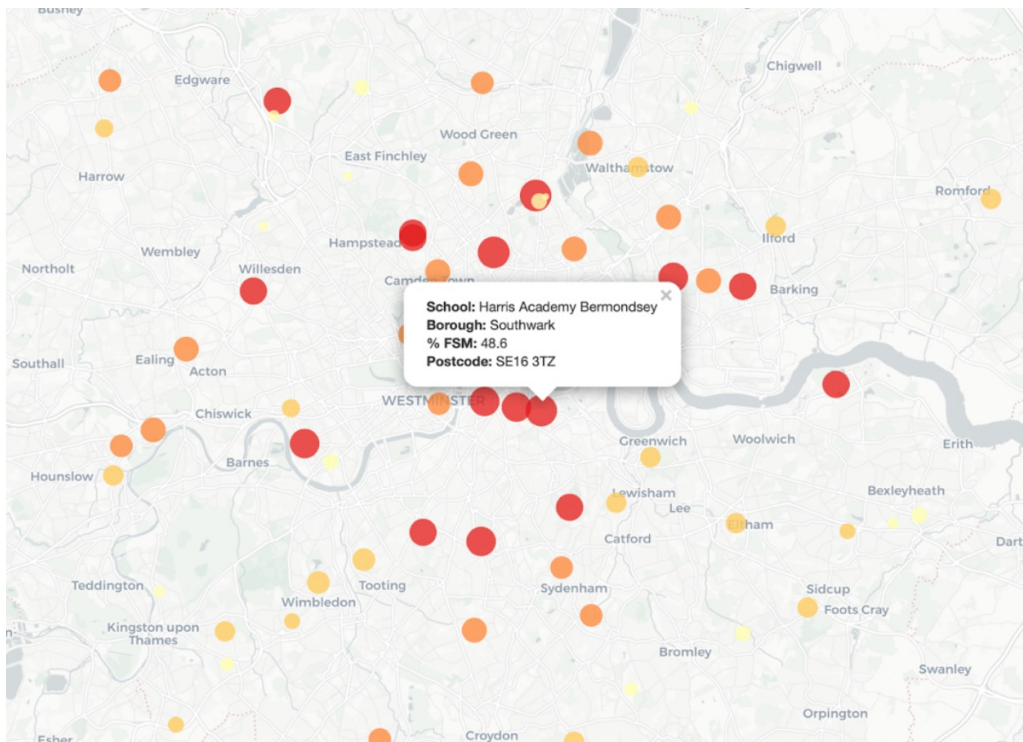


# Girls in Data - Tracking the Impact of data related 'Inspiration Sessions' on Young Girls (20pts)

## Strategic Interventions for Girls in Data for UK Schools

Jaya Dosanjh & Abigail Denner | BA Economics & BA Politics, Philosophy and Economics



Geospatial Mapping of All Girls Secondary Schools in London based on % FSM.

### Overview of the Data Fellowship (23pts)

During our data fellowship with *Girls in Data*, we worked on diverse tasks supporting the charity's goals. You analyzed government and think tank datasets, proposed an exhibit for the *Florence Nightingale Museum* on women's health inequalities, redesigned surveys, and helped set up a CRM system through Microsoft Non-profit 365. We also evaluated the charity's educational sessions and developed a report on gender inequality in STEM subjects, using Free School Meals data to suggest expansion strategies for underrepresented regions.

### Data Analysis

This data fellowship allowed us to progress leaps and bounds with our data analysis. We had the opportunity to become confident working independently to select and analyse datasets using both R and Python coding to create accessible data visualisations including geomapping with the leaflets software. We used these methods to conduct exploratory analysis to identify relationships that impact girls' ability and desire to remain in Data and Tech subjects.

### Findings

- Girls make up only 21% of Computing and 17% of Engineering students at GCSE, this indicates that girls drop out of Data and Tech subjects as young as 14.
- This statistic progresses to university, women make up only 18% of computing and 17% of engineering students.
- While girls report being 9.7% more confident than boys in Science, they are 5.7% less confident in Engineering and Maths.

- Women represent only 24% of the STEM workforce.
- From the top 10 local authorities in London by average percentage of free school meals (FSM) for all girls secondary schools, Islington leads with the highest %FSM, followed closely by Tower hamlets and southwark, indicating a high level of socio-economic deprivation in these areas.

### Key Skills Learnt

1. Communication & Collaboration: We both delegated tasks efficiently among each other and sought feedback from our mentors to improve project outcomes. As a result of this we effectively summarised tasks during group meetings and presented progress updates in our weekly catchups.
2. Creativity: Our creativity was developed by enhancing tasks with engaging visuals, such as considering specific colours for our data visualisations, and redesigning feedback questionnaire forms to appeal to younger children using emojis and star ratings
3. Adaptability: During the course of this fellowship, we had to familiarise ourselves with new never before seen concepts and adjust to tasks based on this. There were many times this occurred such as applying The Common Data Model when creating Entity Relationship Diagrams, using new packages in Python and R-Studio such as leaflet and even learning the fundamentals of a Microsoft Non-profit CRM system.
4. Networking: Our networking developed through the opportunity of meeting and video calling highly regarded professionals. This internship also presented us with the opportunity of attending Big Data London which expanded our industry knowledge further.



Attending a talk at Big Data LDN.