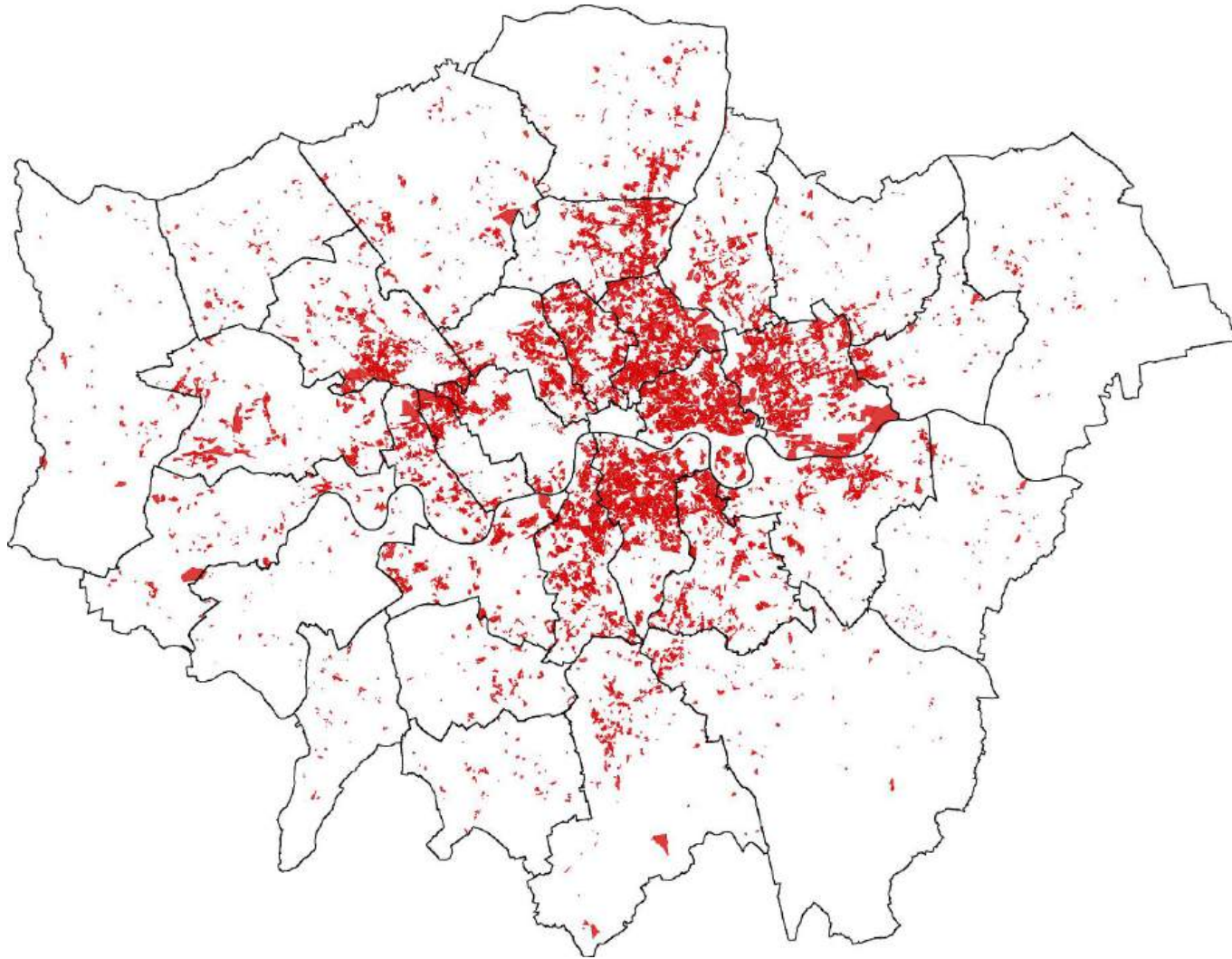


Mosaic | Public Sector

Mosaic 2011 - Groups

Group	Description	# of Homes	% of Homes	% of Fires (3y)	% of casualties (3y)
A	Residents of isolated rural communities	1,170	0%	0%	0%
B	Residents of small and mid-sized towns with strong local roots	72,131	2%	1%	1%
C	Wealthy people living in the most sought after neighbourhoods	228,145	7%	5%	4%
D	Successful professionals living in suburban or semi-rural homes	34,800	1%	0%	0%
E	Middle income families living in moderate suburban semis	382,946	12%	8%	9%
F	Couples with young children in comfortable modern housing	28,094	1%	0%	0%
G	Young, well-educated city dwellers	1,020,303	31%	25%	24%
H	Couples and young singles in small modern starter homes	188,927	6%	5%	6%
I	Lower income workers in urban terraces in often diverse areas	458,907	14%	15%	16%
J	Owner occupiers in older-style housing in ex-industrial areas	36,571	1%	1%	1%
K	Residents with sufficient incomes in right-to-buy social housing	60,041	2%	1%	1%
L	Active elderly people living in pleasant retirement locations	57,110	2%	1%	1%
M	Elderly people reliant on state support	61,520	2%	4%	3%
N	Young people renting flats in high density social housing	634,196	19%	31%	33%
O	Families in low-rise social housing with high levels of benefit need	36,688	1%	1%	1%
London		3,301,549	100%	100%	100%

Priority postcodes (P1)



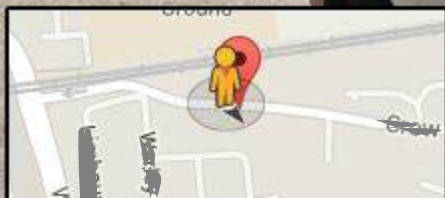
... but still dying for data



← 325 Crow Ln

Romford, England

📍 ⋮
🔄 Street View - Jul 2014



Google



325 Crow Ln
Romford, England



Street View - Jul 2014

Aspiring homemakers



Experian[™]
Mosaic

Google

325 Crow Ln
Romford, England



Street View - Jul 2014

Senior Security

Experian™
Mosaic

Google

“I assisted the frail lady to her door and when we went in I was shocked at what I saw. She said that nobody had been inside her house for years as she didn’t want to show anyone the mess. Please see the attached pictures. I don’t think they do this justice of how bad it actually is!”

“...they do not cook so I have no idea what they eat.

He sits, on a pillow, on top of a shredding machine, for 24 hours a day. There is no access into any other rooms.

I have never seen anything like this in 19 years of service.

The couple receive no help whatsoever and Mrs [Westcott] is struggling to cope..”

Who is dying for data?

This is an older person aged over 65 who lives alone. Where they live, or the type of property, doesn't matter, however their home will be unsafe from the risks of fire and without adequate fire detection. They will have reduced mobility and find it hard to walk unaided. As such, they will spend most of their time in one room of their home and often this can become a bed/sitting room. This person is a smoker, uses candles or has other naked flames in their home.

Other than a reduced mobility, this person also has other health issues or is at risk of neglect. They may have an impaired judgement or become forgetful or disorientated; either through a health issue, or as a result of their medication or from drinking. There may be signs of previous fire 'near misses'; this could be cigarette burn marks on clothing or furnishing, or scorch marks from cooking or using candles. This person either receives, or would benefit from, some care and support (from a local authority, relative or friend, or other care provider).

Somebody will know this person

This person has data

This person has data

- Older person
- Lives alone
- Mobility issues
- Other health issues
- Smoker / candles / cooking
- Previous near miss
- Receives or is in need of care

Finding people in data

- Older person
 - Exeter data | National Insurance | HMRC | +++
- Lives alone
 - Council tax | Electoral register | +++
- Mobility issues
 - Assisted bin collection | Meals on wheels | Disability allowance | +++
- Other health issues
 - NHS/GPs | +++
- Smoker / candles / cooking
- Previous near miss
- Receives or is in need of care

Finding people in data (2)

- Smoker / candles / cooking
 - ????
- Previous near miss
 - ????
- Receives or is in need of care
 - Carers data ????

Care Act 2014

The Care Act introduced a general duty on local authorities to promote an individual's 'wellbeing'.

"...requires that each local authority must: make enquiries, or cause others to do so, if it believes an adult is experiencing, or is at risk of, abuse or neglect. An enquiry should establish whether any action needs to be taken to prevent or stop abuse or neglect and if so, by who."

Care Act 2014 (2)

[Neglect] "... covers a wide range of behaviour neglecting to care for one's personal hygiene, health **or surroundings** and includes behaviour such as hoarding."

Within the local authority, prevention of care and support needs is closely aligned to other local authority responsibilities... Across the local landscape, the role of other bodies including ... the police, fire service, ... and others will also be important in developing a comprehensive approach.

Who is dying for data?

Do you have the data that, on its own or if combined, identifies someone who is at risk of fire death?

Do you have a duty to share that information with us?



Thank you



LONDON FIRE BRIGADE

ipadwallpaper.org

London Borough Data Partnership Meeting

13th December 2016

Hilary Simpson – Nesta

London Office of Data Analytics Pilot

When and how to share personal data for public service reform -

Ethically, Legally, Responsibly

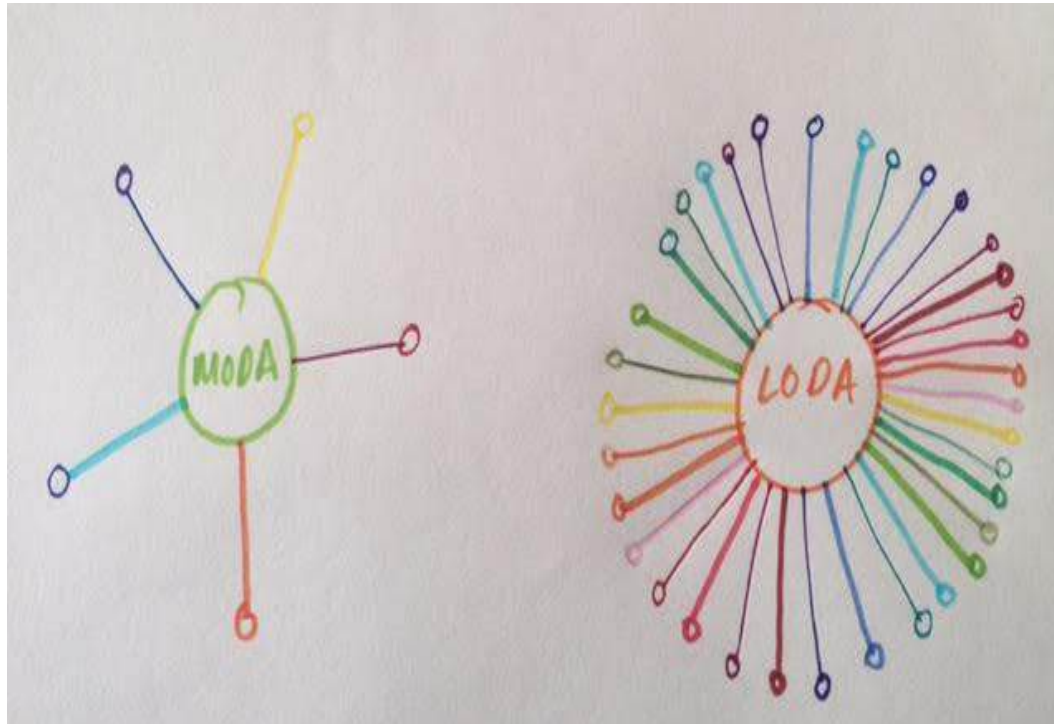
From MODA to LODA

Mayors Office for Data Analytics (New York)

London Office for Data Analytics

To provide the best quality, fastest, most joined up, safest services for the public, at the lowest cost to the public purse.

5



32

Building Confidence

Sometimes this may involve personal data

Check here for Definitions [Personal and Sensitive Data Definitions](#)

Must be Legal, Ethical, in the Public Interest

Start to make information sharing decisions routine

Risks of sharing versus not sharing

Minimise

If you can achieve the desired outcome by using non-personal or anonymised data then do so.

If you are not sure if it is personal data, check the definitions provided by the Information Commissioner's Office here: <https://ico.org.uk/for-organisations/guide-to-data-protection/key-definitions/>

Roles

It's the job of a **data controller** to make the judgement about sharing: balancing privacy risks against real world risks to citizens.

It's the job of **lawyers** to advise but not to make the decision.

It's the job of **leaders** be brave and support a change of culture around decision making and proportionate information sharing.

Risk Assessments and Legal Gateways

Sound, ethical, balanced, proportionate judgement is what public servants in local government are good at

Consider your duty to the public and citizens first

Use a Privacy Impact Assessment, which enables you to look at the pros and cons of sharing information in a balanced way. The ICO provides the following: [Privacy Impact Assessment Guide](#)

Here is a great resource to check for [Legal Gateways](#) for sharing

Progress on Pilot

The ASI (our data science team) have **developed a first iteration of a predictive model** to identify unlicensed HMOs, based on data supplied by Westminster. This means we are now ready for input from all other pilot boroughs.

With input from five pilot boroughs, we have drafted an **Information Sharing Protocol** for the pilot that is now ready for review and sign-off. The protocol is also complemented by a **Privacy Impact Assessment**.

We are currently working with a first wave of boroughs (Bexley, Camden, Islington, and Lambeth) to supply housing and environmental health data to the ASI and improve the model.

Next Steps

- **We will be holding a meeting for all pilot boroughs on January 13**
- **Review and sign-off Information Sharing Protocol by January 31st to Nesta.**
- **The ASI is ready for data input from other boroughs..**
- **We are starting to design our testing and evaluation process.**

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hilary.simpson@nesta.org.uk

London Borough Data Partnership Meeting

13th December 2016

Vivienne Avery, GLA

**London' Charity Sector Data: a hidden
gold mine?**

London's Charity Sector Data: a hidden gold mine?

- 'The Way Ahead: Civil Society at the heart of London', April 2016
- 'To understand how civil society in the capital can best be supported in order to optimise its positive impact on Londoners'
- 2 recommendations relating to data
 - Share data on needs, policy developments and best practice
 - Strategic collation, analysis and provision of pan-London data



Data theme workshops

data

- data is valuable as key to understanding need, informing work, focusing effort
- will & technology exists, data probably exists but isn't centrally accessible
- need to look at how we use & share data, from data held by funders through to frontline organisations & groups
- need to harness other talents - e.g. universities
- need to be clear on what we want & why, ensuring we're not capturing meaningless data



superhighways

harnessing technology for community benefit

Role of GLA

- Making shared data available - London Datastore
- Links with Boroughs
- Increased priority for 'Community Engagement'
- Relevant Intelligence Unit analysis projects

GLA Project areas

1. **Children and Young People's needs**

- Draw on crime analysis on vulnerable localities
- Projections of children's needs in future
- Map alongside existing service provision

2. **Improving data on refugees and asylum seekers**

- Little data from existing sources
- Working to improve this – forthcoming Roundtable with key parties
- Refugee and asylum seeker organisations can provide a clearer picture
- Role of Boroughs?

3. **Pan-London health projections**

- Existing projections tend to be condition specific
- Doesn't support city planning
- Current work is fragmented – by geography, method, data sources
- Hoping to work jointly with Boroughs, interested Civil Society organisations, and academia to agree a pan-London approach

London Borough Data Partnership Meeting

13th December 2016

Emma Prest, DataKind

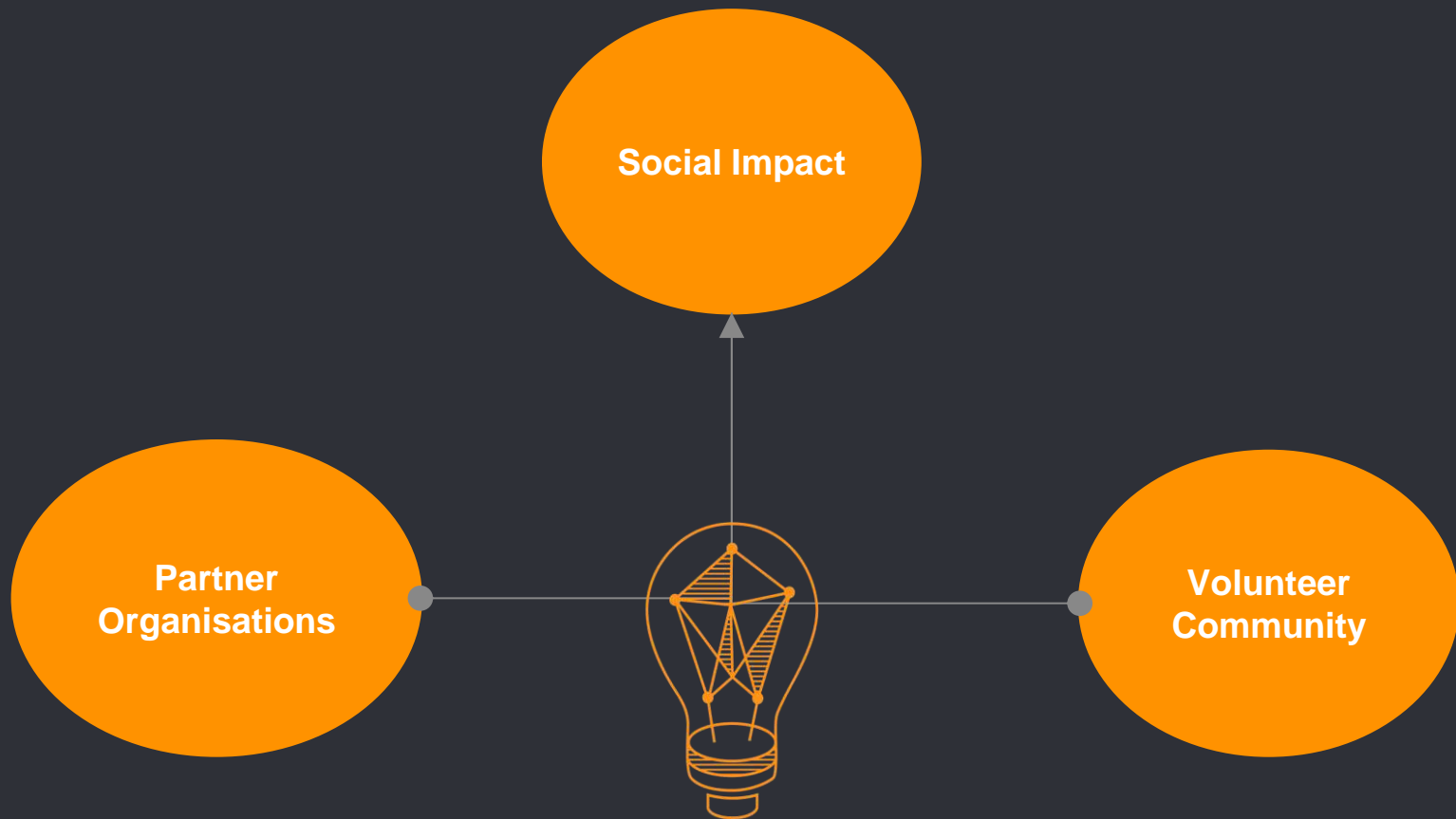
London's Charity Sector Data: a hidden gold mine?

London's Charity Sector Data: A Hidden Goldmine?

London Borough Data Partnership

Emma Prest
General Manager
DataKind UK





DataKindUK

DKUK

OUR EVENTS



Meet ups

community get-togethers to provide data advice to partners



DataDives & DataJams

weekend events working with partners to provide insights into social problems



DataCorps projects

six-month in depth projects embedded with a partners to develop data products



DataKind is a
global network



**WE ARE
MACMILLAN.**
CANCER SUPPORT



Prince's Trust

CAFÉDIRECT
Producers' Foundation



**Shooting
Star Chase**
Children's Hospice Care

NORTH EAST

**CHILD
POVERTY
COMMISSION**



**WOODLAND
TRUST**



**The
Access
Project**



Oxfam

**citizens
advice**



**the
trussell
trust**

Stop UK Hunger

Shelter



**THE
YOUNG
FOUNDATION**



for better mental health

St Mungo's
Ending homelessness
Rebuilding lives



**Islington
ageUK**



WeFarm

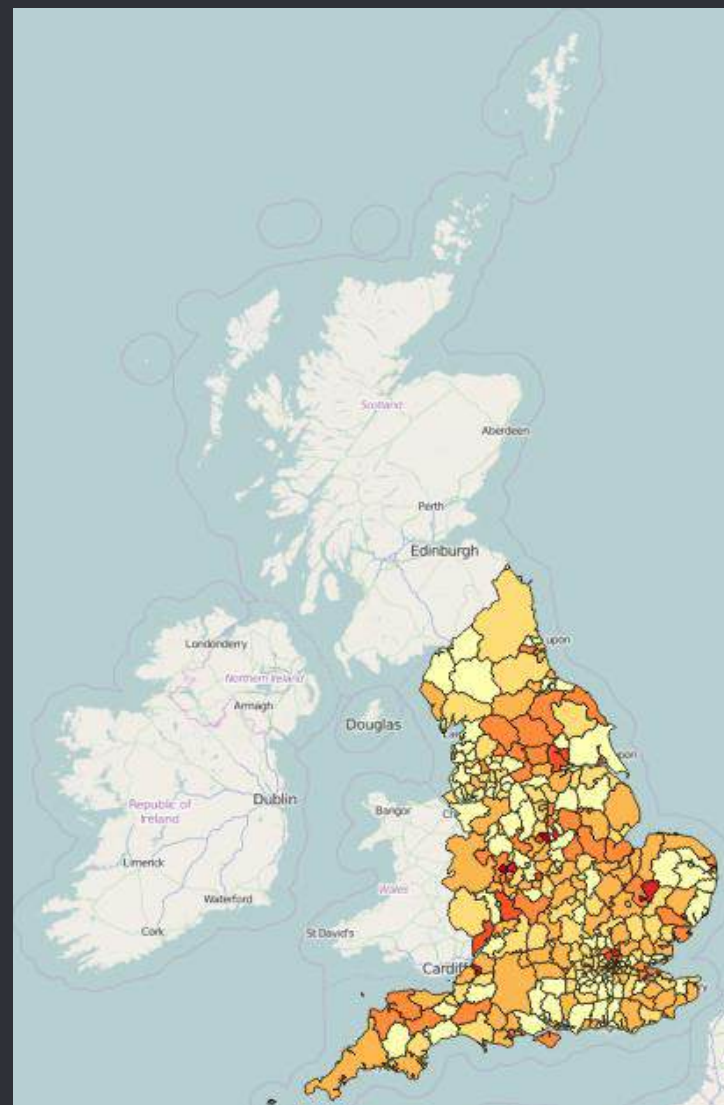
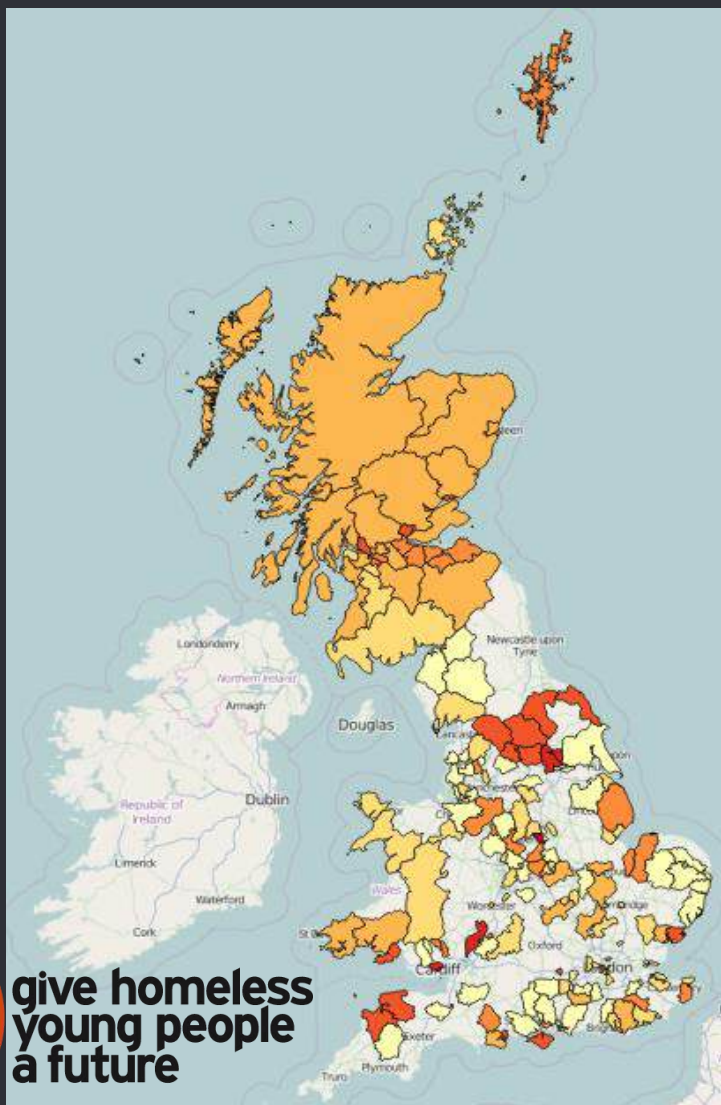


**CHAMPIONING
VOLUNTARY
ACTION**

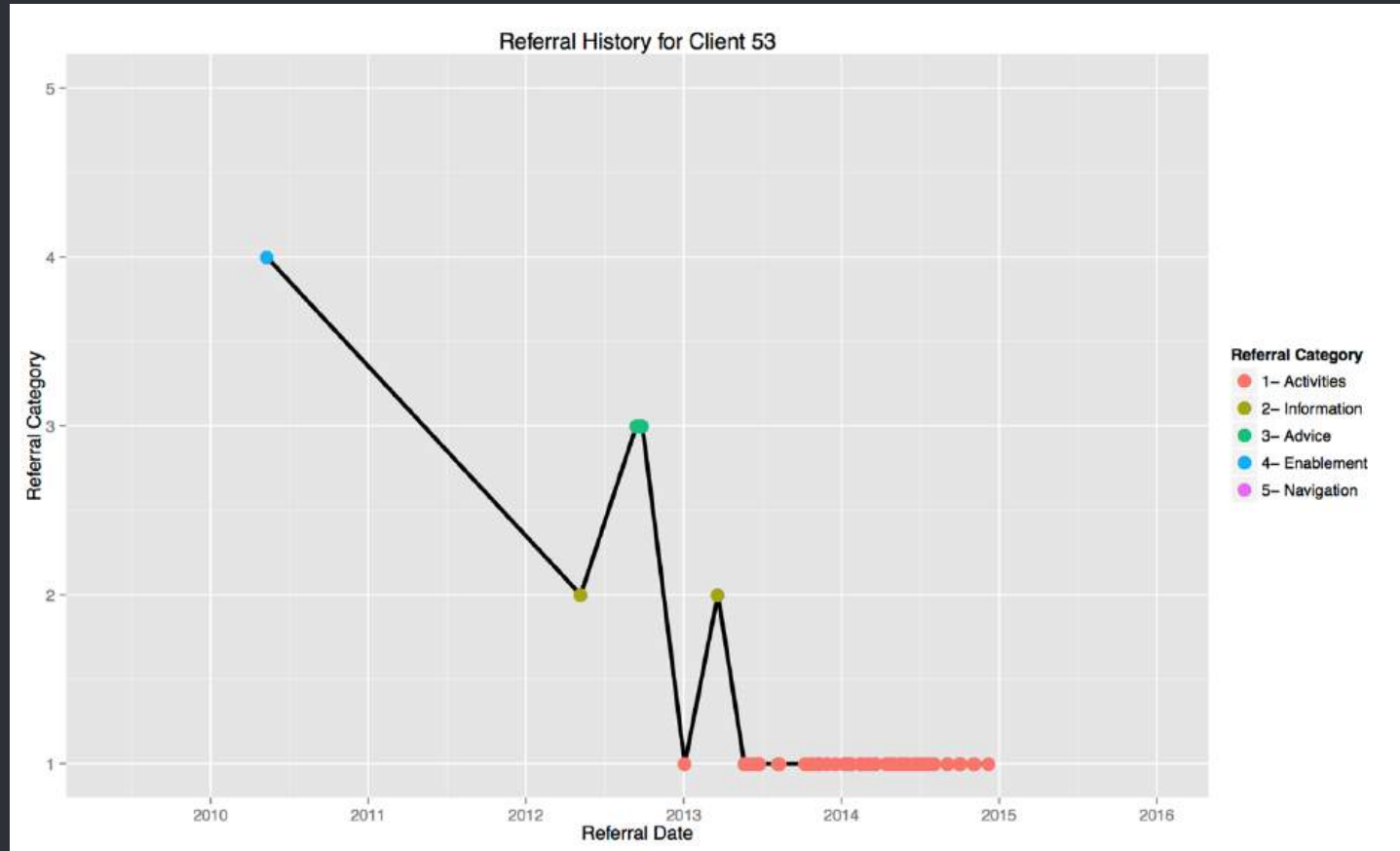
Which?

Examples of how charities are using data

Evidencing need

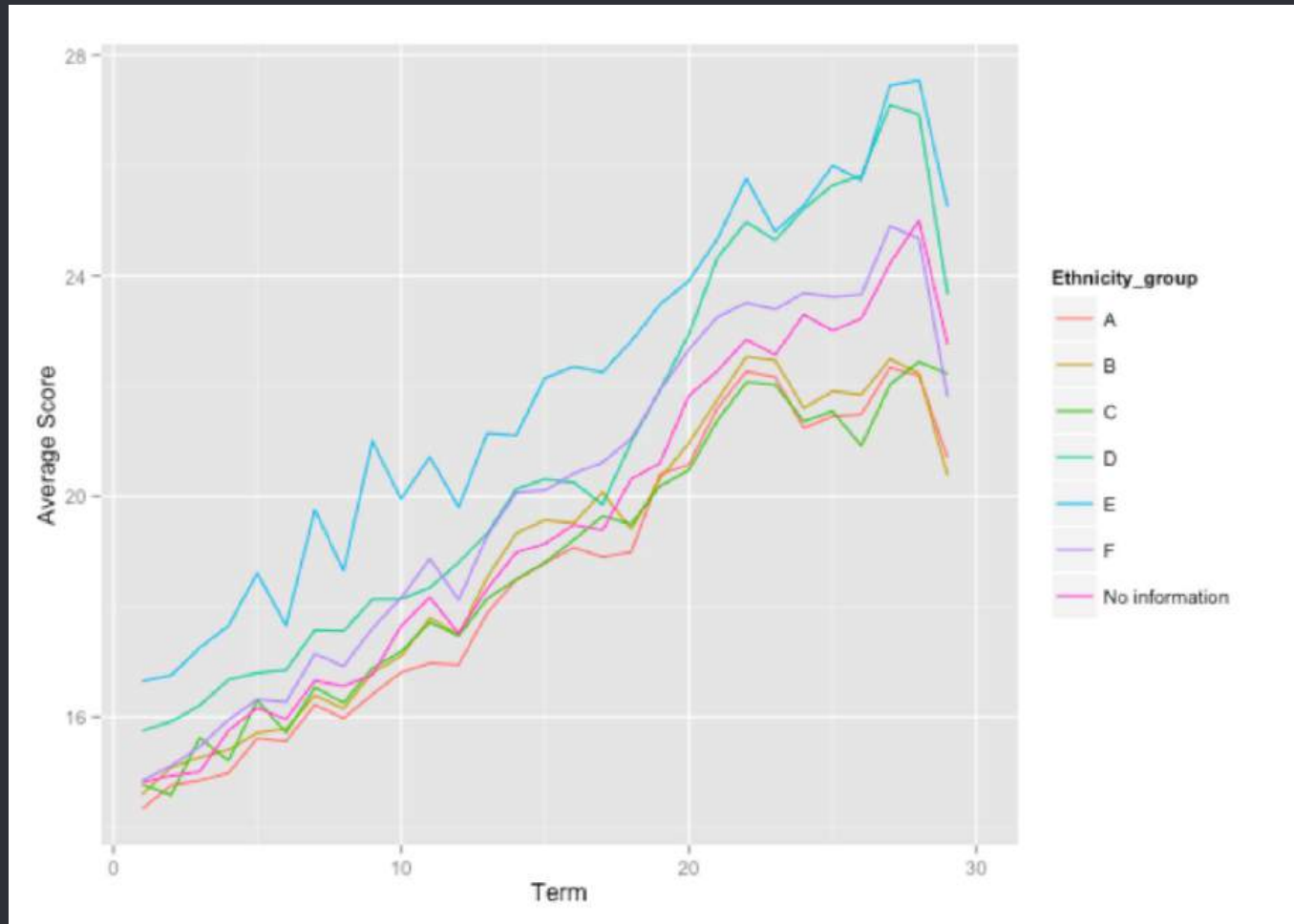


Improving products and services





Predicting user needs + service outcomes



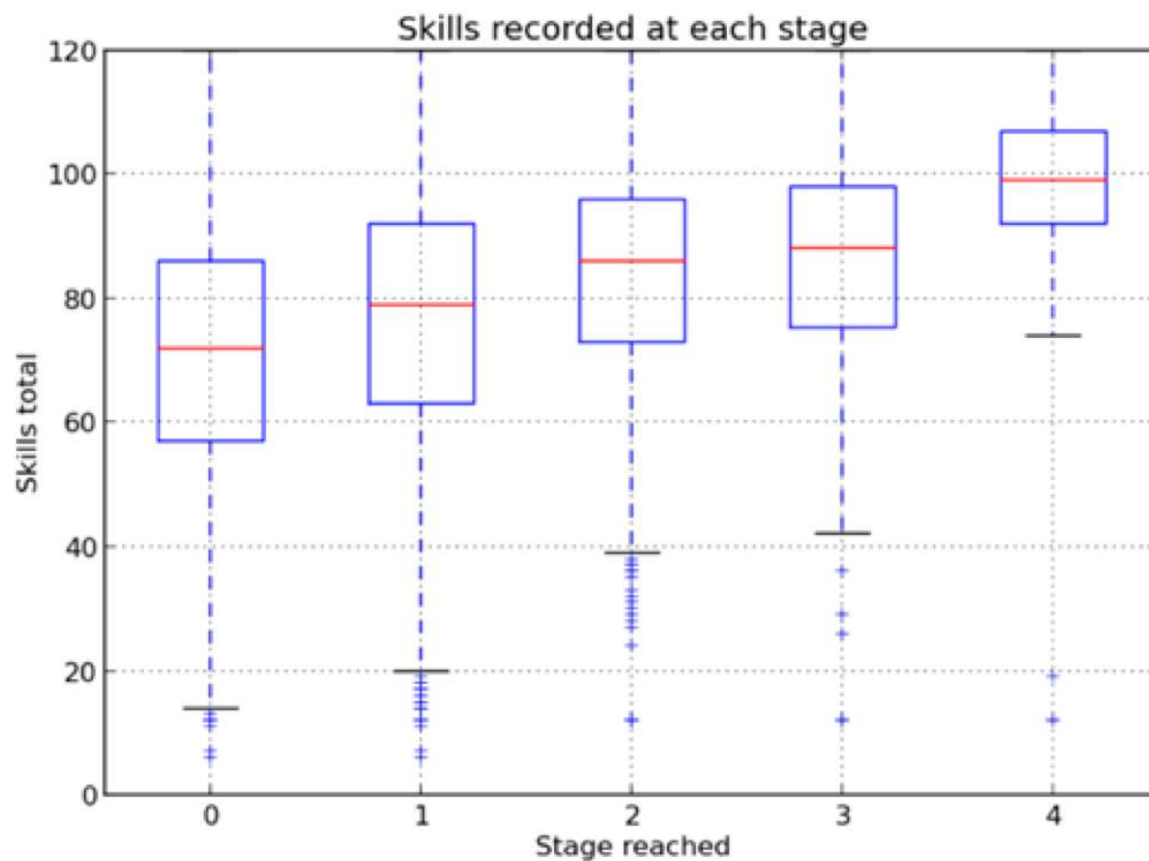
Strategic planning and decision making



Improving efficiency

The screenshot shows the Elefriends.org.uk website. At the top is a yellow header bar containing an elephant logo, a button labeled "I need urgent help", and navigation links for "Home", a message icon with a red notification badge, a social media icon, and a user profile for "AmyB.". Below the header, the URL "Elefriends.org.uk" is displayed. The main content area is divided into two columns. The left column features a "Share something" section with a prompt to "Post a photo or a video. Write a little note. Tell us how you're feeling. Be real. We're here for you." and a text input field labeled "Type something here...". The right column has a "Search for your friends" section with a text input field labeled "Enter a nickname...". Below the search section is a "Say hi to the new guys!" section displaying a grid of user avatars with usernames: "Junkym...", "Miriamlrl", "TRZXI2", "jmc121212", "Donnyla...", and "Cheyla". The bottom section of the page is titled "Public Feed" and shows a post from "The Elephant" (with an elephant icon) dated "about 7 hours ago". The post text reads: "The Ele knows that Monday mornings can sometimes be a bit of a struggle. Sometimes taking 10 minutes for yourself can help make things feel a little easier."

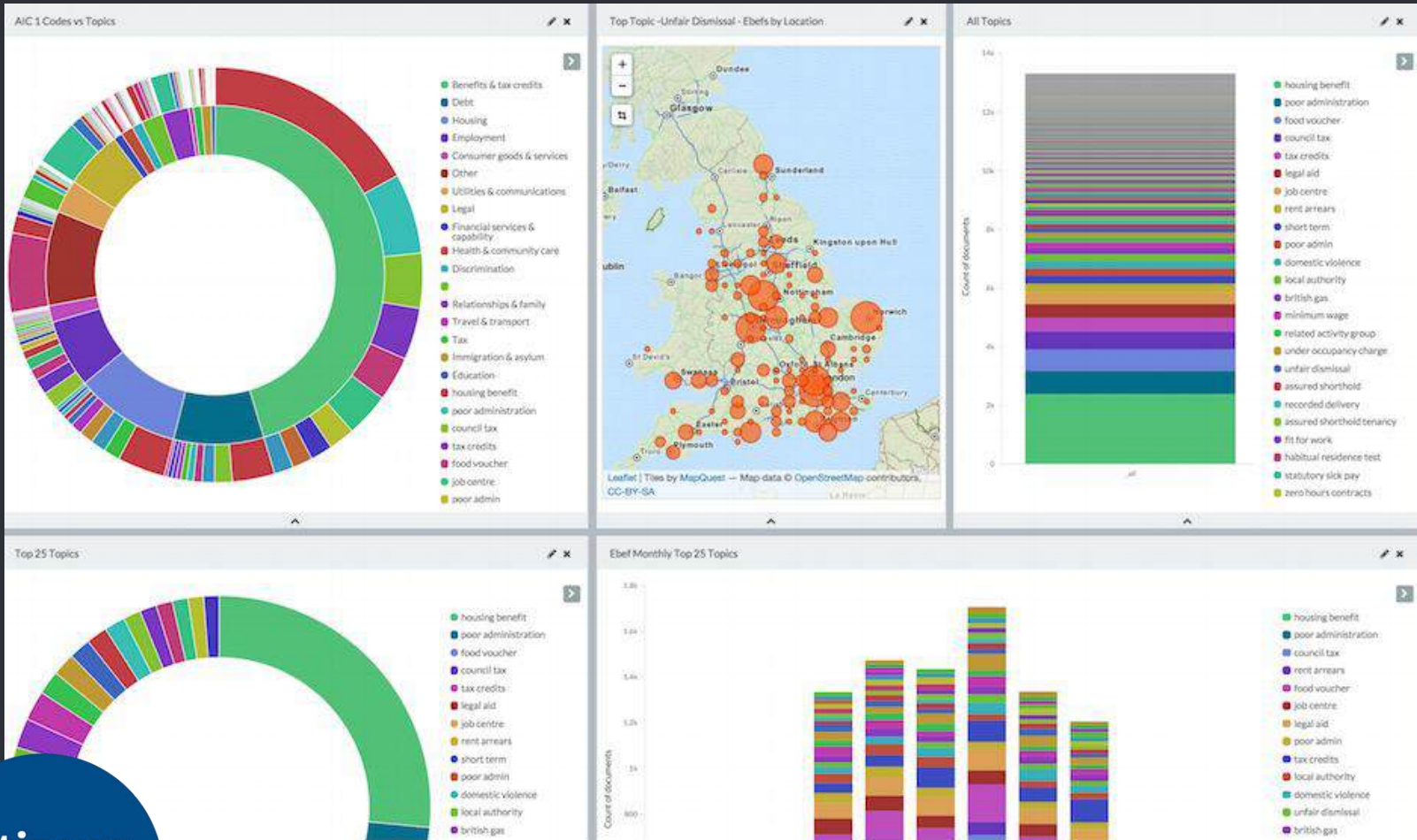
Better outcomes and impact



**WE ARE
MACMILLAN.
CANCER SUPPORT**



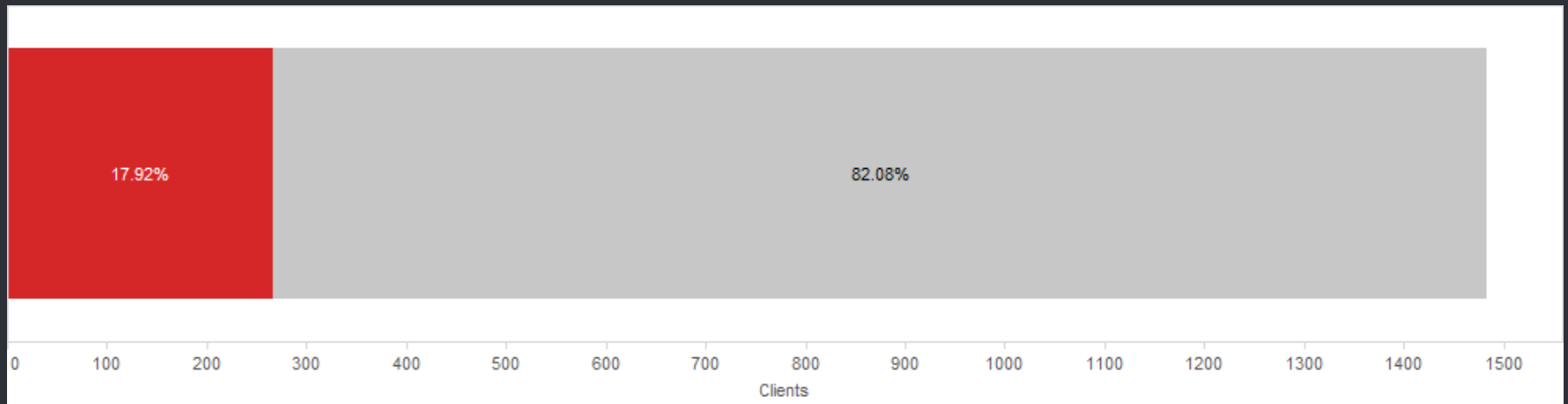
Better outcomes and impact



citizens
advice

DKUK

Better outcomes and impact



18% of matched clients had an issue with employment support allowance.

Rough sleeping in London with the GLA, Chain and DWP

GREATER
LONDON
AUTHORITY

St Mungo's
Ending homelessness
Rebuilding lives

DWP
Department for
Work and Pensions

Rough sleeping in London with the GLA, Chain and DWP

Pathways into homelessness

Flow through services

Intermittent rough sleeping

Datakind.org.uk

emma@datakind.org.uk

@DataKindUK

London Borough Data Partnership Meeting

13th December 2016

Joel Marsden, GLA Economics

New Labour Market Indicators

New labour market indicators for London

Exploiting data to plan ahead, and develop the skills that London's economy needs

Joel Marsden

Economist

GLA Economics

Intelligence Unit

13 December 2016

Outline

1. Introduction

- Policy priorities: skills devolution, area reviews and better LMI

2. LMI indicators on London Datastore

- Hub / landing page for LMI users.

3. Forecasting and projections

- London's Economic Outlook (LEO)
- Long-term employment projections

4. Exploiting near real-time data

- Burning Glass Technologies job adverts data, scrapped from >6,500 websites

The Mayor set out clear priorities on skills in his election manifesto

Lead a new skills agenda for London making sure businesses and Londoners get the skills they need to succeed.

- Establish a **Skills for Londoners taskforce** to develop a city-wide strategic approach to skills
- Seek a **devolution deal** over further education
- Create thousands of new, high quality **apprenticeships**
- Setup a digital talent programme as part of a **tech talent pipeline**
- Establish a **construction academy scheme** with the housebuilding industry

Some of the main data sources used by GLA Economics:



<http://www.ons.gov.uk>

- Regional GVA
- Migration Statistics
- Labour market



<https://www.nomisweb.co.uk>

- Business Register and Employment Survey (BRES)
- Census
- Annual Population Survey (APS)/Labour Force Survey (LFS)
- Workforce Jobs
- Annual Survey of Hours and Earnings (ASHE)



<https://www.gov.uk/government/statistics>

- Household Below Average Income (HBAI)
- Apprenticeships and further education (SFA data)
- DWP benefits
- House price index



<http://data.london.gov.uk>

- London Business Survey
- Borough profiles
- Historic Census tables
- The London Datastore also acts as a portal to London-focused cuts of official statistics



<http://ukdataservice.ac.uk/>

- APS/LFS microdata
- Living Costs and Food Survey
- Family Resources Survey



Various Economic forecasters

- Regional economic indicators
- House price (Halifax, Nationwide, CML)
- Business activity (Experian, Markit Economics)
- Macroeconomic models (Cambridge Econometrics, Oxford Economics)

Labour Marl

London's labour market
to-date coverage of
support the effective

Jobs

- Workforce jobs
- Workforce jobs by sex
- Employee jobs by sex
- Jobs by occupation
- Jobs by age and gender
- London Business School
- Medium term economic growth
- Long term labour market

Vacancies/ Skills needs

UK employer skills survey
Burning Glass : Job postings (Forthcoming)

Earnings (workplace)

- Workers' earnings by Borough
- Earnings by gender, and full-time/part-time
- Earnings by industry and occupation
- Gross value added and gross disposable household income

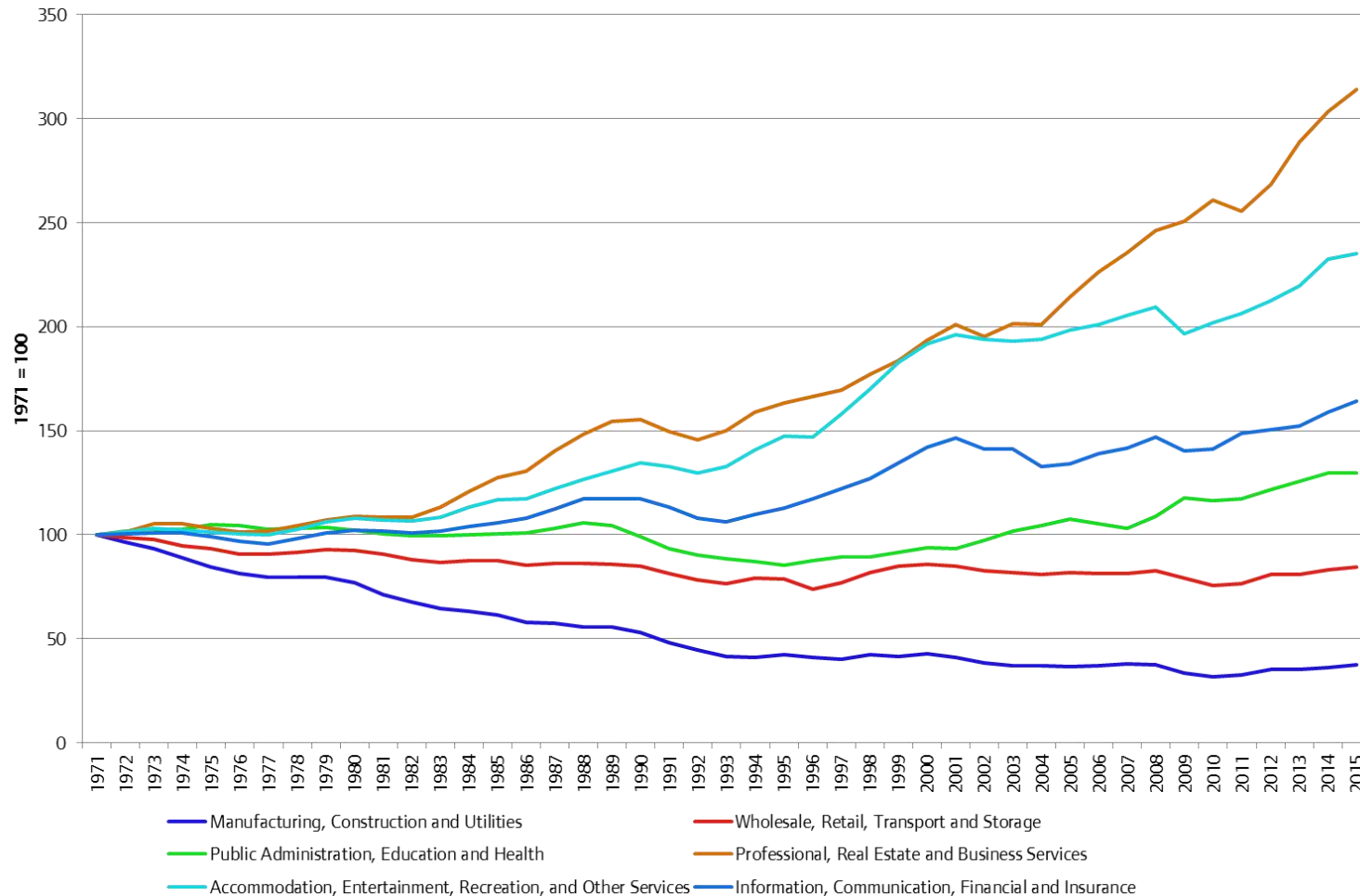
The Greater London Authority Economics team also provides expert analysis and guidance on London's labour market by examining recent developments. Our publications are available at: www.london.gov.uk/what-we-do/research-and-analysis/economy-and-employment/labour-market. For example, in May 2016, GLA Economics published a series of working papers set out the demand for jobs and skills to inform the Government's area reviews of post-16 education and training, covering four London sub-regions.

Other relevant indicators on the supply of labour in London are available on the Datastore at: <https://data.london.gov.uk/labour-market-indicators/labour-supply/>

- All Apps & Analysis
- 2011 Census
- GLA Economics Team
- GLA Demography Team
- Elections Reports
- London Output Area Classification
- London Ward Well-Being Scores
- London Housing Market Report
- Skills Funding Agency Data Cube
- London Labour Market Indicators**
- London Employability Performance Rating
- Strategic Crime Analysis

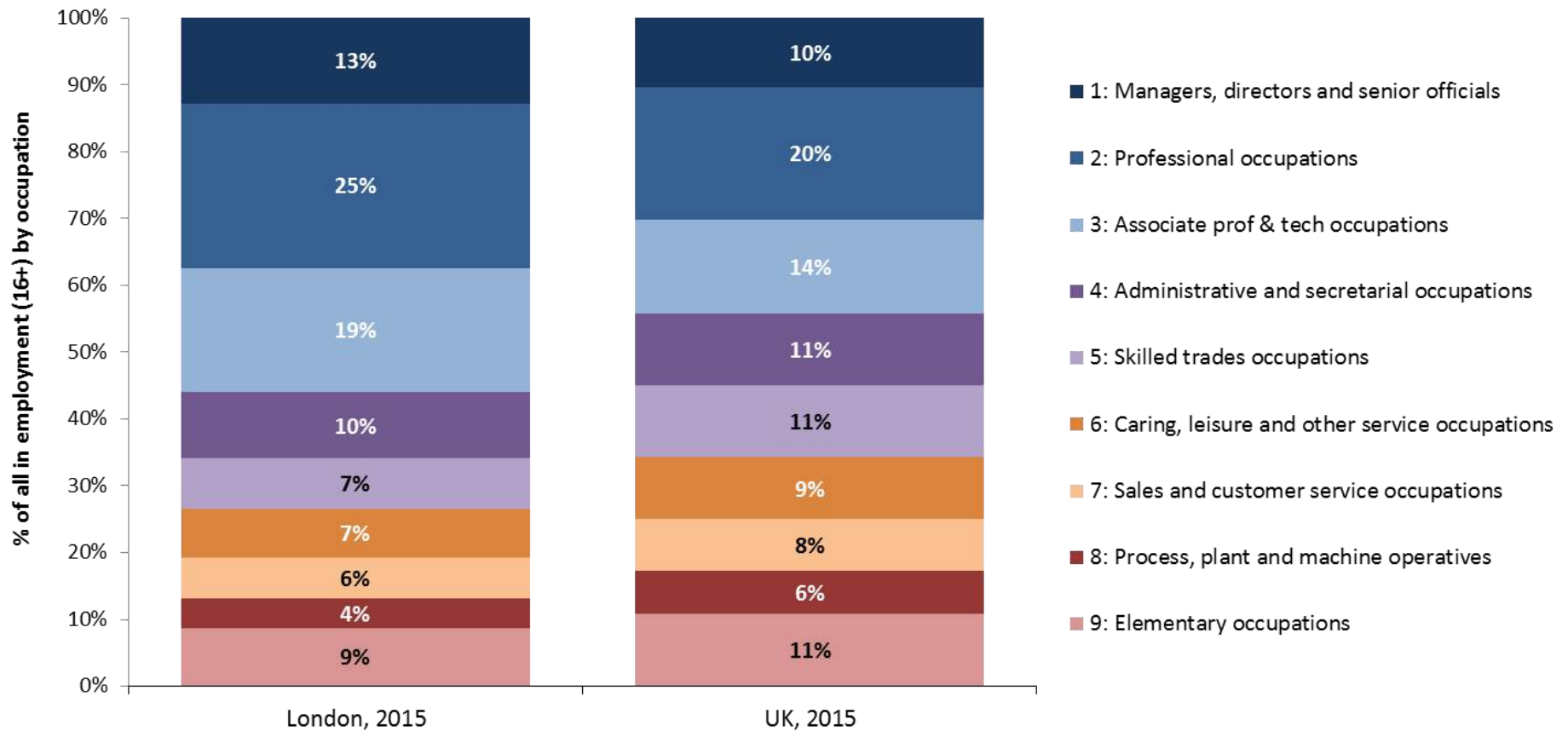
London has benefitted from trade and the structure of London's economy has changed

Jobs by broad sector in London, 1971 - 2015



... generating strong demand for highly skilled labour

Share of those in employment by occupation, %



Source: ONS Annual Population Survey - workplace analysis

[Home](#) / [Labour Market Indicators](#)

Labour Market Indicators

London's labour markets and skills needs are constantly evolving. This page contains a wide range of London-focused, indicators of labour market demand, providing the most up-to-date coverage of important developments. It brings together a variety of official survey statistics, administrative data and near real-time data, offering high quality information to support the effective planning and delivery of skills provision, and careers advice that better meets London's economic demands.

Jobs

[Workforce jobs](#)[Workforce jobs by sector](#)[Employee jobs by sector](#)[Jobs by occupation and highest qualification](#)[Jobs by age and gender](#)[London Business Survey 2014 : Workforce](#)[Medium term economic forecast](#)[Long term labour market projections](#)

Vacancies/ Skills needs

[UK employer skills survey](#)[Burning Glass : Job postings \(Forthcoming\)](#)

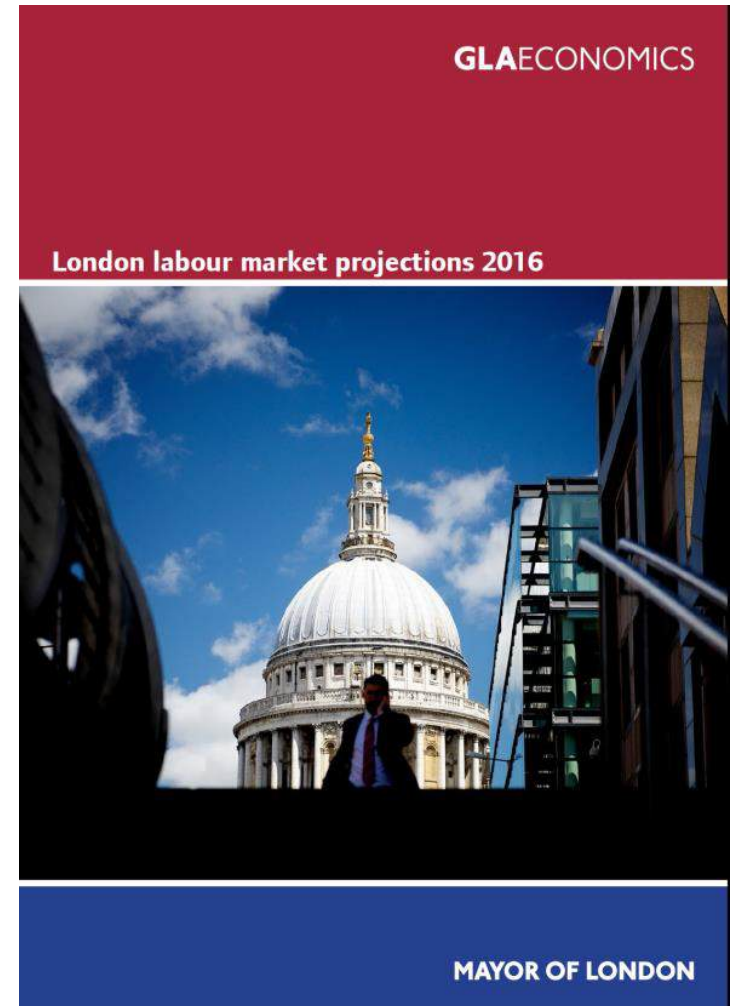
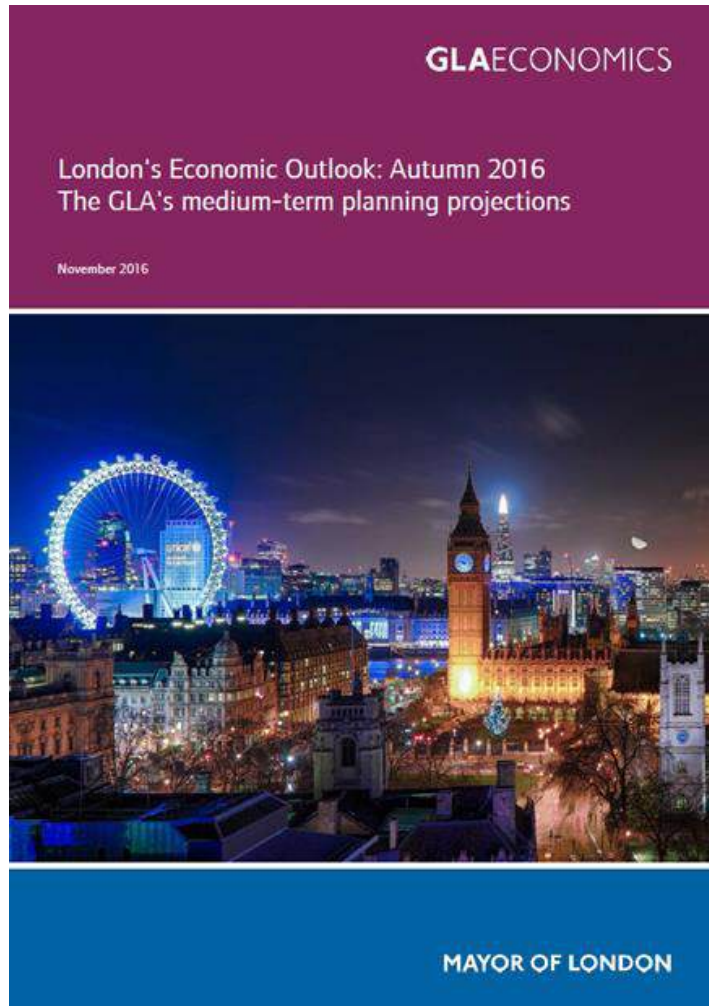
Earnings (workplace)

[Workers' earnings by Borough](#)[Earnings by gender, and full-time/part-time](#)[Earnings by industry and occupation](#)[Gross value added and gross disposable household income](#)

The Greater London Authority Economics team also provides expert analysis and guidance on London's labour market by examining recent developments. Our publications are available at: www.london.gov.uk/what-we-do/research-and-analysis/economy-and-employment/labour-market. For example, in May 2016, GLA Economics published a series of working papers set out the demand for jobs and skills to inform the Government's area reviews of post-16 education and training, covering four London sub-regions.

Other relevant indicators on the supply of labour in London are available on the Datastore at: <https://data.london.gov.uk/labour-market-indicators/labour-supply/>

Forecasting and projections



[Home](#) / [Labour Market](#)

Labour Market

London's labour market data provides up-to-date coverage of the labour market to support the effective management of the economy.

Jobs

[Workforce jobs](#)[Workforce jobs by sector](#)[Employee jobs by sector](#)[Jobs by occupation](#)[Jobs by age and gender](#)[London Business Startups](#)[Medium term economic projections](#)[Long term labour market projections](#)[All Apps & Analysis](#)[2011 Census](#)[GLA Economics Team](#)[GLA Demography Team](#)[Elections Reports](#)[London Output Area Classification](#)[London Ward Well-Being Scores](#)[London Housing Market Report](#)[Skills Funding Agency Data Cube](#)[London Labour Market Indicators](#)[London Employability Performance Rating](#)[Strategic Crime Analysis](#)

This page contains a wide range of London-focused, indicators of labour market demand, providing the most up-to-date coverage of official survey statistics, administrative data and near real-time data, offering high quality information to support the effective management of the economy.

Vacancies/ Skills needs

[UK employer skills survey](#)[Burning Glass : Job postings \(Forthcoming\)](#)

Earnings (workplace)

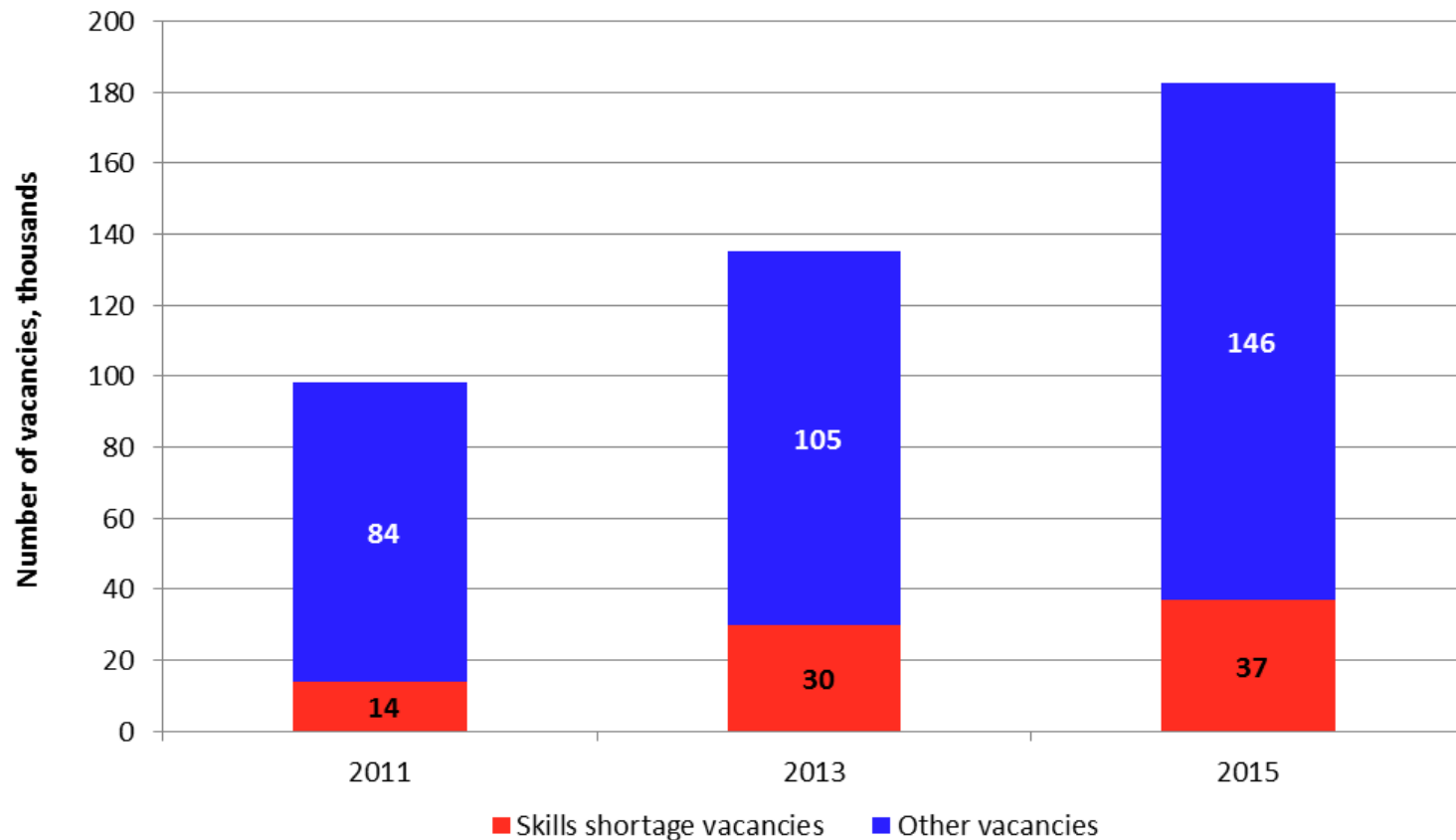
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Ensuring the capital's workers are suitably skilled is vital for London's continued development

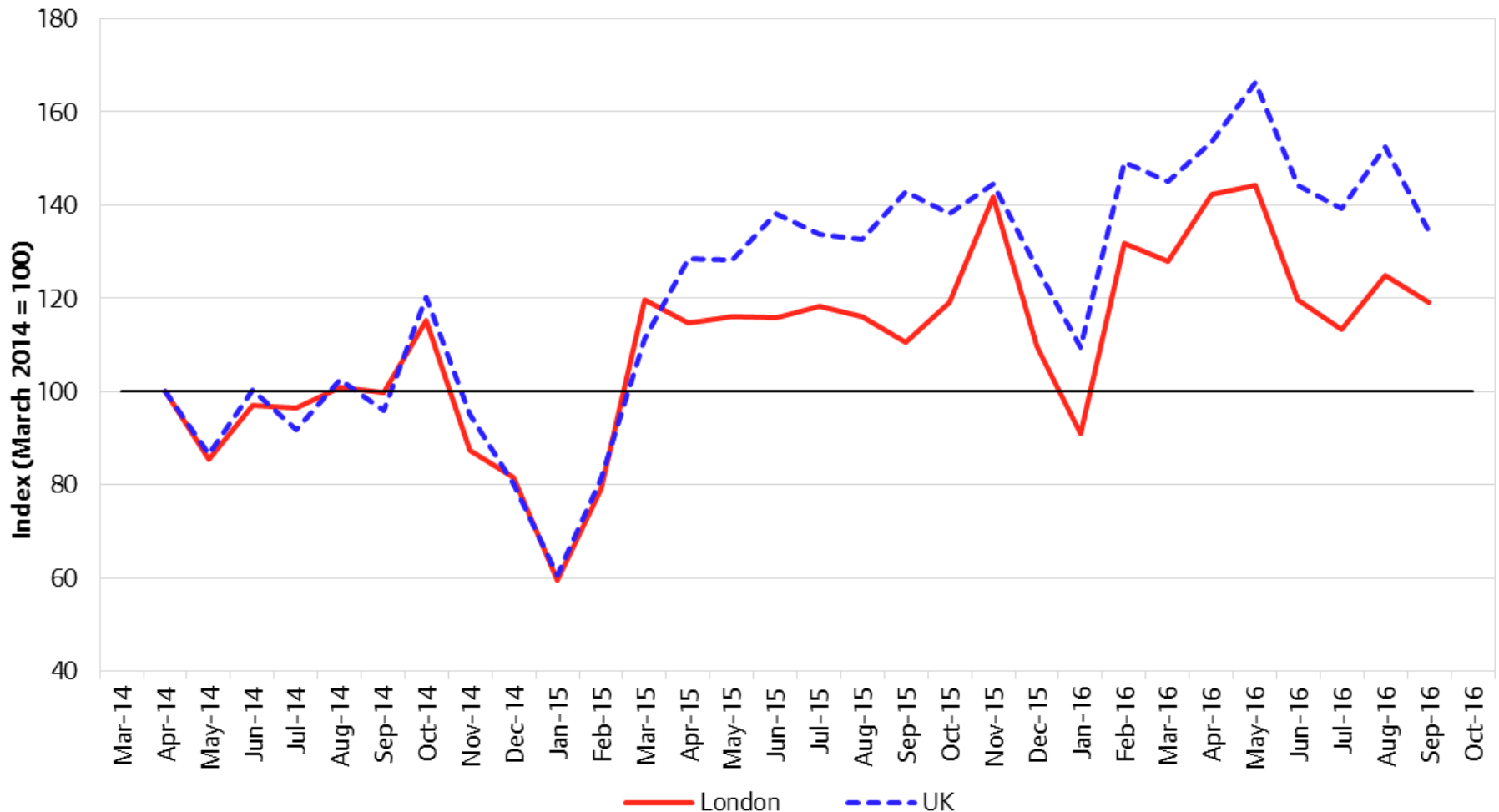
Number of vacancies, including those reportedly due to skills shortages



Source: UKCES Employer Skills Survey

Real-time job postings data has potential to provide a wealth of new information

Index of online job postings, London and the UK



Real-time job market data offers up-to-date insights not possible through traditional sources

**Visit online
job sites**



**Collect & de-
duplicate job
postings**



**Read postings to
generate detailed data**

- Job Title & Occupation
- Technical Skills
- Generic Skills
- Education / Experience requirements
- Salaries
- Employer / Industry
- Apprenticeships
- Location



GLAECONOMICS

About the BGT data

- Procured in Summer 2016
- Job postings data pilot to run from January to mid-2017
- Open data to include:
 - By London local authority (LA)
 - Occupations (SOC-1, SOC-2 and SOC-3 at London level)
 - Full-time and part-time status, London and LA
 - Permanent or temporary contract, and apprenticeships
 - Advertised salary: average by occupation and LA
 - Rank of detailed skills: generic/baseline and technical/specialised
 - Historic quarterly time series from 2012 to the latest period.
- Potential to offer the data longer-term, subject to demand and support from our users?

Demo time – fingers crossed!



London Job Posting Data (Beta)



© Burning Glass Technologies 2016

Overview

BGT job postings are classified for London and its local authorities. Note that a large proportion of records may be excluded because they do not include a local authority. As a result, the local authority data may not be representative of the full sample. For official statistics on employment data, please refer to [Labour Market Indicators](#).



Source: Burning Glass Technologies (BGT), job postings data

Useful links

- **GLA Economics**

<https://www.london.gov.uk/what-we-do/research-and-analysis/economy-and-employment>

- **London Datastore – LMI**

<http://data.london.gov.uk/labour-market-indicators>

- **London Datastore – BGT Job postings (in development)**

<http://data.london.gov.uk/job-postings>

- **Join our mailing list**

<https://www.london.gov.uk/what-we-do/research-and-analysis/join-our-mailing-list-research-and-analysis>

About GLA Economics

- A team of twelve economists, providing expertise on London's economy, with sub-teams focussing on:
 - Macroeconomics
 - Labour Market
 - Appraisal and Evaluation
- GLA Economics is part of the wider GLA Intelligence Unit, which have individual teams focussing on:
 - Demography and Policy Analysis
 - Opinion Research and Consultation
 - Geographic Information Systems (GIS)
- The Intelligence Unit is also home to London Datastore, providing a wide range of statistics on London's economy

London Borough Data Partnership Meeting

13th December 2016

Ellis Turner, Environmental Health
Manager

**London Borough Islington: Health
Mapping**

Health mapping pilot

Ellis Turner
Environmental Health Manager

Using data to inform proactive interventions

- Street surveys
 - deprivation indices
 - housing benefit data
 - electoral roll + council tax + land registry
- EPC data base

NOTTINGHAM
TRENT UNIVERSITY

Mapping toolkit picture.jpg

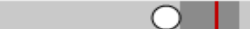



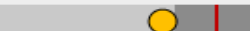


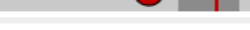





Mapping Health Toolkit

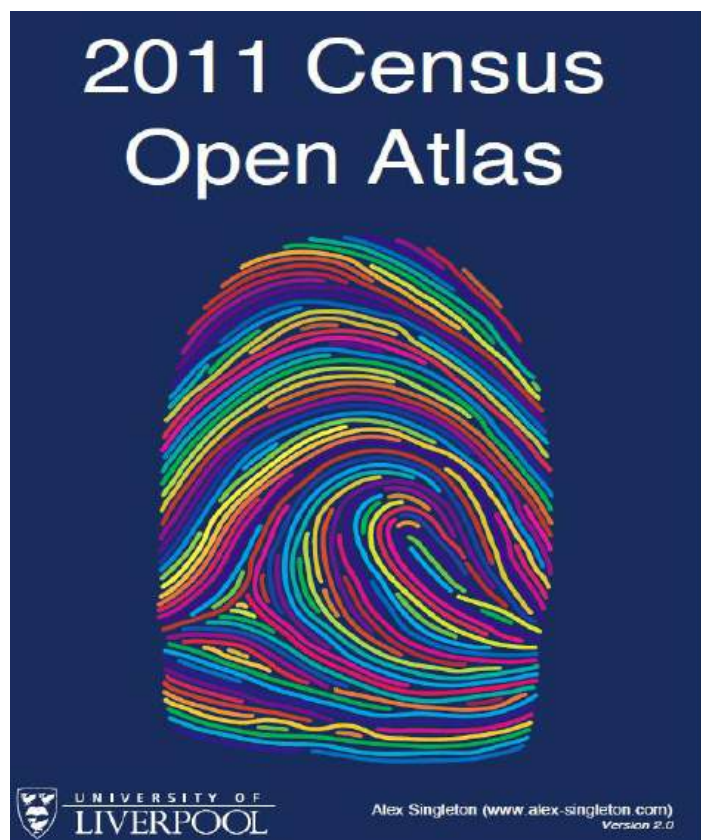
Helping local councils and Environmental Health
Officers respond to the new public health agenda

Local health profile



England		
at/ st	Range	Best/ Highest
1.0		6.7
1.2		2.9
1.5		3.8
1.5		5.4
1.9		1.8
1.7		3.3
1.8		6.6
1.1		0.0
1.5		29.9
1.6		40.1
1.8		18.8

Methodology



Digital

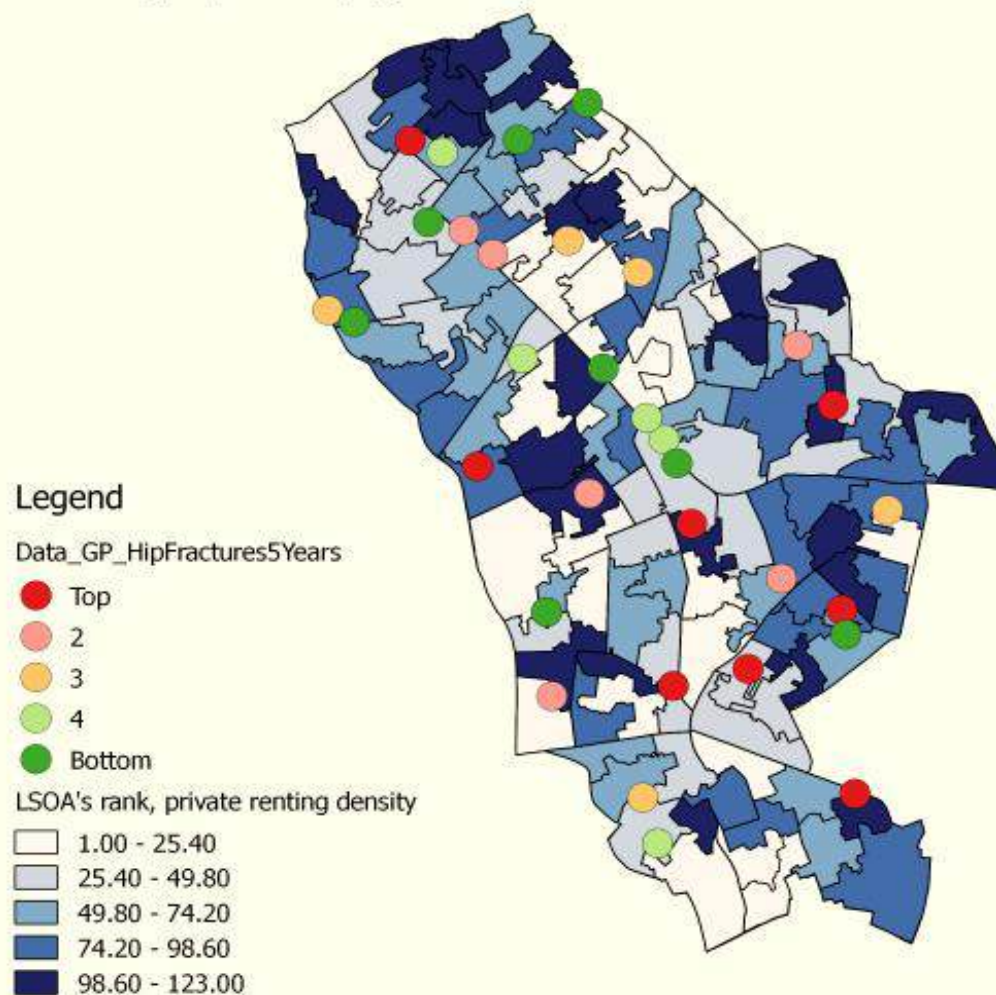


Result



ISLINGTON

Density of private rented housing (Census 2011) compared with hospital admissions for hip fractures, by GP Practice, (2008/09 to 2012/13, pooled rate)



Reflections

- Visual medium - predictive tool
- Relationships with data - casual or explicit?
- Future and other applications
- Appetite for partnerships – formal + informal
- Shared language – common goals



London Borough Data Partnership Meeting

13th December 2016

Jean Mallo, Intelligence analyst and
visualisation specialist

**London Borough Waltham Forest: Data
to Intelligence**

Waltham Forest Council

Data to Intelligence Project

London Boroughs of Waltham Forest & Hackney and OfSTED

Jean Mallo – Intelligence Analyst & Visualisation Specialist

13th December 2016

Data to Intelligence project

- A one year collaborative intelligence project between **Waltham Forest** and **Hackney** local authorities and **OfSTED**.
- **Improving performance management** within local authorities by innovating the way we use existing data, with a focus on improving the way that we communicate the messages within large and complex datasets.

Four initial project objectives

1. Build a universal **child-level data tool**
2. Develop templates and embed **highly visual dashboards**
3. Explore methods to **streamline performance management**
4. Work collaboratively with **other organisations**, e.g. DfE

1) Child-level data tool

- Bring together data already collected by LAs (Annex A) with statistics published nationally. Highly visual presentation of information that tells the story of the LA's current position alongside the published annual statistics.
- Will be made available to all local authorities and could support areas of work, including the single inspection framework (SIF), monitoring visits, SIF re-inspection, and joint targeted area inspections, as well as LA performance management generally.

1) Child-level data tool (continued)

What the referrals list within the Annex A dataset looks like

3. All those who have been the subject of a referral in the three months prior to inspection

Child Unique ID	Gender	Ethnicity	Date of Birth	If Unborn: Expected Date of Birth	Age of Child (Years)	Date of the Most Recent Referral	Referral Source	Referral NFA? (Y/N)	Number of Referrals in Last 12 Months	Allocated Team	Allocated Worker
120475	Male	Asian or Asian British	26/11/1999		17	20/04/2018	Education - School	N	1	Ca - Early Help Team (Jas We Tanze Black	
120752	Male	White	11/09/1999		18	07/09/2018	LA Services	N		Ca - Multi-Agency Referral (We Emma Mendenhall	
121416	Male	White	01/04/1999		17	06/04/2018	Legal Services	N	1	Ca - Multi-Agency Referral (We Emma Carrington	
121827						06/04/2018	Police	N			
121900	Female	Asian or Asian British	06/11/1999		18	06/04/2018	Anonymous	N	1	Ca - Multi-Agency Referral (We Emma Carrington	
121992	Male	Black or Black British	07/09/1999		18	11/04/2018	Police	N		Ca - Multi-Agency Referral (We Lesley Beaman	
122027	Male	White	26/11/1999		18	04/03/2018	Education - School	N	1	Ca - Multi-Agency Referral (We Carol Kemp	
121992						03/03/2018	Education - School	N			
120751	Female	Mixed	02/11/1999		17	16/04/2018	Education - School	N	1	Ca - Multi-Agency Referral (We Emma Carrington	
121416	Female	Asian or Asian British	11/09/1999		18	06/03/2018	Health - Adult Services	N	1	Ca - Early Help Team (Jas We Tanze Black	
121992	Female	Black or Black British	06/09/1999		18	27/04/2018	Health - A&E	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
121992	Male	Black or Black British	04/04/1999		18	10/01/2018	Individual - Self	N	1	Ca - Prevention (Jasmine We Lesley Beaman	
120071	Female	White	26/09/1999		17	11/01/2018	Police	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
120071	Female	White	06/11/1999		18	11/01/2018	Police	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
120094	Male	Mixed	06/01/1999		17	11/04/2018	Police	N	1	Ca - Multi-Agency Referral (We Emma Mendenhall	
120104	Male	Other Ethnic Group	06/03/1999		17	10/03/2018	Police	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
120094	Male	Black or Black British	11/01/2001		16	16/04/2018		N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
120752	Female	White	01/09/2001		14	06/03/2018	Health - Other	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
120170	Male	White	27/01/2002		14	16/03/2018	LA Services	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
140104	Male	Mixed	03/04/2001		16	11/04/2018	External - Another LA	N	1	Ca - Multi-Agency Referral (We Lesley Beaman	
140013	Female	Not Stated	06/09/2000		18	06/04/2018	Legal Services	N	1	Ca - Multi-Agency Referral (We Emma Carrington	
141279	Male	Mixed	06/09/1999		18	16/04/2018		N		Ca - Multi-Agency Referral (We Lesley Beaman	

1) Child-level data tool (continued)

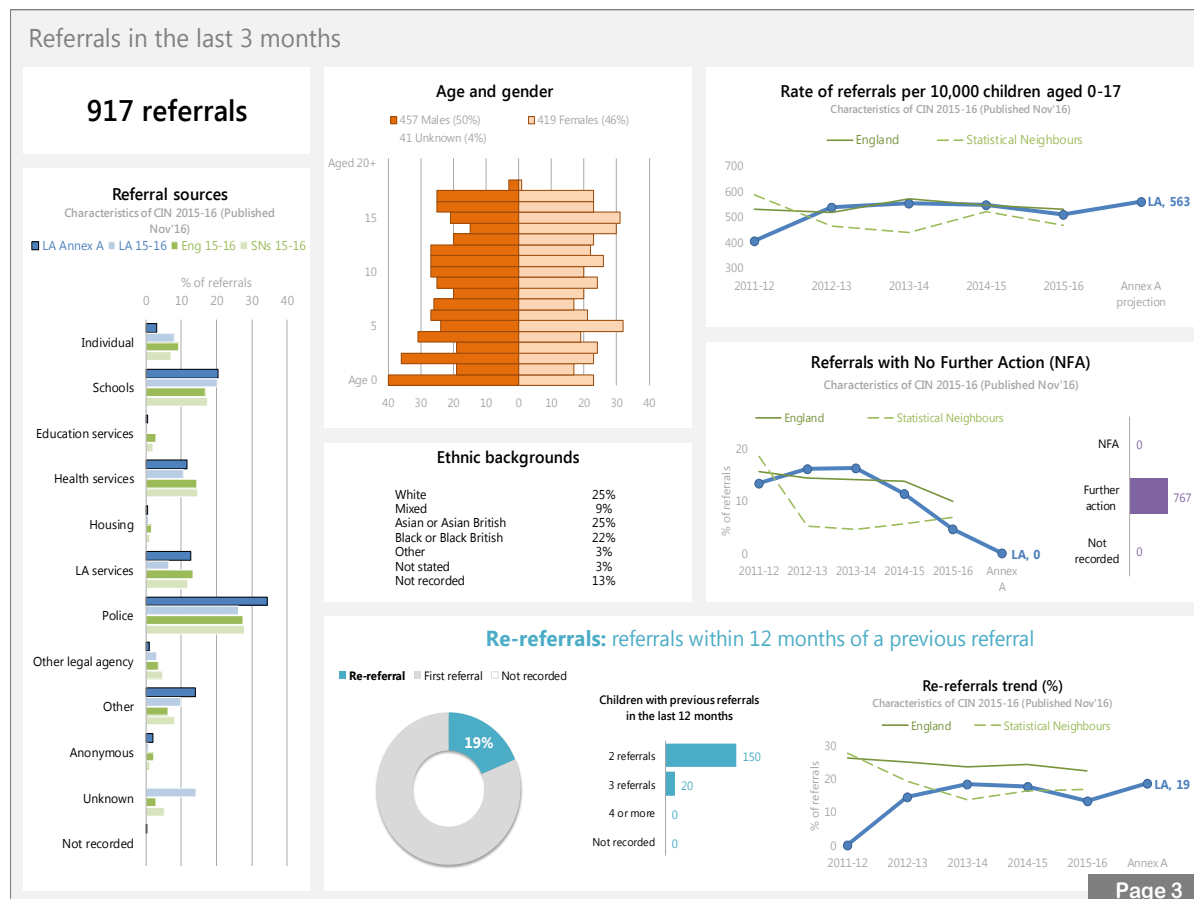
What the referral statistics within the Children in Need Statistical First Release looks like

Table C1: Number of referrals¹, referrals within 12 months of a previous referral and the number of referrals which resulted in no further action, in the year ending 31 March 2016, by local authority
Year: 2015-16
Coverage: England
[Statistics: children in need and child protection](#)

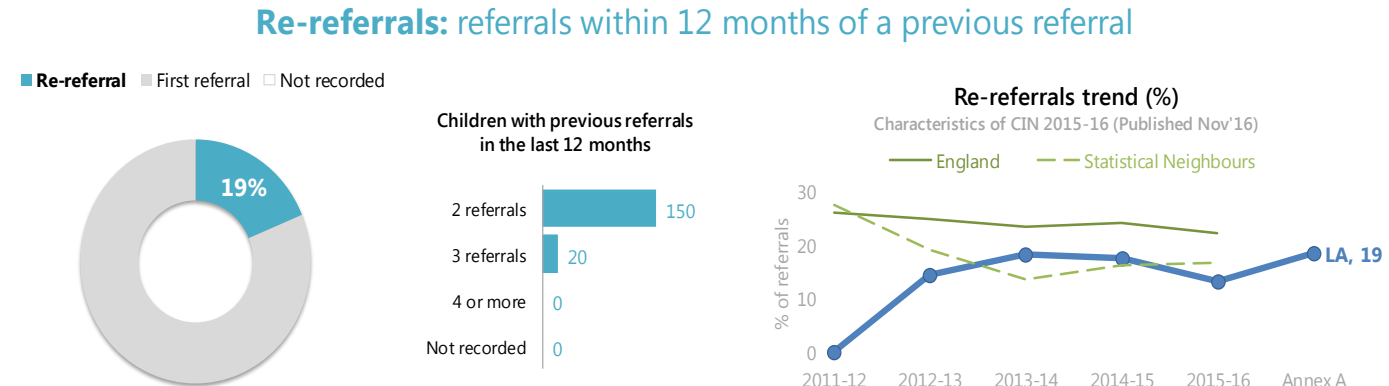
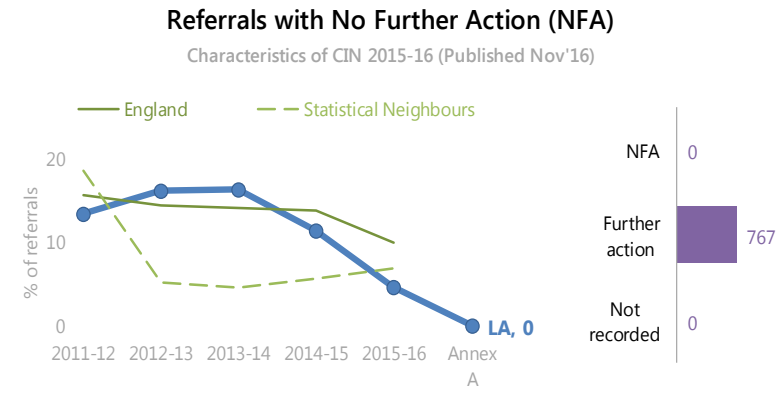
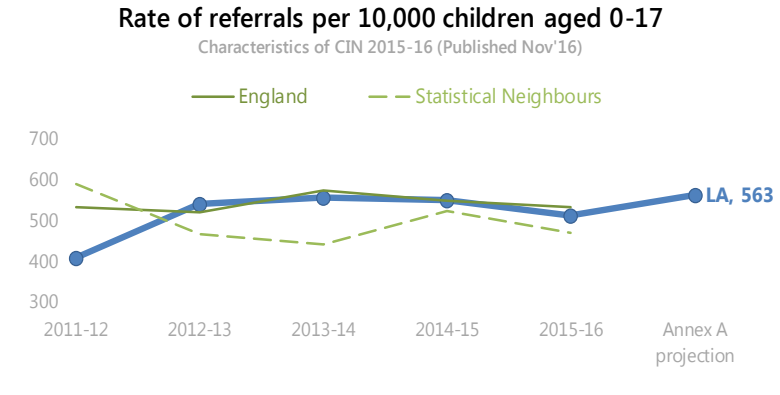
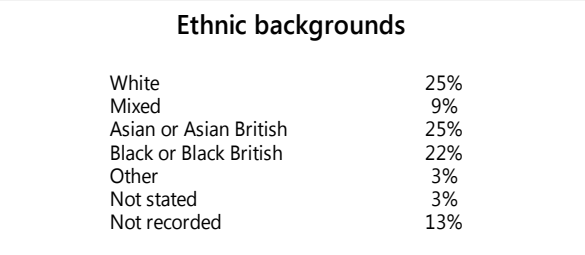
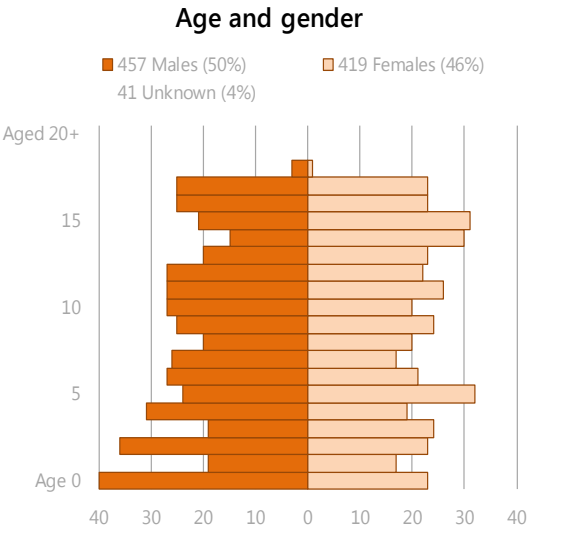
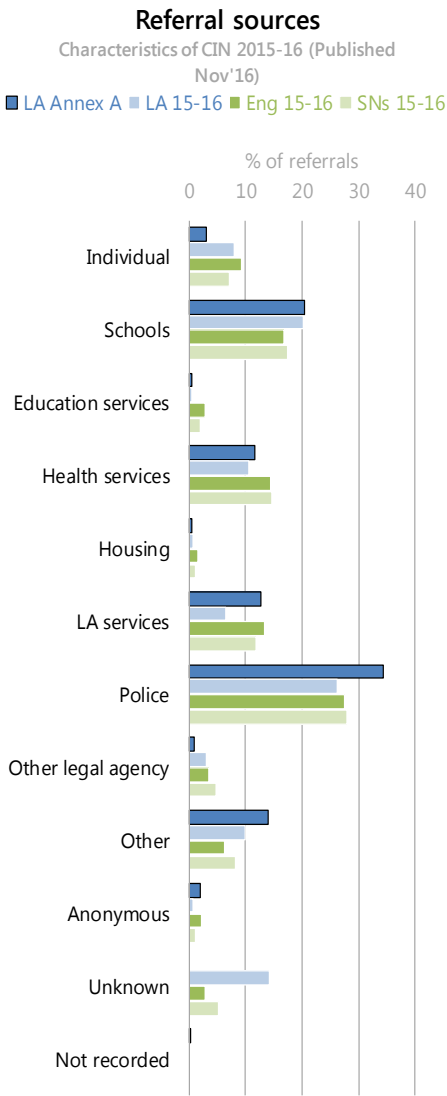
Local authority	Referrals		Referrals which:					
	Number	Rate per 10,000 of children aged under 18 years	Were within 12 months of a previous referral		Resulted in no further action		Resulted in an assessment and the child was assessed not to be in need in the year	
			Number	Percentage	Number	Percentage	Number	Percentage
Inner London²	38,800	540.7	5,640	14.5	5,740	14.8	4,820	12.4
202 Camden	1,872	407.1	243	13.0	122	6.5	419	22.4
201 City of London	57	522.9	0	0.0	x	x	24	42.1
204 Hackney	3,543	578.6	471	13.3	0	0.0	178	5.0
205 Hammersmith and Fulham	1,683	491.4	231	13.7	29	1.7	184	10.9
309 Haringey	3,273	538.5	501	15.3	1,304	39.8	666	20.3
206 Islington	2,502	623.1	301	12.0	186	7.4	117	4.7
207 Kensington and Chelsea	2,363	834.1	563	23.8	1,012	42.8	0	0.0
208 Lambeth	2,873	456.7	466	16.2	297	10.3	959	33.4
209 Lewisham	2,810	416.0	387	13.8	89	3.2	130	4.6
316 Newham	5,962	711.2	902	15.1	722	12.1	1,752	29.4
210 Southwark	4,196	666.5	614	14.6	1,050	25.0	257	6.1
211 Tower Hamlets	3,333	512.8	292	8.8	380	11.4	119	3.6
212 Wandsworth	2,679	439.6	504	18.8	265	9.9	x	x
213 Westminster	1,655	388.4	164	9.9	278	16.8	9	0.5
Outer London²	57,150	462.6	9,730	17.0	2,860	5.0	12,960	22.7
301 Barking and Dagenham	3,255	539.1	530	16.3	418	12.8	142	4.4
302 Barnet	3,482	392.0	750	21.5	0	0.0	648	18.6
303 Bexley	3,049	544.7	631	20.7	126	4.1	1,465	48.0
304 Brent	2,390	318.6	194	8.1	16	0.7	143	6.0

1) Child-level data tool (continued)

An example of what the referrals dashboard in the child-level data tool looks like...



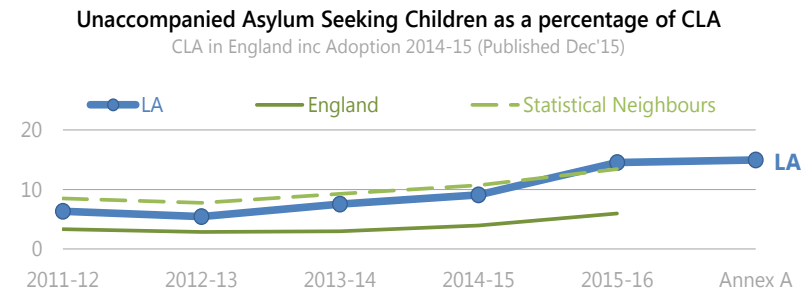
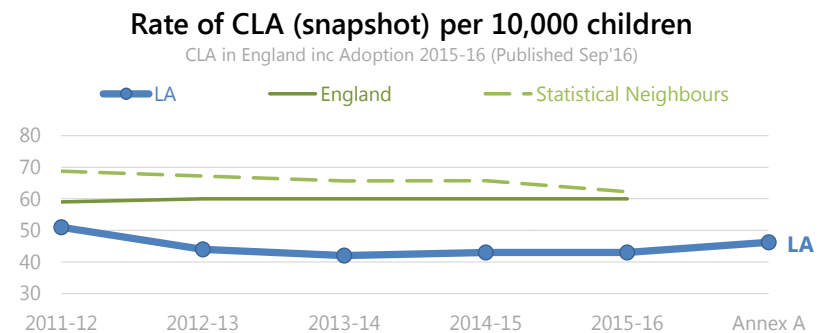
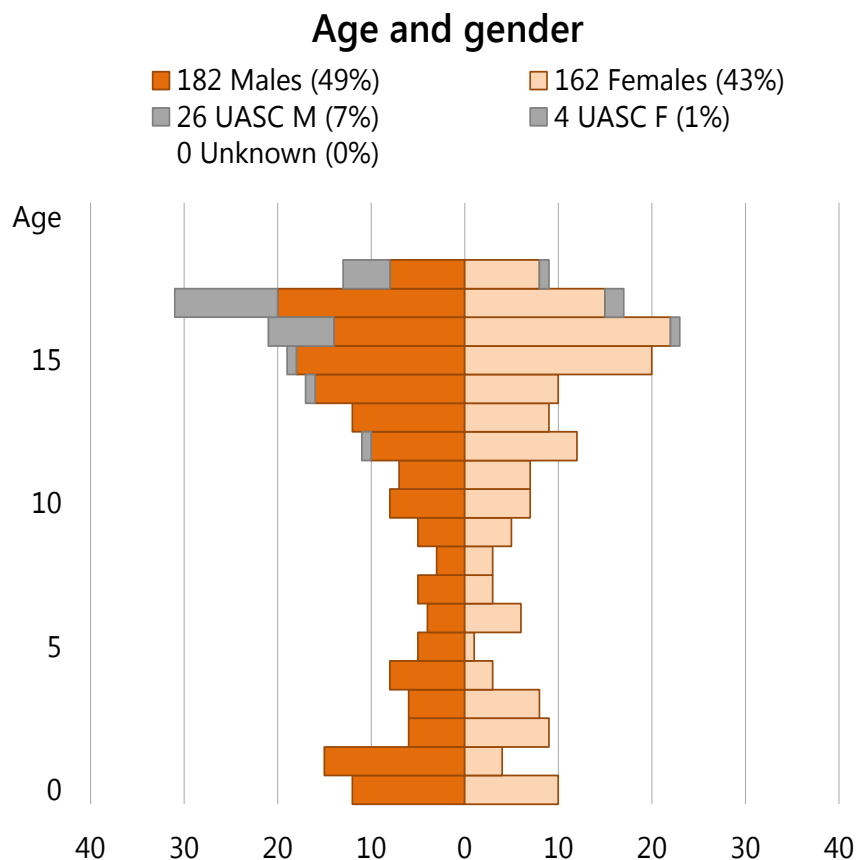
917 referrals



1) Child-level data tool (continued)

Age & Gender of Children Looked After (CLA)

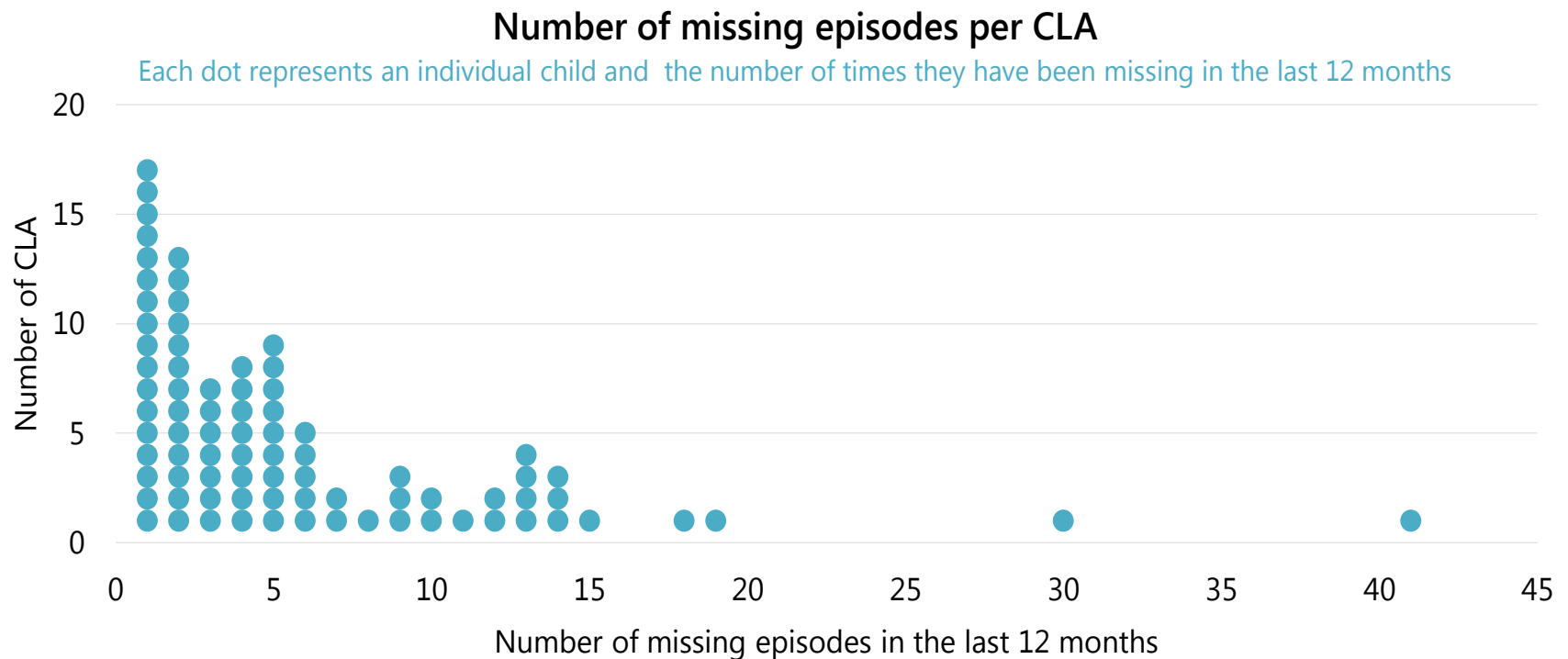
highlighting Unaccompanied Asylum Seeking Children (UASC)



1) Child-level data tool (continued)

Highlighting individual children who stand out

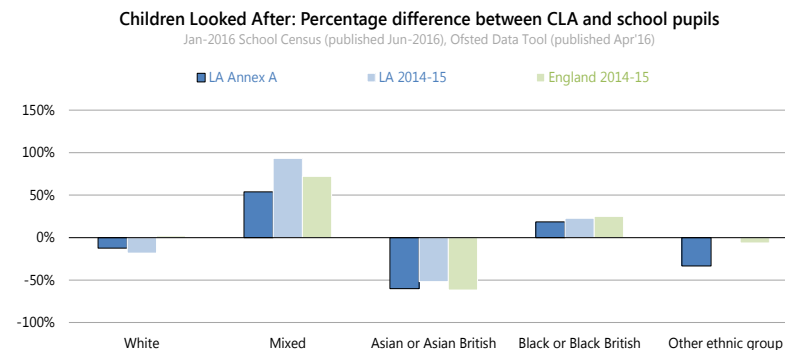
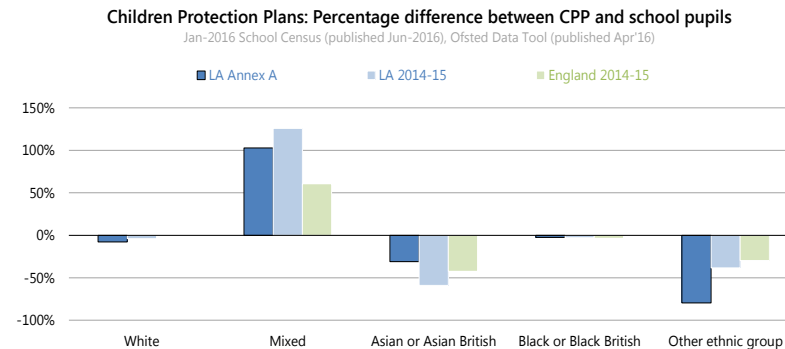
E.g. number of incidents child was missing from home or placement



1) Child-level data tool (continued)

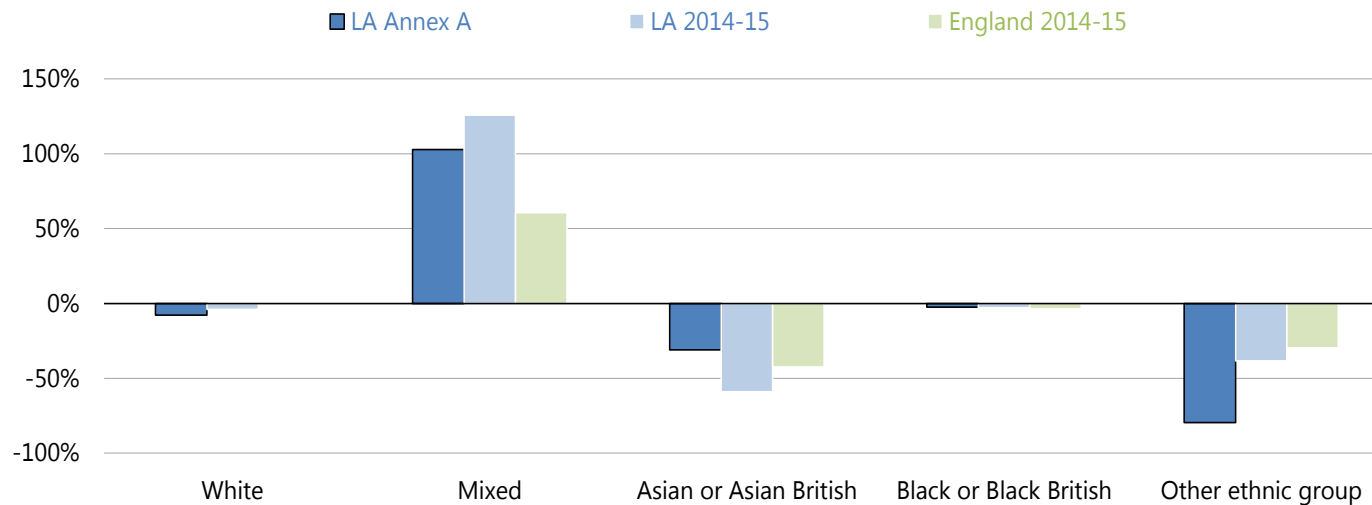
Ethnic breakdown of CPP vs School pupils

showing % difference between those subject of a plan and those children attending the LA's primary / secondary schools



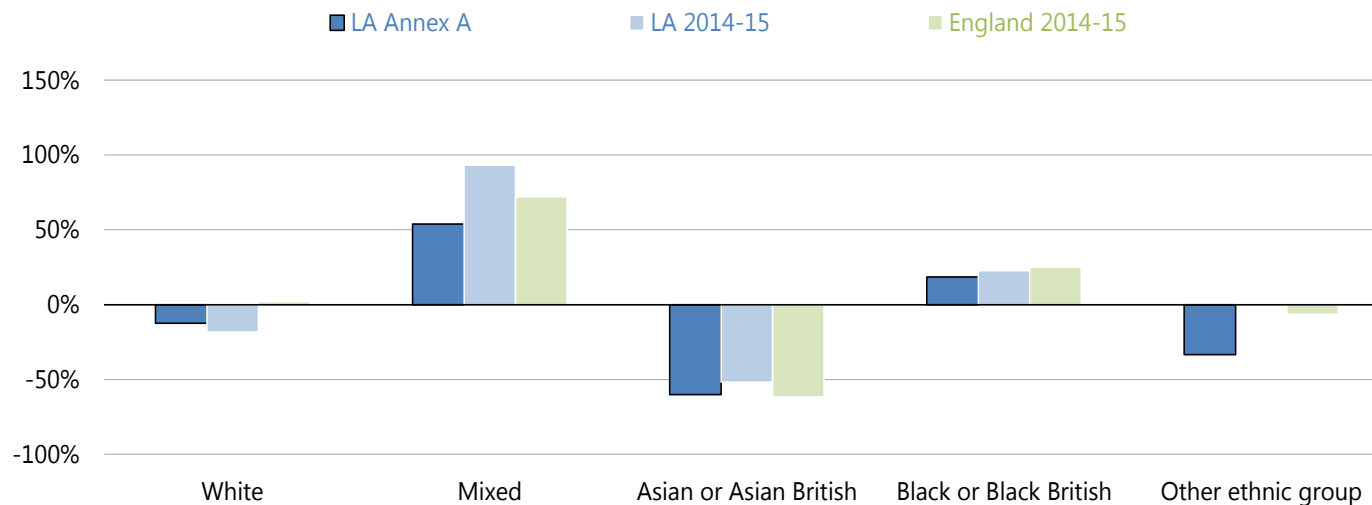
Children Protection Plans: Percentage difference between CPP and school pupils

Jan-2016 School Census (published Jun-2016), Ofsted Data Tool (published Apr'16)



Children Looked After: Percentage difference between CLA and school pupils

Jan-2016 School Census (published Jun-2016), Ofsted Data Tool (published Apr'16)

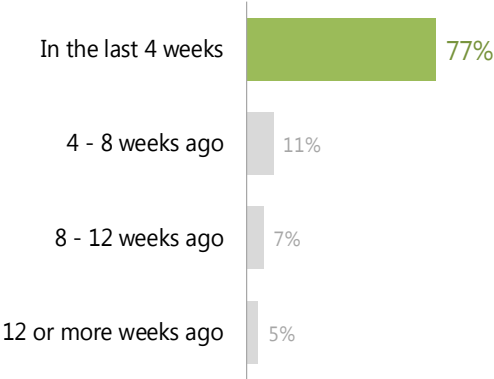


2) Highly visual dashboards

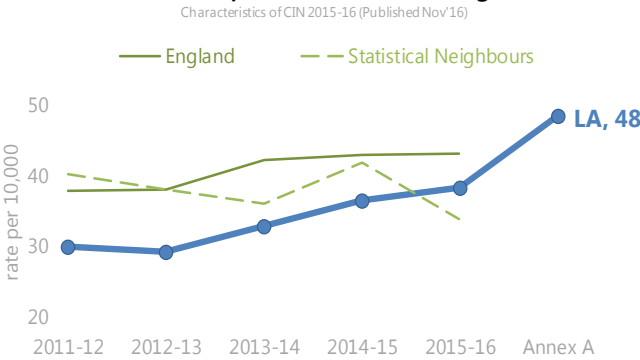
- Stephen Few: innovator of business intelligence. Focuses on practical uses of data visualisation to explore, analyse, and present quantitative business information.
- Choosing the best visualisation for effectiveness & simplicity
- Performance on a page / at a glance
- Separate 'signals' from the 'noise' (focus on what

315 children currently subject of a Child Protection Plan (CPP)

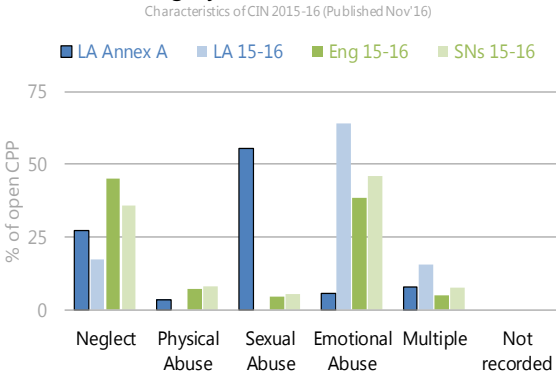
Time since the child was last seen



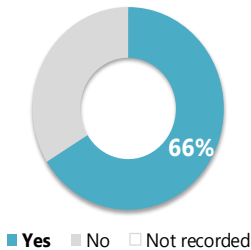
Rate of CPP (per 10,000 children aged 0-17)



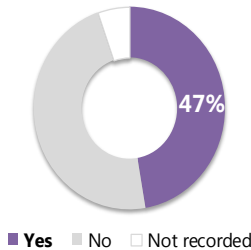
Latest category of abuse for current CPP (%)



Open CPP seen in accordance with timescales set out in their CP plan

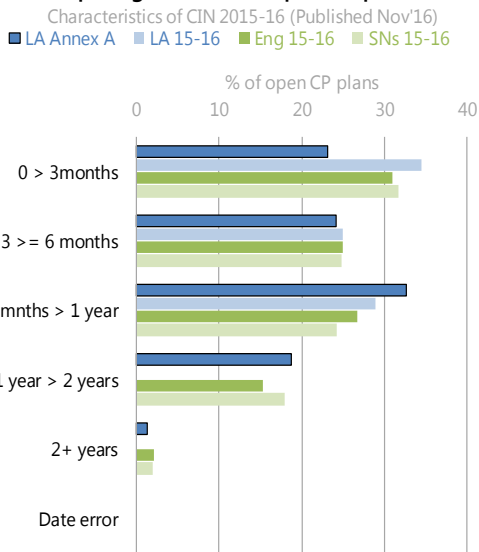


Open CPP seen alone at their last social work visit



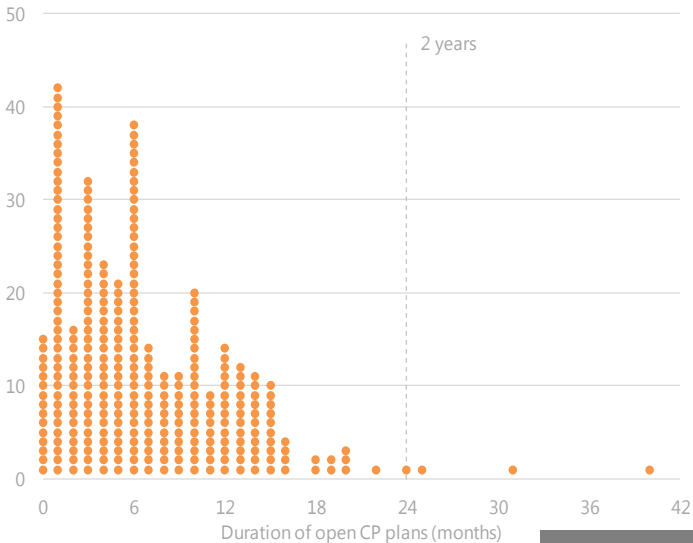
4 children (1%) have been subject of a CP plan for a duration of 2 or more years

Comparing duration of open CP plans (%)



Duration of current open CP plans (months)

Each dot represents an individual child their CP plan duration



3) Streamline performance management

- Develop a performance model to make performance management more efficient – proportionate, easily understood and scalable.
- Enable leadership teams to quickly and easily understand the current performance of a service from a succinct set of performance measures. Where a key set of measures ('Lead' indicators) reflect and represent the performance of a wider range of measures and metrics with which they have an intrinsic relationship (the 'Herd').

3) Streamline performance management (continued)

Persistent absentees

'Lead' indicator

Emotional well-being

Education

Crime

SDQ scores

5A*-C
grades at
GCSEs

In
Education,
Employment, or
Training
(EET)

Cautions
or
convictions

Re-offending

First time entrants

'Herd'

4) Working with other organisations

- Use and analyse existing data in new and innovative ways, such as annual child level data returns submitted to the Department for Education by all local authorities.
- How do LAs currently use data, and how could it be used better.
- Explore trends and patterns, lead & herd, early warning signs.

Jean Mallo

Intelligence Analyst & Visualisation Specialist

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