

# Missing Migrants in the US – Mexico Border

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MGA 60710 Geographic Information System

## Introduction

The migration crisis showed in recent years with the tragedies of thousands of migrants trying to flee from Africa and Middle east, unfolded a new layer of tragedy related with those who dies or goes missing during the journey.

As expressed by the International organization for Migration (IOM) and its Missing Migrant Project, and as seen in the figure 1, the missing migrants is a tragedy that affects the whole world. Regarding Asia from the Southeastern, to the Middle East in figures that rises to 3823 cases in the last five years. To Africa with numbers raising 10673 cases and the patterns complemented with over 19551 missing persons in the same time span. The American continent does not escape from this tragedy, from specific migratory trends that start in South, Central and the Caribbean ends in The US – Mexico border with 4305 missing person from 2016 to 2020.

Using ArcGIS software this project assesses the implications of the implementation of the 1994 policy of Prevention Through Deterrence (PTD) for the migrants. With this policy the US border patrol (USBP) focused its enforcement and infrastructure to heightening the risks associated with unauthorized migration, producing a funnel effect (see figure 2) that keeps away the migrants from the urban areas in the border and forced them to confront the hostility of the desert. As consequence the deaths and disappearance of missing migrants have raise since the beginning of the year 2000 when the measures of this policy started to be implemented in full.

Having this information in mind, my project explores the next questions: what are the possible correlation this policy over the missing migrants' cases in the US southern border? What are the specific features of this correlation in Arizona?

## Data and Methodology

The research project relies on several sources of data, including: International organization for Migration (IOM), Missing Migrant Project; Humane Borders; the Pima County Office of the Medical Examiner (PCOME); US Border Patrol; and the United States Census Bureau.

The dataset used includes: (i) comprehensive information on missing migrants around the world and the US; US Mexico border wall details, border crossing points, Arizona roads, Arizona Native Reservations, among others.

The dataset allowed to construct a series of maps. Figure 1, showed data of deaths and missing migrants across the world with graduated symbols emphasizing the most affected regions. Figure 2, is an extracted map from the USBP's PTD policy that shows the corridors and the funnel effect created by applying enforcement and infrastructure in the border. Figure 3, the choropleth map displayed the amount of US counties and the degree of missing migrants' affectation. Figure 4, showed Arizona's border with Mexico, its border wall, crossing points, and most affected counties as well as the use of some measuring geographic distribution tools, based on local missing migrant cases. Figure 5, described the Arizona's corridors patterns shaped by the missing migrants while crossing the border and heading north. Figure 6, focused on South Arizona and the amount of cases by year since 1981 until 2020. Finally, Figure 7, highlight the case of a Native area and its migration flow patterns.

FIGURE 1

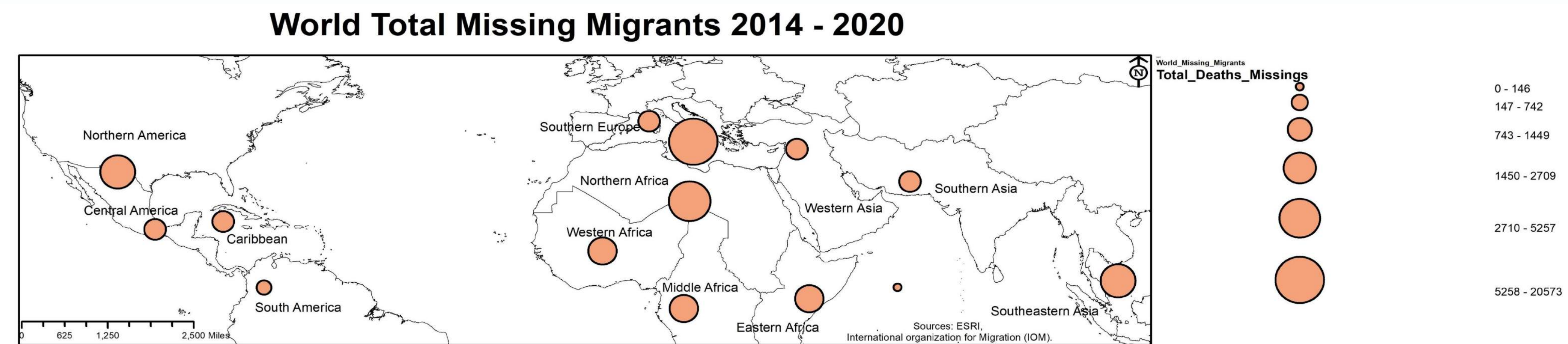


FIGURE 2

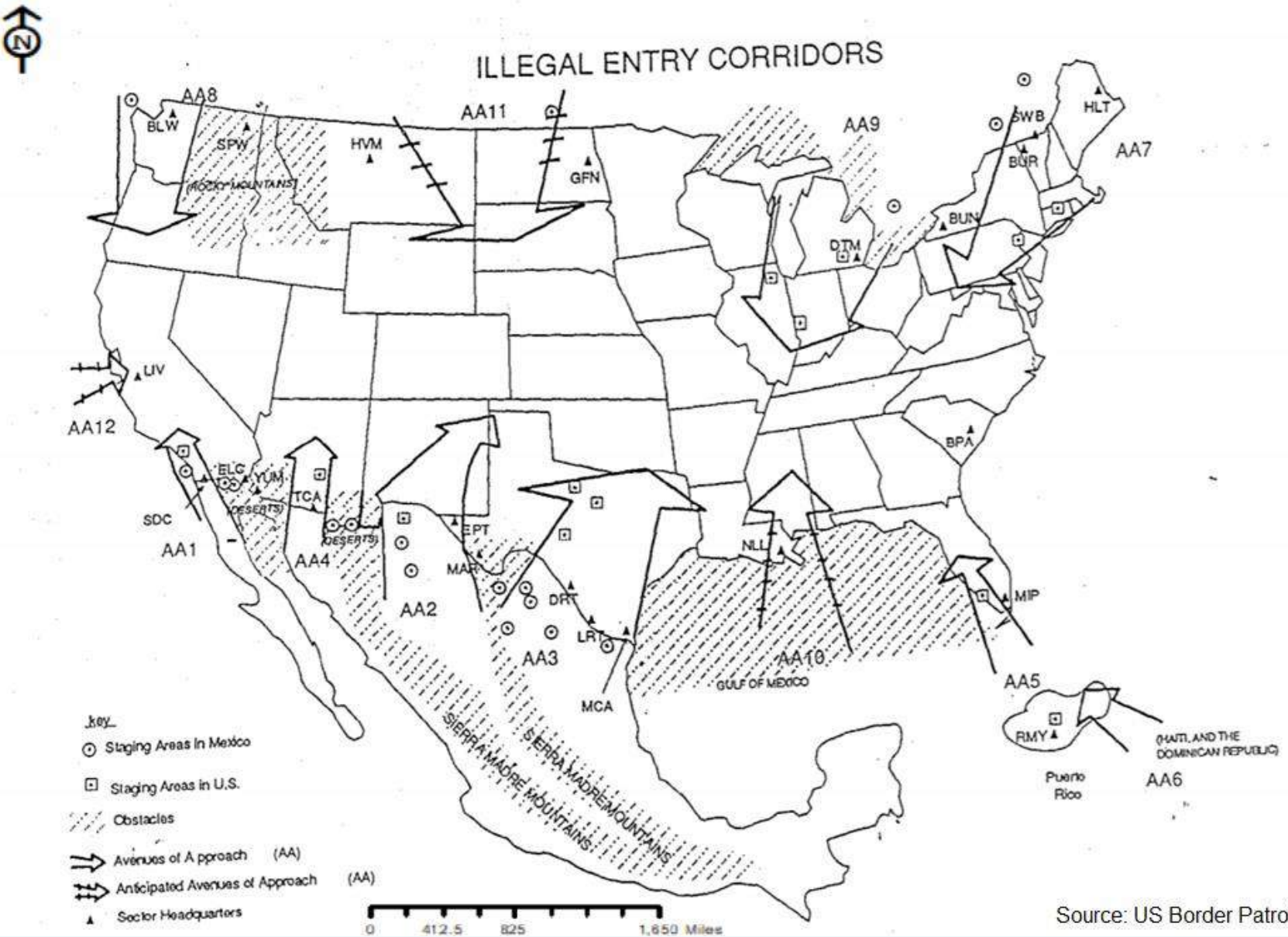


FIGURE 3

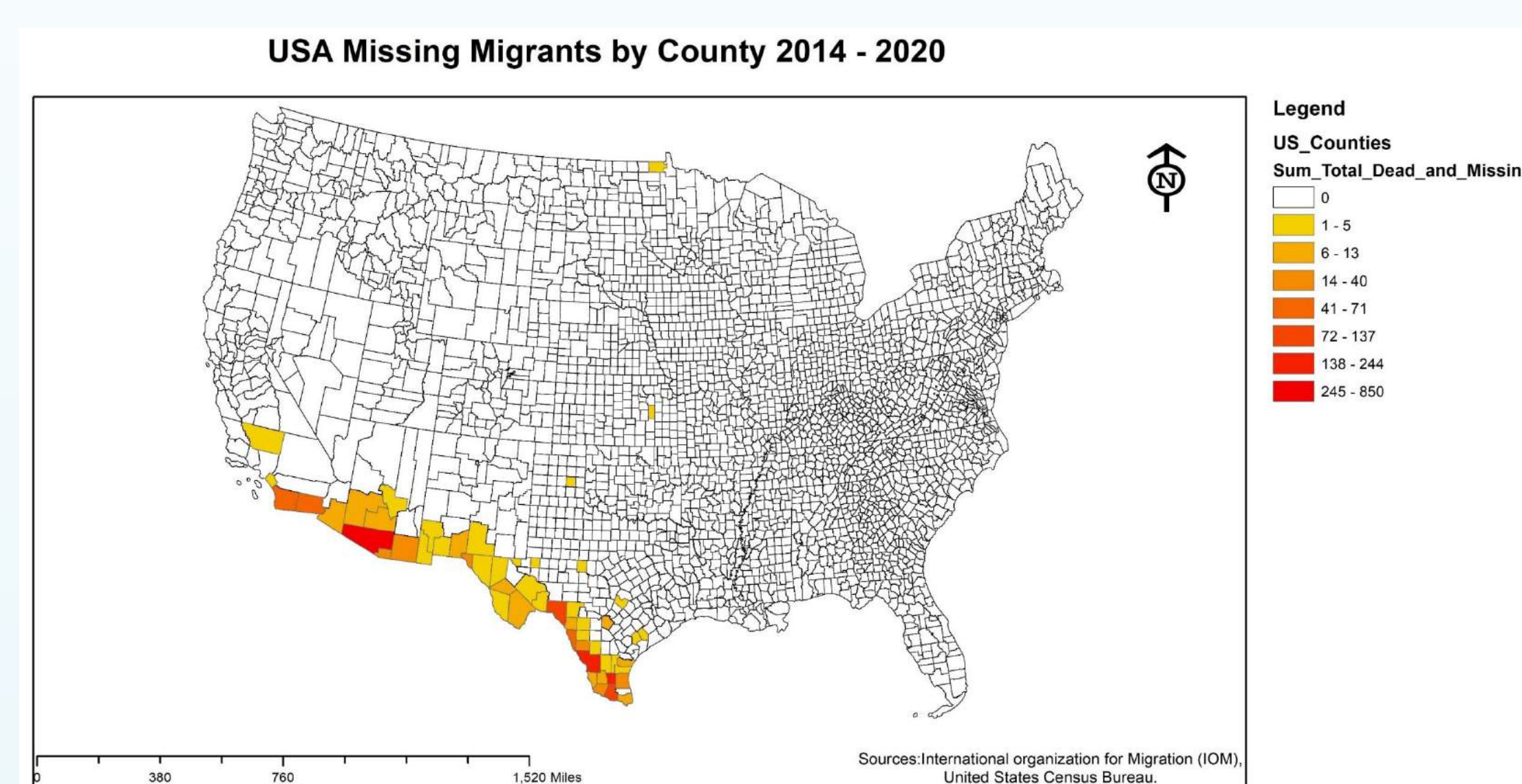


FIGURE 4

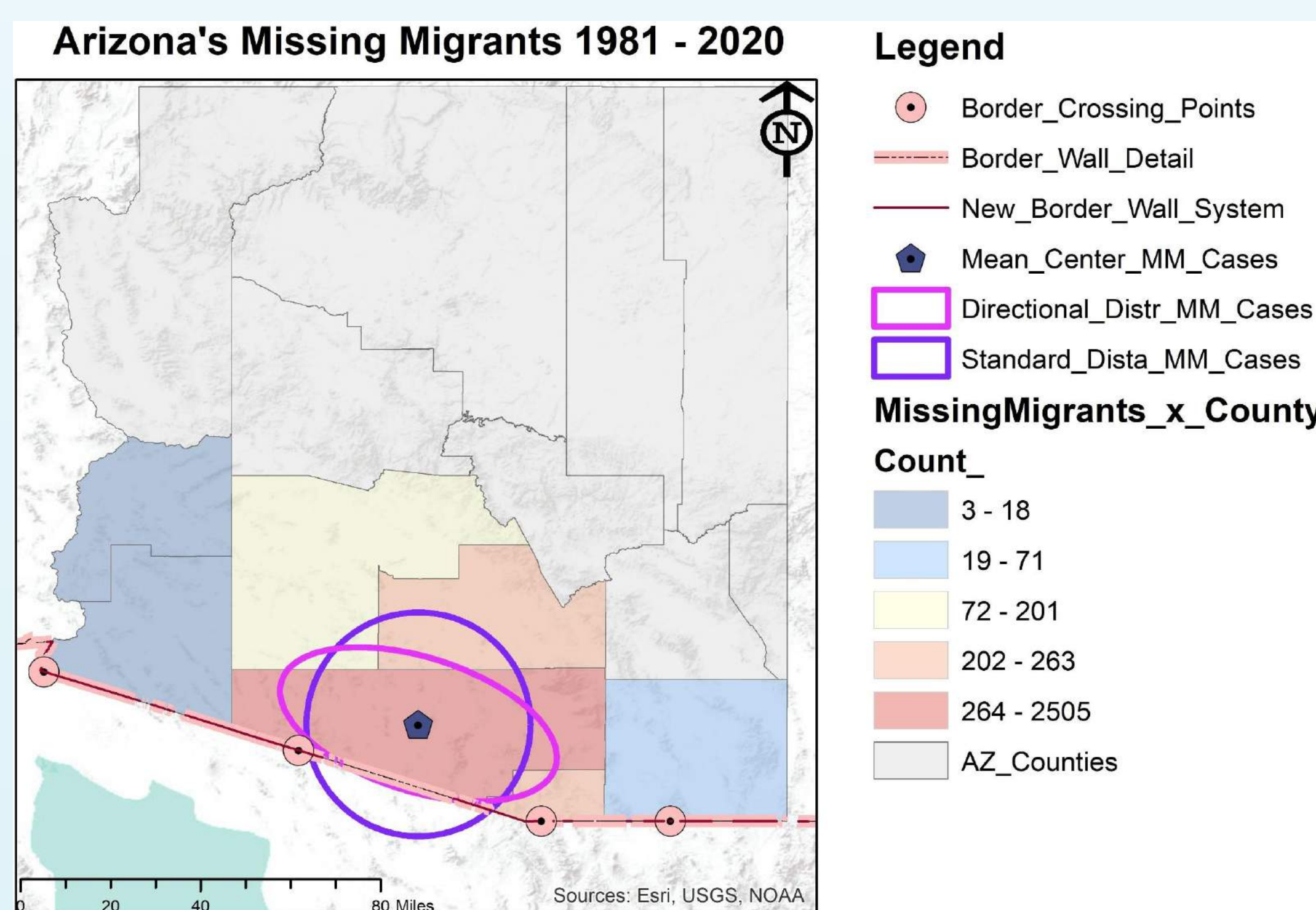


FIGURE 5

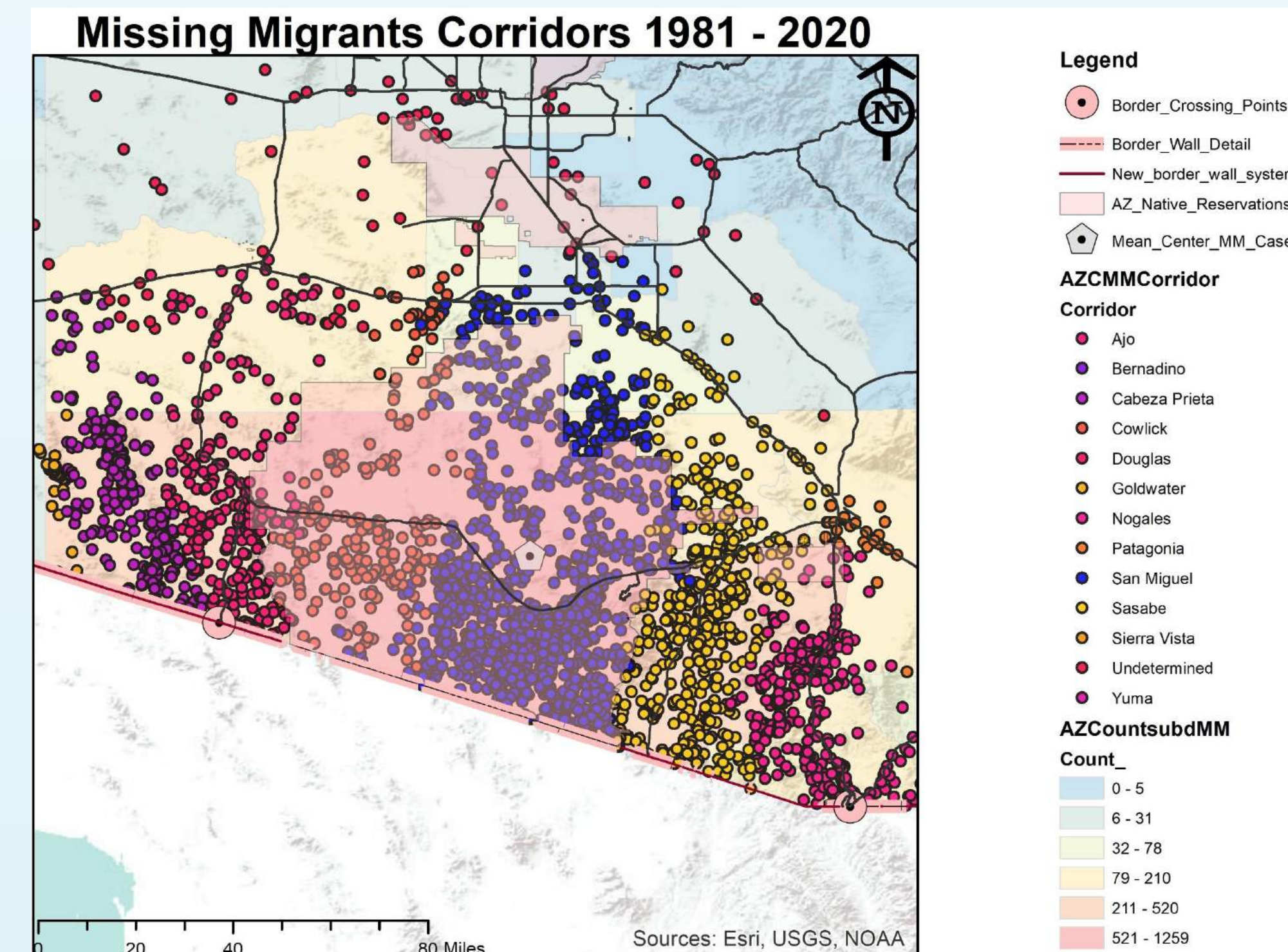


FIGURE 6

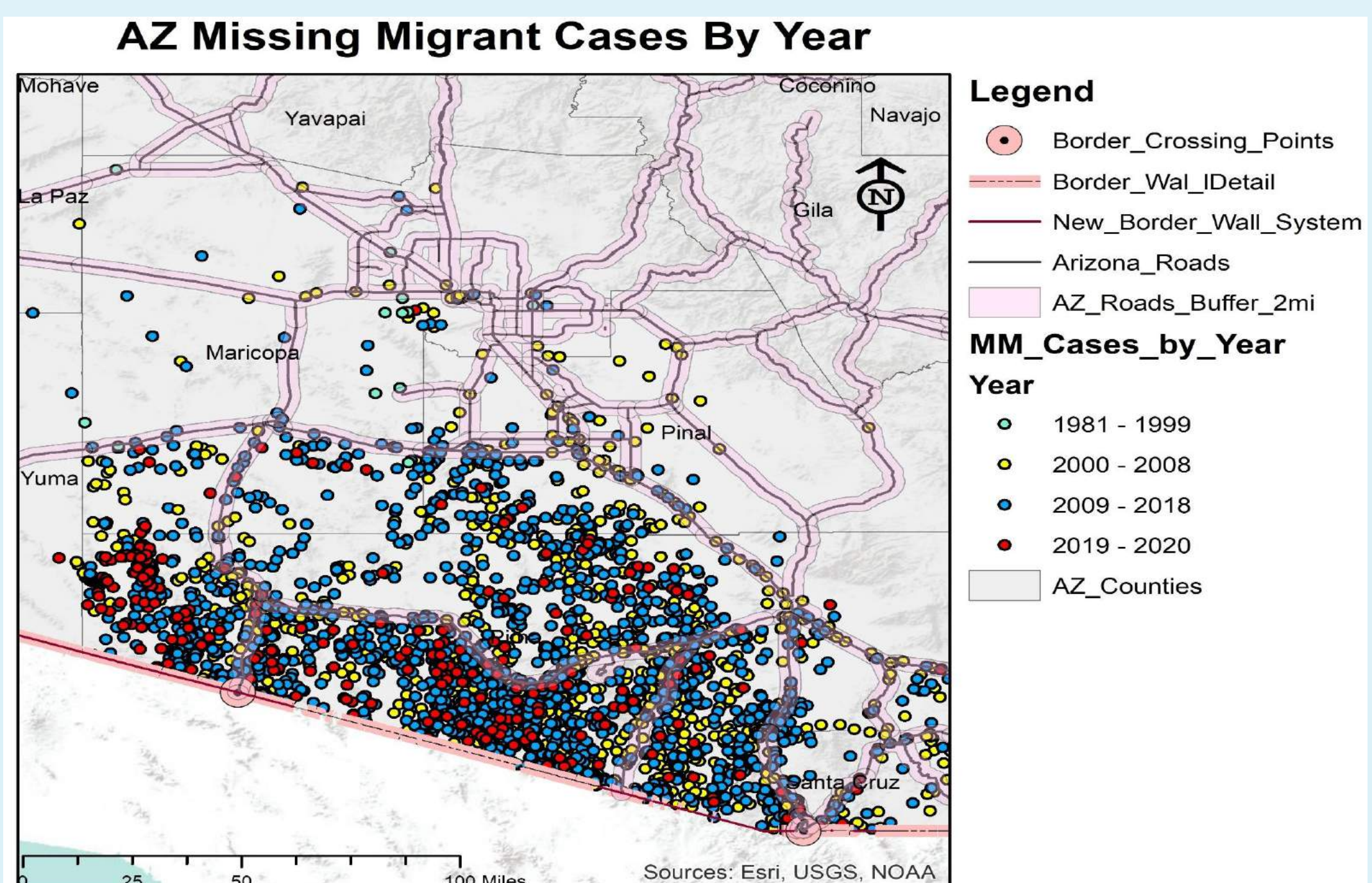
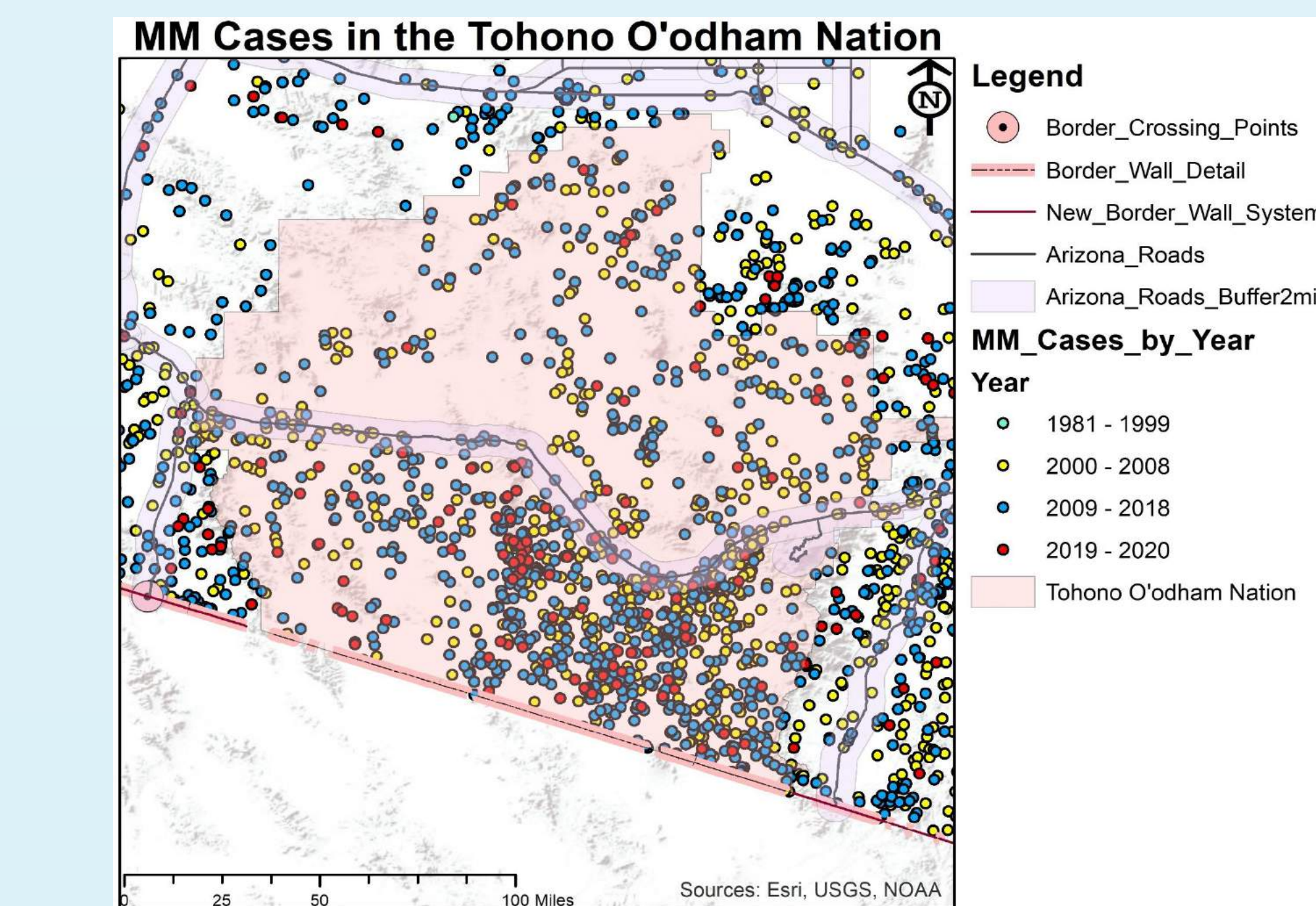


FIGURE 7



## Findings

Figure 1, shows how the migration flow from the Americas to the US is similar in size to the ones registered in Africa and Southeastern Asia.

Figure 3. It is evident how almost all US-Mexico sharing border counties has missing migrants' cases reported. Most of the cases cumulating on California's San Diego and Imperial County; Arizona's Pima County; and Texas's Val Verde, Webb, and Hidalgo County.

Figure 4. The amount of data gathered by the PCOME allowed to understand the migration influx in Arizona, regardless of the wall dividing the entire border, or the implemented changes in the new wall. The Pima County is the record the highest level of cases. Both directional and standard distribution of cases, as well as the mean center, are located between two official border crossing points inside the same county.

Figure 5. The location of missing migrant remains shows specific migration patterns. Those patterns aren't related with the roads, but the harsh geography of the State, most of them leading to Phoenix.

Figure 6. The evolution of missing migrants' cases since 1981 showed that the first registered cases are up in the north close to Phoenix, and with the course of the time and the strengthening of border policies cases started to happen close to the border. Also, it can be noticed how most of the areas overlaps with missing migrant cases since the 2000 until today.

Figure 7. Centered in the Tohono O'odham nation, native lands that cumulate across the highest amount of cases. Here it can be seen how most of the cases started to cumulate less than 25 miles of border in the last two years.

## Conclusion

Research. This data can help to understand how this policy with instead of deter the migrants to cross the border is forcing them to die in the desert.

Policy. Further policy changes are necessary to help to identify the missing who died in the desert, but also to stop the loss of humans in the desert.

## Limitations

The limitations for this analysis are related to the availability of more data, specifically data about missing persons in border states different to Arizona. The Figure 3 showed how California and Texas have hot spots, but there are no local records of missing migrants as it happens with Arizona.

## References and Data Sources

- International organization for Migration (IOM). 2020. Missing Migrant Project. <https://missingmigrants.iom.int/>
- Humane Borders and Pima County Office of the Medical Examiner (PCOME). 2020. Migrant death Mapping. <https://humaneborders.org/migrant-death-mapping/>
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