

# QUANTITATIVE ANALYSIS OF IMMIGRATION IN FRANCE (2010-2025)

## 1. RESEARCH OBJECTIVE

This quantitative study aims to understand the evolution and socio-economic dynamics of immigration in France between 2010 and 2025. The analysis examines the relationship between migration flows, control policies, territorial distribution, demographic composition, and labor market participation. The goal is to assess whether the available data confirm or contradict political narratives about immigration, especially the idea that immigration “weighs” on the French system or, conversely, represents an economic and social resource.

## 2. RESEARCH QUESTION

In France, political debates on immigration are often polarized. Right-wing parties frequently describe immigration as excessive, uncontrolled, and costly for the state. Left-wing perspectives, on the other hand, tend to emphasize diversity, inclusion, and the economic contribution of migrants. Between these opposing views, this research seeks to rely on empirical data rather than ideology. The central question is therefore:

**→ To what extent do quantitative indicators of migration and socio-economic integration in France confirm or contradict political narratives about immigration?**

## 3. HYPOTHESES

Three hypotheses guided the analysis:

- H1: Right-wing narratives exaggerate immigration growth and underestimate the cyclical nature of migration.
- H2: Left-wing discourses highlight the social contribution of migrants but often ignore persistent economic and territorial inequalities.
- H3: The actual situation is more complex: migratory flows are irregular, control is context-dependent, and immigrants are spatially concentrated but economically active.

## 4. DATA SOURCES

All datasets used in this study come from official French institutions. The Ministry of the Interior provided statistics on asylum applications, residence permits, forced removals, as well as demographic data. The National Institute of Statistics and Economic Studies (INSEE) supplied socio-economic data on immigrants. These datasets were selected because they cover complementary aspects of migration: entry, control, settlement, and participation in the economy; and also because they were already cleaned and therefore easier to manage.

## 5. METHODOLOGY

The analysis was conducted in Python using Google Colab. The libraries *pandas* and *matplotlib* were used for data cleaning and visualization. Each dataset was imported, then reorganized to remove empty rows, irrelevant footnotes or extra headers. Only the relevant columns were kept, such as “Year,” “Population,” “Immigrants,” “Applications,” and

“Employment rate.” Data were then converted to numeric format and restructured into simple dataframes. The cleaned tables were visualized using line or bar charts to highlight yearly trends or category comparisons.

This coding approach ensured transparency and reproducibility. The same logic was applied to all datasets: importation, cleaning, simplification and visualization. Each figure presented below corresponds to one dataset and one aspect of immigration.

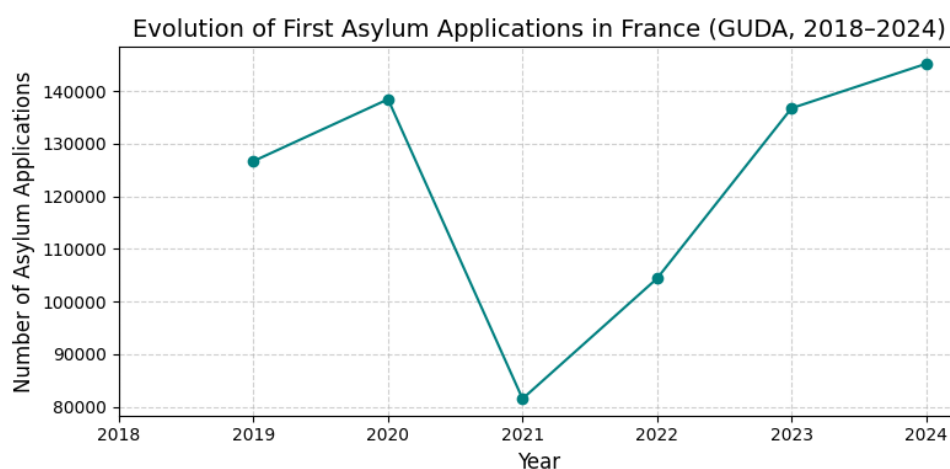
Concerning the use of AI for this investigation, the LLM ChatGPT was the AI used for this analysis as an assistant in the coding part for the data preparation. Chatgpt helped furnishing and explaining the necessary codes to execute on python, and it also helped correct mistakes or issues during the coding process.

## 6. ANALYSIS & RESULTS

### 6.1. Migration Flows

The dataset on asylum requests from the Ministry of the Interior was cleaned to isolate first asylum applications filed through the GUDA system<sup>1</sup>. The analysis showed a clear fluctuation in the number of asylum seekers. Applications increased between 2018 and 2019, fell sharply in 2020 because of border closures during the COVID-19 pandemic, and gradually recovered between 2021 and 2023 before slightly declining in 2024.

These results demonstrate that migration flows are cyclical rather than linear. They depend on international crises rather than on domestic political will. The idea of a constant, uncontrollable influx of migrants is not supported by the data.



*Graph 1 – Evolution of First Asylum Applications (2018-2024)*

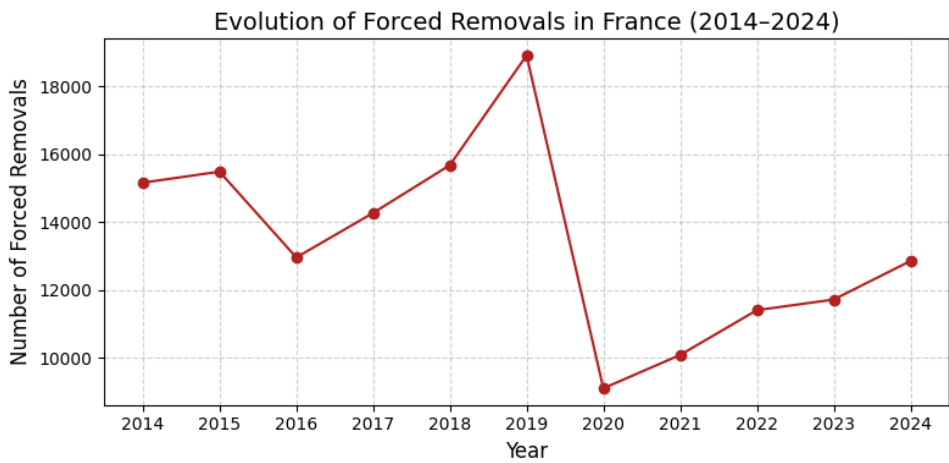
### 6.2. Migration Control

A similar process was applied to the dataset on forced removals. The analysis focused on the category “Total éloignements forces”. The number of removals increased steadily from 2014 to 2019, reached a peak just before the pandemic, and then dropped by half in 2020. It started to rise again between 2021 and 2024, though not to pre-pandemic levels.

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<sup>1</sup> The official administrative system in France where asylum seekers must go to register their asylum application

This evolution shows that the state’s capacity to control irregular immigration is sensitive to global conditions, such as international mobility restrictions, rather than to purely national policy decisions. Control is not absent, but it is variable and constrained.

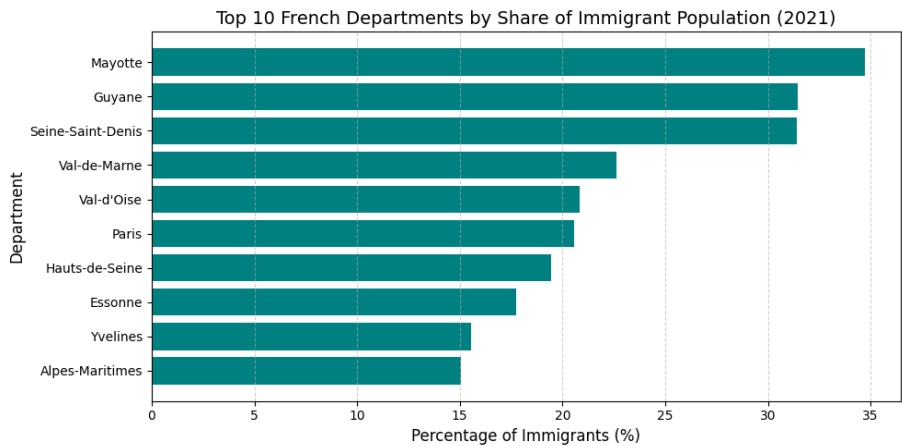


Graph 2 – Evolution of Forced Removals (2014-2024)

6.3. Territorial Distribution of Immigrants

The Ministry of Interior dataset on the share of immigrants by department was used to visualize how the immigrant population is distributed across France. After cleaning the data and extracting departmental codes and percentages, the analysis revealed strong geographical disparities. The highest proportions of immigrants were found in overseas departments, particularly Mayotte and Guyane, as well as in the Paris region.

This concentration indicates that immigration in France is highly localized rather than widespread. It challenges political claims that suggest an “invasion” across the entire national territory. Instead, immigration is concentrated in specific economic and historical regions.



Graph 3 – Top 10 Departments by Immigrant Population (2021)

6.4. Demographic Composition

The dataset on the origin of immigrants was used to identify the main source regions. After converting the figures to comparable scales, the analysis showed that North African countries - Algeria, Morocco, and Tunisia - remain the main sources of immigration, followed by other

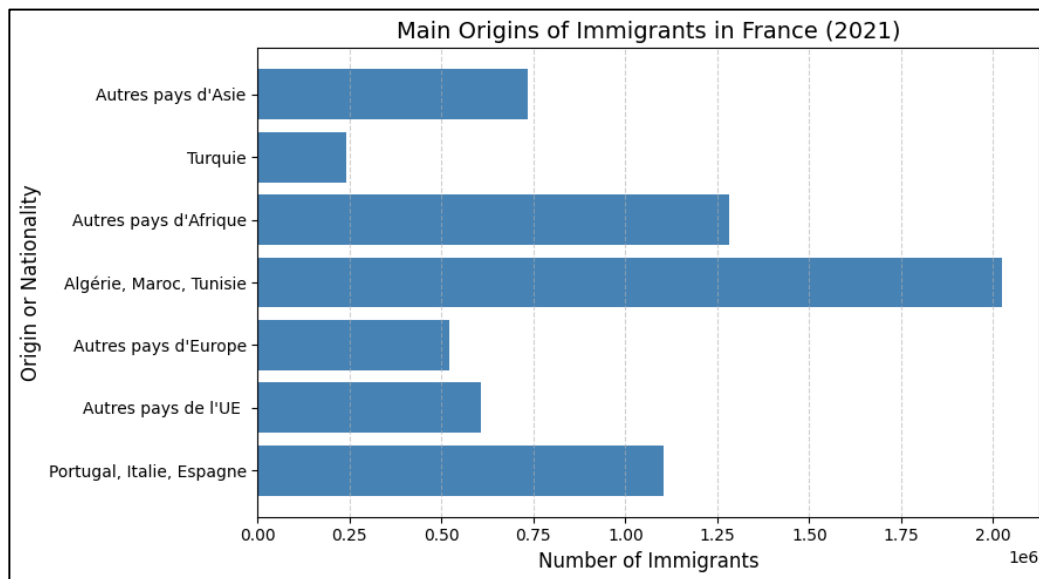
African countries and Southern Europe (Portugal, Italy, Spain). Asian and Turkish immigrants constitute smaller but stable proportions.

These results reflect long-term historical and post-colonial ties rather than new or sudden inflows. Immigration to France has therefore been continuous and structured over decades, not explosive or unpredictable.

**Main Origins of Immigrants in France (2021)**

Origin	Immigrants	Foreigners
Portugal, Italy, Spain	1 104 000	746 000
Other EU countries	608 000	440 000
Other European countries	521 000	386 000
Algeria, Morocco, Tunisia	2 025 000	1 156 000
Other African countries	1 281 000	835 000
Turkey	240 000	168 000
Other Asian countries	733 000	439 000

*Table 1 – Distribution of immigrants by Origins (2021)*



*Graph 4 – Main Origins of Immigrants (2021)*

## 6.5. Socio-Economic Participation

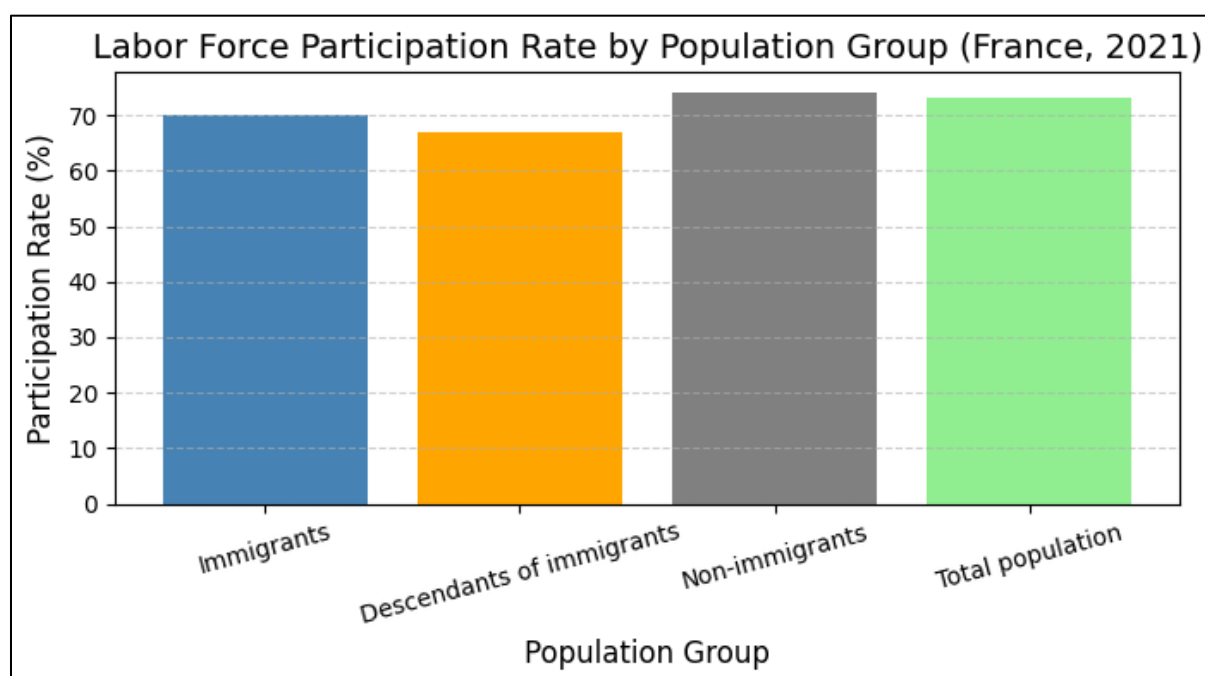
The INSEE Employment Survey was used to measure the labor force participation of immigrants, descendants of immigrants, and non-immigrants. The dataset was imported into Colab, cleaned by skipping the first three rows, and restricted to the overall “All\_Total” column representing the general participation rate. Column names were translated into English, and group labels were standardized before creating a bar chart.

The results show that immigrants have a participation rate of 70%, descendants of immigrants 67%, and non-immigrants 74%. The national average is 73%. The difference between immigrants and non-immigrants is therefore about four percentage points.

This indicates that immigrants participate substantially in the labor market. Their slightly lower rate does not suggest economic dependence but rather the existence of structural obstacles, such as limited access to stable employment or recognition of qualifications. The data thus contradict the idea that immigration represents a financial or social burden.

Cleaned data:

	Group	Activity_Rate
0	Immigrants	70
1	Descendants of immigrants	67
2	Non-immigrants	74
3	Total population	73



Graph 5 – Labor Force Participation by Population Group (2021)

## 7. DISCUSSION

The five analyses are coherent and complementary. They describe a consistent pattern in which immigration in France is neither chaotic nor marginal. Migration flows fluctuate according to global events. The state maintains control mechanisms whose effectiveness depends on international conditions. Immigrants are not evenly spread across the territory but tend to settle in specific regions, often shaped by colonial and economic histories. The composition of immigrant populations is stable, reflecting long-term mobility from North Africa, Sub-Saharan Africa, and Southern Europe. Finally, labor market data show that immigrants are economically active and contribute to the national economy almost as much as the rest of the population.

Together, these findings provide a nuanced answer to the research question. They show that the right-wing narrative of an uncontrollable, costly immigration is not supported by

quantitative evidence. At the same time, the left-wing idea of seamless integration is only partially true, since structural inequalities remain. The empirical data place reality between these two ideological positions.

## 8. CONCLUSION

The quantitative evidence suggests that immigration in France is a stable and cyclical phenomenon rather than a crisis. It is shaped by long-term economic and historical relations rather than by sudden waves. Immigrants are concentrated in specific regions, but they are also active participants in the labor market. Their contribution to the economy contradicts the notion that they “weigh” on the system.

Overall, immigration appears as an ordinary and structural feature of French society rather than a threat or a solution in itself. The data call for a more balanced understanding of immigration, one that goes beyond fear and idealization to recognize the complexity of social and economic integration.