

# Data Essentials

London Plus & Greater London Authority

## Why use data in the first place?



Identify need



Refine and improve practices



Design new services



Convince funders of the value of your work



Influence policy

The data pipeline



## Step 1 – Data Collection

- Case Study You want to understand Social Exclusion in your local area.
- Discuss with the person next to you the type of data you would need to collect to understand Social Exclusion in your area.
- Feedback via Mentimeter code 78 o5 80

Data Collection – Top tips

- What data do you need and why?
- What do you already collect/is there open data that you can use?
- Clear and useful fields and decisions on how you are recording values

## Step 2 – Data Analysis

- Looking at the dataset on Social Exclusion provided, highlight the key limitations of this dataset.
- What challenges would you face when analysing this data?
- Feedback via Mentimeter code 78 o5 80

## 1 – Know the numerical value of each category

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4 E010000	006	Barking and Dagen	nam 016A	0.2	6.4	36	18%	5.3	45.5	27.4	5.7	59.1	35.5	29.0	High
5 E010000	007	Barking and Dagen	nam 015A	0.356	2.0	63.8	69.0	3.4	15.5	35.7	8.2	63.8	35.5	29.0	Low
5 E010000	008	Barking and Dageni	1am 015B	0.423	3.1	52.5	30.0	7.5	12.5	26.9	5.6	52.5	35.5	29.0	Low
7 E010000	10	Barking and Dagent	nam 0166	0.385	7.1	50.0	38.1	5.9	13.1	51.9 41.3	13.3	71.5	35.5	29.0	Low
9 E010000	011	Barking and Dagen	am 016C	0.494	7.0	36.7	21%	2.2	15.1	41.5	5.0	55.6	35.5	29.0	High
0 F010000	)12	Barking and Dagen	nam 015D	0.395	4.1	51.9	33.3	1.9	22.2	36.6	5.0	50.0	35.5	29.0	High
1 F010000	013	Barking and Dagen	nam 013A	0.295	3.9	53.2	55.5	3.2	0.0	22.6	3.1	61.6	35.5	29.0	low
2 E010000	014	Barking and Dagen	nam 013B	0.324	3.3	44.4	36.0	7.9		20.4	3.5	61.9	35.5	29.0	High
.3 E010000	015	Barking and Dagen	nam 009A	0.345	2.9	53.6	38.4	9.9	0.0	26.1	3.5	60.9	35.5	29.0	High
.4 E010000	016	Barking and Dagen	nam 009B	0.276	2.4	39.4	35%	7.4	1.6	17.5	2.9	53.7	35.5	29.0	High
.5 E010000	017	Barking and Dagen	nam 009C	0.313	3.3	49.4	42.0	3.7	1.2	15.6	2.9	64.8	35.5	29.0	High
.6 E010000	018	Barking and Dagen	nam 009D	0.264	3.1	57.6	39.5	7.0		18.8	3.1	66.3	35.5	29.0	High
.7 E010000	019	Barking and Dagen	nam 023A	0.299	2.6	54.0	35.0	5.8	4.4	21.9	4.8	60.6	35.5	29.0	High
8 E010000	020	Barking and Dagen	nam 023B	0.313	3.0	50.9	35.3	2.5		19.7	4.7	62.7	35.5	29.0	High
9 E010000	021	Barking and Dagen	nam 008A	0.376	2.3	44.9	42.5	3.9	7.9	24.4	4.9	61.4	35.5	29.0	High
E010000	022	Barking and Dagen	nam 008B	0.252	2.9	48.3	38.1	3.4	<b>C</b> 2	20.4	4.8	69.5	35.5	29.0	High
2 E010000	123	parking and Dagen	am 008C	0.3//	2.9	57.7	50.5	4.5	6.3	39.8	5.1	62.0	35.5	29.0	High
2 E010000	)25	Barking and Dageni	am 008F	0.506	3.0	50.9 //R 5	40.3	5.7	1 9	20 2	4.4	5.00 5.2 0	35.5	29.0	High
4 E010000	)27	Barking and Dagen	nam 001A	0.232	2.5	48.8	41.4	9.0	1.0	17.5	35	64 9	35.5	29.0	High
5 E010000	028	Barking and Dagen	nam 001B	0.423	1.6	55.8	39.1	6.3	1.8	17.8	3.5	76.8	35.5	29.0	High
6 E010000	029	Barking and Dagen	nam 001C	0.156	1.8	33.9	34%	7.9	0.7	18.1	4.2	58.7	35.5	29.0	High
7 E010000	030	Barking and Dagen	nam 001D	0.282	2.4	44.6	36.8	6.9		20.3	3.6	72.1	35.5	29.0	High
8 E010000	031	Barking and Dagen	nam 002A	0.205	2.7	45.0	42.0	4.8	2.6	19.2	3.9	55.8	35.5	29.0	High
9 E01000	)32	Barking and Dagen	nam 002B	0.193	2.7	39.7	33.6	6.0	3.0	16.3	4.3	5 <mark>6.</mark> 5	35.5	29.0	High
0 E010000	033	Barking and Dagen	nam 006A	0.224	1.8	45.2	39.4	7.7	0.6	19.3	3.6	62.6	35.5	29.0	High
1 E010000	034	Barking and Dagen	nam 003A	0.326	2.0	49.5	27.8	9.2		17.1	3.3	64.1	35.5	29.0	High
E010000	035	Barking and Dagen	nam 010A	0.199	3.1	33.0	26.2	8.8		19.3	3.4	52.2	35.5	29.0	Low
5 E010000	130	barking and Dagen	nam 010B	0.145	3.6	33.1	27.2	7.3	4.0	17.6	3.0	50.3	35.5	29.0	High
5 E010000	38	Barking and Dagon	am 003C	0.108	2.1	26.4	2070	5.9	0.5	17.5	3./	54.6 //7 /	35.5	29.0	High
6 E010000	)39	Barking and Dagen	am 003D	0.204	1.5	41 9	36.4	5.9		13.1	3.0	56.9	35.5	29.0	High
7 E010000	040	Barking and Dagen	nam 019A	0.343	3.2	53.1	40.0	2.9	3,4	18.9	3.8	64.6	35.5	29.0	High
8 E010000	041	Barking and Dagen	nam 017A	0.23	2.5	46.3	38.1	9.5	0.7	20.2	6.5	61.9	35.5	29.0	High
9 E010000	)42	Barking and Dagen	nam 017B	0.405	3.1	60.3	48%	8.9		27.2	5.5	60.3	35.5	29.0	High
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4 E0100006	Barking and Dagenham 016A	0.21	0.4	38.6	18%	5	3	27.4	5.7	59.1	35.5	2
5 E01000007	Barking and Dagenham 015A	0.356	6.8	63.8	09.0		15.5	35.7	8.2	63.8	35.5	2
6 E01000008	Barking and Dagenham 015B	0.423	3.1	52.5	30.0		12.5	26.9	5.6	52.5	35.5	2
8 F01000010	Barking and Dagenham 015C	0.383	6.9	59.5	38.1	7	13.1	41.3	13.3	57.1	35.5	
9 E01000011	Barking and Dagenham 016C	0.392	7.0	36.7	21%	2		33.5	5.0	55.6	35.5	2
10 E01000012	Barking and Dagenham 015D	0.395	4.1	51.9	33.3	1	22.2	36.6	5.2	50.0	35.5	2
11 E01000013	Barking and Dagenham 013A	0.295	3.9	53.2		3	. 0.0	22.6	3.1	61.6	35.5	2
12 E01000014	Barking and Dagenham 013B	0.324	3.3	44.4	36.0	7		20.4	3.5	61.9	35.5	1
13 E01000015	Barking and Dagenham 009A	0.345	2.9	53.6	38.4		0.0	26.1	3.5	60.9	35.5	
15 E01000017	Barking and Dagenham 009C	0.313	3.3	49.4	42.0		7 1.2	17.5	2.9	64.8	35.5	
16 E01000018	Barking and Dagenham 009D	0.264	3.1	57.6	39.5	7		18.8	3.1	66.3	3 35.5	2
17 E01000019	Barking and Dagenham 023A	0.299	2.6	54.0	35.0	5	4.4	21.9	4.8	60.6	5 35.5	1
18 E01000020	Barking and Dagenham 023B	0.313	3.0	50.9	35.3	2		19.7	4.7	62.7	35.5	2
19 E01000021	Barking and Dagenham 008A	0.376	2.3	44.9	42.5	3	7.9	24.4	4.9	61.4	35.5	
20 E01000022 21 E01000023	Barking and Dagenham 008D	0.232	2.9	57.7	50.5	4	6.3	39.8	4.8	65.8	35.5	2
22 E01000024	Barking and Dagenham 008D	0.306	3.0	50.9	40.3	3	7	19.5	4.4	63.0	35.5	2
23 E01000025	Barking and Dagenham 008E	0.282	2.9	48.5	38.2	e	1.8	20.5	4.3	58.2	35.5	2
24 E01000027	Barking and Dagenham 001A	0.275	2.3	48.8	41.4	9		17.5	3.5	64.9	35.5	
25 E01000028	Barking and Dagenham 001B	0.423	1.6	55.8	39.1	6	1.8	17.8	3.5	76.8	35.5	2
27 E01000029	Barking and Dagenham 001C	0.156	1.8	44.6	36.8	(	0.7	20.3	4.2	72 1	35.5	2
28 E01000031	Barking and Dagenham 002A	0.205	2.7	45.0	42.0	4	2.6	19.2	3.9	55.8	35.5	2
29 E01000032	Barking and Dagenham 002B	0.193	2.7	39.7	33.6	6	3.0	16.3	4.3	56.5	35.5	2
30 E01000033	Barking and Dagenham 006A	0.224	1.8	45.2	39.4	7	' 0.6	19.3	3.6	62.6	35.5	2
31 E01000034	Barking and Dagenham 003A	0.326	2.0	49.5	27.8	2	<u> </u>	17.1	3.3	64.1	35.5	2
32 E01000035	Barking and Dagenham 010A	0.199	3.1	33.0	26.2	-	4.0	19.3	3.4	52.2	35.5	2
34 E01000037	Barking and Dagenham 003B	0.145	1.4	28.4	28%	e e	0.5	17.5	3.0	54.6	35.5	2
35 E01000038	Barking and Dagenham 003C	0.169	3.1	37.0	35.2	5		15.1	3.8	47.4	35.5	2
36 E01000039	Barking and Dagenham 003D	0.204	1.5	41.9	36.4	5		13.5	3.4	56.9	35.5	2
37 E01000040	Barking and Dagenham 019A	0.343	3.2	53.1	40.0	2	3.4	18.9	3.8	64.6	35.5	2
38 E01000041	Barking and Dagenham 017A	0.23	2.5	46.3	38.1	2	0.7	20.2	6.5	61.9	35.5	2
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3	LSOA Code	LSOA Name	Affecting	Accessibil	car	one	g 50 or	cannot		ce of	limiting	about	unsafe	
4	E01000006	Barking and Dagenham 016A	0.21	6.4	38.6	18%	5.3		27.4	5.7	59	35.5	29.0	gh
5	E01000007	Barking and Dagenham 015A	0.356	6.8	63.8	69.0	3.4	15.5	35.7	8.2	63	35.5	29.0	w
6	E0100008	Barking and Dagenham 015B	0.423	3.1	52.5	30.0	7.5	12.5	26.9	5.6	52	35.5	29.0	w
7	E01000009	Barking and Dagenham 016B	0.385	7.1	53.0	35.4	3.9		31.9	6.7	71	35.5	29.0	w
8	E01000010	Barking and Dagenham 015C	0.494	6.9	59.5	38.1	7.1	13.1	41.3	13.3	57	35.5	29.0	w
9	E01000011	Barking and Dagenham 016C	0.392	7.0	36.7	21%	2.2		33.5	5.0	55	35.5	29.0	gh
10	E01000012	Barking and Dagenham 015D	0.395	4.1	51.9	33.3	1.9	22.2	36.6	5.2	50	35.5	29.0	gh
11 12	E01000013	Barking and Dagennam 013A	0.295	3.9	53.2	26.0	3.2	0.0	22.6	3.1	61	35.5	29.0	w
12	E01000014	Barking and Dagenham 013B	0.324	3.3	44.4 E2.6	36.0	7.9	0.0	20.4	3.5	61	35.5	29.0	gn gh
13 14	E01000015	Barking and Dagenham 009A	0.343	2.5	30.0	35%	5.5	1.6	17.5	3.3	53	35.5	29.0	gh
15	E01000017	Barking and Dagenham 009C	0.313	3.3	49.4	42.0	3.7	1.0	15.6	2.9	64	35.5	29.0	gh
16	E01000018	Barking and Dagenham 009D	0.264	3.1	57.6	39.5	7.0		18.8	3.1	66	35.5	29.0	gh
17	E01000019	Barking and Dagenham 023A	0.299	2.6	54.0	35.0	5.8	4.4	21.9	4.8	60	35.5	29.0	gh
18	E0100020	Barking and Dagenham 023B	0.313	3.0	50.9	35.3	2.5		19.7	4.7	62	35.5	29.0	gh
19	E01000021	Barking and Dagenham 008A	0.376	2.3	44.9	42.5	3.9	7.9	24.4	4.9	61	35.5	29.0	gh
20	E01000022	Barking and Dagenham 008B	0.252	2.9	48.3	38.1	3.4		20.4	4.8	69	35.5	29.0	gh
21	E01000023	Barking and Dagenham 008C	0.377	2.9	57.7	50.5	4.5	6.3	39.8	5.1	65	35.5	29.0	gh
22	E01000024	Barking and Dagenham 008D	0.306	3.0	50.9	40.3	3.7		19.5	4.4	63	35.5	29.0	gh
23	E01000025	Barking and Dagenham 008E	0.282	2.9	48.5	38.2	6.7	1.8	20.5	4.3	58	35.5	29.0	gh
24	EU1000027	Barking and Dagenham 001A	0.275	2.3	48.8	41.4	9.0	1.0	17.5	3.5	64	35.5	29.0	gh
23 26	E01000028	Barking and Dagonham 0016	0.423	1.6	35.8	39.1 34%	0.3	1.8	17.8	3.5	76	35.5	29.0	gn gh
20 27	F01000029	Barking and Dagenham 0010	0.120	1.8	33.9	3470	7.9	0.7	20.2	4.2		35.5	29.0	gn ah
28	E01000031	Barking and Dagenham 001D	0.202	2.4	44.0	42.0	4.8	2.6	19.2	3.0	55	35.5	29.0	gn gh
29	E01000032	Barking and Dagenham 002R	0.193	2.7	39.7	33.6	0	3.0	16.3	4.3	56	35.5	29.0	gh
30	E01000033	Barking and Dagenham 006A	0.224	1.8	45.2	39.4	7.7	0.6	19.3	3.6	62	35.5	29.0	gh
31	E01000034	Barking and Dagenham 003A	0.326	2.0	49.5	27.8	9.2		17.1	3.3	64	35.5	29.0	gh
32	E01000035	Barking and Dagenham 010A	0.199	3.1	33.0	26.2	8.8		19.3	3.4	52	35.5	29.0	w
33	E01000036	Barking and Dagenham 010B	0.145	3.6	33.1	27.2	7.3	4.0	17.6	3.0	50	35.5	29.0	gh
34	E01000037	Barking and Dagenham 003B	0.108	1.4	28.4	28%	6.9	0.5	17.5	3.7	54	35.5	29.0	gh
35	E01000038	Barking and Dagenham 003C	0.169	3.1	37.0	35.2	5.9		15.1	3.8	47	35.5	29.0	gh
36	E01000039	Barking and Dagenham 003D	0.204	1.5	41.9	36.4	5.3		13.5	3.4	56	35.5	29.0	gh
37	E01000040	Barking and Dagenham 019A	0.343	3.2	53.1	40.0	2.9	3.4	18.9	3.8	64	35.5	29.0	gh
	E01000011	Barking and Dagenham 0174	0.23	2.5	46.3	38.1	9.5	0.7	20.2	6.5	61	35.5	29.0	gh
38	E01000041	Darking and Dagenham 01/A	0.20	2.0										

which suggests this data is borough wide rather than for

3 - All figures are the same individual LSOAs

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5	E01000007	Barking and Dagenham 015A	0.356	6.8	63	69.0	3.4	15.5	35.7	8.2	63.8	35.5	29.0	Lo
6	E01000008	Barking and Dagenham 015B	0.423	3.1	52	30.0	7.5	12.5	26.9	5.6	52.5	35.5	29.0	Lo
7	E01000009	Barking and Dagenham 016B	0.385	7.1	53	35.4	3.9		31.9	6.7	71.3	35.5	29.0	Lo
8	E01000010	Barking and Dagenham 015C	0.494	6.9	59	38.1	7.1	13.1	41.3	13.3	57.1	35.5	29.0	Lo
9	E01000011	Barking and Dagenham 016C	0.392	7.0	36	21%	2.2		33.5	5.0	55.6	35.5	29.0	Hi
10	E01000012	Barking and Dagenham 015D	0.395	4.1	51	33.3	1.9	22.2	36.6	5.2	50.0	35.5	29.0	Hi
11	E01000013	Barking and Dagenham 013A	0.295	3.9	53		3.2	0.0	22.6	3.1	61.6	35.5	29.0	Lo
12	E01000014	Barking and Dagenham 013B	0.324	3.3	44	36.0	7.9		20.4	3.5	61.9	35.5	29.0	Hi
13	E01000015	Barking and Dagenham 009A	0.345	2.9	53	38.4	9.9	0.0	26.1	3.5	60.9	35.5	29.0	Hi
14	E01000016	Barking and Dagenham 009B	0.276	2.4	39	35%	7.4	1.6	17.5	2.9	53.7	35.5	29.0	Hi
15	E01000017	Barking and Dagenham 009C	0.313	3.3	49	42.0	3./	1.2	15.6	2.9	64.8	35.5	29.0	Hi
10	E01000018	Barking and Dagenham 009D	0.264	3.1	5/	39.5	7.0	4.4	18.8	3.1	60.5	35.5	29.0	HI
18	E01000019	Barking and Dagenham 023A	0.233	3.0	50	35.0	2.5	4.4	19.7	4.0	62.7	35.5	29.0	н
19	F01000021	Barking and Dagenham 0230	0.376	2.3	44	42.5	3.9	7.9	24.4	4.7	61.4	35.5	29.0	Н
20	E01000022	Barking and Dagenham 008B	0.252	2.9	48	38.1	3.4		20.4	4.8	69.5	35.5	29.0	Hig
21	L01000025	Darking and Dagenham 000C	0.377	2.5	57	50.5	4.5	6.3	39.8	5.1	65.8	35.5	29.0	Hi
22	E0100024	Barking and Dagenham 008D	0.306	3.0	50	40.3	3.7		19.5	4.4	63.0	35.5	29.0	Hig
23	E01000025	Barking and Dagenham 008E	0.282	2.9	48	38.2	6.7	1.8	20.5	4.3	58.2	35.5	29.0	Hig
24	E01000027	Barking and Dagenham 001A	0.275	2.3	48	41.4	9.0		17.5	3.5	64.9	35.5	29.0	Hig
25	E01000028	Barking and Dagenham 001B	0.423	1.6	55	39.1	6.3	1.8	17.8	3.5	76.8	35.5	29.0	Hig
26	E01000029	Barking and Dagenham 001C	0.156	1.8	33	34%	7.9	0.7	18.1	4.2	58.7	35.5	29.0	Hig
27	E01000030	Barking and Dagenham 001D	0.282	2.4	44	36.8	6.9	2.5	20.3	3.6	72.1	35.5	29.0	Hig
28	E01000031	Barking and Dagenham 002A	0.205	2.7	45	42.0	4.8	2.6	19.2	3.9	55.8	35.5	29.0	I HI
30	F01000032	Barking and Dagenham 002B	0.193	2./	25	39.0	0.0	0.6	10.3	4.3	50.5 62.6	35.5	29.0	
31	E01000034	Barking and Dagenham 000A	0.326	2.0	49	27.8	9.2	0.0	17.1	3.3	64.1	35.5	29.0	Hie
32	E01000035	Barking and Dagenham 010A	0.199	3.1	33	26.2	8.8		19.3	3.4	52.2	35.5	29.0	Lo
33	E01000036	Barking and Dagenham 010B	0.145	3.6	33	. 27.2	7.3	4.0	17.6	3.0	50.3	35.5	29.0	Hig
34	E0100037	Barking and Dagenham 003B	0.108	1.4	28	28%	6.9	0.5	17.5	3.7	54.6	35.5	29.0	Hig
35	E01000038	Barking and Dagenham 003C	0.169	3.1	37	35.2	5.9		15.1	3.8	47.4	35.5	29.0	Hig
36	E01000039	Barking and Dagenham 003D	0.204	1.5	41	36.4	5.3		13.5	3.4	56.9	35.5	29.0	Hig
37	E01000040	Barking and Dagenham 019A	0.343	3.2	53	. 40.0	2.9	3.4	18.9	3.8	64.6	35.5	29.0	Hig
38	E01000041	Barking and Dagenham 017A	0.23	2.5	46	38.1	9.5	0.7	20.2	6.5	61.9	35.5	29.0	Hig
20	E01000042	Barking and Dagenham 017B	0.405	3.1	60	48%	8.9		27.2	5.5	60.3	35.5	29.0	Hig
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4 - Data has been input in the wrong format

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4 E0	1000006	Barking and Dagenham 016A	0.21	6.4	38.6	18%	5.3	cannot	27.4	5.7	59.1	35.5	29	DHigh
5 E0	1000007	Barking and Dagenham 015A	0.356	6.8	63.8	69.0	3.4	15.5	35.7	8.2	63.8	35.5	29	DLow
6 E0	1000008	Barking and Dagenham 015B	0.423	3.1	52.5	30.0	7.5	12.5	26.9	5.6	52.5	35.5	29	0 Low
7 E0	1000009	Barking and Dagenham 016B	0.385	7.1	53.0	35.4	3.9		31.9	6.7	71.3	35.5	29	D Low
8 E0	1000010	Barking and Dagenham 015C	0.494	6.9	59.5	38.1	7.1	13.1	41.3	13.3	57.1	35.5	29	0 Low
9 E0	1000011	Barking and Dagenham 016C	0.392	7.0	36.7	21%	2.2		33.5	5.0	55.6	35.5	29	) High
10 E0	1000012	Barking and Dagenham 015D	0.395	4.1	51.9	33.3	1.9	22.2	36.6	5.2	50.0	35.5	29	) High
11 E0	1000013	Barking and Dagenham 013A	0.295	3.9	53.2		3.2	0.0	22.6	3.1	61.6	35.5	25	) Low
12 E0	1000014	Barking and Dagenham 013B	0.324	3.3	44.4	36.0	7.9		20.4	3.5	61.9	35.5	25	) High
13 EO	1000015	Barking and Dagenham 009A	0.345	2.9	53.6	38.4	9.9	0.0	26.1	3.5	60.9	35.5	29	) High
14 E0	1000016	Barking and Dagenham 009B	0.276	2.4	39.4	35%	7.4	1.6	17.5	2.9	53.7	35.5	29	0 Higł
15 E0	1000017	Barking and Dagenham 009C	0.313	3.3	49.4	42.0	3.7	1.2	15.6	2.9	64.8	35.5	29	0 Higł
16 E0	1000018	Barking and Dagenham 009D	0.264	3.1	57.6	39.5	7.0		18.8	3.1	66.3	35.5	25	0 Higł
17 E0	1000019	Barking and Dagenham 023A	0.299	2.6	54.0	35.0	5.8	4.4	21.9	4.8	60.6	35.5	29	0 Higł
18 E0	1000020	Barking and Dagenham 023B	0.313	3.0	50.9	35.3	2.5		19.7	4.7	62.7	35.5	29	0 High
19 E0	1000021	Barking and Dagenham 008A	0.376	2.3	44.9	42.5	3.9	7.9	24.4	4.9	61.4	35.5	29	0 High
20 E0	1000022	Barking and Dagenham 008B	0.252	2.9	48.3	38.1	3.4		20.4	4.8	69.5	35.5	29	P High
21 E0	1000023	Darking and Dagenham 008C	0.3/7	2.9	57.7	50.5	4.5	6.3	39.8	5.1	65.8	35.5	2	PHigh
22 E0	1000024	Barking and Dagennam 008D	0.306	3.0	50.9	40.3	3.7	4.0	19.5	4.4	63.0	35.5	2	PHigh
23 E0	1000025	Barking and Dagonham 008E	0.282	2.9	48.5	38.2	0./	1.8	17 5	4.5	58.2	35.5	2	DHIG
25 FO	1000027	Barking and Dagenham 001R	0.275	2.3	40.0	30.1	5.0	1 9	17.0	3.5	76.9	33.5	2	DHiel
26 F0	1000029	Barking and Dagenham 0010	0.156	1.8	33.9	34%	7.9	0.7	18.1	4.2	58.7	35.5	2	DHie
27 F0	1000030	Barking and Dagenham 001D	0.282	2.0	44.6	36.8	6.9	5.7	20.3	3.6	72 1	35.5	2	DHip
28 E0	1000031	Barking and Dagenham 002A	0.205	2.7	45.0	42.0	4,8	2.6	19.2	3.9	55.8	35.5	2	DHieł
29 E0	1000032	Barking and Dagenham 002B	0.193	2.7	39.7	33.6	6.0	3.0	16.3	4.3	56.5	35.5	2	DHigh
30 E0	1000033	Barking and Dagenham 006A	0.224	1.8	45.2	39.4	7.7	0.6	19.3	3.6	62.6	35.5	2	DHigh
31 E0	1000034	Barking and Dagenham 003A	0.326	2.0	49.5	27.8	9.2		17.1	3.3	64.1	35.5	2	DHigh
32 E0	1000035	Barking and Dagenham 010A	0.199	3.1	33.0	26.2	8.8		19.3	3.4	52.2	35.5	29	DLow
33 E0	1000036	Barking and Dagenham 010B	0.145	3.6	33.1	27.2	7.3	4.0	17.6	3.0	50.3	35.5	25	) High
34 E0	1000037	Barking and Dagenham 003B	0.108	1.4	28.4	28%	6.9	0.5	17.5	3.7	54.6	35.5	25	0 High
35 E0	1000038	Barking and Dagenham 003C	0.169	3.1	37.0	35.2	5.9		15.1	3.8	47.4	35.5	25	0 High
36 E0	1000039	Barking and Dagenham 003D	0.204	1.5	41.9	36.4	5.3		13.5	3.4	56.9	35.5	25	DHigh
37 E0	1000040	Barking and Dagenham 019A	0.343	3.2	53.1	40.0	2.9	3.4	18.9	3.8	64.6	35.5	29	) High
38 E0	1000041	Barking and Dagenham 017A	0.23	2.5	46.3	38.1	9.5	0.7	20.2	6.5	61.9	35.5	29	) High
	1000042	Barking and Dagenham 017B	0.405	3.1	60.3	48%	8.9		27.2	5.5	60.3	35.5	25	0 Higł
39 E0	1000042	0												

## 5 - Data needs to be converted into numbers

## Data Analysis – Top tips

- Get to know your data
- Understand the limitations of your data and the caveats which come with your findings.
- Sample size

## Data Analysis – Top tips



Calculating the mean/ average



Standard deviation and confidence intervals



Correlation between variables



**Regression modelling** 



Sub-population analysis

Data Analysis – Top tips

- The DfE conducted research into graduate earnings by subject studied at university
- Students who studied medicine and dentistry, or economics, earned most after graduation
- What's missing from this analysis?



## Step 3 – Data Visualisation

• Looking at the following data visualisations, what are the problems with each?



Proportion of employees earning below LLW in

### Proportion of employees earning below LLW in Croydon



Step 3 – Data Visualisation

#### Omitting the baseline

### Proportion of employees earning below LLW in Croydon



#### Manipulating the Y axis

### Proportion of employees earning below LLW in Croydon

100



Step 3 – Data Visualisation

#### Y axis proportionate to data

Adding comparison lines







## Step 3 – Data Visualisation



Barking and Dagenham = Barnet = Bexley = Brent = Bromley = Camden = Croydon

Croydon 31% 69%

Below LLW Above LLW

Step 3 – Data Visualisation





### Percentage of respondents earning less than the London



#### Percentage of respondents earning less than the London Living Wage by Borough

## Step 3 – Data Visualisation

To replicate this with different datasets, <u>use this excel template</u> from the London datastore. Data can be input at the ward or Borough level.



## Data Visualisation – Top tips

- Clear and concise messaging need people to be able to look at the data visualisation and understand what it means.
- Use appropriate chart for presenting data.
- Use colour with intention

## Thankyou!

### Contacts

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