

## Business Report: Crime Analysis Dashboard – Mexico Case Study

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### Project Overview

This report presents a comprehensive analysis of crime data across Mexican states over multiple years. The dashboard visualizes crime patterns, types, and geographical distributions to support law enforcement agencies, policymakers, and stakeholders in understanding crime dynamics and enabling data-driven decisions.

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### Objectives

- Understand the trends and distribution of crime over time.
  - Identify the most common crime types affecting the country.
  - Pinpoint the states with the highest and lowest crime rates.
  - Enable stakeholders to make informed decisions about crime prevention and resource allocation.
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### Key Performance Indicators (KPIs)

Metric	Value
Total Reported Crimes	332,416K
Number of Crime Types	39
Total Years Covered	9 (2015–2023)

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### Dashboard Components and Insights

#### 1 Crime Trends by Year and Type (Line Chart)

- Shows how different types of crime have evolved year over year.
  - **Insight:** Robbery remains the dominant crime type with significant peaks around 2019–2020. Other crimes like domestic violence and fraud show a steady increase.
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## 2 Monthly Crime Patterns (Line Chart)

- Analyzes seasonal crime behavior across different years.
  - **Insight:** Crimes show fluctuations throughout the year, with some spikes in particular months, indicating possible seasonal or event-based patterns.
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## 3 Crime Distribution by Type (Donut Chart)

- Displays the proportion of each crime type relative to total crimes.
  - **Insight:**
    - **Robbery:** ~35% of total crimes.
    - Followed by **Domestic Violence, Injuries, Fraud, and Drug Trafficking.**
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## 4 Crime Distribution Across States (Map)

- A geographical visualization highlighting crime concentration by state.
  - **Insight:**
    - Heavily populated states show higher crime counts.
    - Certain states stand out as hotspots for specific crimes.
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## 5 Top States by Crime Categories (Bar Chart)

- Shows which states have the highest count for various crime types.
  - **Insight:** Enables quick identification of crime-heavy states and their dominant crime types.
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## 6 Filters/Slicers

- **Select Year:** Filter the data to analyze trends for a particular year.
  - **Select Crime Type:** Focus on individual crime types for deeper analysis.
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## Key Findings

- **Robbery** is the most significant crime type nationwide.
  - Crimes generally increased until 2019, then stabilized or declined for some types.
  - Certain regions consistently report higher crime rates, requiring targeted interventions.
  - Specific crime types such as **Domestic Violence** and **Fraud** are showing a rising trend, indicating emerging social challenges.
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## Business Recommendations

1. **Resource Allocation:**  
Focus police and security resources on high-crime states and top crime categories like Robbery and Domestic Violence.
  2. **Policy Development:**  
Develop specialized programs addressing the surge in domestic violence and fraud.
  3. **Seasonal Policing Strategies:**  
Strengthen law enforcement during peak months identified in the seasonal trends.
  4. **Community Programs:**  
Implement community-based crime prevention in regions with rising crimes.
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## Conclusion

This crime analysis dashboard offers actionable insights into crime patterns across Mexico. It helps decision-makers in law enforcement, government, and social organizations craft effective strategies to reduce crime and enhance public safety.

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