

Great British Pubs

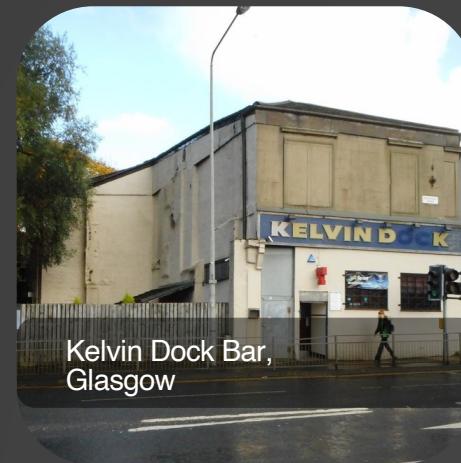
Analysing Great British Public House Information

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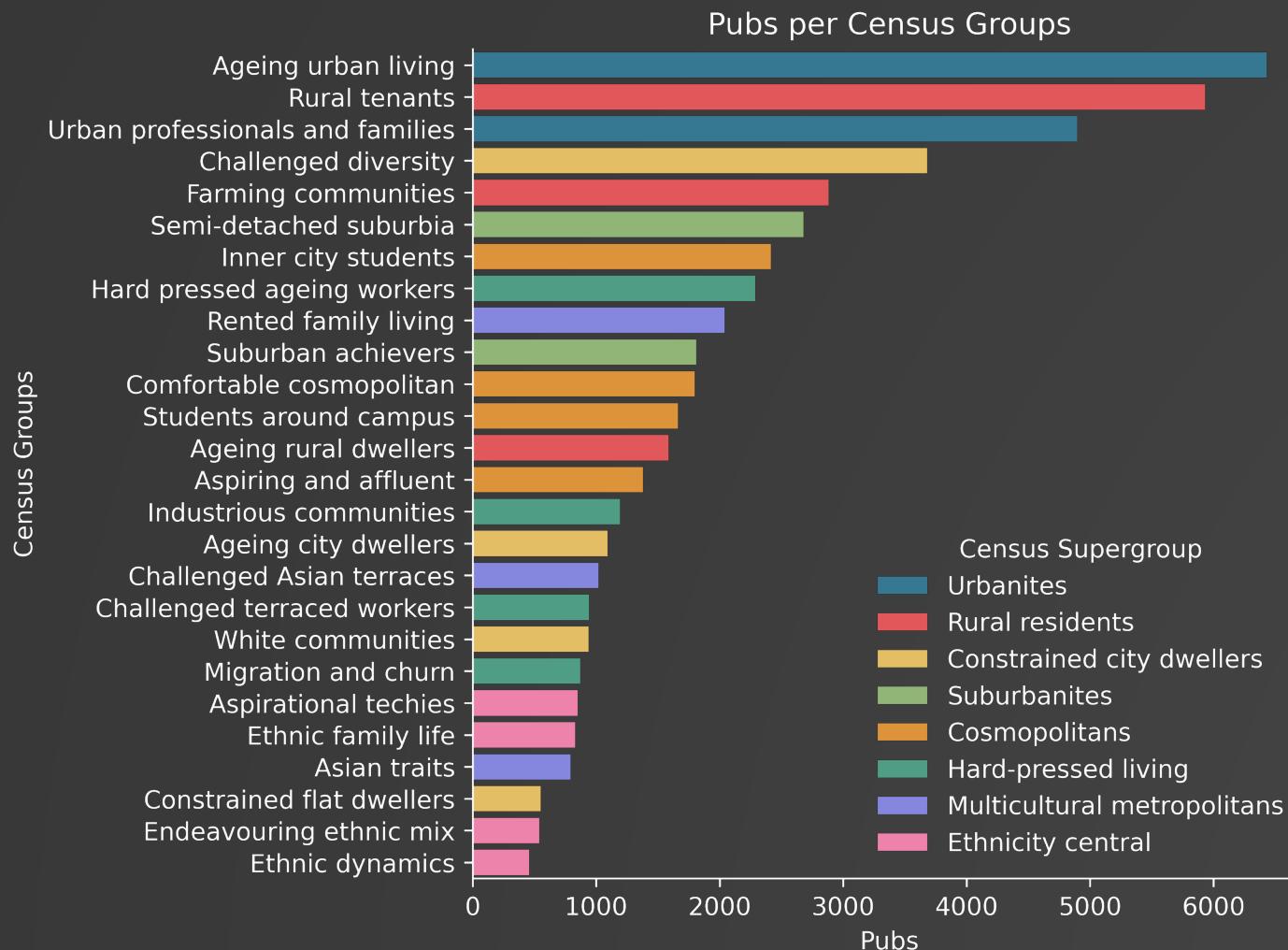
What is a Pub?

- A pub, or public house, is more than a place to buy and consume alcoholic drinks and food; it has great cultural importance in British life.
- Pubs serve as community meeting spots, appear in all shapes and sizes and offer varied experiences, from casual drinking to Michelin-starred dining.
- This project uses geographical, political, and demographic information to cross-reference against a pub dataset across the island of Great Britain.
- By exploring these factors, the project aims to highlight pubs' roles in social cohesion, local economies, and cultural heritage in Great Britain.



Cross-Referencing 2021 Census Data with Pub Location Data

Patron's Demographics

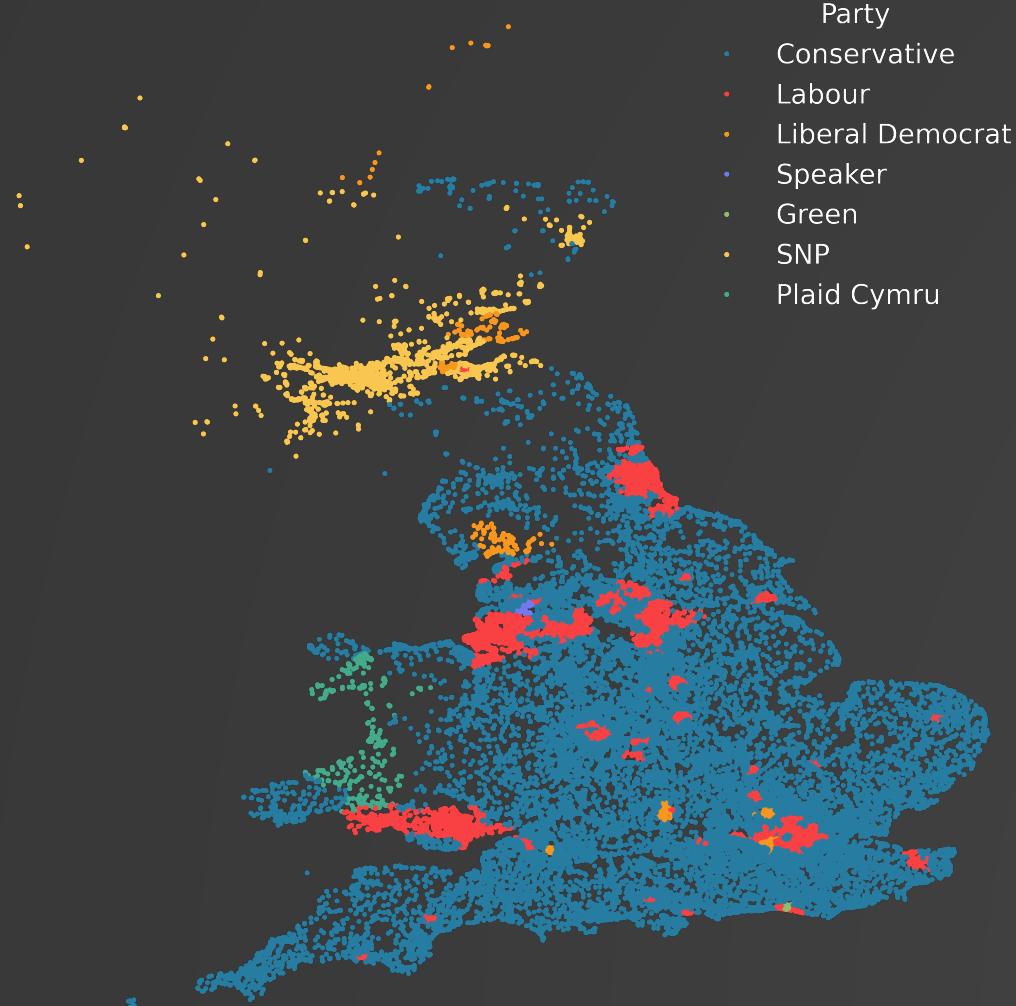


- The 2021 Census provided data for the classification of British Pubs by their surrounding output areas.
- Urban, suburban, and rural areas have the highest concentration of pubs, indicating a strong presence in these regions.
- Conversely, multicultural, hard-pressed living and ethnic minority communities have the lowest number of pubs, suggesting a disparity in pub distribution across different demographic socio-economic groups.

Cross-Referencing UK Parliament Constituency Information with Pub Location Data

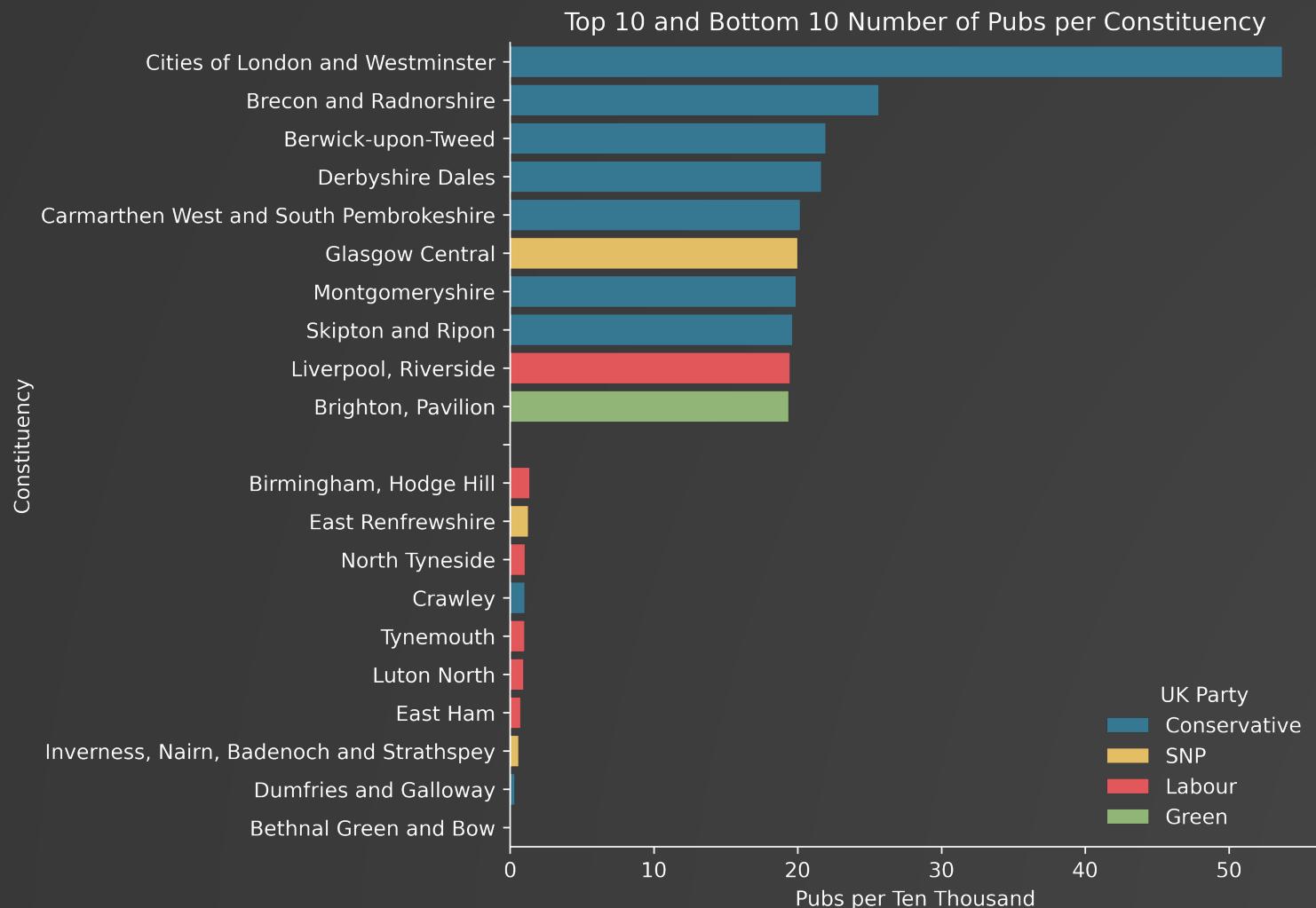
Pubs by Local Politics

Pubs of Great Britain by Political Party



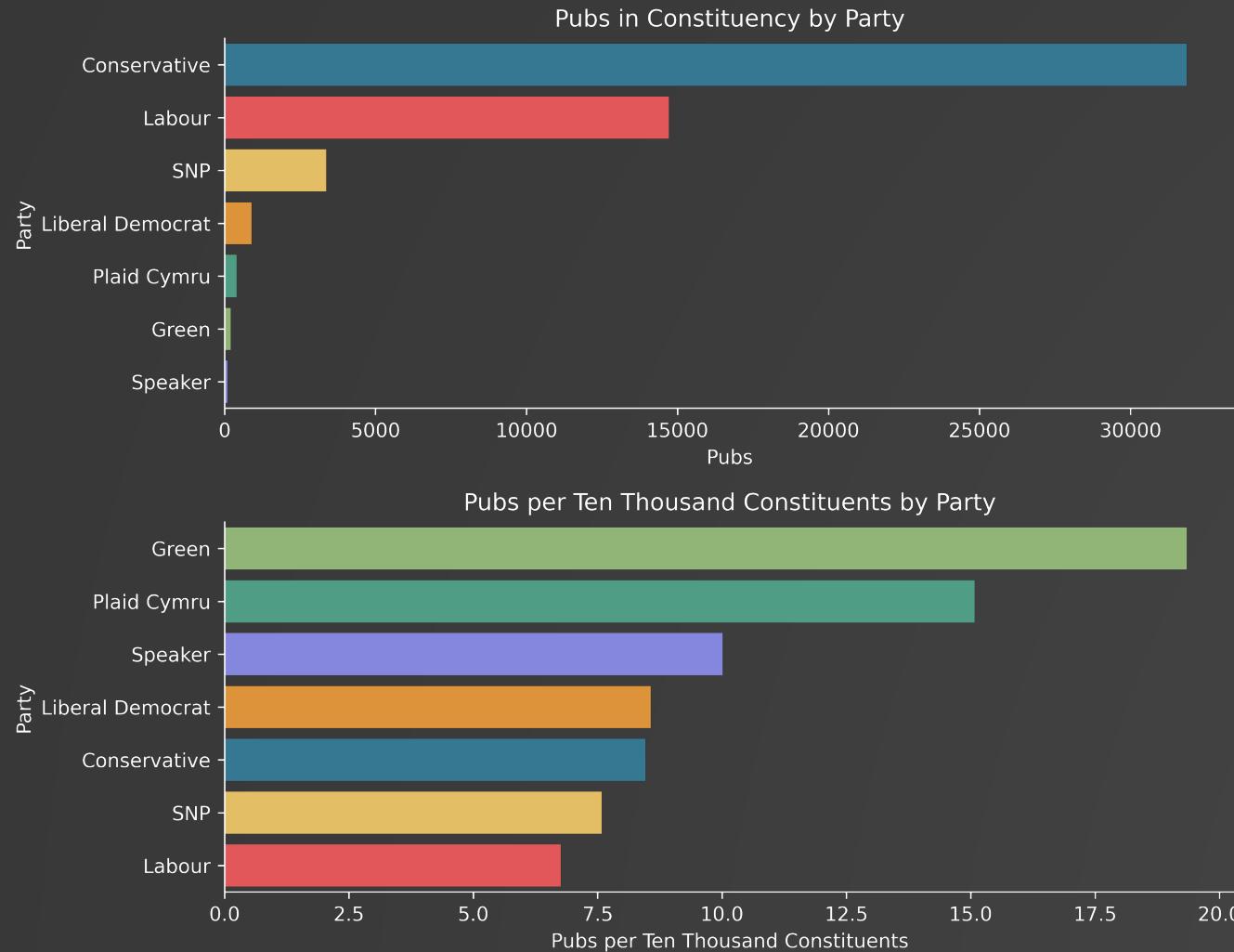
- Each point on the map represents a pub, with the color indicating the winning party of the local constituency.
- The outline of Great Britain is mostly visible, with only the pubs being plotted. This showcases the density of pubs in Great Britain and highlights their nationwide importance.

Number of Constituent's Pub



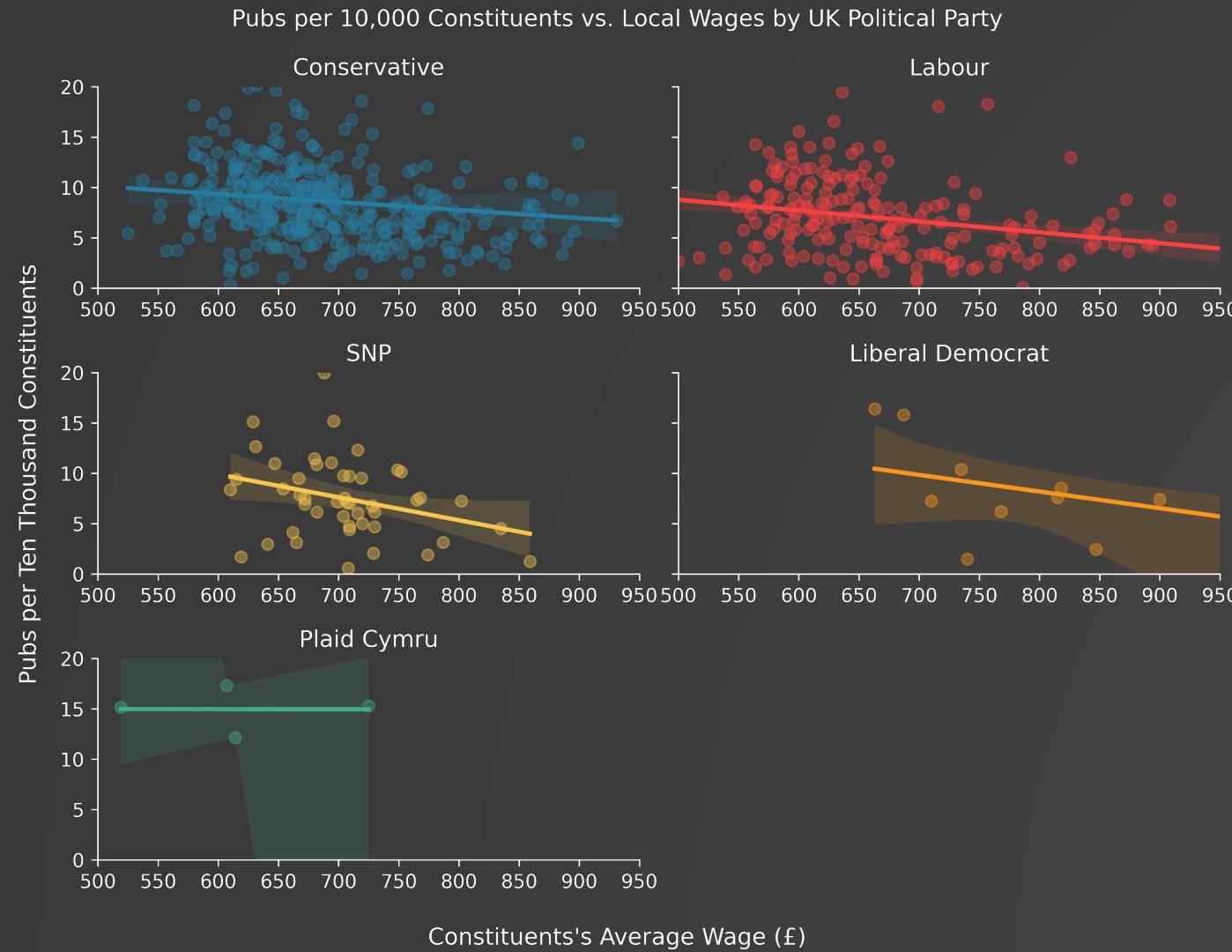
- Constituency Information was combined with Census and pub data.
- Conservative party holds constituencies which have seven out of ten of the constituencies with the most pubs per 10,000 constituents.
- Labour party holds five of the bottom constituencies with the lowest number of pubs per 10,000 constituents.
- The disparity may be due to differences in urban planning or underlying socioeconomic factors between differing parties.

Political Parties' Pubs



- The Conservative Party holds the highest absolute number of pubs within their constituencies.
- When data is normalised for population size, the Green Party, with only one seat, has the highest number of pubs, with nearly 20 pubs per 10,000 constituents.
- The Welsh party, Plaid Cymru, also has a high density, with 15 pubs per 10,000 constituents.
- Labour has the lowest density, with under seven pubs per 10,000 constituents.

Patron's Wages by Party



- Linear regression plots are split by political party.
- For Conservative, Labour, SNP, and Liberal Democrat parties, the number of pubs per 10,000 constituents decreases as local wages increase.
- Plaid Cymru does not follow this pattern; the relationship between wage and pubs per 10,000 residents does not show a noticeable change.
- The Speaker of the House and the Green Party are excluded from the analysis because they each only hold one constituency.

Cross-Referencing Small Area Output with Pub Location Data

What is a Small Area?

- Small areas are considered as Middle Layer Super Output Areas (MSOAs) by the Office for National Statistics.
- MSOAs typically include between 2,000 and 6,000 households.
- MSOAs have a usually resident population ranging from 5,000 to 15,000 people.
- MSOAs are contained within and respect local authority boundaries.
- Population, income, and house price information for inhabitants are available for England and Wales.
- The data from Scotland is not as accurate and has not been considered.
- These data points can be mapped against pubs to provide more detailed insights compared to UK Parliament Constituencies, which cover larger populations.

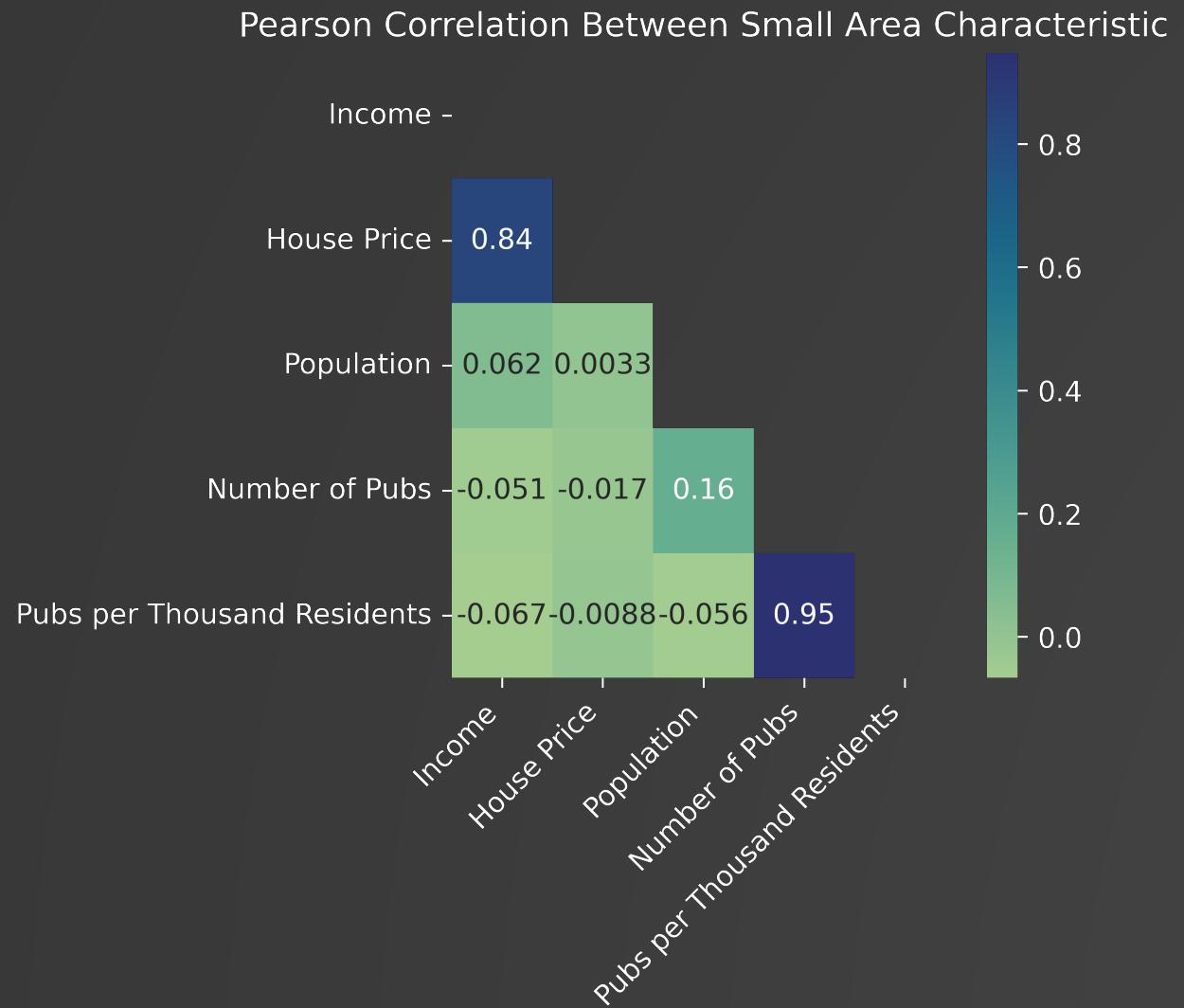


The Olde Bulls Head,
Beaumaris



The White Horse,
Duns Tew

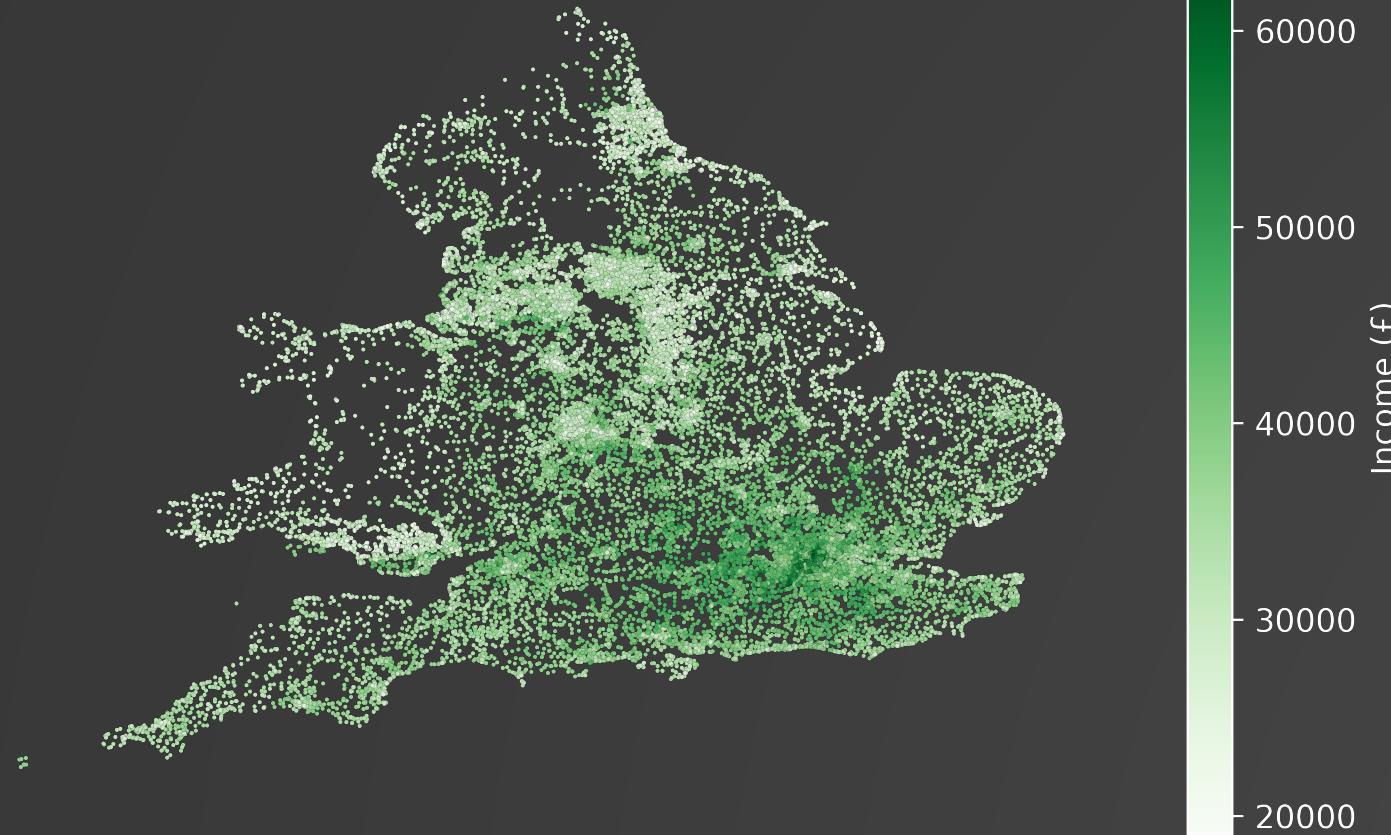
Pubs per Small Areas



- Examining the correlation between various characteristics of small areas and pub information.
- House prices and income of residents are highly positively correlated.
- There is a very low correlation between the number of pubs and the population in local areas.
- All other variables show negligible correlation.
- The relationship between income and the number of pubs is not as strong as seen with constituency-level data.

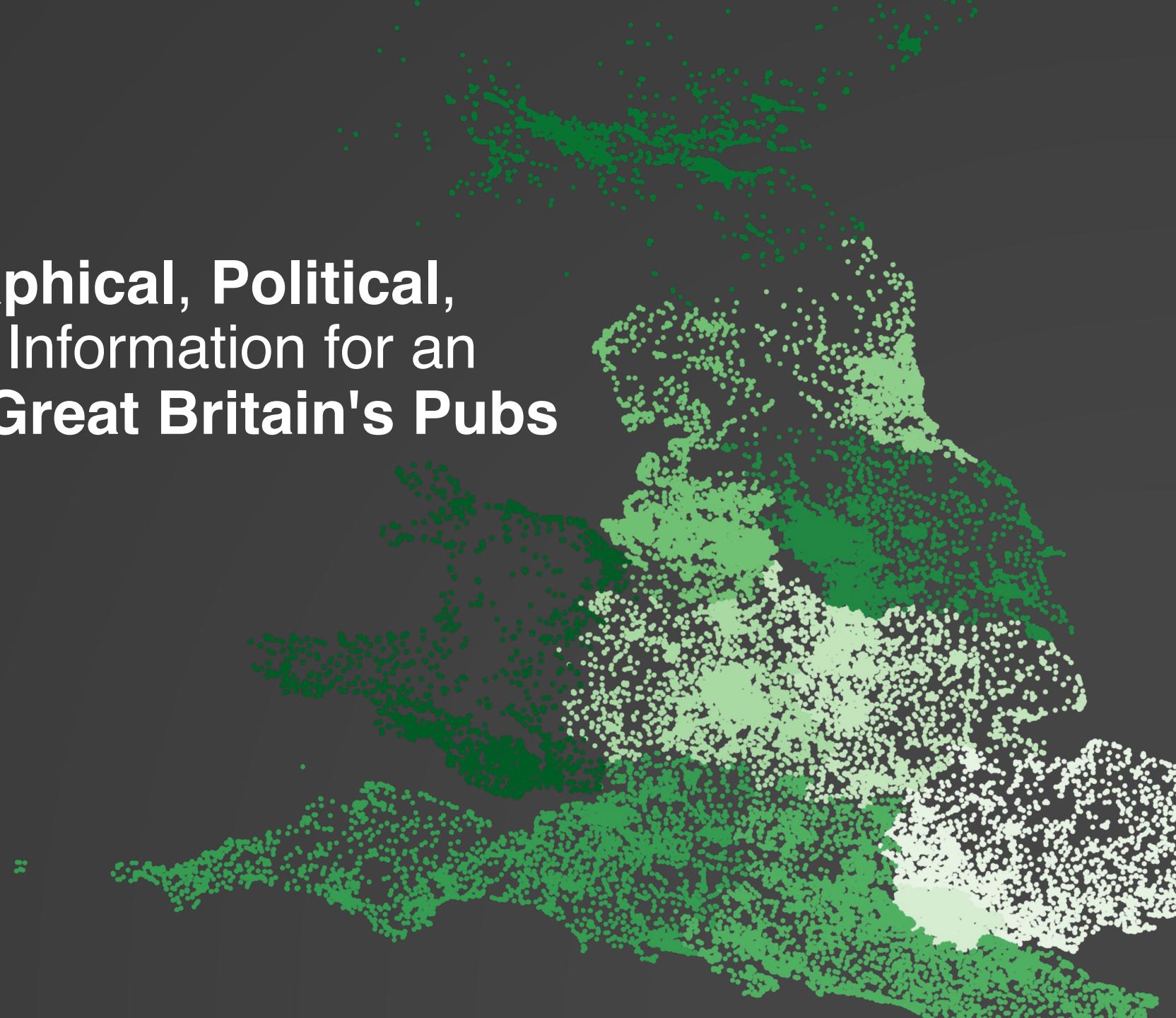
Pubs by Income of Locals

Pubs of England & Wales by Income of Local Residents

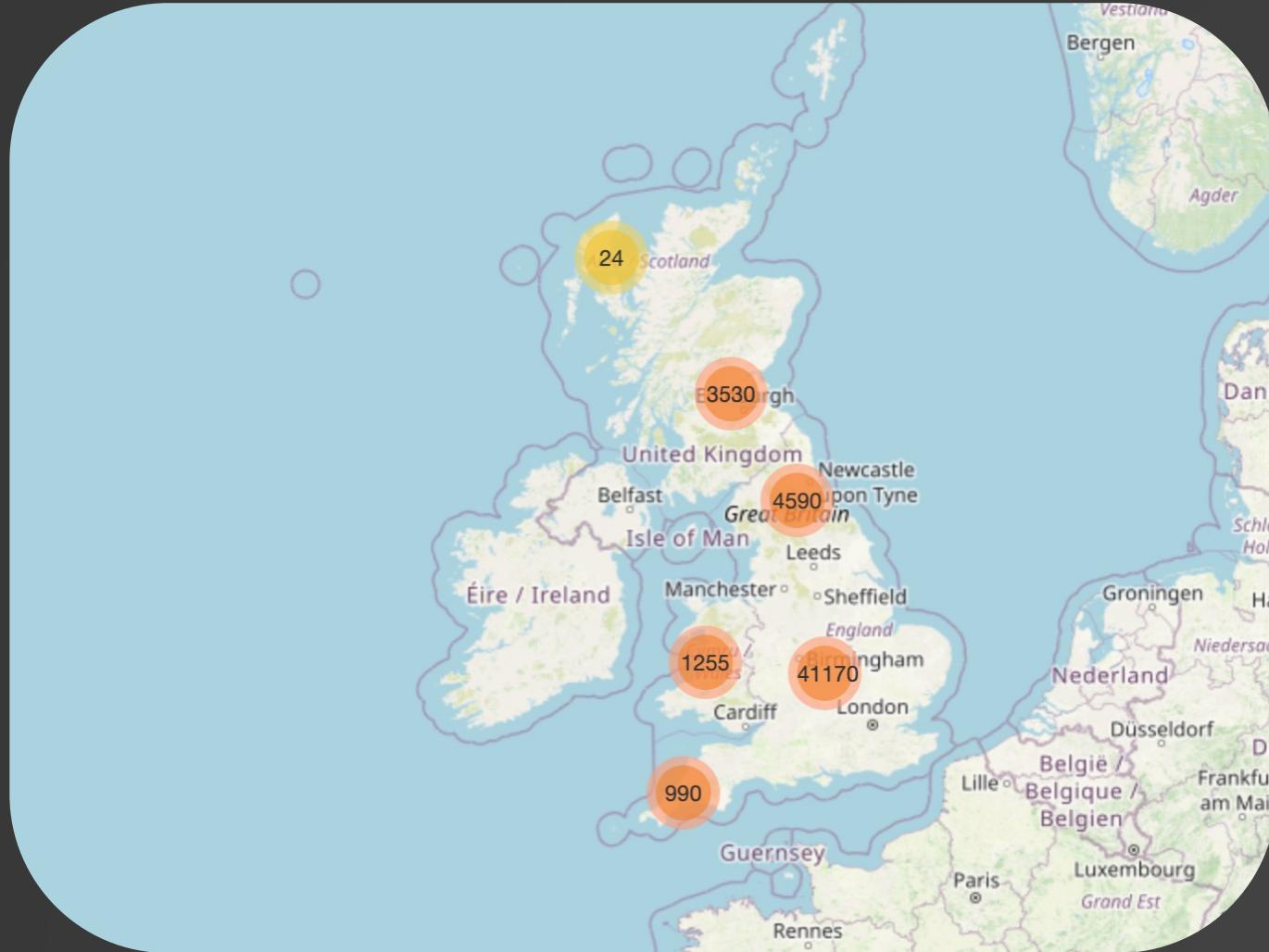


- The map of England and Wales displays each pub as a point, with colors indicating the local income in GBP based on small area information.
- The income disparity between parts of the Midlands and the North compared to the South East is visible through the distribution of pubs on the map.

Combining Geographical, Political, and Demographic Information for an Interactive Map of Great Britain's Pubs

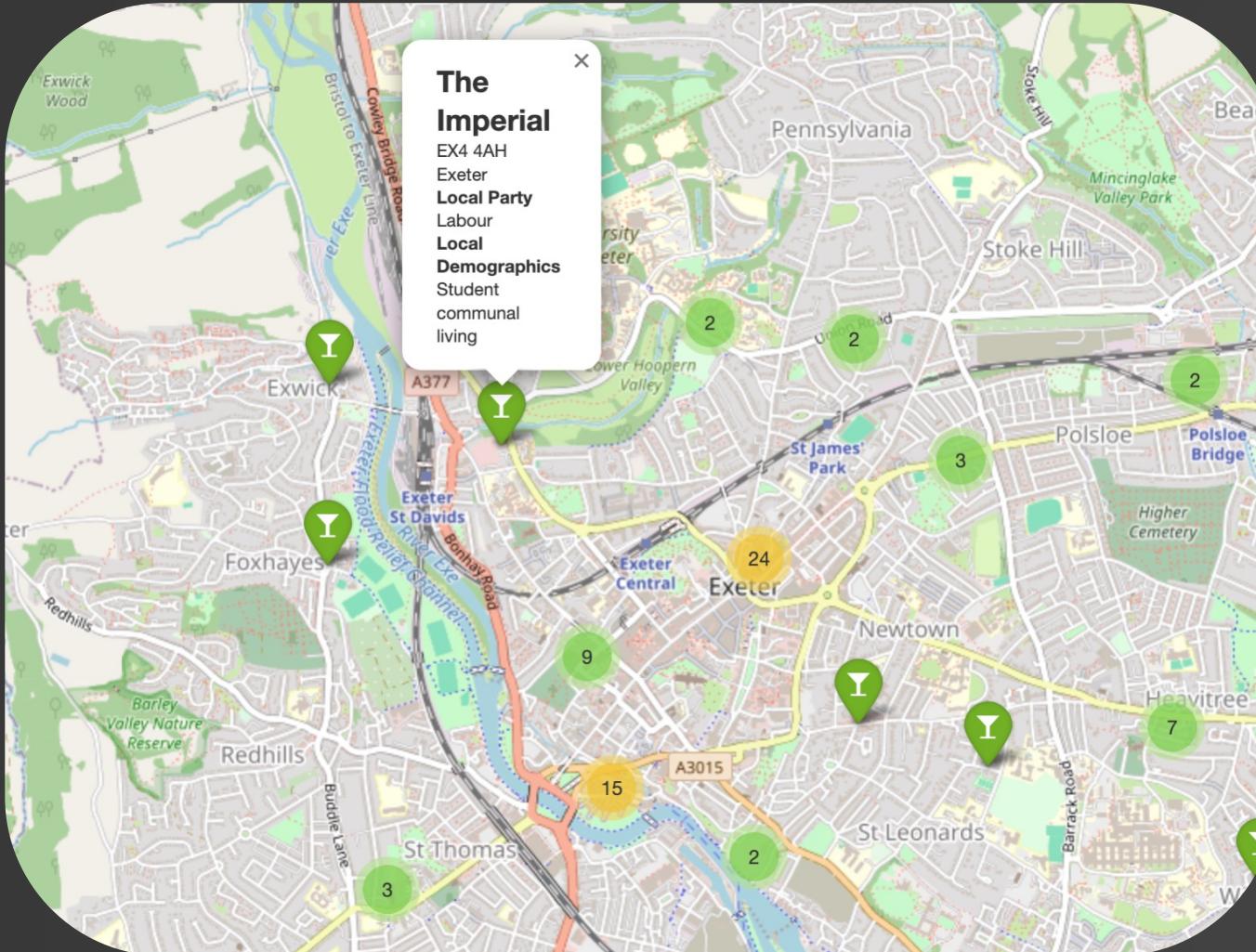


Interactive Map of Pubs



- Folium was used to create an interactive map that combines all the information above.
- Pubs are clustered into groups, which can be zoomed into when clicked upon.

Interactive Map of Pubs



- When zoomed in, some clusters remain visible, allowing for further zooming.
- When a pub is selected, a popup displays the name of the pub, its postcode, and the district.
- Constituency information and local demographics are also visible in the popup.
- Additional information can be easily added, as needed.

Conclusion, Discussion & References

Conclusions

- Pubs are not just places for consuming food and drinks but are significant cultural and community hubs in British life.
- Pubs are most concentrated in urban, suburban, and rural areas. There is a noticeable disparity in pub distribution, with fewer pubs found in multicultural, hard-pressed living, and ethnic minority communities.
- When population size is considered, the Green Party has the highest density of pubs, followed by Plaid Cymru. Labour has the lowest density of pubs.
- The number of pubs per 10,000 constituents generally decreases as local wages increase for pubs in constituencies for most political parties, except for Plaid Cymru.
- Using Middle Layer Super Output Areas (MSOAs) provides a more granular analysis compared to larger UK Parliament Constituencies.
- The relationship between income and the number of pubs is weaker at the MSOA level compared to constituency level.



The Ring of Bells,
North Bovey



The Fife Arms,
Braemar

Discussion & Future Work

- There may be errors in the pub data; for instance, Tower Hamlets is shown to have only one pub, whereas there are more pubs in that area.
- The data may not be accurate today; for example, constituency information is only available since 2019, the date of the last election. This data will change in July 2024 with another election planned.
- Income estimates are accurate up to 2020. Considering it is now 2024, the economy has changed since then due to COVID and Brexit.
- The quality of the pubs is unknown. Future work should consider online ratings when classifying pubs, and food standards ratings could be implemented to provide more information about pub quality.
- Northern Irish pubs were not included. A more comprehensive investigation of pubs in the United Kingdom would include these missing pubs.
- It would also be important to consider the timeline of pubs, such as closures and new pubs opening. Demographic shifts could also be investigated to understand the factors responsible for these changes.



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