Ward Income Analysis 2020



GREENWICH

Royal Borough of Greenwich Ward Income Profiles

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Introduction

Presented is an overview of income equality and income profiles for all 17 wards in the Royal Borough of Greenwich. The profiles are derived from 2020 data provided by the Acorn CACI Paycheck dataset (©1979 – 2020 CACI Limited. This report shall be used solely for academic, personal, and/or non-commercial purposes). The dataset provides an *estimate* of gross household income from all sources including earnings, benefits, and investments. The mean, median and mode income is also provided for given areas. Paycheck is derived from Ocean, CACI's lifestyle database, combined with data from the ONS's Average Weekly Earnings and Living Costs & Food Surveys. The overview of income equality presents several measures for comparison. Median income and households that earn 60% of the median (Widely used definition of relative poverty).

Ward income profiles provide an overview of the estimated gross income for households (CACI Paycheck). Ward population (GLA population estimates and projections 2020) is provided as well as total households (CACI Paycheck).

Data is presented in three graphs:

The first shows the frequency distribution of households that fall into different income brackets. £5k Intervals up to £100k, then £20k intervals up to £200k+ (this is the format of the CACI dataset). The graph presents the percentage of the total households that fall into a particular category. The highest bar will always contain the modal value.

The second graph shows the cumulative percentage of the total households whose income is less that a particular category. This also gives an indication of the equality of the distribution.

Both graphs are colour coded with the table that provides the mean, median and mode values. These values are given as specific figures whereas on the graphs they are highlighted by the category they fall into. Income categories that more than one value fall into have a colour gradient reflecting the values relative position in the category bar. The third graph shows the Lorenz Curve. The Lorenz Curve is a graph on which the cumulative percentage of total income is plotted against the cumulative percentage of the corresponding population (Households). The extent to which the curve sags below a straight diagonal line (Line of Equality) indicates the degree of inequality in the distribution. Also shown on the graph is the 'Line of Equality.' This line indicates the profile of the relationship in a perfectly equitable society. i.e. x% of the population would earn x% of the income. The data points can be interpreted as X% of the population has a Y% share of the total income.

There are a number of other measures of income inequality that have the potential to deliver a more nuanced understanding of the distribution of income inequality within a population. For this series of data, it was decided to include the percentage difference between the percentage of the population and what percentage of the total income they earn. The profiles focus on where the Lorenz curve represents 50% of the population and compare the percentage of total income this group earns. This helps reflect on how income is distributed through the Ward/Borough and if there is a case to say that income is not distributed fairly.

Thematic map of median income in RBG wards

The matic map of the number of households with an income of less than $\pounds 25k$ in RBG wards





Legend					
Quant	iles	Low	High	Occurrences	
1		1,400	2,000	3	
2		2,001	2,500	3	
3		2,501	3,000	6	
4		3,001	3,500	4	
5		3,501	5,000	1	

The thematic maps show the location of the wards and their income equality and median household income relative to one another. The colour themes are continued in the graphs and tables on the following pages, where the ranked position of the Wards is visible (the bracketed numbers identify a specific ward on the map). The values are also compared to the London averages for median household income and income equality



Ranked median income of RBG wards vs london average





■ Households with income under £25k ■ Total Households

Thematic Maps, Median Income and Households that Earn under £25K

- Median income values appear as the blue scale bars on the graphs and the purple line represents the London Median income and the black line represents 60% of the London median income, a measure of poverty.
- Blackheath Westcombe has the highest median income and the fewest households that earn less than £25k.
- 12 RBG wards have a lower median income than the London average
- The thematic map shows that the wards with the lowest median income are concentrated in the North and North East of the Borough.

• The wards with the lowest median income (Woolwich Common, Thamesmead Moorings and Glyndon) are not the wards with the highest inequality (Middle Park and Sutcliff, Charlton and Kidbrooke with Hornfair). This is likely indicative of established low-income communities in these lower income wards.

Households that Earn Under £25k

- Relative poverty is often defined at having an income less than 60% of the Median.
- The London median income in £37,000, 60% of this is £22,300. However, because of the format of the Paycheck data set (£5k brackets) the analysis cannot be that specific, therefore, the £20-£25k income bracket was used as the relative poverty threshold. This means there will be a slight over estimation of the number of households in relative poverty.
- There are approximately 43,063 Households in RBG with an income of less than £25k.
- The yellow bars on the third graph indicate the number of households that earn less than £25k in each ward. The grey bars indicate the total number of households.
- Woolwich Riverside has the highest number of households that earn under £25k. However, it also has the highest number of households overall. The graph is included to give an idea of total number, the proportion is less important.

Income Inequality

- In the individual ward profiles, a graph showing the Lorenz Curve is included. The Lorenz Curve is a measure of income equality and shows the difference between actual cumulative household income and perfect equality, e.g. 50% of all households would have 50% of all income.
- In the Overview table below, the difference between the cumulative percentage of households at around 50% of the population, allowing for £5K bands, and the cumulative percentage of all income earned out of the total income earned by all households.
- The most relatively equal wards were Blackheath Westcombe, Shooters Hill, and Peninsula but despite this, households in the most deprived 50% were still earning only around 25% of all income, half of what they would if things were purely equal. The least relatively equal Wards were Middle Park and Sutcliff, Charlton and Kidbrooke with Hornfair with approximately 53 54% of the wards' populations only earning 25 26%, less than half of what they would if income were distributed equally.
- This reflects the consistent negative skewing to the mean, where the majority of households across all wards, earn less than the mean. Again, this shows that some high earning households are impacting the mean and reflect a lack of equality in income distribution.

Overview of Key Data

	Population*	Total	Households	Mean	Median	Mode	Lower	Midpoint	Cum. %	Difference
		Households	with an	Income	Income	Income	Quartile	for	Income for	btwn HH
			income of					Household	Households	and
			less than					Cum. %**	up to	Income %
			£25k						Midpoint	
Abbey Wood (1)	16,350	6398	3169	£31,486	£25,262	£12,500	£14,781	47.65%	21.53%	26.12%
Blackheath Westcombe (2)	13,600	6224	1463	£52,690	£44,795	£22,500	£26,086	48.11%	23.25%	24.86%
Charlton (3)	15,350	6076	2378	£39,693	£31,700	£17,500	£17,800	53.20%	25.21%	27.99%
Coldharbour and New Eltham (4)	13,650	5402	1748	£44,472	£36,697	£17,500	£20,711	51.84%	25.05%	26.80%
Eltham North (5)	13,050	5373	1603	£48,060	£39,854	£17,500	£21,879	48.23%	21.74%	26.49%
Eltham South (6)	12,800	5168	1872	£41,644	£33,628	£17,500	£19,042	50.91%	24.00%	26.91%
Eltham West (7)	14,100	4418	16 4 0	£38,748	£32,339	£17,500	£19,015	52.73%	26.89%	25.84%
Glyndon (8)	19,250	7179	3637	£30,608	£24,703	£12,500	£14,579	48.62%	22.47%	26.15%
Greenwich West (9)	22,700	8944	2837	£45,388	£37,236	£17,500	£21,063	52.39%	25.49%	26.90%
Kidbrooke with Hornfair (10)	14,800	5941	2301	£38,930	£31,740	£17,500	£18,108	53.20%	26.04%	27.16%
Middle Park and Sutcliff (11)	13,650	5935	2375	£39,062	£31,048	£17,500	£17,532	54.22%	26.01%	28.20%
Peninsula (12)	26,650	8594	2670	£43,976	£36,794	£17,500	£21,593	51.68%	26.25%	25.43%
Plumstead (13)	18,050	6258	2771	£34,070	£28,132	£17,500	£16,408	52.20%	25.75%	26.45%
Shooters Hill (14)	13,650	5505	1877	£41,525	£34,581	£17,500	£20,124	48.76%	23.37%	25.39%
Thamesmead Moorings (15)	20,400	8258	4285	£29,770	£24,164	£12,500	£14,213	50.68%	24.11%	26.57%
Woolwich Common (16)	22,200	6516	3492	£29,229	£23,416	£12,500	£13,819	51.97%	25.02%	26.95%
Woolwich Riverside (17)	23,400	9762	4775	£32,485	£25,616	£12,500	£14,796	45.99%	19.69%	26.29%

*GLA Estimates & Projections 2020

** Closest to 50% based upon 5K bands

Abbey Wood



Population	16,400
Households	6,388
Mean Income	£32,447
Median Income	£26,238
Mode Income	£17,500
Lower Quartile	£15,444

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 65% of households earn less than £35k
- 57% of households earn less that £30k
- 24% of households earn less than £15k

Income Equality

- In Abbey Wood 48% of lower income, households only receive 22% of the total income earned in the ward.
- Conversely, this means that 52% of higher income households receive 78% of the income earned in the ward.



Blackheath Westcombe



Population	13,750
Households	6,249
Mean Income	£54,314
Median Income	£46,602
Mode Income	£27,500
Lower Quartile	£27,178

Distribution of Income

Frequency distribution of income (%)



Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 64% of households earn less than £60k
- 54% of households earn less that £50k
- 29% of households earn less than £30k

Income Equality

- In Blackheath Westcombe 48% of lower income, households only receive 23% of the total income earned in the ward.
- Conversely, this means that 52% of higher income households receive 77% of the income earned in the ward.



Lorenz curve for income equality

Charlton



Population	15,550
Households	6,068
Mean Income	£41,078
Median Income	£32,856
Mode Income	£17,500

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



Cumulative percentage of households that earn less than a particular income bracket

Income (f)

- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 65% of households earn less than £45k
- 53% of households earn less that £35k
- 28% of households earn less than £20k

Income Equality

- In Charlton, 53% of lower income households only receive 25% of the total income earned in the ward.
- Conversely, this means that 47% of higher income households receive 75% of the income earned in the ward.



Coldharbour & New Eltham



Population	13,700
Households	5,272
Mean Income	£46,348
Median Income	£38,571
Mode Income	£17,500
Lower Quartile	£21,750

Distribution of Income

Frequency distribution of income (%)



Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 64% of households earn less than £50k
- 52% of households earn less that £40k
- 30% of households earn less than £25k

Income Equality

- In Coldharbour and New Eltham, 52% of lower income households only receive 25% of the total income earned in the ward.
- Conversely, this means that 48% of higher income households receive 75% of the income earned in the ward.



Lorenz curve of income equality

Eltham North



Population	12,800
Households	5,360
Mean Income	£49,695
Median Income	£41,504
Mode Income	£17,500
Lower Quartile	£22,922

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 60% of households earn less than £50k
- 54% of households earn less that £45k
- 28% of households earn less than £25k

Income Equality

- In Eltham North, 48% of lower income households only receive 22% of the total income earned in the ward.
- Conversely, this means that 52% of higher income households receive 78% of the income earned in the ward.



Lorenz curve for income equality

Eltham South



Population	12,950
Households	5,168
Mean Income	£42,580
Median Income	£34,408
Mode Income	£17,500
Lower Quartile	£19,761

Distribution of Income



Frequency distribution of income (%)

Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.





- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 63% of households earn less than £45k
- 51% of households earn less that £35k
- 25% of households earn less than £20k

Income Equality

- In Eltham South, 51% of lower income households only receive 24% of the total income earned in the ward.
- Conversely, this means that 49% of higher income households receive 76% of the income earned in the ward.



Lorenz curve of income equality

Eltham West



Population	15,250
Households	4,320
Mean Income	£39,875
Median Income	£33,340
Mode Income	£17,500
Lower Quartile	£19,697

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



Cumulative percentage of households that earn less than a particular

income bracket

- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 60% of households earn less than £40k
- 53% of households earn less that £35k
- 26% of households earn less than £20k

Income Equality

- In Eltham West, 53% of lower income households only receive 27% of the total income earned in the ward.
- Conversely, this means that 47% of higher income households receive 73% of the income earned in the ward.



Lorenz curve of income equality

Glyndon



Population	19,600
Households	7,165
Mean Income	£31,657
Median Income	£25,719
Mode Income	£17,500
Lower Quartile	£15,220

Distribution of Income



Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 66% of households earn less than £35k
- 58% of households earn less that £30k
- 38% of households earn less than £20k

Income Equality

- In Glyndon, 49% of lower income households only receive 22% of the total income earned in the ward.
- Conversely, this means that 51% of higher income households receive 78% of the income earned in the ward.



Lorenz Curve of Income Equality

Greenwich West



Population	22,400
Households	9,153
Mean Income	£46,237
Median Income	£38,167
Mode Income	£17,500
Lower Quartile	£21,693

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 64% of households earn less than £50k
- 52% of households earn less that £40k
- 30% of households earn less than £25k

Income Equality

- In Greenwich West, 52% of lower income households only receive 25% of the total income earned in the ward.
- Conversely, this means that 48% of higher income households receive 75% of the income earned in the ward.



Lorenz Curve of Income Equality

Kidbrooke with Hornfair



-	
Population	14,950
Households	5,973
Mean Income	£40,378
Median Income	£32,938
Mode Income	£17,500
Lower Quartile	£18,890

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 66% of households earn less than £45k
- 53% of households earn less that £35k
- 27% of households earn less than £20k

Income Equality

- In Kidbrooke with Hornfair, 53% of lower income households, only receive 26% of the total income earned in the ward.
- Conversely, this means that 47% of higher income households receive 74% of the income earned in the ward.



Middle Park & Sutcliff



Population	13,500
Households	5,945
Mean Income	£40,512
Median Income	£32,194
Mode Income	£17,500
Lower Quartile	£18,252

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 66% of households earn less than £45k
- 54% of households earn less that £35k
- 29% of households earn less than £20k

Income Equality

- In Middle Park & Sutcliff 54% of lower income households, only receive 26% of the total income earned in the ward.
- Conversely, this means that 46% of higher income households receive 74% of the income earned in the ward.



Peninsula



Population	23,450
Households	9,228
Mean Income	£45,811
Median Income	£38,805
Mode Income	£17,500
Lower Quartile	£22,960

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 64% of households earn less than £50k
- 52% of households earn less that £40k
- 28% of households earn less than £25k

Income Equality

- In Peninsula, 52% of lower income households, only receive 26% of the total income earned in the ward.
- Conversely, this means that 48% of higher income households receive 74% of the income earned in the ward.



Lorenze Curve of Income Equality

Plumstead



Population	18,150
Households	6,259
Mean Income	£35,029
Median Income	£28,845
Mode Income	£17,500
Lower Quartile	£16,968

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 67% of households earn less than £40k
- 52% of households earn less that £30k
- 32% of households earn less than £20k

Income Equality

- In Plumstead, 52% of lower income households only receive 26% of the total income earned in the ward.
- Conversely, this means that 48% of higher income households receive 74% of the income earned in the ward.



Lorenze Curve of Income Equality

Shooters Hill



Population	13,600
Households	5,498
Mean Income	£42,880
Median Income	£35,893
Mode Income	£17,500
Lower Quartile	£21,047

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k+
- 62% of households earn less than £45k
- 56% of households earn less that £40k
- 32% of households earn less than £25k

Income Equality

- In Shooters Hill 49% of lower income households, only receive 23% of the total income earned in the ward.
- Conversely, this means that 51% of higher income households receive 77% of the income earned in the ward.



Thamesmead Moorings



21,050
8,221
£30,373
£24,694
£17,500
£14,599

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 68% of households earn less than £35k
- 51% of households earn less that £25k
- 26% of households earn less than £15k

Income Equality

- In Thamesmead Moorings, 51% of lower income households only receive 24% of the total income earned in the ward.
- Conversely, this means that 49% of higher income households receive 76% of the income earned in the ward.



Lorenze Curve of Inequality

Woolwich Common



Population	21,850
Households	6,614
Mean Income	£29,979
Median Income	£24,113
Mode Income	£17,500
Lower Quartile	£14,300

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 62% of households earn less than £30k
- 52% of households earn less that £25k
- 27% of households earn less than £15k

Income Equality

- In Woolwich Common, 52% of lower income households only receive 25% of the total income earned in the ward.
- Conversely, this means that 48% of higher income households receive 75% of the income earned in the ward.



Lorenze Curve of Incone Equality

Woolwich Riverside



Population	23,550
Households	10,012
Mean Income	£34,094
Median Income	£27,182
Mode Income	£17,500
Lower Quartile	£15,734

Distribution of Income





Frequency Distribution of Income

- The graph shows the percentage of households that fall into each income bracket. Upper income brackets (dark grey) show relatively high percentages because the brackets are 20k rather than 5k.
- The majority of the population earn less than the mean which signifies that a number of high earning households are impacting the mean.



- The graph shows the percentage of households that earn up to a particular income category.
- 100% of households earn less than £200k
- 63% of households earn less than £35k
- 55% of households earn less that £30k
- 36% of households earn less than £20k

Income Equality

- In Woolwich Riverside, 46% of lower income households only receive 20% of the total income earned in the ward.
- Conversely, this means that 54% of higher income households receive 80% of the income earned in the ward.



Lorenze Curve of Inequality