# MSIS 2629: DASHBOARD, SCORECARDS AND VISUALIZATIONS
# INDIVIDUAL PROJECT REPORT

## DECLINE IN MEXICAN IMMIGRANTS IN USA

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# PROJECT SUMMARY

## OVERVIEW & PURPOSE

When Mr. Trump became the President, one story that was in news was Mr. President and its administration wants to build a 30-foot-high wall at US – Mexico Border. He wants to build a wall to decrease the inflow of illegal Mexican in USA. The idea behind this project is to understand whether Mexican's are major part of immigrant's population in US and is Mexican illegal Immigrants flow in USA related to increase in crimes in USA.

This project is about to understand and analyze whether is there a need to build a wall at US – Mexico Border by analyzing the illegal Mexican and Non-Mexican immigrants arrested at border by US border Patrol over the past 10 years and how crime rate and Mexican population is decreased but immigration population is increased.

## AUDIENCE

This visualization is created for the newspaper/magazines readers to let the readers know that Mexican immigrants isn't the major chunk of US immigration population and aren't responsible for increase in crimes in USA

## CLAIM

Inflow of Mexican immigrants has decreased over the years and there is no need to build a wall at US – Mexican Border to decrease crime rate in USA.

## WARRANT & BACKING OF CLAIM

It's important to have warrant and backing to support the claim. There are many articles that suggest that Mexican immigrants have declined or been steady over 2009. And also immigration inflow has decreased the crime rate that means mexican immigrants aren't threat to US

- Mexican decline
- Mexican Migration Flow report
- Crime decline

PROJECT DOCUMENTATION

## DATASETS

To create the visualization and verify the claim, I have taken following datasets into consideration:

1. Dataset 1: Dataset of Illegal Immigrants arrested by US Patrol (**arrests.csv**), this contains total illegal immigrants arrested, illegal Mexicans arrested at US border at various sectors & borders over the span of 2000 – 2016.
2. Dataset 2: Another dataset (**Crime&_population_by_year.csv**), this contains total legal immigrants, total illegal immigrants, Mexican immigrants, violent and property crime rate in USA during 2006 to 2014. I have created this datasets by collecting aggregated data from various sources
   Crime related data
   Illegal Immigrants & Population
   Mexican Immigrant Population
   Unauthorized Immigrants

## DATA WRANGLING

1. Cleaning of Dataset 1:

   - Deleted data for year 2000 – 2005 (All Illegal Immigrants and Mexican immigrants), as I wanted to compare the data for last 10 years
   - I felt data is messy in regard to data in Columns that is ( **Year - All Illegal Immigrants and Year - All Illegal Immigrants** ). I needed "**Year**" as another column so it's easy to join with other dataset in Tableau and another column as "**Type**" to determine which type of immigrants were arrested.
   - Split "Year and Type" column and concat with original data.
   - Deleted rows that had "Nan" values.

   Links:

   Original data:
   https://github.com/rupalisjain/Dashboard-Individual-Project/blob/master/arrests.csv
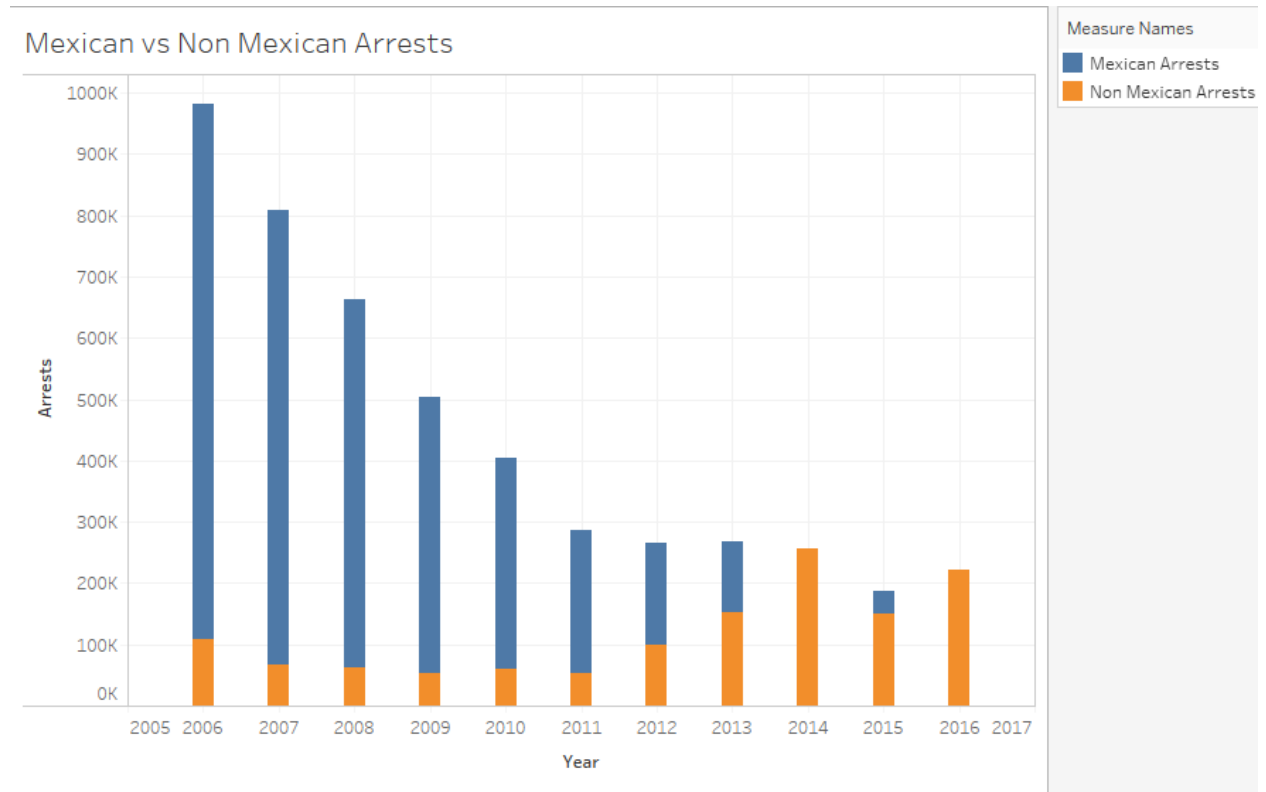   Python File:
   https://github.com/rupalisjain/Dashboard-Individual-Project/blob/master/Final_python_file.ipynb
   Cleaned data:
   https://github.com/rupalisjain/Dashboard-Individual-Project/blob/master/Arrest_cleaned_file.csv

1. **Mexican vs Non-Mexican Arrests**



One of the graph that will be helpful to support the claim is to determine trend of Illegal Mexican immigrants arrested at the US border over the span of 10 years. This visualization depicts that overall arrests of illegal Mexican immigrants at border has decreased and has a downward trend. But, total arrest for Non-Mexican illegal immigrants has an increasing trend. This shows that illegal Mexican immigrants entering US has declined.

Methodology:

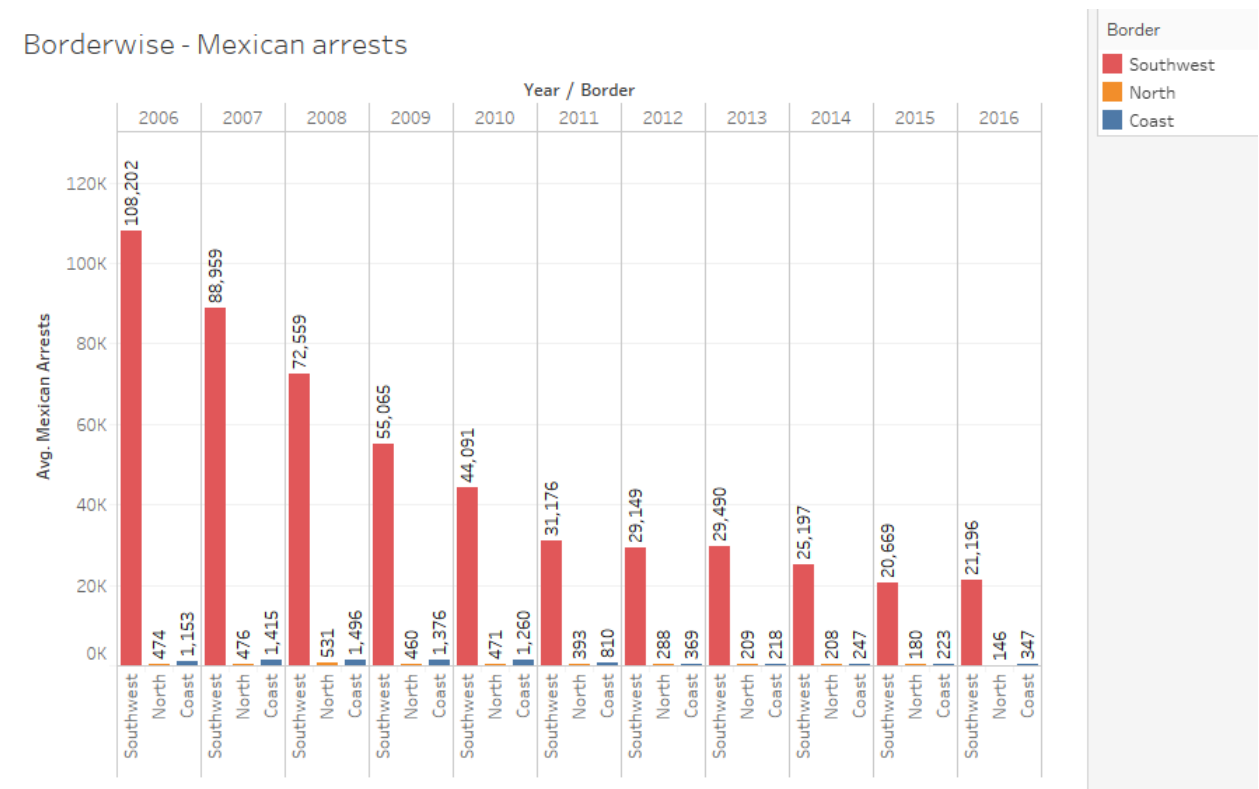1. Created a calculated field
   - Mexican Arrests: This calculated field was created to determine the illegal Mexican arrested over the years by formula:
        if [Type]="Mexicans Only" THEN
        [Arrests]
        END
   - Non-Mexican Arrests: Created to determine the illegal Non-Mexican arrested over the years by formula:

SUM([Total Arrests]) - SUM([Mexican Arrests])

2. Added "Year" in Column and "Mexican Arrests" & "Non-Mexican Arrests" in Rows. Applied "**Dual Axis**" property to "Non-Mexican Arrests" to show different measure in one graph. Also, synchronized the graph as per "Mexican arrest" field.

## 2. Border wise – Mexican Arrests

This visualization shows the trend of illegal Mexican arrested across various borders over the year. Showing how overall arrests of illegal Mexican at various border have decreased supports that the idea that inflow of illegal Mexican immigrants in USA has reduced and it's not the Mexican but illegal immigrants from other countries could responsible for increase in illegal immigrants in USA.
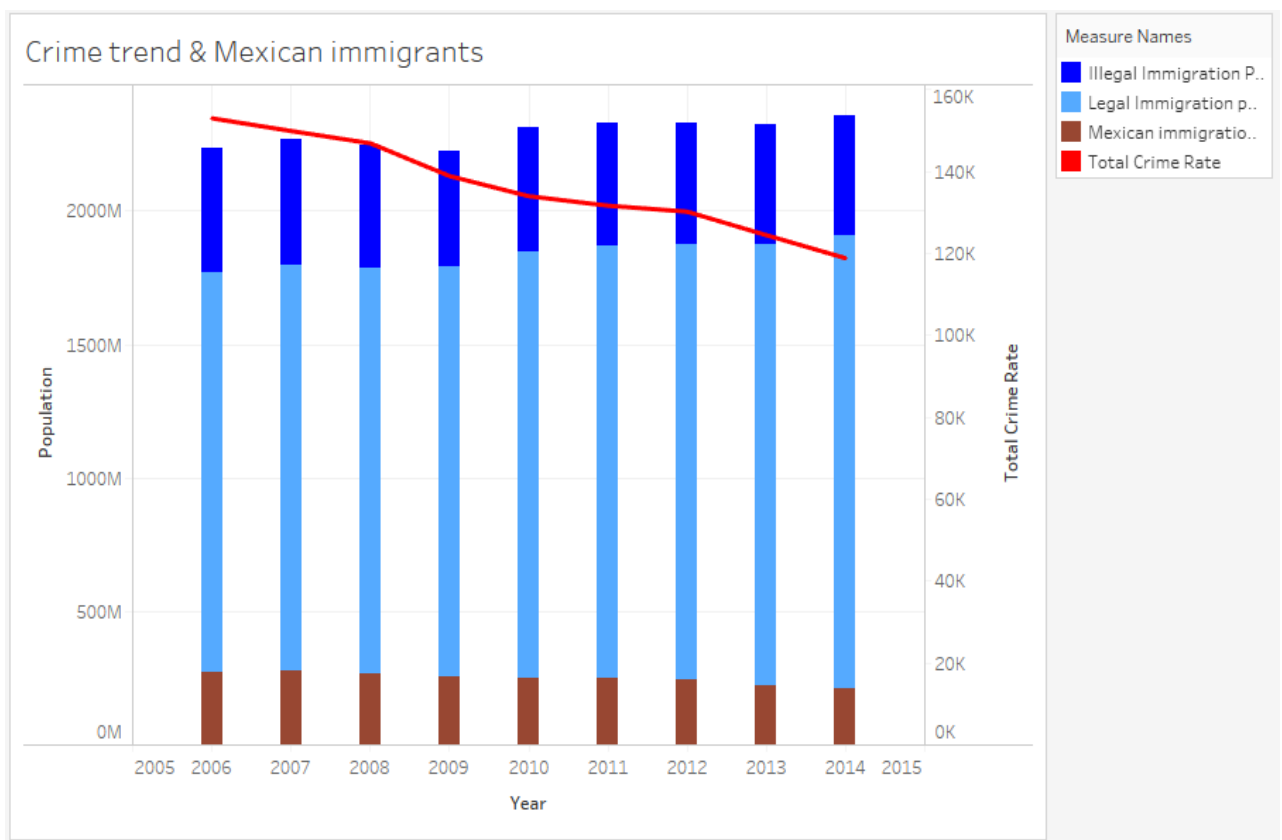


The above visualization depicts a downward trend in illegal Mexican arrests by US Patrol at various US borders over span of 10 years. This also shows that immigrants crossing the border to enter US has decreased

Methodology:

Created this graph by adding "Year" and "Border" in Column and "Mexican Arrest" in Row

3. **Crime trend & Mexican immigrants**

To determine that Mexican immigrants is affecting USA, it's important to analyze how relation between crime rate trend and Mexican immigrants. This graph will help determine whether crime rate has increased or decreased due to immigration and Mexican immigrants.



The above graph shows an increase in illegal immigration population but decrease in mexican immigrant population and crime rate. It shows clearly that there is an increase in illegal population in USA but it's not due to Mexicans and as the immigration population has helped decrease in Crime. Its shows that crime rate is declining even if there is increase in illegal immigration but mexican population is decreased. Increase in crime in USA is not related to Mexican immigration population.

Methodology:

1. Created calculated field "Total Crime rate" by formula:
   SUM([Violent Crime rate]) + SUM([Property crime rate]) to see the trend of crime rate over span of years.
2. Added Immigration Population, Legal Population, Mexican population in rows. To show all three data in one graph, added two measures in the axis of the one measure.
3. Added Total crime rate in row as a Line graph to show the declining trend of crime rate, also using Dual axis concept to add line graph in same bar graph. This helps to show clearly the crime rate trend against immigration, illegal and mexican population.

PROJECT CRITIQUE:

1. Originally, I was planning to relate how Mexican immigration contributes to US economic. If I would have got the data about No. of mexican population in different workforce and how that is contributing to US economic. [immigrants good for US economy](#)
2. Additionally, if I could research and get data on taxes paid by illegal mexican and Non mexican immigration population and how they contribute to US economy. [Immigrants pay more taxes](#)
3. The third visualization "**Crime trend & Mexican immigrants**" could be deceptive visualization which could be Crime rate is declining with decline in Mexican population. This could be interpreted differently as said earlier and would go against claim. But, to improvise that I could have get data on crimes committed by Mexicans and native born and it's trend with the inflow of mexican population.
4. I did create a worksheet "Map – arrest by sector" that shows Filled Map of arrest across various sector. But, I found it difficult to create "Year" parameter dropdown which would dynamically change arrest value in the Map graph.

## CONCULSION

Mexicans immigrants aren't the highest immigration group and aren't threat to US. There is no need to build the wall at US Mexico border to decrease inflow of illegal Mexicans as illegal Mexican inflow has declined over the years

## GITHUB LINK

https://github.com/rupalisjain/Dashboard-Individual-Project

REFERENCES:

Mexican decline

Mexican Migration Flow report

Crime decline

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