

## Unit 4 Challenge - London Borough Study

Our Goal: To determine which of the 32 London Boroughs had the largest percentage increase in value over a 20 year period from December 2002 to December 2022.

Data to Work With: A spreadsheet from the British Government with Average prices of housing in all London Borough and other areas of England over close to 30 years.

Steps Taken to Clean Data Towards Finding a Conclusion:

1. Download Spreadsheet into Dataframe
2. Drop Columns for Areas on Dataframe Not Needed to Come to Conclusion (Regions Outside of London and England Overall)
3. Fix Position and Indexes of Data for Easier Analysis
4. Focusing Information on 20-Year Window
5. Apply Function to Iterate Through Unique Boroughs to Get Percentage of Increase Over Those 20 Years.

Challenges Encountered Within the Data: This Data was Sorted Well But the Biggest Challenges Involved Transposing Data to Make it More Readable. Figuring Out the Most Efficient Ways to View Data was the Largest Hurdle

Conclusions Reached: The Borough with the Largest Percentage Increase in Value Over 20 Years was Hackney with 322% increase.

Other Interested Conclusions: All Boroughs had a minimum of a 200% increase in value over 20 years.

Anything Else I'd Like to Investigate: I Would Like to do an Analysis of "Bang For Your Buck" which would investigate the bottom half of average prices and find which one had the largest increase. This would be very helpful to see which areas moved up in Economic Standing from 20 Years Ago.

	Borough	2022
10	Hackney	3.229547
18	Kensington & Chelsea	3.052173
29	Waltham Forest	3.008182
26	Southwark	2.846134
21	Lewisham	2.842674
17	Islington	2.767420
12	Haringey	2.736639
9	Greenwich	2.703817
31	Westminster	2.680097
22	Merton	2.678555
20	Lambeth	2.676857
30	Wandsworth	2.649989
0	Barking & Dagenham	2.626418
3	Brent	2.624730
23	Newham	2.611272