

Poverty Modelling & Digital Exclusion

Profile showing Sefton top 10% LSOAs affected by Poverty, with 'Mosaic' digital exclusion data (including technology adoption, online access and consumer view preferences).

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Overview

The purpose of this study is to ascertain if there is a local connection between poverty and groups of people who are digitally excluded in Sefton.

The Council makes use of the Experian's Mosaic Public Sector product, which is designed to identify groupings of consumer behaviour for households and postcodes across the UK. The methodology used is unique to Experian, and has been developed over many years to create classifications using data from a wide variety of different sources and different levels of geography.

The Experian's Mosaic Public Sector product uses a total of 440 data elements, including the edited Electoral Roll, Council Tax property valuations, house sale prices, income, self-reported lifestyle surveys and other compiled consumer data. It is designed to describe the UK population in terms of their typical demographics, social, economic, cultural, and lifestyle behaviour.

The population is classified into 66 'types' by comparing 49 million UK individuals and 26 million UK households, based on the household postcode. The data identifies groups of individuals or households that are as similar as possible to each other and as different as possible from any other group.

The 'types' include information about property type, occupier's age, housing tenure, household income, dependent children, channel preference and technology adoption. This information is presented as shown below:





These 'Types' are group together hierarchically into 15 socio-demographic 'Groups', which are summarised in the table below. *The full classification for each MOSAIC 'group' and 'type' in included in appendix.1.*

Table 1: Summary Description of Mosaic Groups						
Mosaic Group	Short Description					
A - Country Living	Well-off owners in rural locations enjoying the benefits of country life					
B - Prestige Positions	Established families in large detached homes living upmarket lifestyles					
C - City Prosperity	High status city dwellers pursuing careers with high rewards					
D - Domestic Success	Thriving families who are busy bringing up children and following careers					
E - Suburban Stability	Mature suburban owners living settled lives in mid-range housing					
F - Senior Security	Older people with assets who are enjoying a comfortable retirement					
G - Rural Reality	Householders living in inexpensive homes in village communities					
H - Aspiring Homemakers	Younger households settling down in housing priced within their means					
I - Urban Cohesion	Residents of settled urban communities with a strong sense of identity					
J - Rental Hubs	Educated young people privately renting in urban neighbourhoods					
K - Modest Traditions	Mature homeowners of value homes enjoying stable lifestyles					
L - Transient Renters	Single people privately renting low cost homes for the short term					
M - Family Basics	Families with limited resources who have to budget to make ends meet					
N - Vintage Value	Elderly people reliant on support to meet financial or practical needs					
O - Municipal Challenge	Urban renters of social housing facing an array of challenges					

Sefton Households Mosaic Group Overview

Each household in Sefton has then been placed into one of 15 socio-demographic segmentation 'groups' (A-O) and 66 detailed 'types' with key features which make each category distinctive. These are subjective and are intended to highlight key issues rather than to be comprehensive.

Clearly not every one of the Borough's 125,353 households will match exactly to just one of 66 different Mosaic 'types' or 15 Mosaic 'groups'. The description should be recognised as "generic types", examples to which individual cases only approximate with various degrees of exactness.

118,478 households across Sefton have been placed into 14 of the 15 Mosaic groups, as shown in table.2. (No households within Sefton were classified within Group C - City Prosperity).

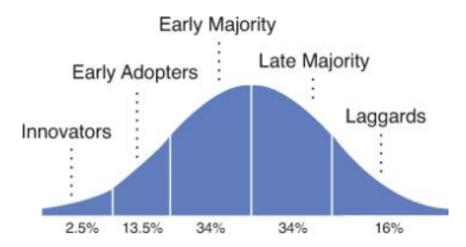


Table 2: Distribution of Mosaic groups in Sefton compared to Merseyside, the North West and England

Mosaic Group	Sefton Count	Sefton %	Merseyside %	North West %	England %
A - Country Living	246	0.21%	0.19%	2.26%	5.85%
B - Prestige Positions	11,509	9.71%	5.46%	6.62%	6.84%
C - City Prosperity	0	0.00%	0.08%	0.24%	4.77%
D - Domestic Success	6,054	5.11%	4.26%	6.69%	8.04%
E - Suburban Stability	15,958	13.47%	9.28%	8.49%	6.00%
F - Senior Security	18,901	15.95%	10.71%	9.80%	8.74%
G - Rural Reality	547	0.46%	0.20%	1.55%	5.46%
H - Aspiring Homemakers	12,724	10.74%	9.57%	10.24%	9.71%
I - Urban Cohesion	906	0.76%	1.19%	3.49%	5.48%
J - Rental Hubs	4,482	3.78%	6.45%	6.01%	7.66%
K - Modest Traditions	8,711	7.35%	7.64%	7.05%	4.43%
L - Transient Renters	8,308	7.01%	11.51%	10.94%	6.60%
M - Family Basics	8,654	7.30%	9.11%	10.18%	7.83%
N - Vintage Value	14,459	12.20%	13.18%	9.50%	6.59%
O - Municipal Challenge	7,019	5.92%	11.18%	6.93%	6.01%

In ordered to identify potential the level of technology adoption across the borough we first refer to the Innovation/Technology Adoption Lifecycle.

The technology adoption lifecycle is a sociological model that describes the adoption or acceptance of a new product or innovation, according to the demographic and psychological characteristics of defined adopter groups. The process of adoption over time is typically illustrated as a classical normal distribution or "bell curve" as shown below:



The model indicates that the first group of people to use a new product is called "innovators", followed by "early adopters". Next come the "early majority" and "late majority", and the last group to eventually adopt a product or technology are called "laggards". Independent research has found that typically:

- Innovators tend to be more educated, more prosperous and more risk-oriented.
- Early adopters younger, more educated, tended to be community leaders, less prosperous.



- Early majority more conservative but open to new ideas, active in community and influence to neighbours.
- Late majority older, less educated, fairly conservative and less socially active.
- Laggards very conservative, oldest and least educated.

Using the Experian 'Channel Preference' and 'Technology Adoption' data sets, we can able identify potential digital exclusion across the borough:

- Technology Adoption the numbers of households which fell into Mosaic types deemed to be technology 'laggards'.
- **Online Access** the estimated number of households from 'types' where 5% and more had very low online access levels of monthly, or not at all.
- **Consumer Views** the estimated number of households from 'types' where 80% and over selected Post or Personal Exchange as their preferred consultation and engagement method.

The figures are summarised in Table.3 below:

Table .3

	All Households		Top 15% LSOA			
	Count	Pecent	Number	Pecent	Households	Pecent
Total	125353		189			
Technology Adapation - Laggards	8958	7%	24	13%	4829	54%
Online Access - Mothly or Not at All (5%+)	2842	2%	29	15%	698	25%
Consumer View - Post & Phone (80%+)	32858	26%	29	15%	11508	35%

- 1) **Technology Adoption** Approximately 9,000 households in Sefton (7%) fall into the category of 'technology laggard' households, not adopting new technology, and more than half of these are located in just 24 Lower Super Output Areas (LSOAs) within Sefton.
- 2) *Limited Online Access* Approximately 3,000 households in Sefton (2%) have limited to no online access, with a quarter of these located in 15% (29) LSOAs.
- 3) **Consumer View** Over a quarter of households within Sefton (32,858) are thought to prefer being consulted/engaged with by post or in person, located in just 29 LSOAs.

The top 15% of LSOAs for each these three groups have been mapped and compared with the top 10% of areas across the borough affected by poverty (including both older people and working age / young people).



Financial hardship, low income and potential poverty in Sefton

The Office for National Statistics' (ONS) UK Living Costs and Food Survey (LCF) collects information on spending patterns and the cost of living that reflect household budgets. It is conducted throughout the year, across the whole of the UK, and is the most significant survey on household spending in the UK. Based on the most recent Living Costs and Food Survey, the UK median disposable household income was £27,300 in the financial year ending (FYE) 2017, up 2.3% on the previous year (after accounting for inflation and household composition).

National Statistics released by the Government on the 22nd March 2018, 'Households Below Average Income', analyses the UK income distribution (between1994/95 - 2016/17) and shows that in 2016/17, the average (median) real terms household income before housing costs is £494 per week (around £25,700 per year). Average household income after housing costs is £425 per week (around £22,200 per year). Estimates are provided for average incomes, and for the number and percentage of people living in low income households. The main stories from this report are:

- The majority of household income in the UK comes from either earnings or state support. There is a clear pattern of higher income households receiving more of their income from earnings, and lower income households more of their income from state support.
- The percentage of individuals in relative low income has been broadly stable in recent years at around 16% before housing costs (BHC) and 21% with housing costs taken into account (AHC). Relative low income sets a threshold as a proportion of the UK average (median) income and moves each year as average income changes. It is used to measure the number and proportion of individuals who have incomes below this threshold (typically 50, 60 or 70% of median).
- Children are at higher risk of living in absolute low income than the overall UK population.
- Pensioners are at lower risk of living in low income AHC than the overall UK population.

The challenge with this national 'Households Below Average Income' (HBAI) report is that it is not location specific and therefore cannot be used to identify specific geographic areas across the borough of Sefton with households below average income or areas/communities that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income.

In order to identify areas in Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income the Council again makes use of the Experian's Mosaic Public Sector product.

The HBAI report shows that the average (median) household income across the UK in 2016/17, before housing costs (BHC) is around £25,700 per year, this represents approximately 44.7% of the households in Sefton according to the Mosaic financial data, as illustrated below in Table.4, below.



Table.4 MOSAIC Household Income Data.						
Income Range (£,000)	Approximate Households (to the nearest 1000)	%				
<15	37,000	29.4				
15-19	8,000	6.3				
20-29	22,000	18.0				
30-39	18,000	14.7				
40-49	24,000	19.0				
50-59	6,000	4.4				
70-99	7,000	5.8				
100-149	2,000	1.5				
150+	1,000	0.9				

29.4% of the households across the borough of Sefton have an average (median) household income before housing costs (BHC) less that £15,000 p.a.

Further data sets have then been analyzed and mapped to validate the MOSAIC data, then layered to identify geographic concurrent areas of deprivation and potential financial hardship. This includes national and local data sets such as the English indices of deprivation (IMD) 2015, Fuel Poverty, Benefits and Pensions data and applications for Local Welfare Support. The following table (Table.5) provides a summary of those data sets that have been used to further validate the MOSAIC profiles and to identify geographic areas across the borough with households below average income (and people with low / irregular income levels) where targeted support appears to be most needed.

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National and local data sets used to identify areas across the borough of Sefton that may susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income, where targeted support appears to be most needed.

Data	Older People (65+)	Working Age & Younger People
	'Solo Retirees'	'Families with Needs'
Experian	'Bungalow Heaven'	'Solid Economy'
Mosaic	'Seasoned Survivors'	'Low Income Workers'
Public	'Aided Elderly'	'Streetwise Singles'
Sector	'Pocket Pensions'	'High Rise Residents'
Profiles	'Dependent Greys'	'Inner City Stalwarts'
	'Estate Veterans'	



2015 Indices of Multiple Deprivation (IMD)	Income Deprivation Affecting Older People	Income Deprivation Affecting Children
DWP Benefits / UK local	Emergency Limited Assistance Scheme (ELAS) 3Yr statistics- Feb 16	Emergency Limited Assistance Scheme (ELAS) 3Yr statistics- Feb 16
area labour market	Pension Credits - Feb 16	Employment Support Allowance - Feb 16
data (NOMIS) /	State Pensions - Feb 16	Disability Living Allowance (under 16) - Feb 16
Department	Fuel Poverty - 2014	Housing Benefits - Feb 16
of Energy		Income Support - Feb 16
& Climate		Job Seekers Allowance - Feb 16
Change		Universal Credits - Jun 16

The Office of National Statistics (ONS) 2015 mid-year population estimates show that the resident population of Sefton is 273,700, with more than 1 in 5 people living in Sefton over 65-years-old. http://www.investsefton.com/investment/demographics/)

With consideration to the relatively high number of residents over 65-years-old, to accurately identify areas across the borough of Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income, the analysis has been split into two groups to represent households with "Older People" and "Working Age & Younger people."



Households across Sefton with below average income (People Aged 65+)

The following table provides a statistical summary of the number of households in across the borough of Sefton (by ward) that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income. The figures have been reflected as top 5%, 10% & 15% affected areas.

Table.6

Number and percentage of households in the top 5%, 10% & 15% affected areas that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income.

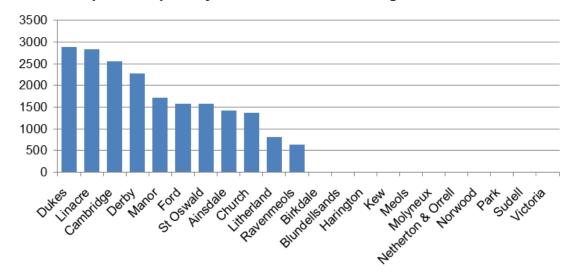
(People Aged 65+)

Ward	All House-	Highest Affected 5%		Highest Affected 10%		Highest Affected 15%	
	holds	House- holds	%	House- holds	%	House- holds	%
Ainsdale	5558		0%		0%	1422	26%
Birkdale	5789		0%		0%		0%
Blundellsands	5069		0%		0%		0%
Cambridge	6307		0%		0%	2554	40%
Church	5321	790	15%	1373	26%	1373	26%
Derby	6055	880	15%	2272	38%	2272	38%
Dukes	6963	1957	28%	2882	41%	2882	41%
Ford	6399	1576	25%	1576	25%	1576	25%
Harington	5850		0%		0%		0%
Kew	5241		0%		0%		0%
Linacre	6299	1347	21%	2028	32%	2824	45%
Litherland	5325		0%		0%	816	15%
Manor	4961	611	12%	1200	24%	1720	35%
Meols	5458		0%		0%		0%
Molyneux	5277		0%		0%		0%
Netherton & Orrell	4874		0%		0%		0%
Norwood	6063		0%		0%		0%
Park	5340		0%		0%		0%
Ravenmeols	4369		0%	647	15%	647	15%
St Oswald	5019		0%	965	19%	1576	31%
Sudell	4923		0%		0%		0%
Victoria	6126		0%		0%		0%
Total	122,586	7,161	6%	12,943	11%	19,662	16%

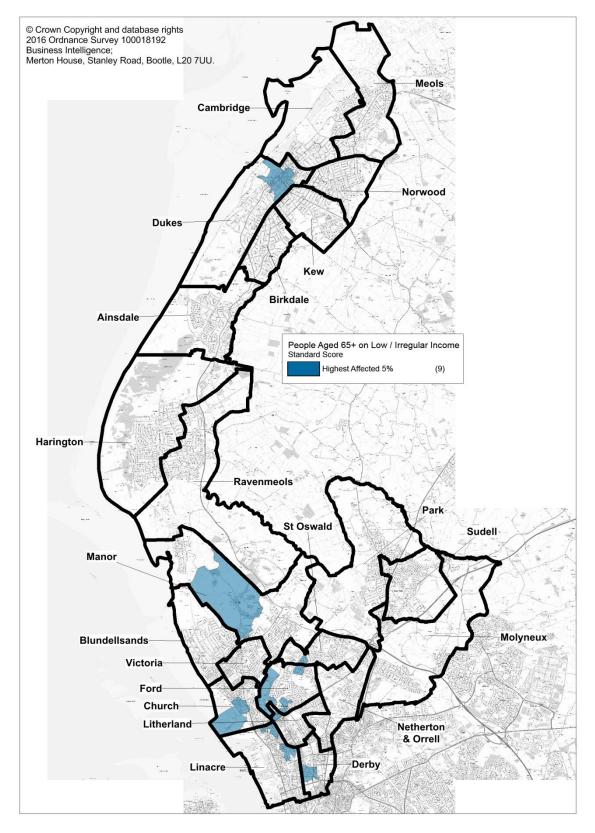
Chart 1

Number of households in the top 15% affected areas that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income. (People Aged 65+).

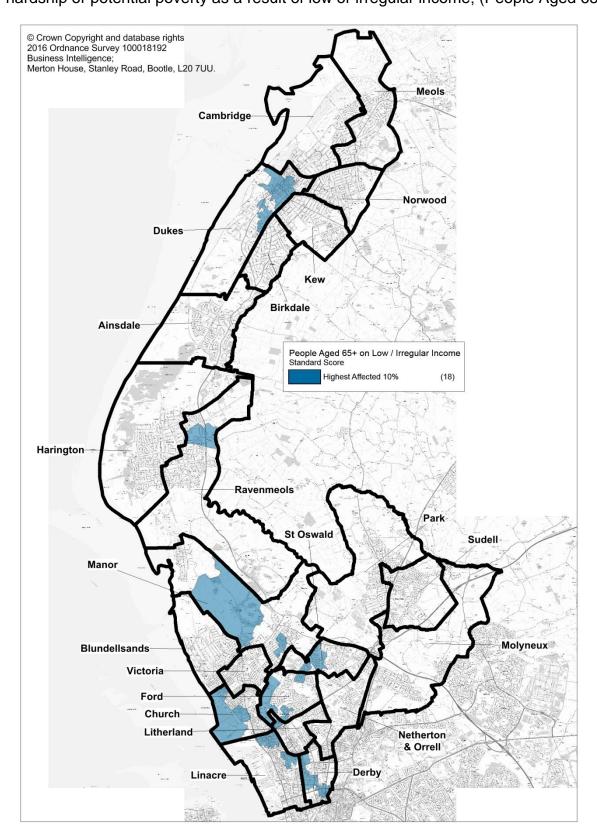
Number of households in the top 15% affected areas, that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income.



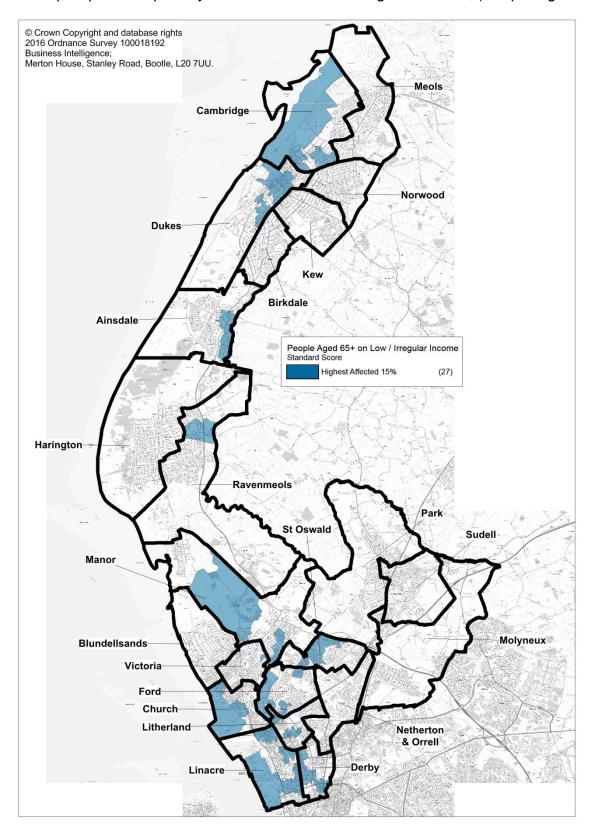
Map 1
Highest 5% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (People Aged 65+).



Map 2
Highest 10% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (People Aged 65+).



Map 3
Highest 15% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (People Aged 65+).





Households across Sefton with below average income (Working Age & Younger People)

The following Table provides a statistical summary of the number of households in across the borough of Sefton (by ward) that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income. The figures have been reflected as top 5%, 10% & 15% affected areas.

Table.7

Number and percentage of households in the top 5%, 10% & 15% affected areas that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income.

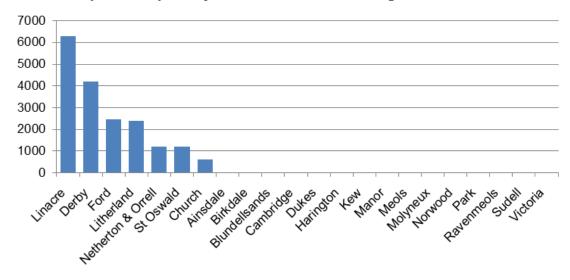
(Working Age & Younger People)

Working Age & Younger	All House-	Highest Affected 5%		Highest Affected 10%		Highest Affected 15%	
People	holds	House- holds	%	House- holds	%	House- holds	%
Ainsdale	5558		0%		0%		0%
Birkdale	5789		0%		0%		0%
Blundellsands	5069		0%		0%		0%
Cambridge	6307		0%		0%		0%
Church	5321		0%	626	12%	626	12%
Derby	6055	1271	21%	1998	33%	4186	69%
Dukes	6963		0%		0%		0%
Ford	6399	667	10%	1294	20%	2479	39%
Harington	5850		0%		0%		0%
Kew	5241		0%		0%		0%
Linacre	6299	3463	55%	4822	77%	6299	100%
Litherland	5325		0%	2408	45%	2408	45%
Manor	4961		0%		0%		0%
Meols	5458		0%		0%		0%
Molyneux	5277		0%		0%		0%
Netherton & Orrell	4874		0%	660	14%	1209	25%
Norwood	6063		0%		0%		0%
Park	5340		0%		0%		0%
Ravenmeols	4369		0%		0%		0%
St Oswald	5019	363	7%	636	13%	1209	24%
Sudell	4923		0%		0%		0%
Victoria	6126		0%		0%		0%
Total	122,586	5,764	5%	12,444	10%	18,416	15%

Chart 2

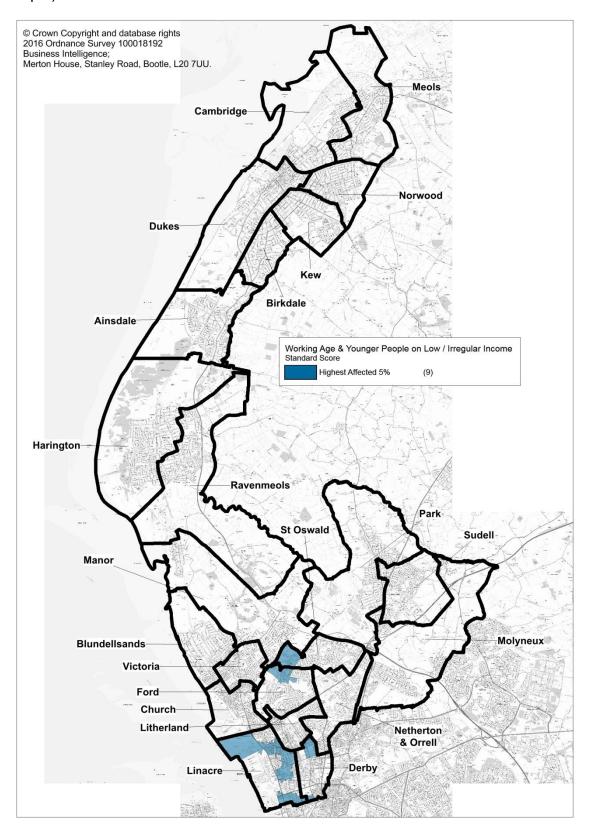
Number of households in the top 15% affected areas that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Working Age & Younger People).

Number of households in the top 15% affected areas, that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income.



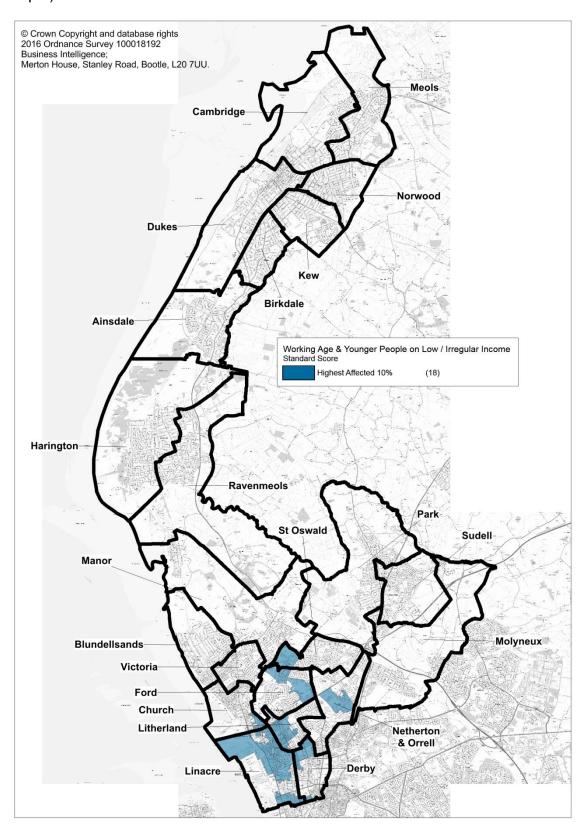
Map 4

Highest 5% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Working Age & Younger People).



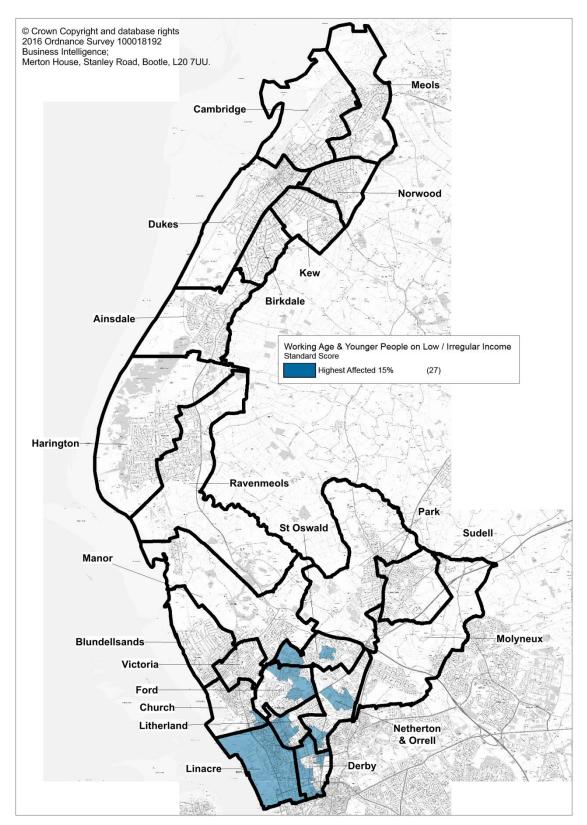
Map 5

Highest 10% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Working Age & Younger People).



Map 6

Highest 15% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Working Age & Younger People).





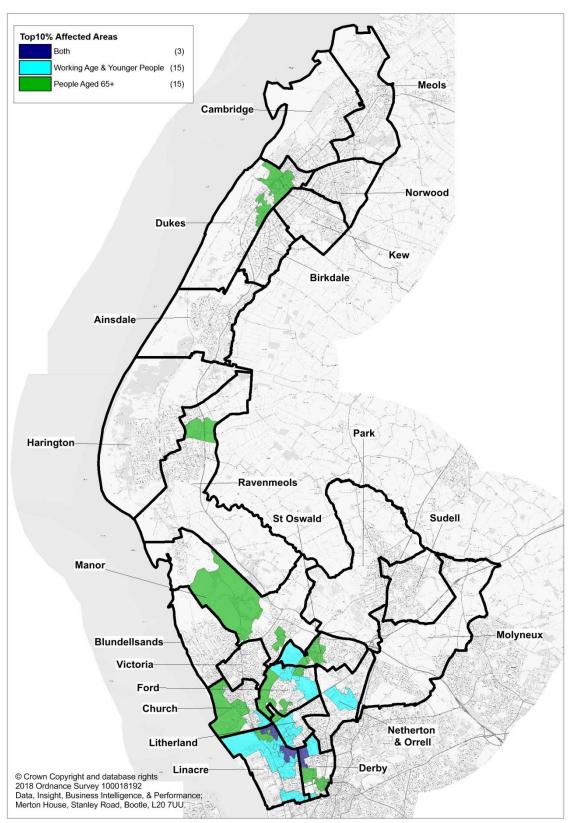
The Highest areas of financial hardship, low income and potential poverty in Sefton

The highest 10% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Full population of People aged 65+, Working Age & Younger People) are show in the following table:

Table.8			
Ward	LSOA	Older People	Working Age & Young People
	E01006952	×	✓
Church	E01006954	✓	×
	E01006957	✓	×
	E01006962	✓	×
Derby	E01006964	✓	✓
Derby	E01006967	✓	×
	E01007019	×	✓
	E01006963	×	~
Dukes	E01006968	✓	×
Dukes	E01006970	✓	×
	E01006972	✓	×
	E01006977	✓	×
Ford	E01006980	×	~
Toru	E01006981	×	✓
	E01007089	✓	×
	E01007003	×	~
	E01007004	✓	×
	E01007005	×	✓
Linacre	E01007006	•	✓
Lillacie	E01007007	×	✓
	E01007008	×	→
	E01007010	×	✓
	E01007011	✓	•
	E01007013	×	✓
Litherland	E01007016	×	✓
	E01007017	×	✓
Manor	E01007022	•	X
Manor	E01007020	•	X
Netherton & Orrell	E01007048	×	•
Ravenmeols	E01006988	•	×
	E01006979	×	~
St Oswald	E01007086	~	×
	E01007092	•	×

Map.7

The highest 10% affected areas across Sefton that may be susceptible to experiencing severe hardship or potential poverty as a result of low or irregular income; (Full population of People aged 65+, Working Age & Younger People) are show on the following map:





Links between poverty and digital exclusion

Much national research draws absolute connection between poverty and groups of people who are digitally excluded.

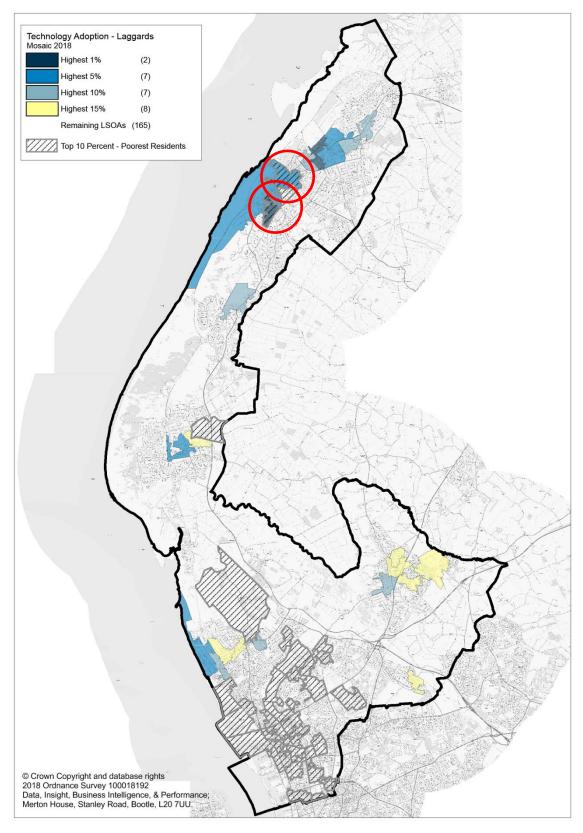
Released earlier this year, <u>Lloyds Banking Group's Consumer Digital Index</u> showed that the total number of people in the UK without basic digital skills dropped by 1.1m, taking the total down from 12.6m to 11.5m. The index suggests that young or old, poverty is still the main determiner of whether someone is online or not. Whilst access to the internet has improved in the last 10 years with the growth of cheaper smartphones, there are still many people remaining digitally excluded and for those that live in poverty and are struggling financially to live, technology is not a great priority; available money is more likely to be spent on necessities, rather than broadband, laptops, tablets and smartphones.

The hypothesis between poverty and groups of people who are digitally excluded is far from absolute in Sefton. Indeed it is clear from analysis of data and looking at each of the maps on the following pages, that digital exclusion and poverty are not generally found in the same areas within Sefton, with minimal overlaps seen on all three maps.

Ward	LSOA	Laggards	Online	Consumer
		00	Access	View
	E01006921	×	✓	✓
	E01006922	×	✓	✓
Ainsdale	E01006923	×	✓	✓
	E01006926	×	✓	•
	E01006927	✓	×	✓
Birkdale	E01006931	×	V	×
	E01006936	✓	×	~
	E01006938	×	×	~
Blundellsands	E01006939	✓	×	×
	E01006940	✓	×	~
	E01006941	✓	×	×
	E01006944	✓	×	✓
	E01006945	✓	×	•
	E01006946	×	✓	•
Cambridge	E01006947	×	✓	×
	E01006948	×	✓	×
	E01006949	✓	X	•
	E01006951	✓	X	•
Derby	E01006967	×	X	~
	E01006968	✓	×	~
Dukes	E01006971	~	×	~
	E01006972	✓	×	~
	E01006973	✓	×	•
	E01006974	×	✓	•
Ford	E01006977	×	~	~

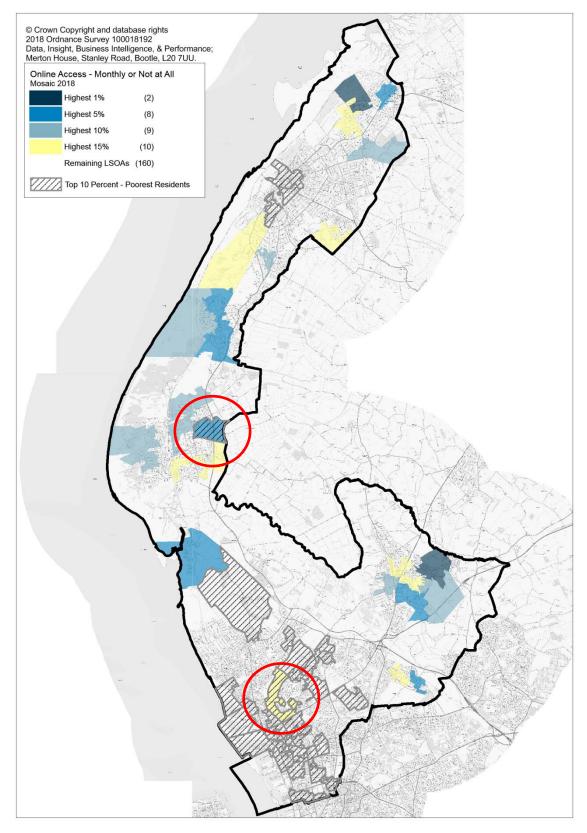
Ward	LSOA	Laggards	Online Access	Consumer View	
	E01006985	×	V	~	
	E01006986	X	×	~	
	E01006989	X	V	~	
Harington	E01006991	×	V	×	
	E01007079	X	V	~	
	E01007080	~	×	×	
	E01007081	~	×	~	
Kew	E01007002	×	V	×	
Manor	E01007027	×	✓	~	
	E01007029	×	~	~	
Meols	E01007032	~	×	×	
IVIEOIS	E01007034	~	×	×	
	E01007035	×	~	×	
Malynauy	E01007043	×	~	×	
Molyneux	E01007044	~	✓	×	
Park	E01007072	✓	✓	✓	
Park	E01007101	~	×	×	
	E01006988	×	✓	×	
Ravenmeols	E01007075	×	V	×	
	E01007078	×	V	×	
	E01007095	>	V	×	
	E01007097	~	V	×	
Sudell	E01007098	×	~	×	
	E01007099	×	~	~	
	E01033096	~	~	×	
Victoria	E01007021	✓	×	×	

Map 8
Count of Households by LSOA for Mosaic 2018 –Technology Adoption –'laggards' plus Sefton's Top 10% Poorest LSOAs



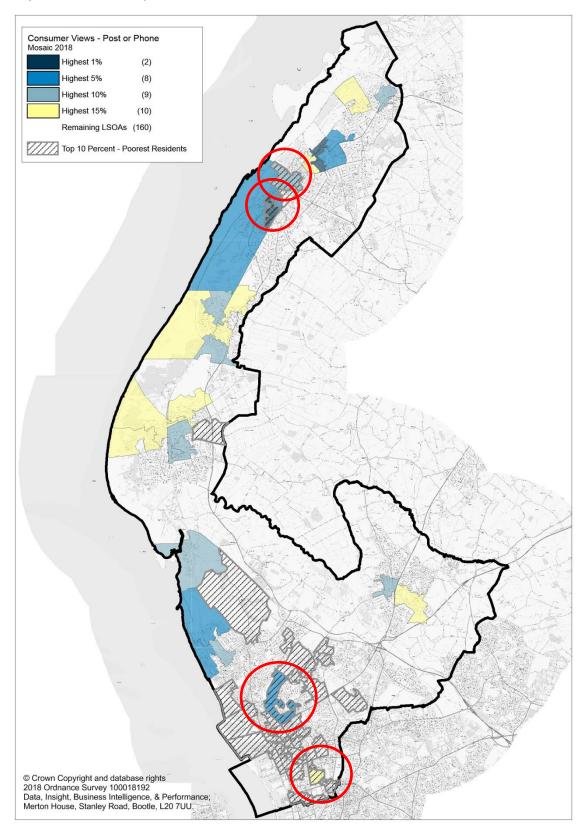
Two of the 24 LSOAs which make up the most unlikely to adopt new technology are also within the top 33 LSOAs for poverty.

Map 9
Estimate of Households by LSOA for Mosaic 2018 – Online Access – Monthly or Not at All, plus Sefton's Top 10% Poorest LSOAs



Two of the 29 LSOAs which make up the limited to no online access are also within the top 33 LSOAs for poverty.

Map 10
Estimate of Households by LSOA for Mosaic 2018 – Consumer View – by Phone or in Person, plus Sefton's Top 10% Poorest LSOAs



Four of the 29 LSOAs which make up the households which prefer to be consulted with by phone or in person are also within the top 33 LSOAs for poverty.

Conclusion

Despite much national research draws absolute connection between poverty and groups of people who are digitally excluded, that hypothesis is inconclusive in Sefton. Local analysis suggests that digital exclusion and poverty are not generally found in the same areas within Sefton.

Further investigation into other possible data set may provide more accurate links, for example age, education levels or culture.

When most people think about someone with a poor grasp of the web, they tend to focus on their grandparent; a typically older person who may well be educated and financially stable, but who's never really had the need to bank, shop or socialise online. This stereotype represents a declining group within the offline population. Statistically 28% of the over 60's in the UK are not online and 84% of this group say 'nothing' could motivate them to get online, so they will always prefer another means of engagement (e.g. telephone or face-to-face).

While age remains an important factor to digital exclusion it is however giving way to some new groups.

Young, digitally excluded people

While they might spend all day glued to their smart phones, it is suspected that many young people wouldn't know where to start if sat in front of a laptop and asked to write a CV.

These young people are hard to spot. On the face of it, they're hyper-connected digital natives. Ask them if they're connected to the web, they own a smartphone or even how frequently they use it and you'll get positive answers. But volume of use doesn't equate to breadth. So far, only a handful of employers will let you apply for a job via Snapchat and yet 10% of young people not in education, employment don't know how to send a CV online.

Ex-offenders

Typically for those who have served a custodial sentence access to digital will have been severely limited at best and illegal at worst. There's an 'internet in prisons' scheme underway but until that happens an offender will leave prison with the same digital skills they went in with. For the 43% of prisoners serving terms of at least 4 years, this can have a dramatic effect on rehabilitation when they're released back into the community. Is it hard to imagine a world without the iPhone? If you've been in prison for more than ten years, that's the world you're expecting to come back to.

People who have been away from work

This isn't just the long-term unemployed. Mums and dads who have been away from the workforce for a long time often find their digital skills lacking when it comes to re-joining the workforce. While they might have kept up with digital means to communicate and socialise, cloud-based services and new work-based applications will have passed them by. Being a regular Facebook user can be a deeply misleading indicator to digital inclusion.

Digital skills aren't binary any more — you're no longer just online or not. Digital skills are a spectrum and people move in and out of 'exclusion' depending on how long they've been away from digital in different areas of their life.



People who are socially excluded

Digital exclusion is also increasingly tied to other areas of social exclusion and the approach we take to tackling digital exclusion must tackle those social problems as well.

- You can't separate the digital inclusion needs of a homeless person from the other needs they have.
- If you're working with migrants and refugees, you need to recognise the barrier poor English presents to being online.
- Those with a registered disability are four times more likely not to be online.



Appendix.1 Mosaic Classifications.

	A01	Rural Vogue	Country-loving families pursuing a rural idyll in comfortable village homes while commuting some distance to work
Λ	A02	Scattered Homesteads	Older households appreciating rural calm in stand-alone houses within agricultural landscapes
Country Living	A03	Wealthy Landowners	Prosperous owners of country houses including the rural upper class, successful farmers and secondhome owners
	A04	Village Retirement	Retirees enjoying pleasant village locations with amenities to service their social and practical needs
B Prestige Positions	B05	Empty-Nest Adventure	Mature couples in comfortable detached houses who have the means to enjoy their empty-nest status
	B06	Bank of Mum and Dad	Well-off families in upmarket suburban homes where grown-up children benefit from continued financial support
	B07	Alpha Families	High-achieving families living fast-track lives, advancing careers, finances and their school-age children's development
	B08	Premium Fortunes	Influential families with substantial income established in large, distinctive homes in wealthy enclaves
	B09	Diamond Days	Retired residents in sizeable homes whose finances are secured by significant assets and generous pensions

	C10	World Class Wealth	Global high flyers and families of privilege living luxurious lifestyles in the most exclusive locations of the largest cities
	C11	Penthouse Chic	City workers renting premium-priced flats in prestige central locations, living life with intensity
City Prosperity	C12	Metro High-Flyers	Ambitious people in their 20s and 30s renting expensive apartments in highly commutable areas of major cities
	C13	Uptown Elite	High status households owning elegant homes in accessible inner suburbs where they enjoy city life in comfort
	D14	Cafes and Catchments	Affluent families with growing children living in upmarket housing in city environs
	D15	Modern Parents	Busy couples in modern detached homes balancing the demands of school-age children and careers
Domestic Success	D16	Mid-career Convention	Professional families with children in traditional mid-range suburbs where neighbours are often older
	D17	Thriving Independence	Well-qualified older singles with incomes from successful professional careers living in good quality housing
	E18	Dependable Me	Single mature owners settled in traditional suburban semis working in intermediate occupations
	E19	Fledgling Free	Pre-retirement couples with respectable incomes enjoying greater space and spare cash since children left home
Suburban Stability	E20	Boomerang Boarders	Long-term couples with mid-range incomes whose adult children have returned to the shelter of the family home
	E21	Family Ties	Active families with teenage and adult children whose prolonged support is eating up household resources
	F22	Legacy Elders	Elders now mostly living alone in comfortable suburban homes on final salary pensions
	F23	Solo Retirees	Senior singles whose reduced incomes are satisfactory in their affordable but pleasant owned homes
Senior Security	F24	Bungalow Haven	Seniors appreciating the calm of bungalow estates designed for the elderly
	F25	Classic Grandparents	Lifelong couples in standard suburban homes enjoying retirement through grandchildren and gardening

	G26	Far-Flung Outposts	Inter-dependent households living in the most remote communities with long travel times to larger towns
G	G27	Outlying Seniors	Pensioners living in inexpensive housing in out of the way locations
Rural Reality	G28	Local Focus	Rural families in affordable village homes who are reliant on the local economy for jobs
	G29	Satellite Settlers	Mature households living in expanding developments around larger villages with good transport links
	H30	Affordable Fringe	Settled families with children owning modest, 3-bed semis in areas of more affordable housing
	H31	First Rung Futures	Pre-family newcomers who have brought value homes with space to grow in affordable but pleasant areas
н	Н32	Flying Solo	Young singles on starter salaries choosing to rent homes in family suburbs
Aspiring Home makers	Н33	New Foundations	Occupants of brand new homes who are often younger singles or couples with children
	Н34	Contemporary Starts	Young singles and partners setting up home in developments attractive to their peers
	H35	Primary Ambitions	Forward-thinking younger families who sought affordable homes in good suburbs which they may now be out-growing
	136	Cultural Comfort	Thriving families with good incomes in multi-cultural urban communities
Urban Cohesion	137	Community Elders	Established older households owning city homes in diverse neighbourhoods
	138	Asian Heritage	Large extended families in neighbourhoods with a strong South Asian tradition
	139	Ageing Access	Older residents owning small inner suburban properties with good access to amenities

		Caraca	Singles and couples in their 20s and 20s progressing
	J40	Career Builders	Singles and couples in their 20s and 30s progressing in their field of work from commutable properties
	J41	Central Pulse	Youngsters renting city centre flats in vibrant locations close to jobs and night life
	J42	Learners & Earners	Inhabitants of the university fringe where students and older residents mix in cosmopolitan locations
Rental Hubs	J43	Student Scene	Students living in high density accommodation close to universities and educational centres
	J44	Flexible Workforce	Young renters ready to move to follow worthwhile incomes from service sector jobs
	J45	Bus-Route Renters	Singles renting affordable private flats away from central amenities and often on main roads
Modest Traditions	K46	Self Supporters	Hard-working mature singles who own budget terraces manageable within their modest wage
	K47	Offspring Overspill	Lower income owners whose adult children are still striving to gain independence meaning space is limited
	K48	Down-to-Earth Owners	Ageing couples who have owned their inexpensive home for many years while working in routine jobs
Transient Renters	L49	Disconnected Youth	Young people endeavouring to gain employment footholds while renting cheap flats and terraces
	L50	Renting a Room	Transient renters of low cost accommodation often within subdivided older properties
	L51	Make Do & Move On	Yet to settle younger singles and couples making interim homes in low cost properties
	L52	Mid-life Stopgap	Maturing singles in employment who are renting short-term affordable homes

N A	M53	Budget Generations	Families supporting both adult and younger children where expenditure can often exceed income
	M54	Childcare Squeeze	Younger families with children who own a budget home and are striving to cover all expenses
Family Basics	M55	Families with Needs	Families with many children living in areas of high deprivation and who need support
	M56	Solid Economy	Stable families with children renting better quality homes from social landlords
	N57	Seasoned Survivors	Deep-rooted single elderly owners of low value properties whose modest home equity provides some security
	N58	Aided Elderly	Supported elders in specialised accommodation including retirement homes and complexes of small homes
Vintage Value	N59	Pocket Pensions	Elderly singles of limited means renting in developments of compact social homes
	N60	Dependent Greys	Ageing social renters with high levels of need in centrally located developments of small units
	N61	Estate Veterans	Long-standing elderly renters of social homes who have seen neighbours change to a mix of owners and renters
	062	Low Income Workers	Older social renters settled in low value homes in communities where employment is harder to find
Municipal Challenge	063	Streetwise Singles	Hard-pressed singles in low cost social flats searching for opportunities
	064	High Rise Residents	Renters of social flats in high rise blocks where levels of need are significant
	065	Crowded Kaleidoscope	Multi-cultural households with children renting social flats in over-crowded conditions
	066	Inner City Stalwarts	Long-term renters of inner city social flats who have witnessed many changes