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# **Analyzing the Impact of Immigration to the UK Economy**

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## 2. Introduction

People worldwide have been drawn to the United Kingdom for many years for various reasons, including employment, education, and family reunions. The nation's vibrant economy and opportunities have elevated it to a global center for international students and the workforce.



Immigrants including International students have been acknowledged as critical financial contributors to the UK, not just in terms of their tuition costs but also their consumption and possible future labour market contributions. Higher education institutions in the UK stand to benefit economically, politically, socially, and culturally from drawing in more students from developing nations like China and India .



The problem lacks a comprehensive business intelligence framework that integrates multiple datasets, including immigration counts, international student revenue, reasons for immigration, visa-granted data, and policy timelines.

## II. Methods

The analysis was implemented using Microsoft Excel tools, Python and the Pandas Seaborn visualization package. Four datasets were used: they include "immigration count data", which captures long-term international migration estimates in the UK (thousands); "international student revenue data", "reason for immigration;" and "visa granted", which captures entry clearance visas granted by current category and prior equivalent, excluding tourist visas.



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# III. Results

Immigration trends are depicted in Figure 1 below

- Immigration (Blue Line): Shows an overall increasing trend over the years, with some fluctuations.
- Emigration (Red Line): Also increases over time but with less steepness compared to immigration.
- Net Migration (Green Line): Generally follows the trend of immigration, indicating that the net migration is heavily influenced by the immigration rates.

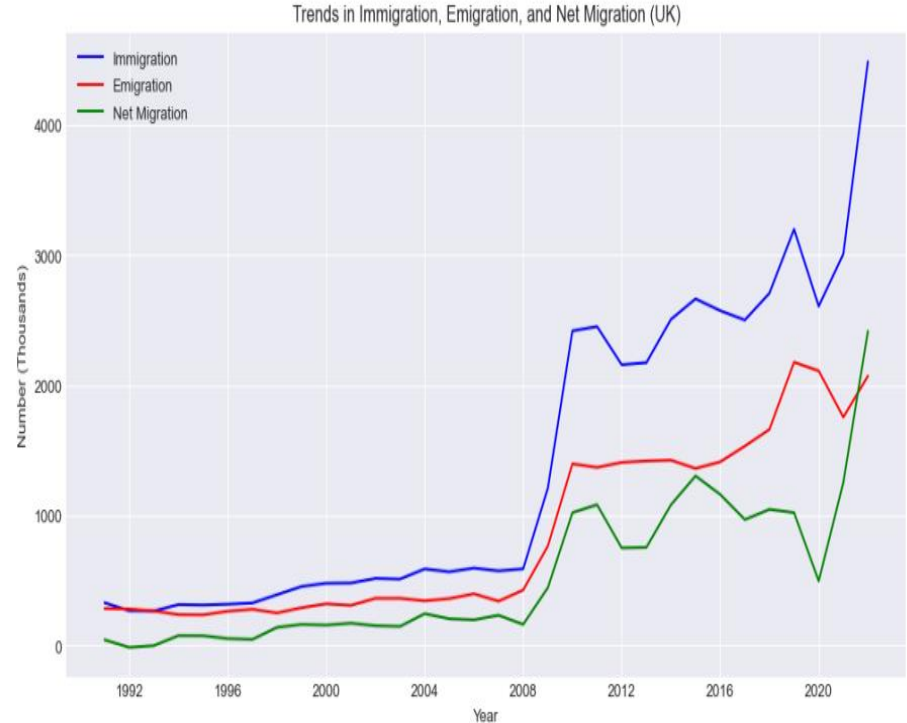
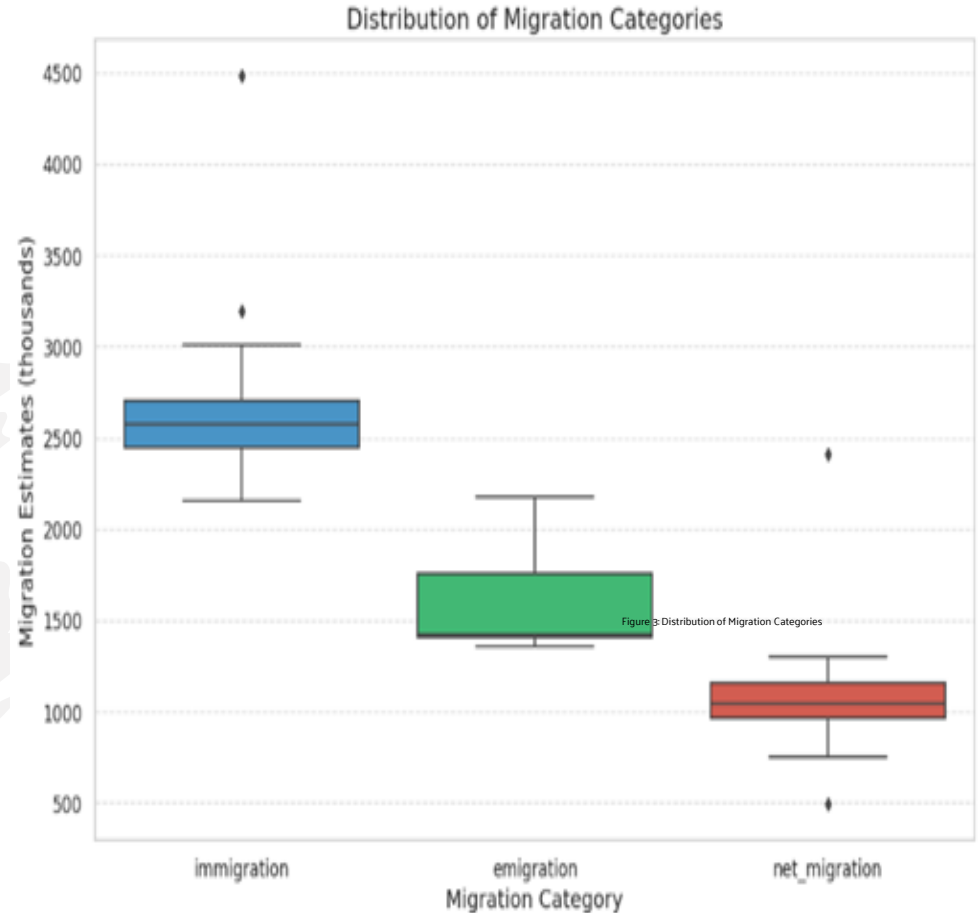


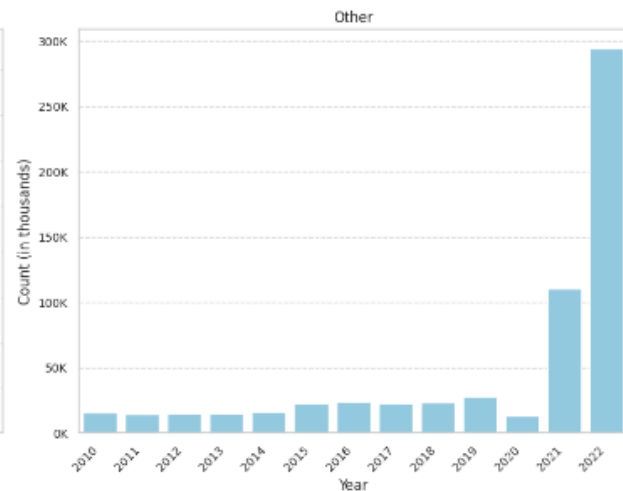
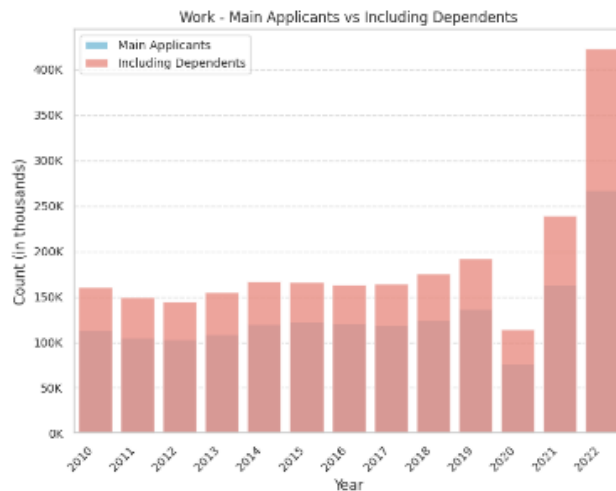
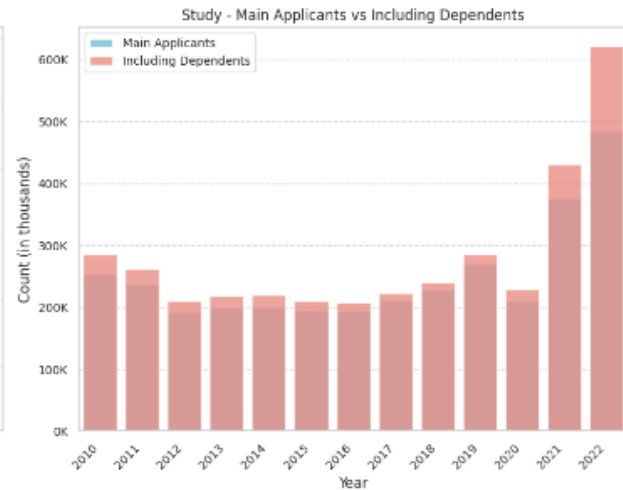
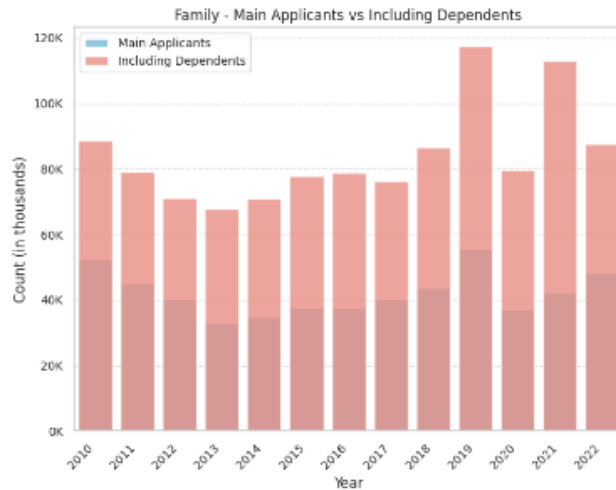
Figure 1: Migration Trends over time

# III. Results

According to Figure 3, the median immigration is roughly 2,500, although there is significant variation. There are a few notable exception years that have higher than average immigration. With some variation, 1400 is the median age of emigration. The net migration, which has a median value of about 1000, typically shows a positive trend.



# Results (Appendix iii)



# IV. Forecasting (Results)

The lack of student counts for 2020, 2021, and 2022 in the international student revenue dataset led to applying an ARIMA forecasting model, which uses previous data to create forecasts. The model's output (Figure 6) showed that estimates gradually decreased between 2020 and 2022. However, the ARIMA model's performance is not perfect compared to the actual data. Notably, there was a 12% increase in non-UK student enrolments in UK universities between 2020–2021 and 2021–2022, bringing the total to 679,970 non-UK students. The main driver of this spike was a significant 24% increase in the number of non-EU students enrolled. According to a new policy, international students can no longer bring dependents on their visas unless enrolled in a postgraduate research program. Due to this, the number of overseas students interested in studying in the UK may decrease.

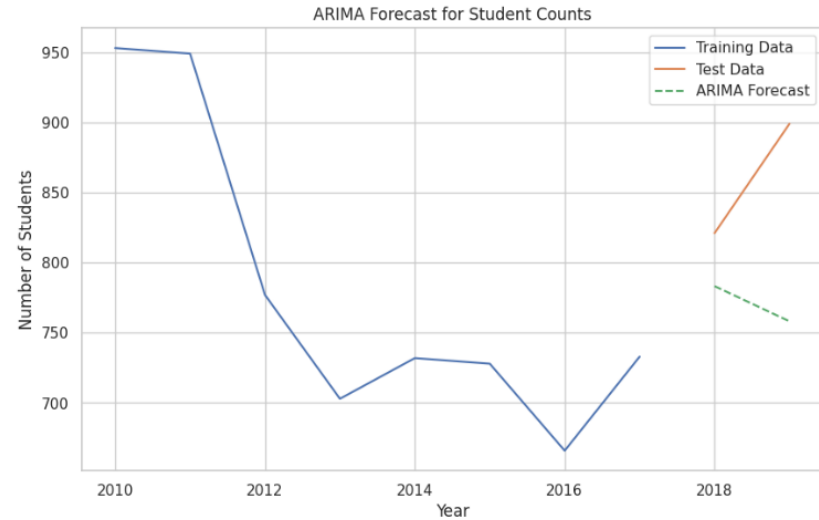
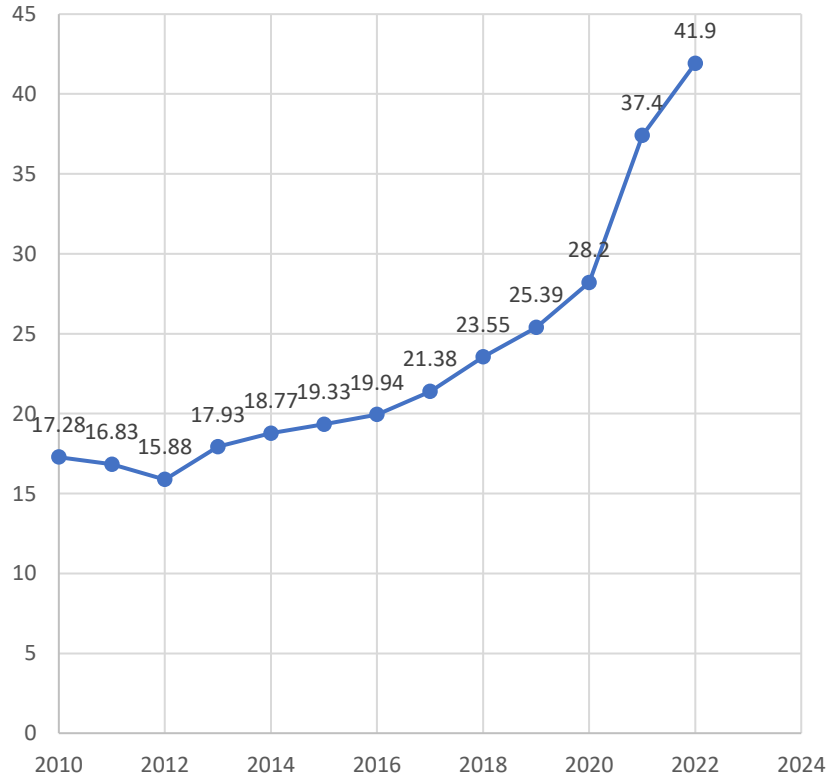


Figure 6: ARIMA Forecast for Student Counts



# V. Economic Contribution

Revenue on International Student(Billion £)



Labor Market and  
Productivity

Gross Domestic  
Product (GDP)  
Contribution

Entrepreneurship  
and Innovation

Fiscal Impact

Demographic  
Impact

Skill Diversity and  
Specialization

Cultural and Social  
Contributions



## VI. Conclusion and recommendation

- The analysis demonstrates that the notable increase in revenue and overall benefits of immigration outweighs the problems associated with it as it can be attributed to welcoming policies that encourage immigration to the UK. On the other hand, the UK's recent strict immigration laws may have a significant impact on immigrant behaviour and income.
- Policymakers must find a way to combine enforcing immigration controls with preserving an atmosphere that draws talented people, students, and economic contributors.
- Given that immigration can have a large effect on the labor market, it is recommended to examine the industries and skill sets in which immigrants are most active. Then, economic policies should be tailored to capitalize on these advantages, for example, by creating specific jobs or offering training.

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## VII. References

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THANK YOU!