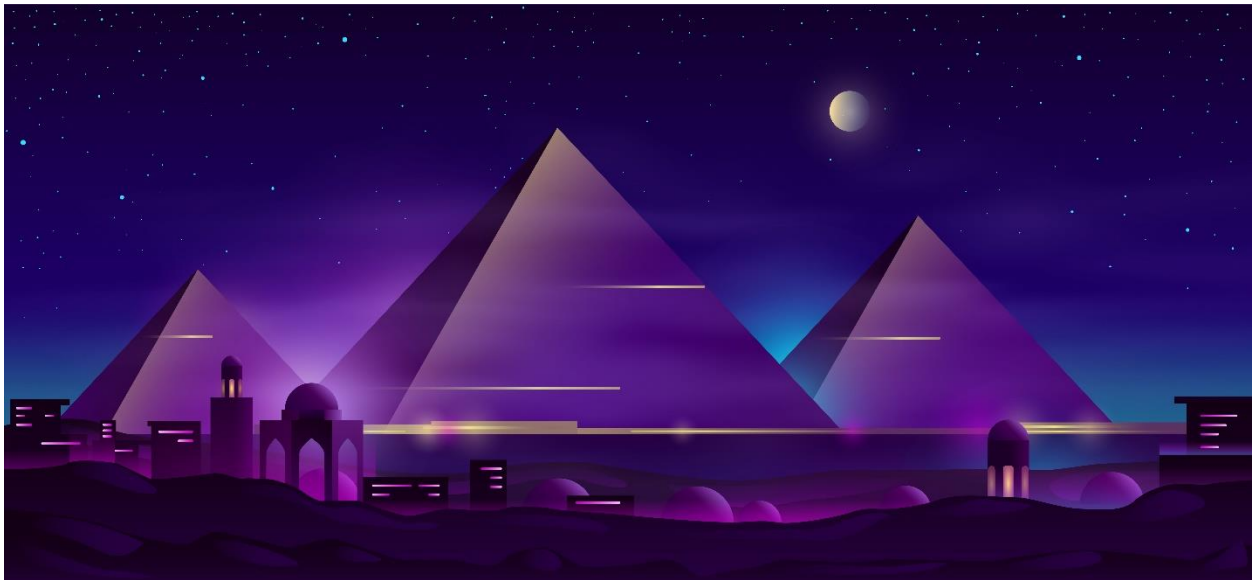


Analysis of Major Social Issues in Egypt

Submitted to : Digital Egypt pioneers Initiative

Instructor / Eman Ghanem



Submitted by:

1-Rana Mabrouk Mahmoud

2-Tasneem Hassan Abd_elfattah

3-Mayar Mohamed Elkhateeb

4-Mariam Mostafa Kamel

5-Mayada Mohamed Konsawa

Abstract / Executive Summary

This project analyzes five major social issues in Egypt over the last five years: divorce, drug addiction, homelessness, education, and healthcare. Using data collected from governmental and organizational sources, the study identifies key trends, highlights geographic differences, and provides actionable insights. Visual dashboards were developed to summarize findings and help policymakers and researchers better understand the evolving situation across governorates.

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2. Introduction

Social issues represent a major challenge for communities, influencing stability, development, and quality of life. Egypt has witnessed notable shifts in various societal indicators during the last five years. This project aims to provide a data-driven overview of these issues, helping stakeholders understand the extent and nature of the problems through visualization and analysis.

3. Problem Statement

Despite the availability of raw social statistics, there is limited unified analysis that compares multiple social issues over time and across regions. Decision-makers need clear, visual, and accurate data summaries to support effective policy planning and intervention.

4. Project Objectives

- Analyze the yearly trends of major social issues from 2019–2024.
 - Compare social issues across governorates.
 - Identify patterns, spikes, and possible correlations.
 - Build interactive dashboards for clear communication of insights.
 - Provide recommendations based on the analytical findings.
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5. Scope of the Project

Included:

- Divorce cases
- Drug addiction cases
- Homelessness statistics

- Education indicators
- Healthcare performance indicators
- Yearly and governorate-level comparisons
- Visual dashboards and KPIs

6. Data Description (Data Dictionary)

Data Sources:

- Egyptian Government Open Data Portals
- CAPMAS (Central Agency for Public Mobilization and Statistics)
- Ministry of Health reports
- Ministry of Education statistics
- Survey conducted by the author

Dataset Overview:

- **Years Covered:** 2018–2024
- **Variables:** Issue type, year, governorate, count/rate

Example Data Dictionary:

Column Name	Description	Type	Example
Year	The reporting year	Integer	2022
Governorate	Egyptian governorate name	Text	Cairo
Issue	Social issue type	Text	Divorce
Count	Number of recorded cases	Integer	15000
Rate_per_1000	Rate standardized by population (if used)	Float	3.2

Column Name	Description	Type	Example
Additional Notes	Extra details depending on issue	Text	—

7. Data Collection

Data was gathered from official statistical reports and online open-data portals. Some datasets required manual extraction and merging. Different sources sometimes used different formats, requiring standardization.

8. Data Cleaning & Preprocessing

The following steps were performed to ensure data accuracy and consistency:

1. **Duplicate Removal:** Removed duplicate entries across datasets.
 2. **Missing Values Handling:** Addressed missing values using median imputation.
 3. **Standardization:** Standardized governorate names and issue labels.
 4. **Unit Unification:** Unified measurement units across all datasets.
 5. **Aggregation:** Converted all counts to yearly aggregated values.
 6. **Calculated Fields:** Created additional fields such as rate per 1,000 population.
 7. **Tools Used:**
 - **Power Query** for data extraction, transformation, and initial cleaning.
 - **Python (pandas & numpy)** for advanced preprocessing, handling missing data, and merging multiple sources.
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9. Methodology

Steps Followed:

1. Data collection
 2. Data cleaning and transformation
 3. Exploratory Data Analysis (EDA)
 4. Visualization using dashboards
 5. Insights extraction
 6. Forming conclusions and recommendations
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10. Exploratory Data Analysis (EDA)

Key analytical actions:

- Trend analysis for each issue across 5 years
 - Comparison between governorates
 - Identifying highest and lowest regions for each issue
 - Detecting sudden spikes or drops
 - Creating KPIs for quick interpretation
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11. Visualizations and Dashboards

All visualizations in this project were created using **Power BI**.

The tool was used to build interactive dashboards, charts, and KPIs that clearly display trends, regional comparisons, and patterns across all social issues.

Power BI also allowed filtering by year and governorate, enabling deeper exploration of the data and supporting more accurate insights.

12. Key Findings (Insights)

Divorce:

- Analysis of yearly trends shows that divorce cases peaked in 2023, making it the year with the highest recorded values.
- Rural areas reported consistently higher divorce rates.

Addiction:

- Most cases concentrated in Cairo, Giza, and Sharqia.
- The data shows that male cases are significantly higher than female cases across most governorates.

Homelessness:

- Highest in major cities.
- The age-group analysis reveals that homelessness is most prevalent among adults (25–44), followed by teenagers (15–19). Children under 15 come next, while middle-aged individuals (45–60) represent the lowest proportion.

Education:

- Enrollment decreased at 2020 during COVID-19 years.
- Notable improvement from 2022 onward.

Healthcare:

- The distribution of BMI categories shows clear gender differences. Females have higher percentages in the Overweight and Obese groups, while Males are more represented in the Normal and Underweight categories.

13. Limitations

- Some data missing for certain governorates or years
- Lack of detailed demographic information

- Differences in data collection methods across sources
 - Limited access to real-time updates
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14. Recommendations

- **1. Divorce**

Recommendations:

- Expand family counseling programs in rural areas, as they show consistently higher divorce rates.
 - Introduce early-intervention units to help couples resolve conflicts before reaching divorce.
 - Launch awareness campaigns highlighting the financial and social consequences of divorce.
 - Provide targeted support for rural communities through workshops, premarital education, and legal guidance.
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- **2. Drug Addiction**

Recommendations:

- Increase the number of rehabilitation centers in high-risk governorates (Cairo, Giza, Sharqia).
 - Create male-focused awareness and prevention programs, since male cases dominate.
 - Offer affordable mental-health and addiction-counseling services for low-income groups.
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- **4. Homelessness**

Recommendations:

- Establish rehabilitation and job-training programs specifically targeting adults aged 25–44.
 - Create protection and reintegration programs for teenagers to prevent long-term homelessness.
 - Develop safe shelters with medical and psychological support in high-density urban areas.
 - Implement tracking systems to identify at-risk individuals early.
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- **4. Education**

Recommendations:

- Strengthen digital education platforms to avoid future crisis-related dropouts.
 - Increase financial support for families in governorates with low enrollment.
 - Improve school infrastructure and teacher availability in underserved regions.
 - Expand awareness campaigns on the importance of consistent school attendance.
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- **5. Healthcare / BMI**

Recommendations:

- Launch targeted nutrition and lifestyle programs for women, focusing on preventing obesity.
- Promote physical-activity campaigns in workplaces and public spaces.
- Enhance early screening programs for obesity-related diseases.
- Provide more community-level health awareness sessions tailored by gender.

- **General Cross-Domain Recommendations**

- Improve data collection between ministries for more accurate monitoring.
 - Build interactive dashboards for early detection of spikes in divorce, addiction, homelessness, and health issues.
 - Support NGOs and community groups to participate in societal development programs.
 - Increase employment and skill-development initiatives, since unemployment is linked to addiction and homelessness.
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15. Conclusion

The analysis highlights significant fluctuations in social issues across Egypt between 2018 and 2024. While issues like education and healthcare show improvement after the pandemic, challenges such as addiction and divorce remain critical. Data-driven insights provide valuable guidance for prioritizing resources and improving societal well-being.

16. References

- World Bank - Egypt data (Education indicators).
- UNODC Data Portal - Drug use prevalence.
- CAPMAS - Annual Bulletin of Marriage and Divorce Statistics (CensusInfo).
- Homeless World Cup / NGOs reporting estimates.
- WHO country data for Egypt.
- UNICEF Egypt country data.