The M3P2 dataset: Summary of results

As of October 15, 2026

TEXAS STATE
GEOGRAPHY AND
ENVIRONMENTAL STUDIES

Contents of the presentation

- **The M3P2 project**
  - About
  - Case inclusion
  - Web portal fields, search modalities, and resources
- **The M3P2 dataset**
  - Summary of results
  - Selected takeaways – U.S.-Mexico border
  - Selected takeaways - Texas
- **The M3P2 team**
- **Acknowledgments**

The M3P2 project

About

National Science Foundation

Migrant Mortality Mapping Portal Project (M3P2)

Human Networks and Data Science (HNDS) – Infrastructure

COUNTING THE LIVES LOST AT THE BORDER

RESEARCH & INNOVATION Aimee Roundtree | August 17, 2022

Texas State Researchers in the Departments of Anthropology and Geography and Environmental Studies receive $1 million in NSF Funding to Map Migrant Mortality at the Border



Guidelines and characteristics

About our team:

- Collaboration between **geographers** and **forensic anthropologists**

Qualitative:

- **Case notes** a window into who is at the scene and how cases are handled
- **Interagency** collaboration, the role of **situational participants**

Quantitative:

- **Positional accuracy** issues, which we documented
- Spatio-temporal patterns; different takeaways at different **scales**

Ethical dimensions:

- What we share and what we do not share; **data privacy and protection**: Humanitarian GIScience (Miranker and Giordano, 2025)

Policy dimensions:

- There are areas were **migrant deaths go systematically unreported**, especially in **Texas**
- What goes **reported** varies not only by **state** jurisdictions but **also locally**
- **Arizona** the standard for reporting
- The **necrosilences**

Landscapes: Chihuahuan Desert, NM and parts of TX



Credits: G. O'Graffer, Flickers, 2010

Landscapes: Sonoran Desert, AZ



Credits: Rolling Stone, 2019

Landscapes: Tijuana-San Diego, CA



Credits: Los Angeles Times, 2019

QUESTION: How do we develop a more representative account of migrant mortality along the southwestern US border?

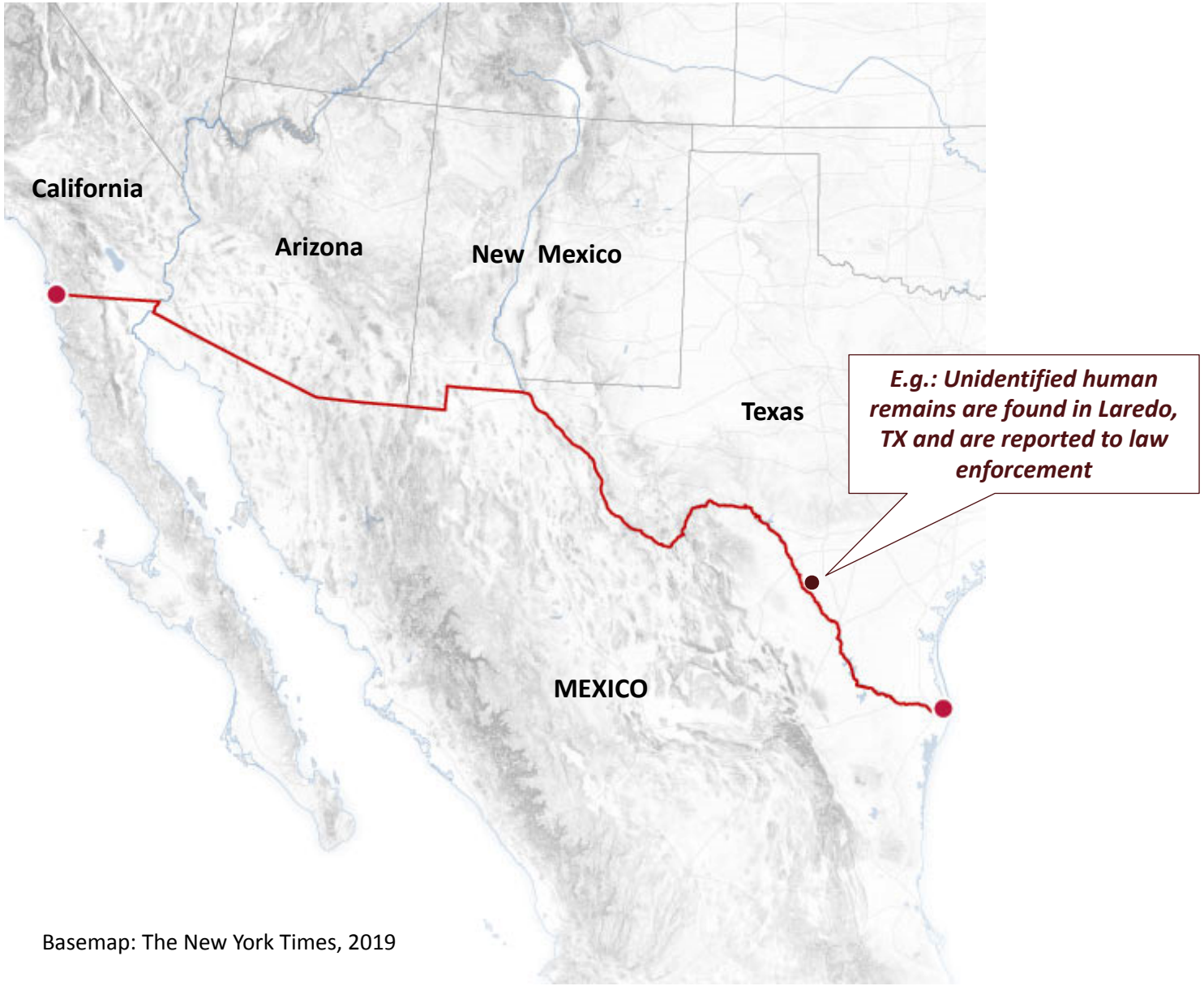
- What **indicators** are used by southwestern US border jurisdictions to distinguish a **likely migrant forensic case**?
    - San Diego Medical Examiner Office, CA; Imperial County Coroner's Office, CA; Humane Border's Open GIS of Migrant Mortality, AZ; Office of the Medical Investigator, NM; Brooks County Sheriff's Office, TX; OpID, Texas State University, TX; NamUs CA, AZ, NM, TX
- How can we summarize situational clues into a **set of criteria** for inclusion of specific forensic cases as "**migrant**"? (Miranker, M., Daniell, R., Kaplan, M., Flores-Guillen, V., Hernandez, J., Edgar, H., Spradley, K., Herrmann, N. and Giordano, A. 2024. What is a migrant death? An operational definition for a more accurate enumeration of migrant mortality along the US-Mexico border. *Forensic Science International*, 363. https://doi.org/10.1016/j.forsciint.2024.112156)
- An **accurate accounting of migrant deaths** along the US-Mexico border is the first step toward an **understanding** of the extent and the contributing factors of this **humanitarian disaster**

The M3P2 project

Case inclusion

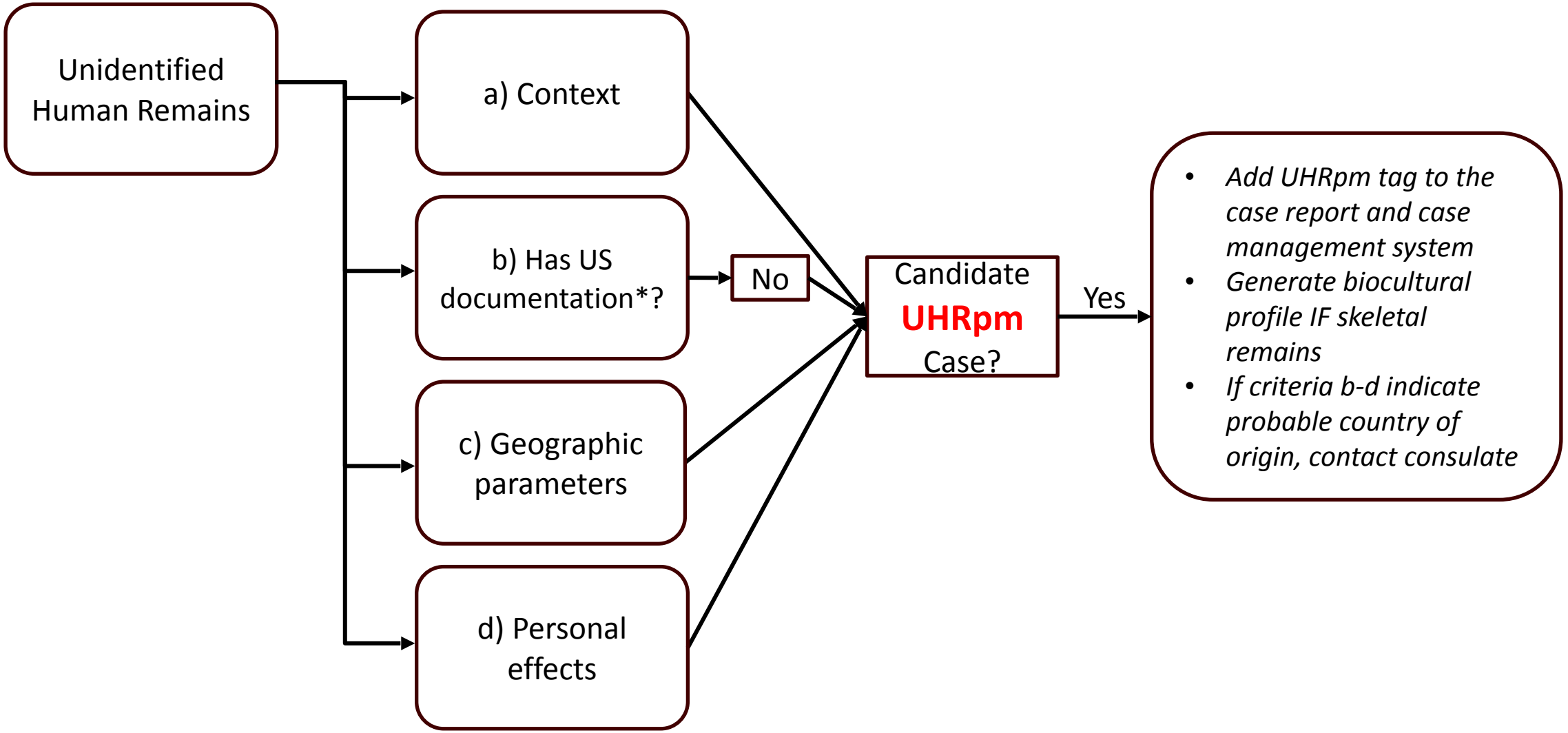
Scope of the research

- We start at the time of **discovery**, on the **US side of the border**



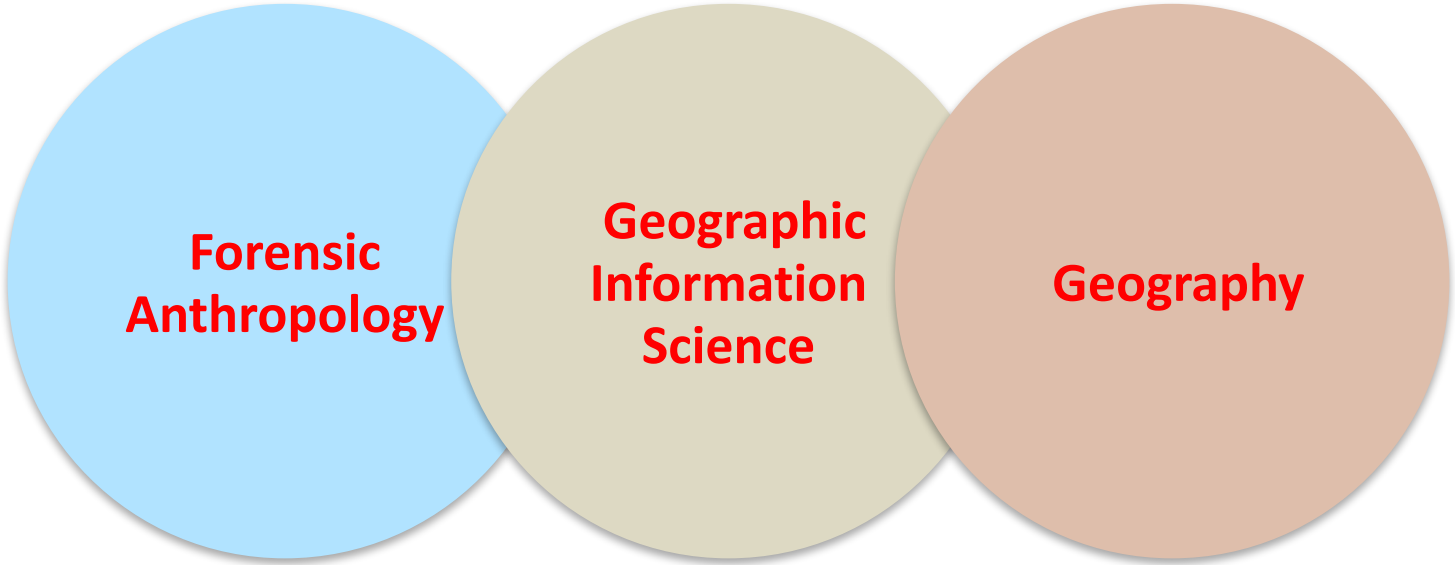
Basemap: The New York Times, 2019

Four Criteria to Determine Unidentified Human Remains as a Forensic Case on M3P2



UHRpm: a **narrative**

1. Border crossing
2. Death
3. Locate
4. Recover
5. Account (Understand, Identify)
6. Notify families/Repatriate



The M3P2 project

Web portal fields, search modalities, and resources

JURISDICTION

ID

Source

MIGRANT

Age Range

Sex

Identified

Race/Ethnicity

Nationality

CASE NOTES

When discovered:

- Death Date
- Death Year
- Death Month
- Death Season

Manner of Death

Cause of Death

Condition of Remains

At Scene

Finder

GEOGRAPHY

State

County

(*Nearest*) City

ZIP Code

Land Access

Landscape Type

Position Accuracy Level

Latitude

Longitude

Coordinates (Latitude and Longitude)

Coordinate Location Accuracy

What did we spend most of our time on? (*After data collection*)

- **Location, location, location**! (Positional accuracy issues)
- **New fields**:
  - Landscape type
  - Land Access
  - At Scene and Finder
- **Standardization**: Positional Accuracy, Age, Sex, Race/Ethnicity
- Building the **M3P2 web portal**
- We aim to provide a **replicable model** for developing a **dataset** and **web portal** that draw on the methods and perspectives of **forensic anthropology**, **geography**, and **GIScience**

Migrant deaths table

The table below lists the migrant death records that match the current filter settings. Each row represents one recorded death. Use the pagination controls to browse the records. By default, records are sorted by date, with the most recent records displayed first. Show or hide columns by selecting options in the "Show columns" dropdown. To pan the map to a given row, click the button labeled "Center the map on this location". The map will update to bring this record into view, and open its popup.

Showing 1-10 of 6,635 migrant death records.

Show columns: Columns, 9 shown | Sort by: Death Date | Direction: Descending (Z-A)

ID	Death Date	Age Range	Sex	Identified	Manner of Death	Cause of Death	State	Landscape Type
AZ-OPGIS-2023-197 Center the map on this location	12/29/2023	No information	Undetermined	Not identified	No information	No information	AZ	Desert, various
AZ-OPGIS-2023-196 Center the map on this location	12/28/2023	No information	Undetermined	Not identified	Undetermined	Skeletal remains	AZ	Desert, various
TX-NU-2023-21 Not Mapped	12/28/2023	Adult (>18 years)	Male	Not identified	No information	No information	TX	Vegetated area, various
AZ-OPGIS-2023-195 Center the map on this location	12/27/2023	No information	Undetermined	Not identified	Undetermined	Skeletal remains	AZ	Desert, various
TX-EP-MEO-2023-24 Center the map on this location	12/23/2023	No information	Male	Identified	No information	Undetermined	TX	No information
TX-B-2023-45 Center the map on this location	12/22/2023	No information	No information	No information	No information	No information	TX	Vegetated area, various
TX-OI-nB-2023-24 Not Mapped	12/16/2023	No information	No information	Not identified	No information	No information	TX	Not applicable
NM-OMI-2023-116					Pending			

Location & Season

Filter by state: All states

Filter by county: All counties

Filter by landscape type: All landscape types

Filter by land access: All land access

Filter by death season: All Seasons

Forensic Description

Filter by age ranges: All age ranges

Filter by sex: All sexes

Filter by ethnicity: All ethnicities

Filter by nationality: All nationalities

Filter by identified remains: All identified types

Filter by conditions of remains: All conditions

Circumstances

Filter by manner of death: All manners of death

Filter by cause of death: All causes of death

Filter by authority at scene: All at scene

Filter by finder: All finders

Death Date ⌄

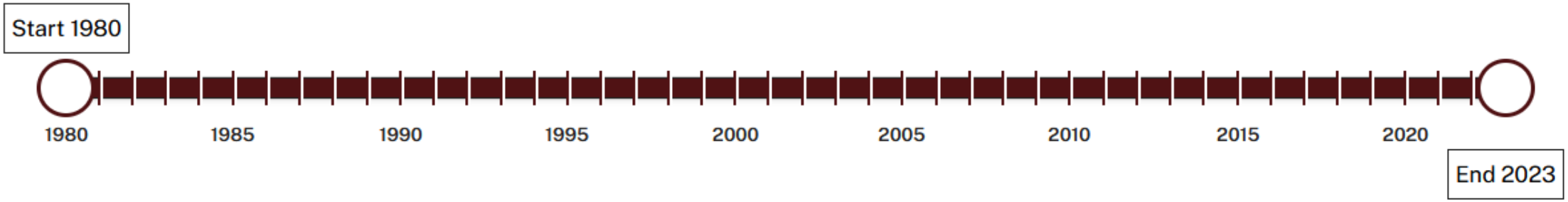
There are two options for selecting records based on the death date: you can use a range slider to select a year range, or you can use dropdowns to select a year and month range.

1. To use the range slider, select the "Use range slider" option below and drag the handles to select the desired year range.
2. To use the dropdowns, select the "Use dropdowns" option below, and then select the desired start and end year and month from the respective dropdowns.

After you select an option and change the date, click the "Apply Data Filters" button to filter the data to the selected date range.

Select Date Range Option

◉ Use range slider to select year range (desktop only) ○ Use dropdowns to select year and month range



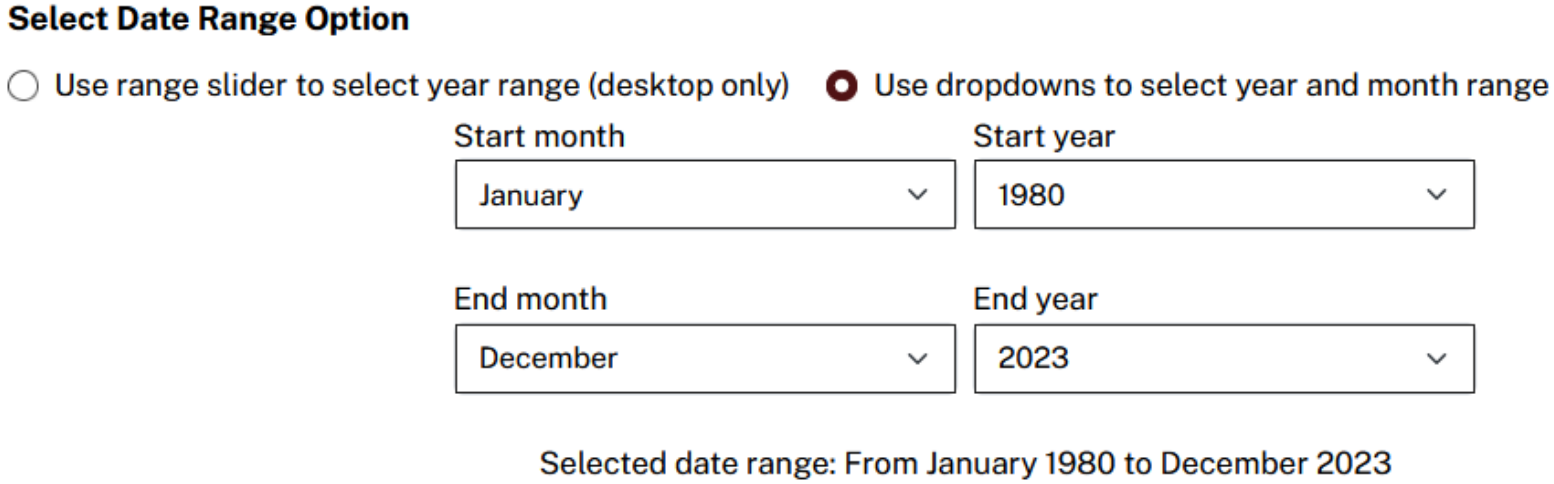
Selected date range: From January 1980 to December 2023

Death Date ⌄

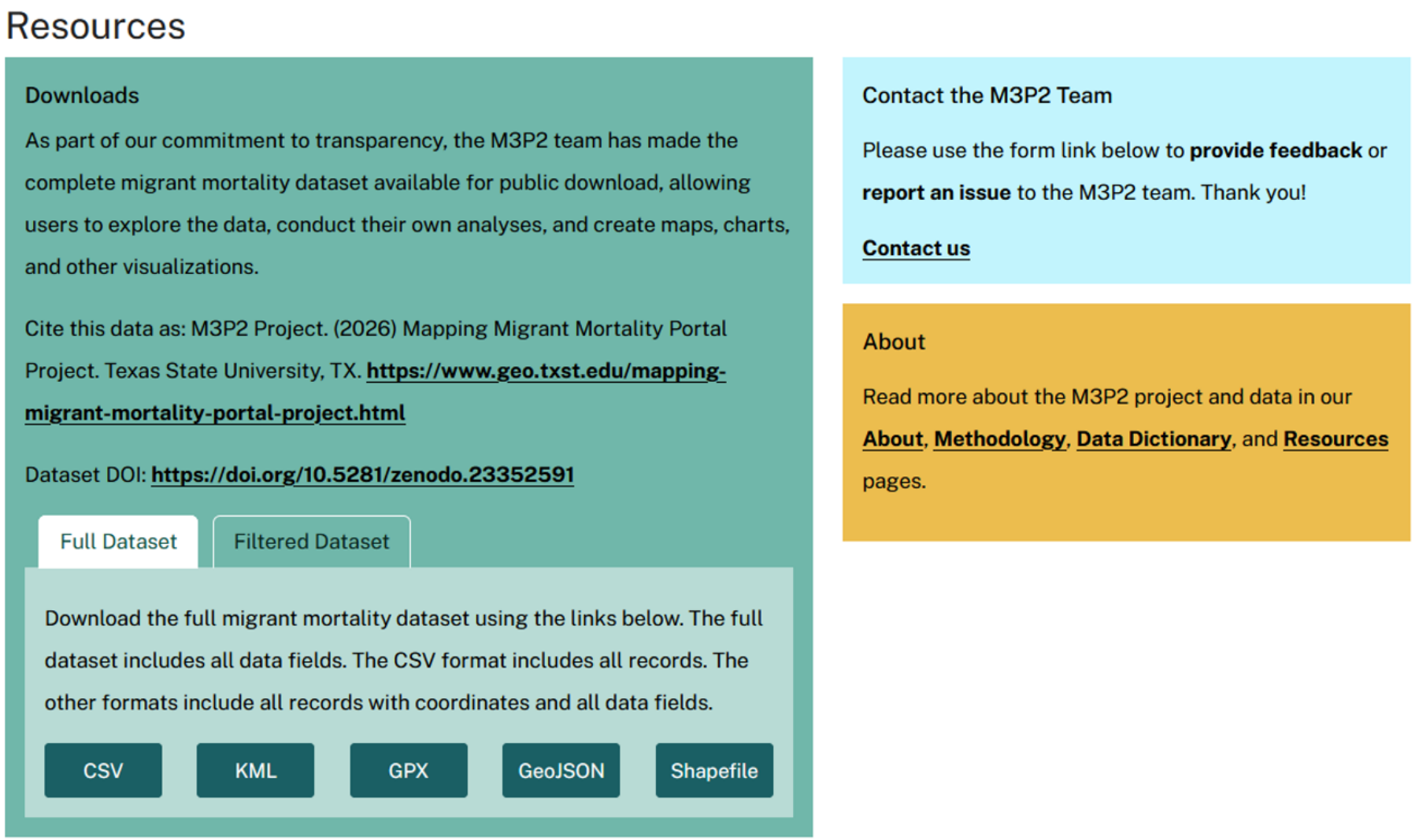
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Resources

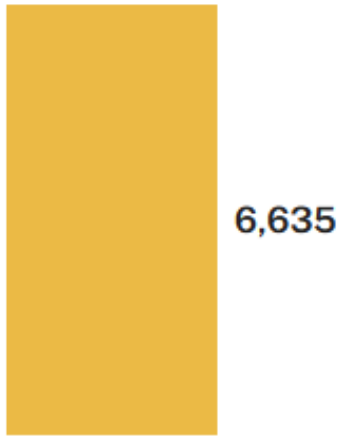

Resources
Downloads
As part of our commitment to transparency, the M3P2 team has made the complete migrant mortality dataset available for public download, allowing users to explore the data, conduct their own analyses, and create maps, charts, and other visualizations.
Cite this data as: M3P2 Project. (2026) Mapping Migrant Mortality Portal Project. Texas State University, TX. https://www.geo.txst.edu/mapping-migrant-mortality-portal-project.html
Dataset DOI: https://doi.org/10.5281/zenodo.23352591
Full Dataset
Filtered Dataset
Download the full migrant mortality dataset using the links below. The full dataset includes all data fields. The CSV format includes all records. The other formats include all records with coordinates and all data fields.
CSV
KML
GPX
GeoJSON
Shapefile
Contact the M3P2 Team
Please use the form link below to provide feedback or report an issue to the M3P2 team. Thank you!
Contact us
About
Read more about the M3P2 project and data in our About, Methodology, Data Dictionary, and Resources pages.

The M3P2 project

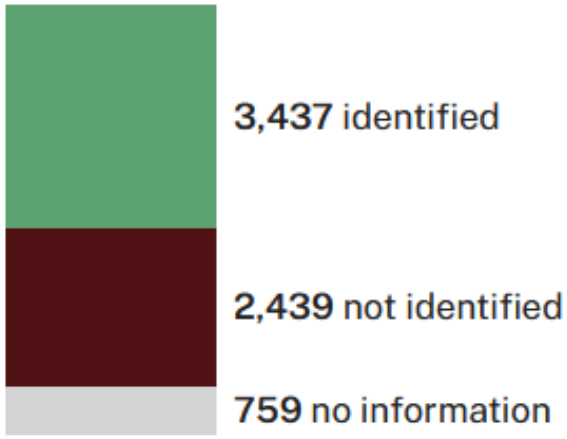
Summary of results

Summary

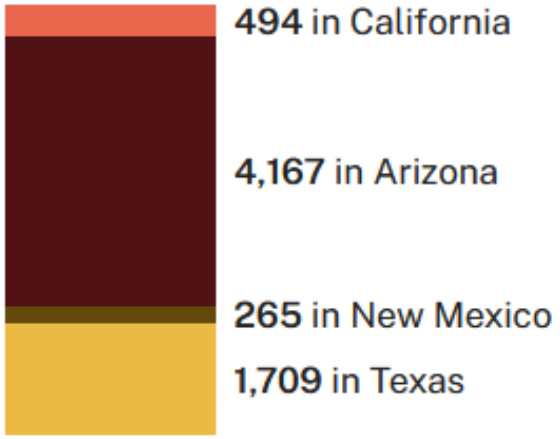
Total Migrant Deaths



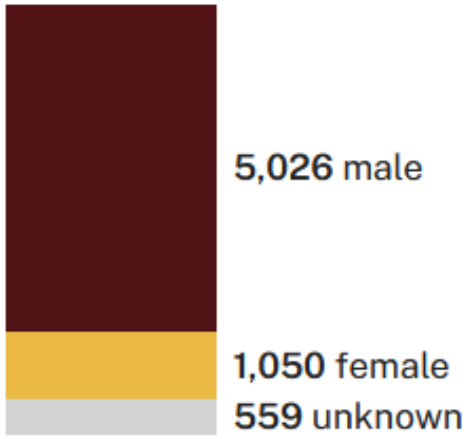
Migrant Deaths by Identification Status

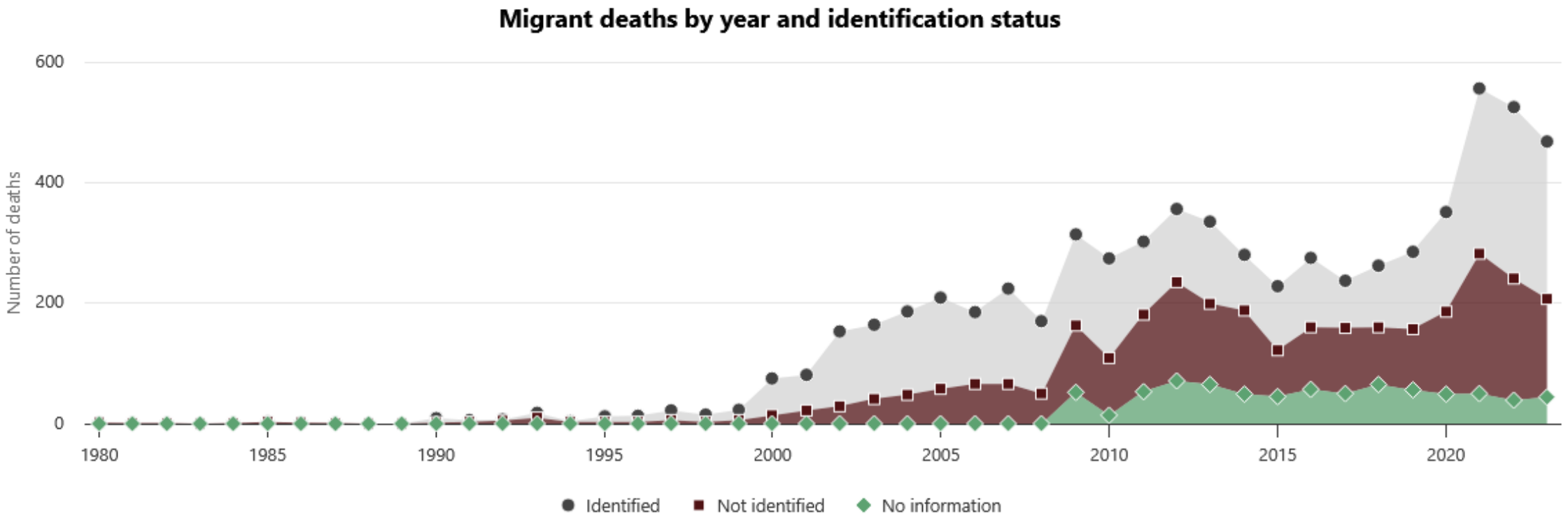


Migrant Deaths by State



Migrant Deaths by Sex




Migrant deaths by year and identification status
600
400
200
0
Number of deaths
1980
1985
1990
1995
2000
2005
2010
2015
2020
Identified
Not identified
No information

Migrant deaths by state



AZ (4,167) TX (1,709) CA (494) NM (265)

Migrant deaths by land access



Public (2,594) Tribal (1,707) Private (1,677) Other (260) Military (93)

No information (304)

Migrant deaths by age range



Teen to Adult (150) Fetal (<birth) (6) No information (2,314)

Migrant deaths by race/ethnicity



Undetermined Race, Hispanic or Latino (812) White, Hispanic or Latino (374)

Undetermined Race or Ethnicity (198) Other (61)

White, Undetermined Ethnicity (53) No information (5,137)

Migrant deaths by identification status



Identified (3,437) Not identified (2,439) No information (759)

Migrant deaths by manner of death



Undetermined (2,162) Accident (1,274) Homicide (64) Natural (49)

Suicide (13) Pending investigation (10) No information (3,063)

Manner of death represents the broad medicolegal classification of the circumstances surrounding a death, as reported by the source agency.

Migrant deaths by landscape type



Desert, various (3,768) Vegetated area, various (1,070) Built area (809)

Not applicable (260) Water, various (174) Mountain (66)

No information (488)

Migrant deaths by season



Summer (2,520) Spring (1,768) Winter (1,192) Fall (1,149)

Uncertain (2) No information (4)

Migrant deaths by sex



Male (5,032) Female (1,057) Undetermined (306) No information (240)

Migrant deaths by nationality



Mexico (1,523) Guatemala (465) El Salvador (179) Honduras (156)

Other (66) Ecuador (36) No information (4,210)

Migrant deaths by condition of remains



Skeletal (2,796) Fresh (1,581) Decomposing (1,404) No information (854)

Migrant deaths by cause of death

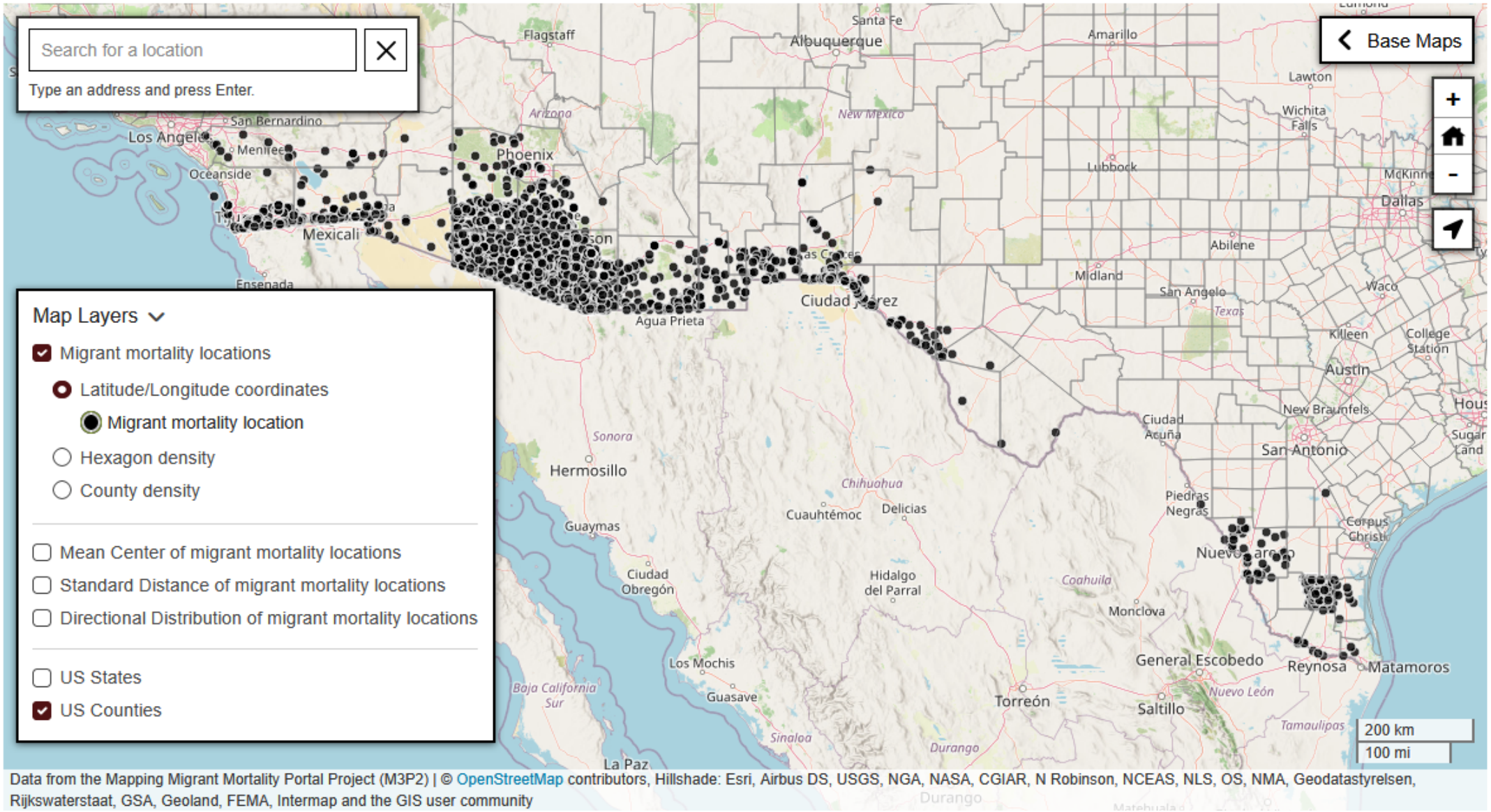


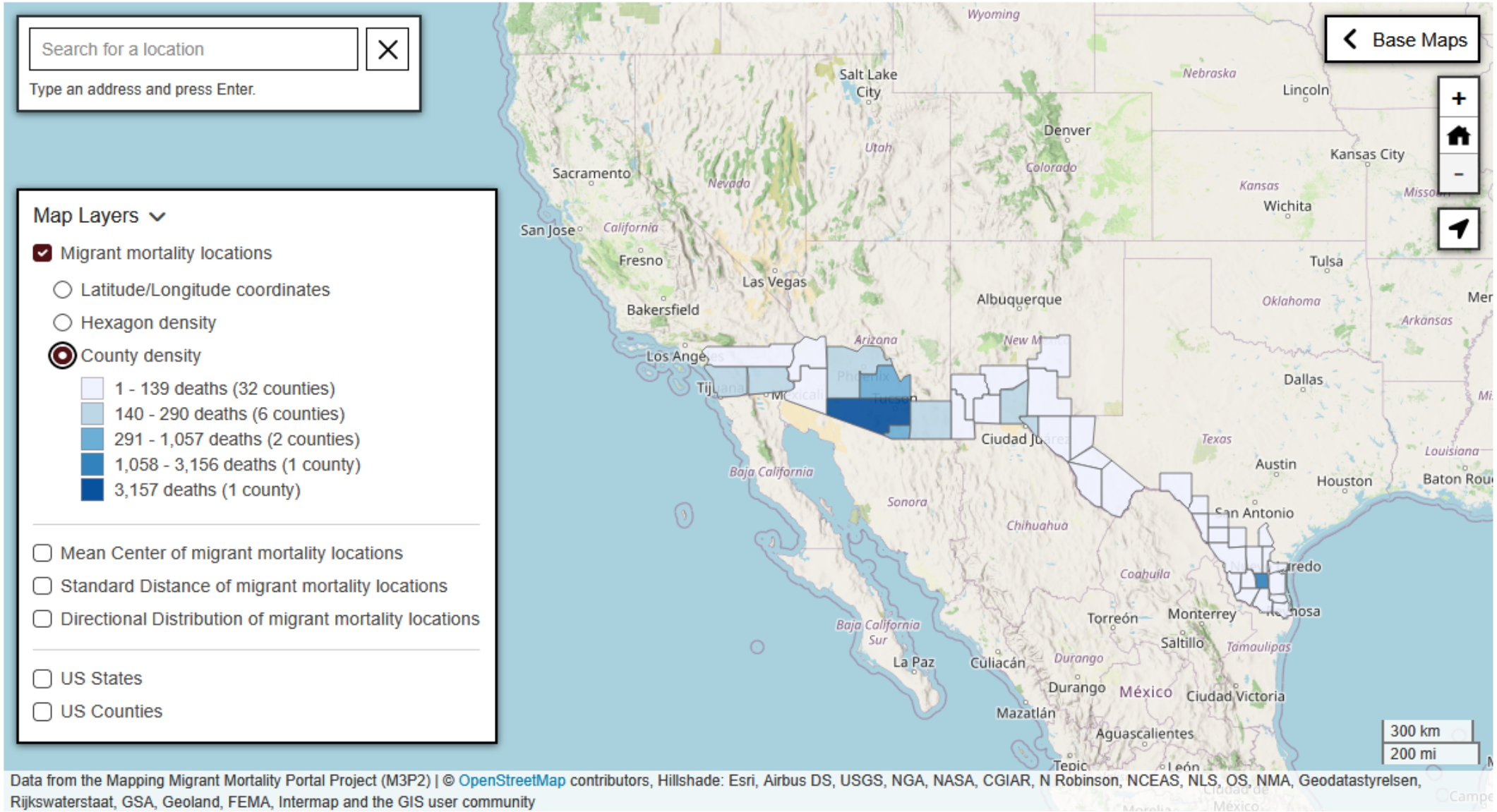
Environmental exposure (1,839) Skeletal remains (1,457)

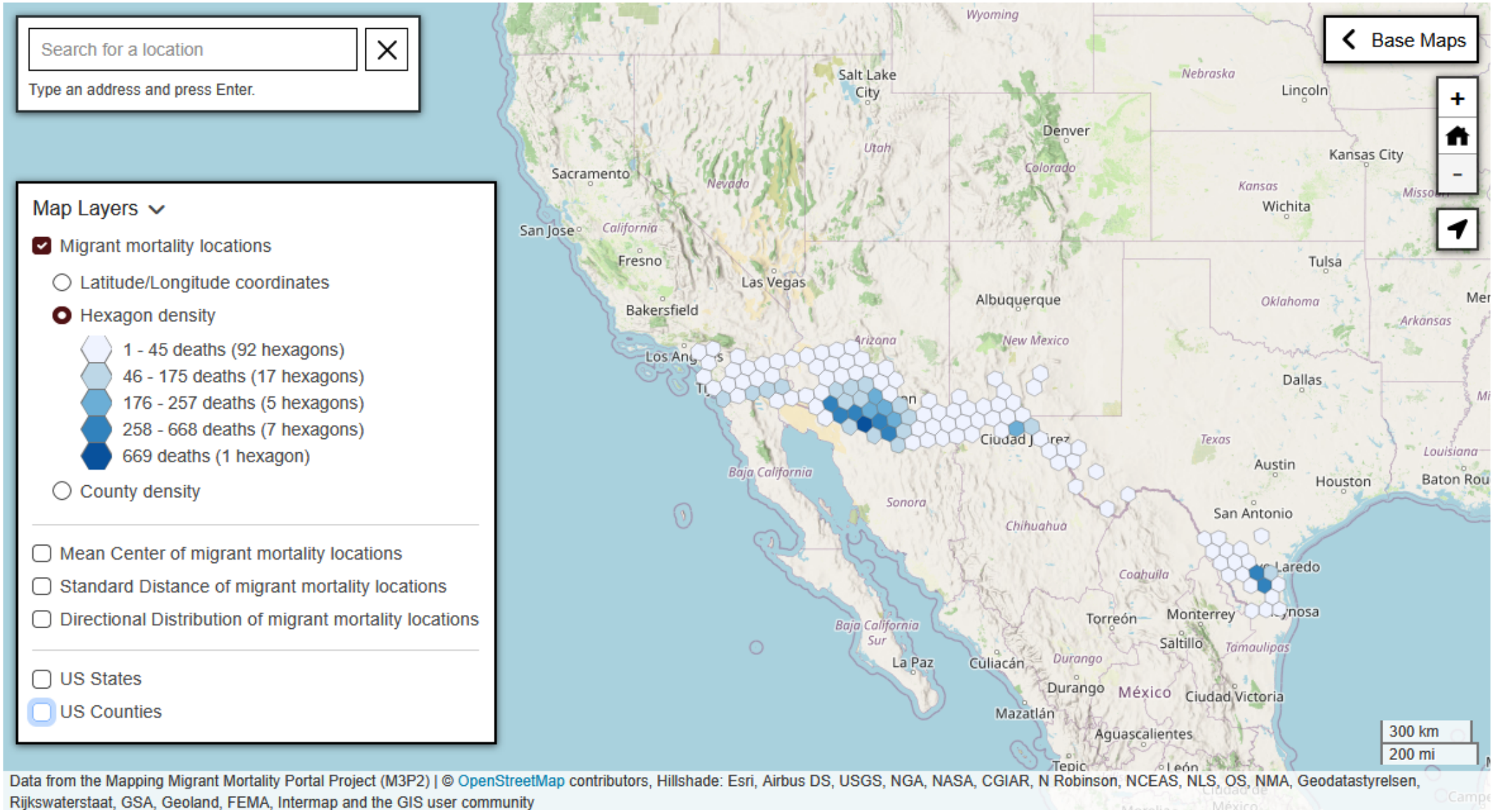
Undetermined (854) Blunt force trauma, various (375) Drowning (279)

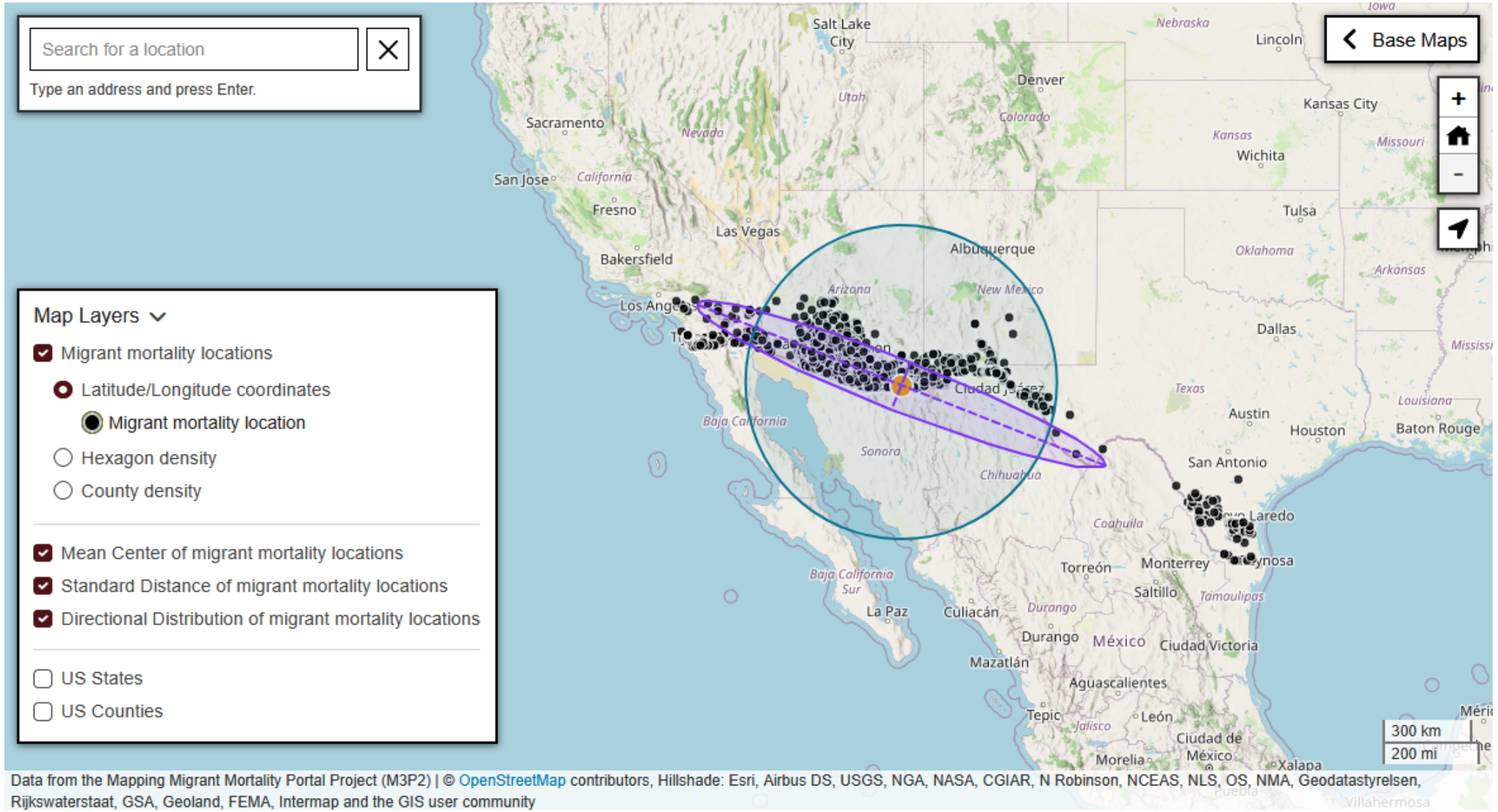
Other (275) Pending investigation (40) No information (1,516)

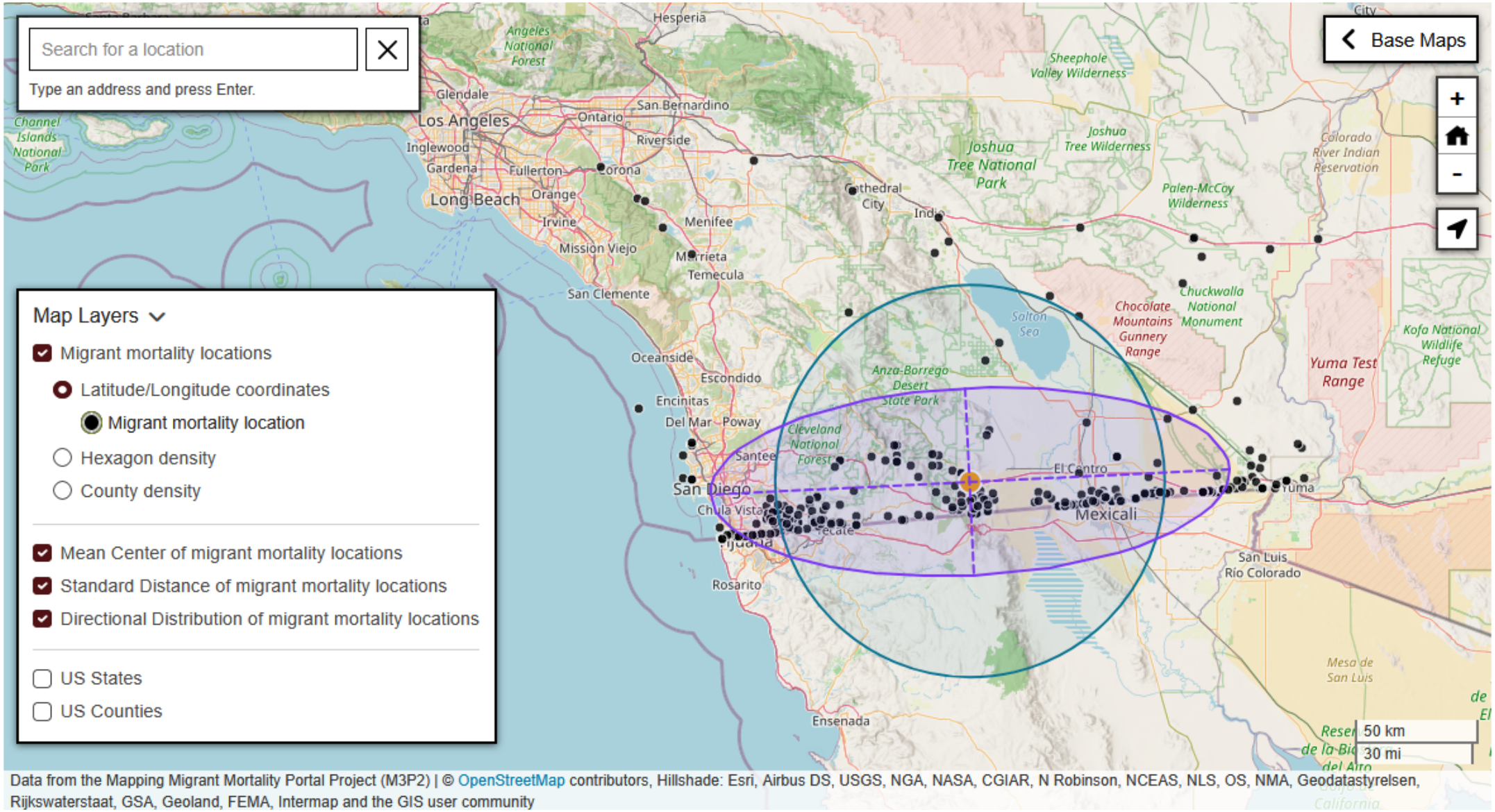
Cause of death represents the reported injury, condition, or environmental factor associated with a death, grouped into broader categories for comparison.

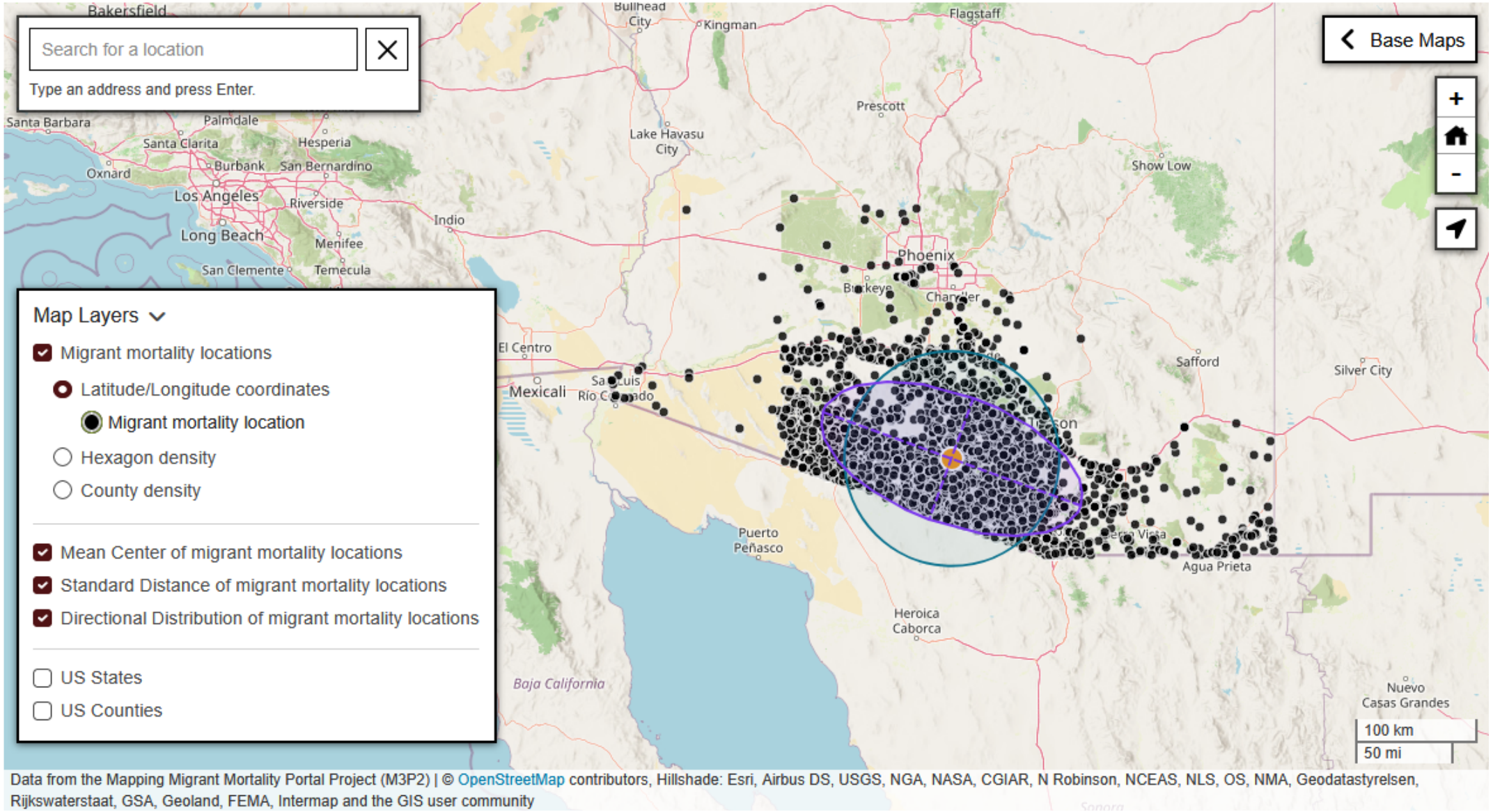

Search for a location
Type an address and press Enter.
Base Maps
Map Layers
Migrant mortality locations
Latitude/Longitude coordinates
Migrant mortality location
Hexagon density
County density
Mean Center of migrant mortality locations
Standard Distance of migrant mortality locations
Directional Distribution of migrant mortality locations
US States
US Counties
Flagstaff
Albuquerque
Santa Fe
Amarillo
Lawton
Wichita Falls
Arizona
New Mexico
Phoenix
Los Angeles
San Bernardino
Oceanside
Mexicali
Ensenada
Agua Prieta
Ciudad Juárez
Lubbock
Dallas
Abilene
Midland
San Angelo
Texas
Waco
Killeen
College Station
Austin
New Braunfels
San Antonio
Ciudad Acuña
Piedras Negras
Corpus Christi
Nuevo Laredo
Monclova
Coahuila
General Escobedo
Reynosa
Matamoros
Nuevo León
Tamaulipas
Torreón
Saltillo
Durango
Sonora
Hermosillo
Chihuahua
Cuauhtémoc
Delicias
Guaymas
Ciudad Obregón
Hidalgo del Parral
Los Mochis
Guasave
Baja California Sur
Sinaloa
La Paz
200 km
100 mi
Data from the Mapping Migrant Mortality Portal Project (M3P2) | © OpenStreetMap contributors, Hillshade: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

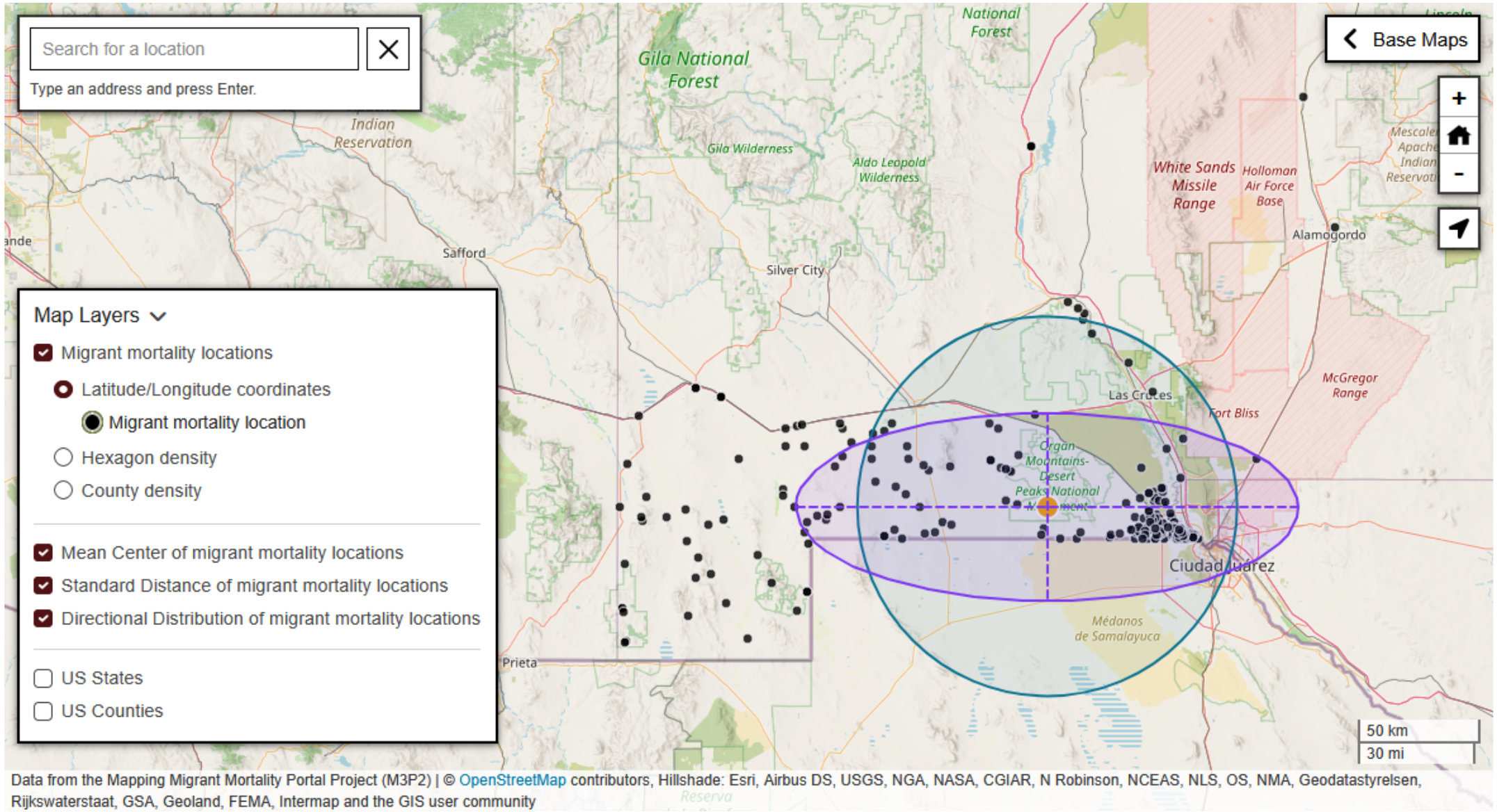

Search for a location
Type an address and press Enter.
Base Maps
Map Layers
Migrant mortality locations
Latitude/Longitude coordinates
Hexagon density
County density
1 - 139 deaths (32 counties)
140 - 290 deaths (6 counties)
291 - 1,057 deaths (2 counties)
1,058 - 3,156 deaths (1 county)
3,157 deaths (1 county)
Mean Center of migrant mortality locations
Standard Distance of migrant mortality locations
Directional Distribution of migrant mortality locations
US States
US Counties
Wyoming
Salt Lake City
Nebraska
Lincoln
Denver
Utah
Colorado
Kansas City
Sacramento
Nevada
Kansas
Wichita
San Jose
California
Fresno
Las Vegas
Tulsa
Albuquerque
Oklahoma
Bakersfield
Arizona
New M
Los Ange
Dallas
Tij
Texas
Austin
Houston
Baton Rou
Louisiana
Baja California
Sonora
San Antonio
Chihuahua
Coahuila
Torreón
Monterrey
Saltillo
Tamaulipas
Baja California Sur
La Paz
Culiacán
Durango
México
Ciudad Victoria
Mazatlán
Aguascalientes
300 km
200 mi
Data from the Mapping Migrant Mortality Portal Project (M3P2) | © OpenStreetMap contributors, Hillshade: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

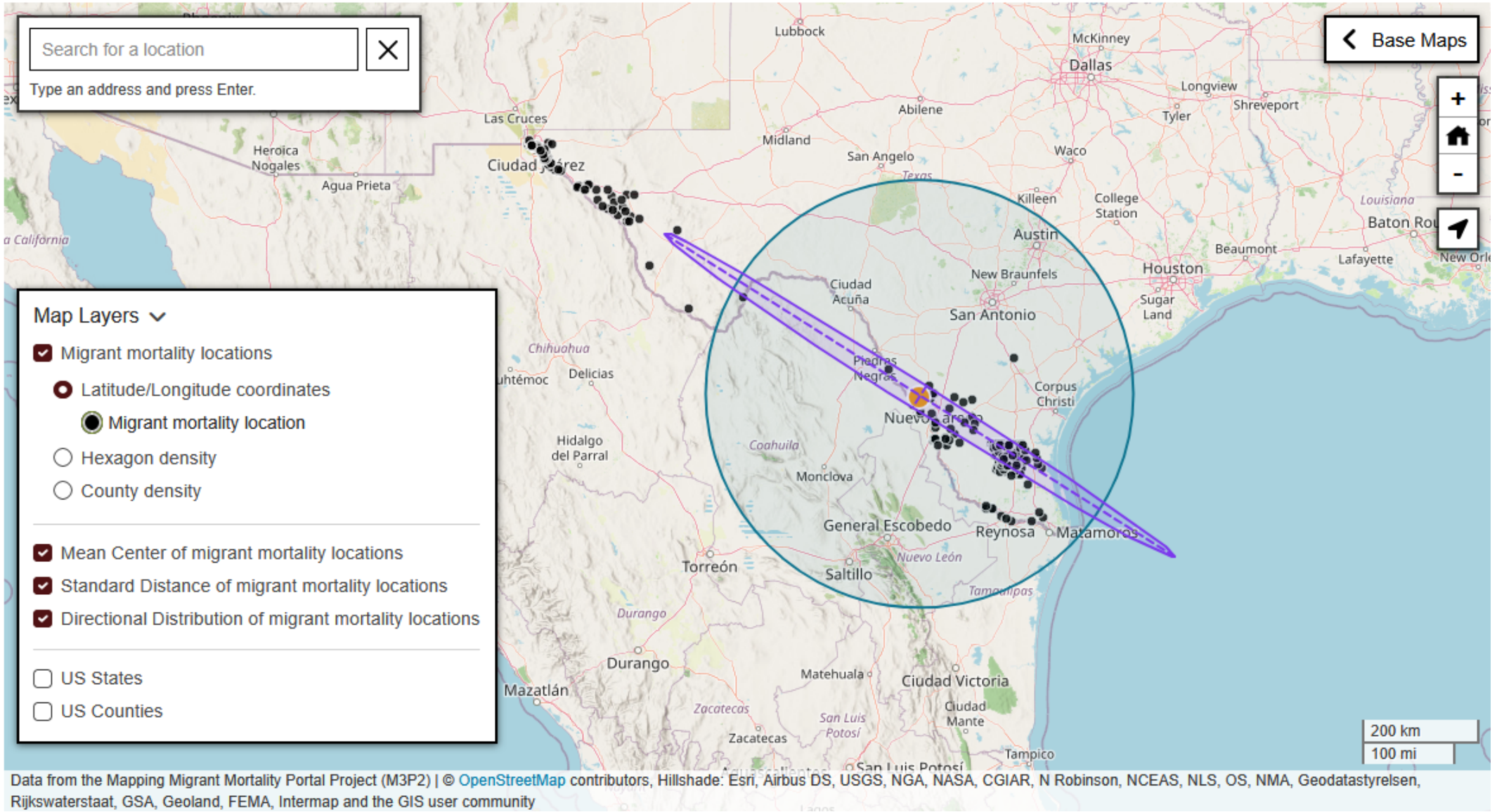

Search for a location
Type an address and press Enter.
Map Layers
Migrant mortality locations
Latitude/Longitude coordinates
Hexagon density
1 - 45 deaths (92 hexagons)
46 - 175 deaths (17 hexagons)
176 - 257 deaths (5 hexagons)
258 - 668 deaths (7 hexagons)
669 deaths (1 hexagon)
County density
Mean Center of migrant mortality locations
Standard Distance of migrant mortality locations
Directional Distribution of migrant mortality locations
US States
US Counties
Base Maps
Wyoming
Salt Lake City
Nebraska
Lincoln
Denver
Utah
Colorado
Kansas City
Sacramento
Nevada
Kansas
Wichita
San Jose
California
Fresno
Las Vegas
Tulsa
Albuquerque
Oklahoma
Bakersfield
Arizona
New Mexico
Arkansas
Dallas
Texas
Austin
Houston
Louisiana
Baja California
Sonora
Chihuahua
San Antonio
Coahuila
Laredo
Torreón
Monterrey
Saltillo
Tamaulipas
Baja California Sur
La Paz
Culiacán
Durango
México
Ciudad Victoria
Mazatlán
Aguascalientes
300 km
200 mi
Data from the Mapping Migrant Mortality Portal Project (M3P2) | © OpenStreetMap contributors, Hillshade: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community


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Albuquerque
Kansas City
Wichita
Tulsa
Dallas
Austin
Houston
San Antonio
Laredo
Monterrey
Torreón
Saltillo
Durango
Mazatlán
Culiacán
La Paz
Ciudad Victoria
Aguascalientes
León
Tepic
Morelia
Ciudad de México
Xalapa
Lincoln
Nebraska
Iowa
Utah
Colorado
Nevada
California
Kansas
Missouri
Oklahoma
Arkansas
Arizona
New Mexico
Texas
Louisiana
Baton Rouge
Baja California
Sonora
Chihuahua
Coahuila
Baja California Sur
Durango
Tamaulipas
México
Jalisco
300 km
200 mi
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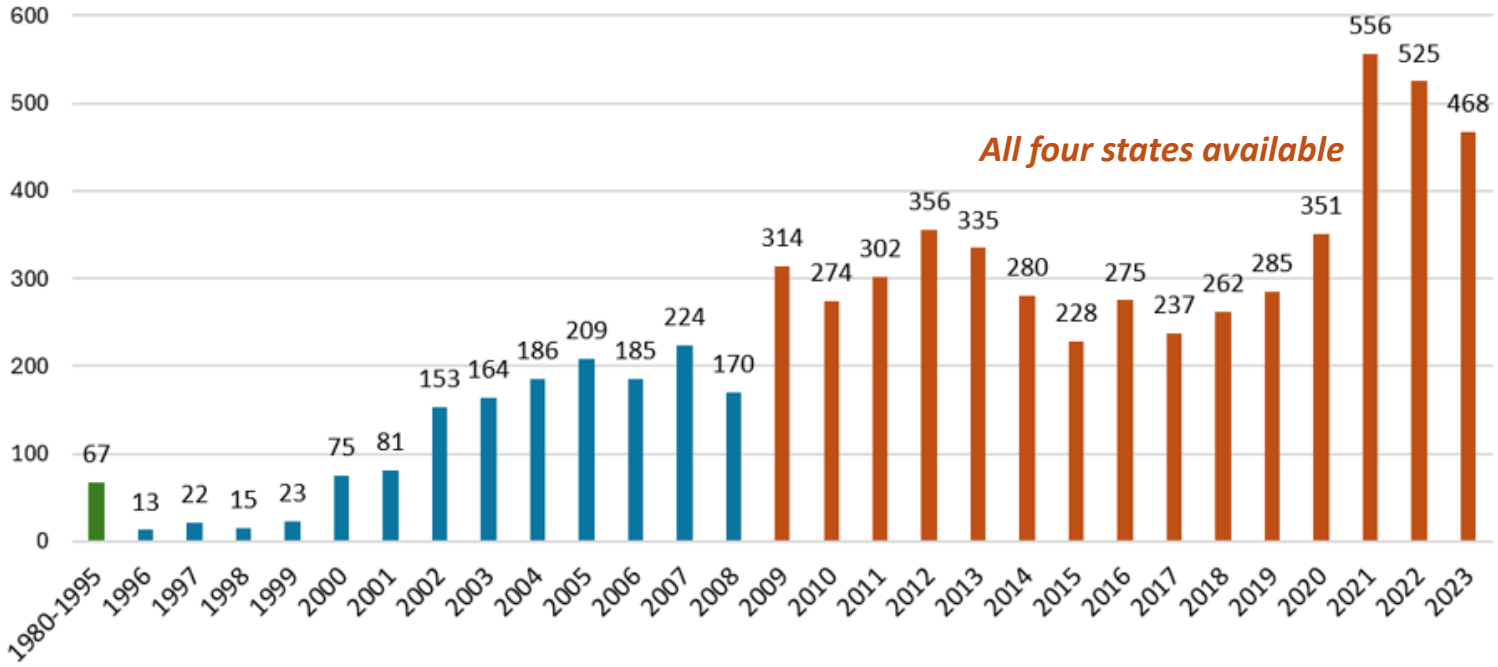

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US Counties
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Glendale
Los Angeles
San Bernardino
Ontario
Riverside
Inglewood
Gardena
Fullerton
Corona
Long Beach
Orange
Irvine
Menifee
Mission Viejo
Murrieta
Temecula
San Clemente
Oceanside
Escondido
Encinitas
Del Mar
Poway
Santee
San Diego
Chula Vista
Tijuana
Rosarito
Ensenada
Mexicali
El Centro
Yuma
San Luis Río Colorado
Joshua Tree National Park
Joshua Tree Wilderness
Sheephole Valley Wilderness
Palen-McCoy Wilderness
Chuckwalla National Monument
Chocolate Mountains Gunnery Range
Yuma Test Range
Kofa National Wildlife Refuge
Colorado River Indian Reservation
Anza-Borrego Desert State Park
Cleveland National Forest
Angeles National Forest
Channel Islands National Park
Salton Sea
Mesa de San Luis
50 km
30 mi
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Search for a location
Type an address and press Enter.
Base Maps
Map Layers
Migrant mortality locations
Latitude/Longitude coordinates
Migrant mortality location
Hexagon density
County density
Mean Center of migrant mortality locations
Standard Distance of migrant mortality locations
Directional Distribution of migrant mortality locations
US States
US Counties
Bakersfield
Santa Barbara
Palmdale
Santa Clarita
Hesperia
Oxnard
Burbank
San Bernardino
Los Angeles
Riverside
Long Beach
Menifee
San Clemente
Temecula
Indio
Bullhead City
Kingman
Flagstaff
Prescott
Lake Havasu City
Show Low
Phoenix
Buckeye
Chandler
El Centro
Mexicali
San Luis Río Colorado
Safford
Silver City
Puerto Peñasco
Agua Prieta
Heroica Caborca
Baja California
Nuevo Casas Grandes
100 km
50 mi
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Gila National Forest
National Forest
Indian Reservation
Gila Wilderness
Aldo Leopold Wilderness
White Sands Missile Range
Holloman Air Force Base
Alamogordo
Safford
Silver City
Las Cruces
Fort Bliss
McGregor Range
Organ Mountains-Desert Peaks National Monument
Ciudad Juárez
Médanos de Samalayuca
Prieta
50 km
30 mi
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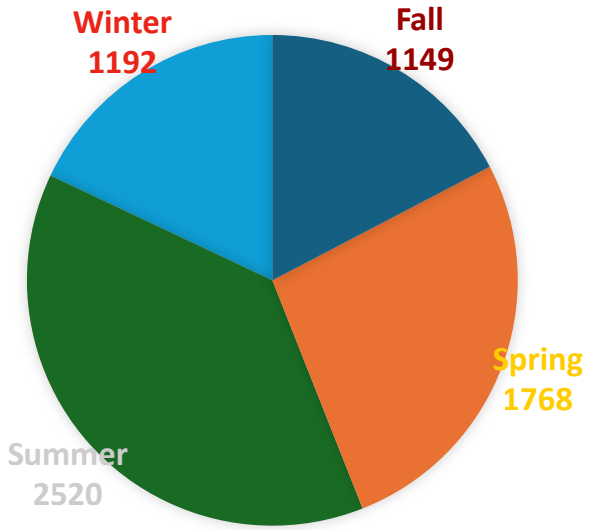

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Midland
San Angelo
Waco
Heroica Nogales
Agua Prieta
Ciudad Juárez
Killeen
College Station
Austin
Louisiana
Baton Rou
Beaumont
Lafayette
New Orle
Houston
New Braunfels
Ciudad Acuña
San Antonio
Sugar Land
Chihuahua
Delicias
Piedras Negras
Corpus Christi
Hidalgo del Parral
Coahuila
Monclova
General Escobedo
Reynosa
Matamoros
Torreón
Saltillo
Nuevo León
Tamaulipas
Durango
Durango
Matehuala
Ciudad Victoria
Mazatlán
Zacatecas
San Luis Potosí
Ciudad Mante
Tampico
200 km
100 mi
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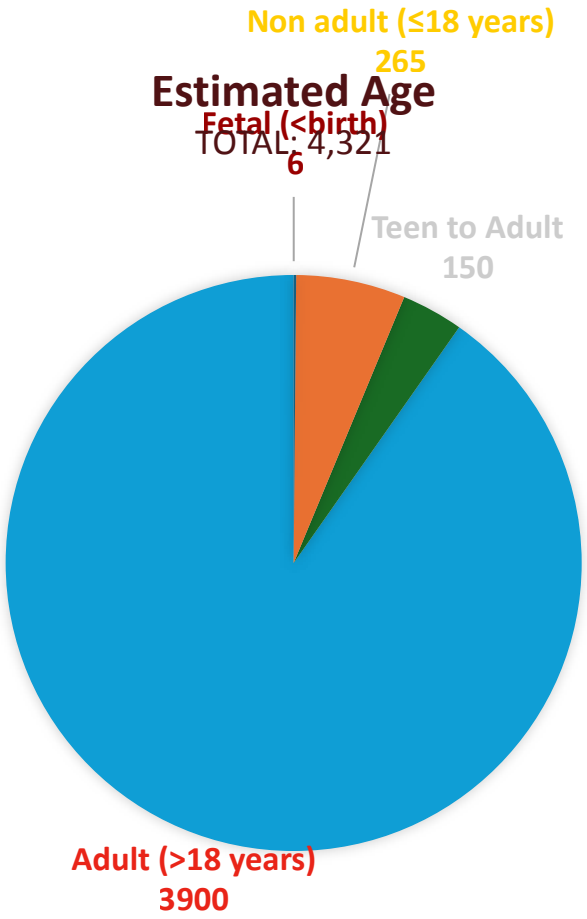
Human Remains Recovered - By Year

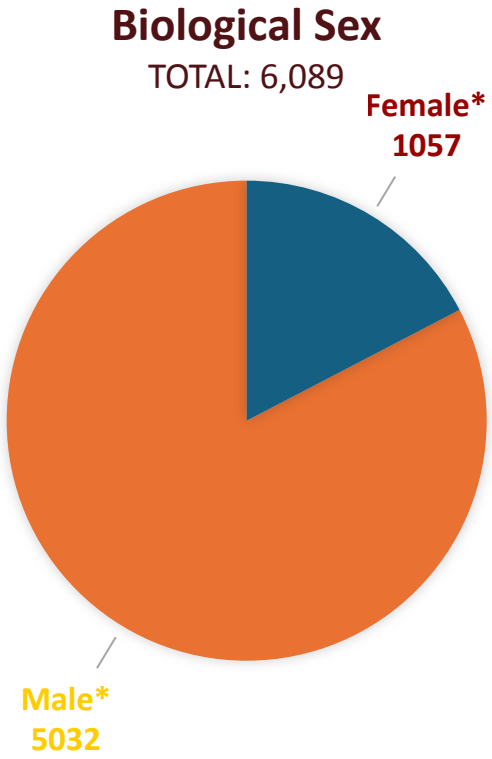


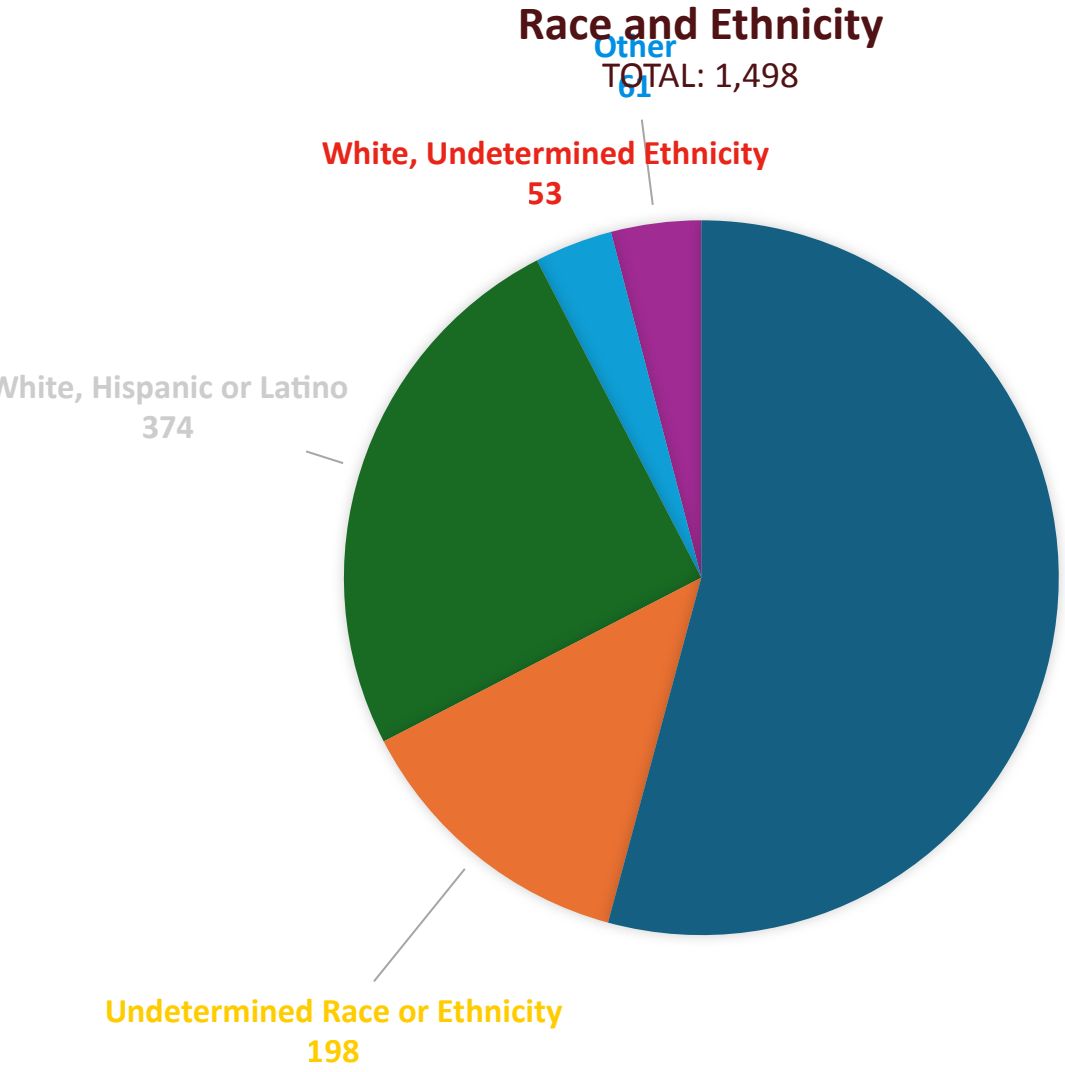
Meteorological Season

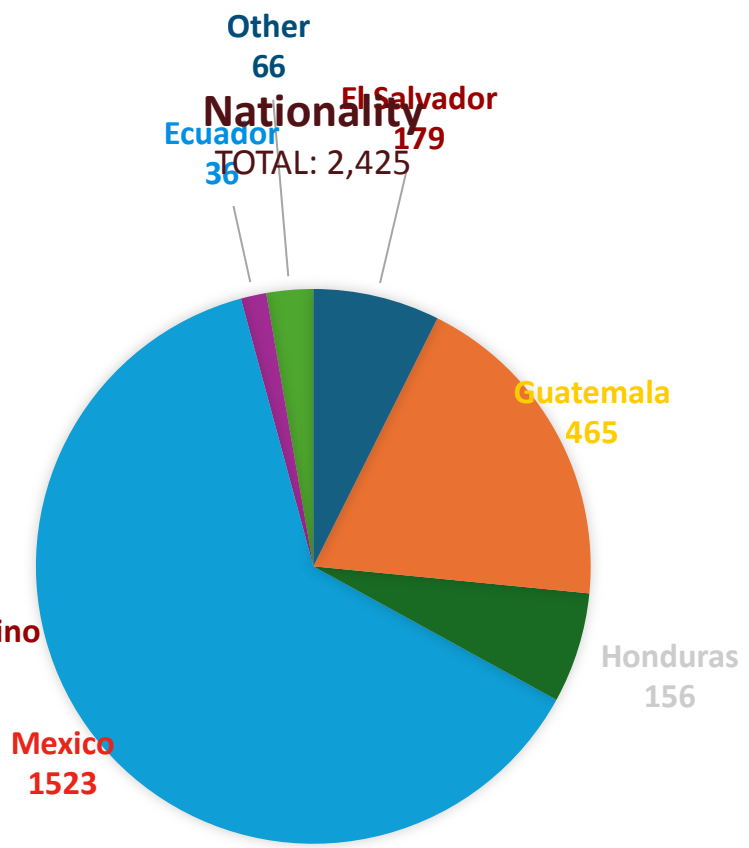
TOTAL: 6,629




Estimated Age
TOTAL: 4,321
Non adult (≤18 years)
265
Fetal (<birth)
6
Teen to Adult
150
Adult (>18 years)
3900

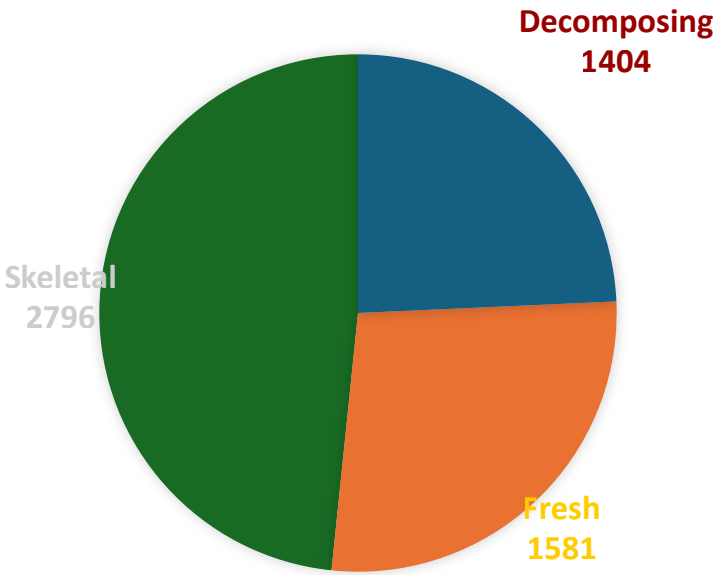

Biological Sex
TOTAL: 6,089
Female*
1057
Male*
5032


Race and Ethnicity
TOTAL: 1,498
Other
61
White, Undetermined Ethnicity
53
White, Hispanic or Latino
374
Undetermined Race, Hispanic or Latino
812
Undetermined Race or Ethnicity
198


Other
66
El Salvador
179
Nationality
TOTAL: 2,425
Ecuador
36
Guatemala
465
Honduras
156
Mexico
1523

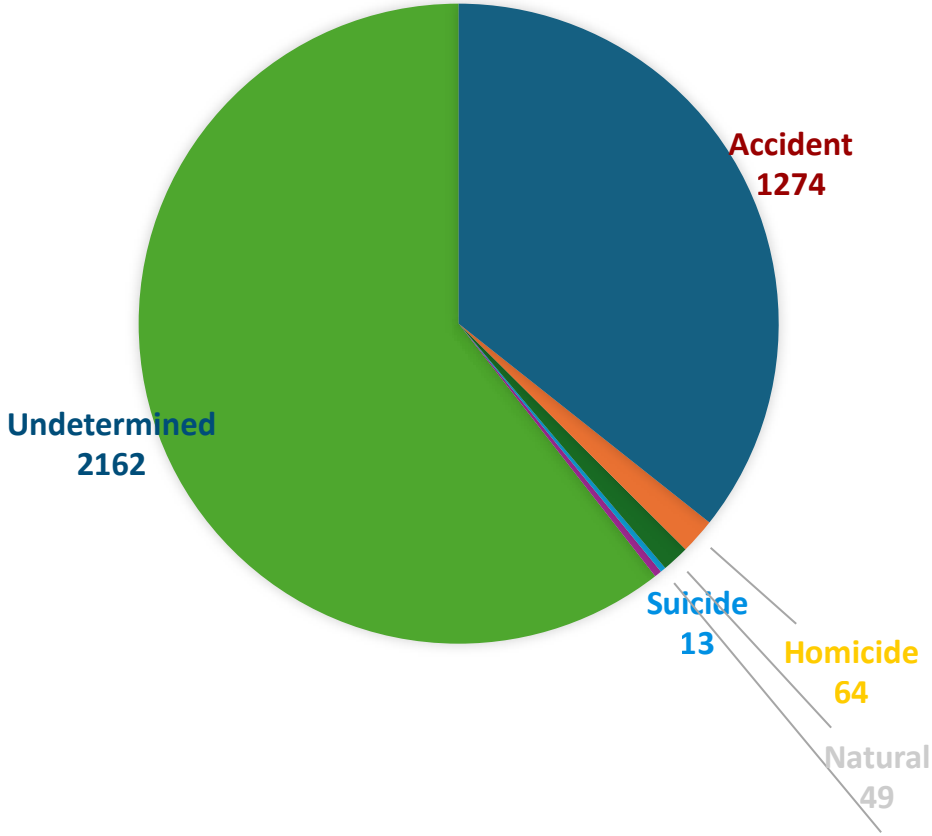
Condition of Remains

TOTAL: 5,781



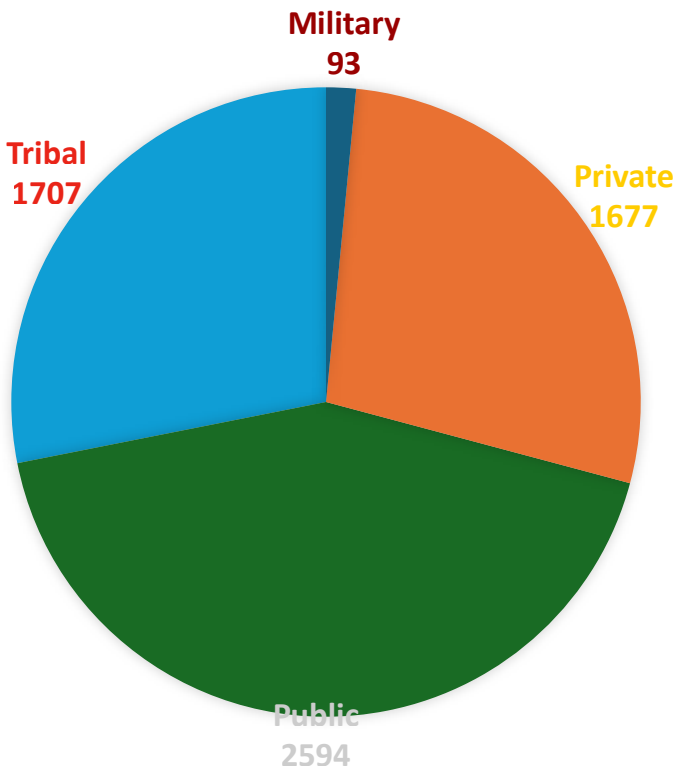
Manner of Death

TOTAL: 3,572



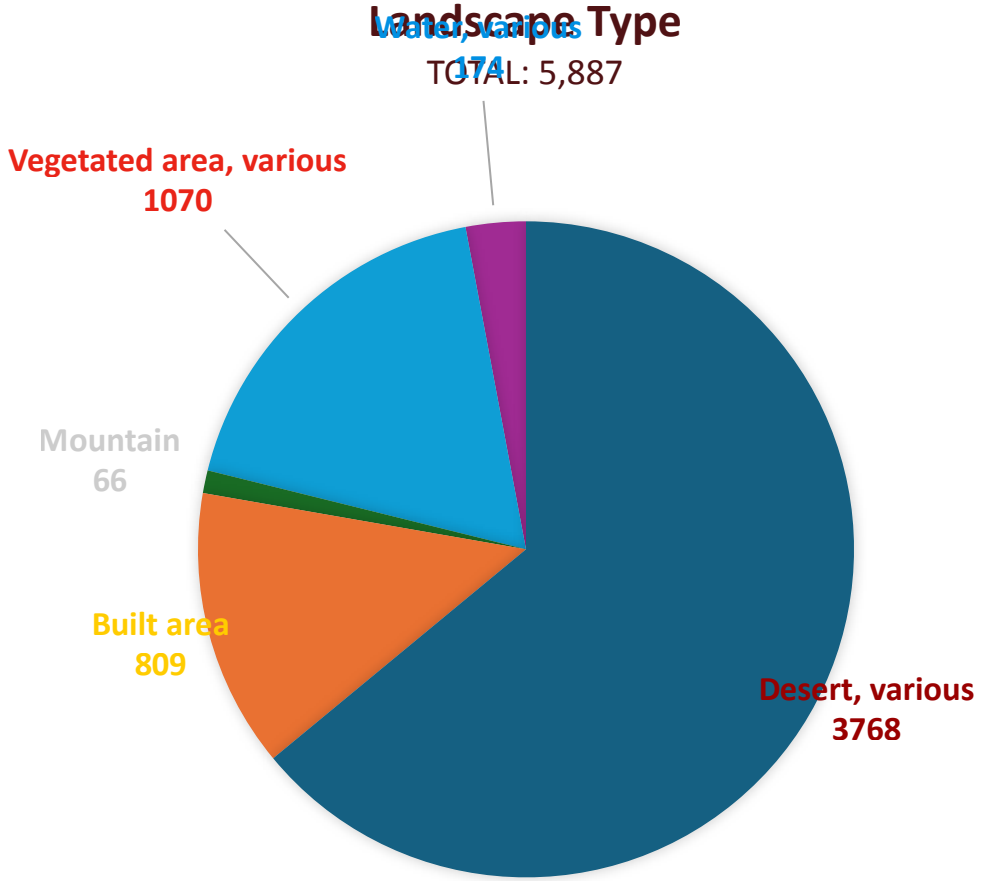
Land Access

TOTAL: 6,071



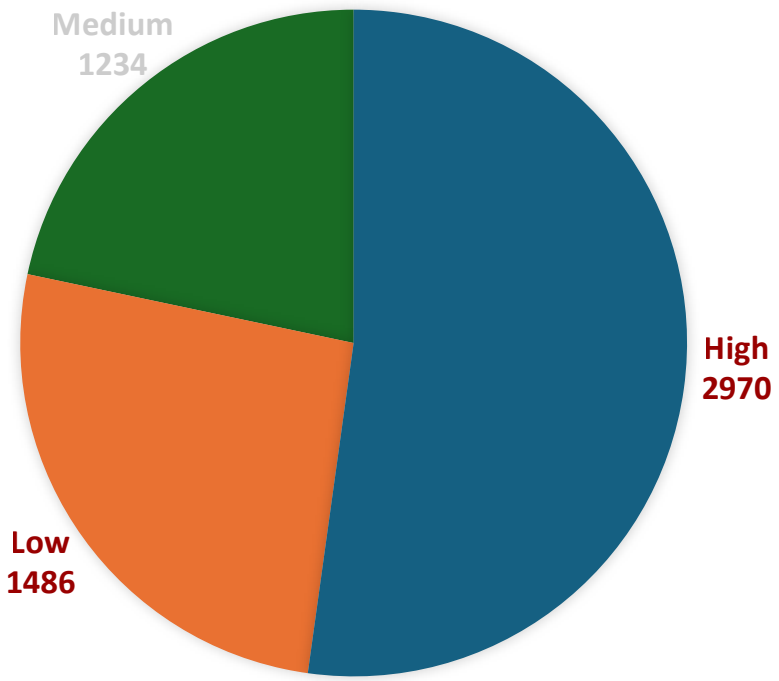
Landscape Type

TOTAL: 5,887



Inferred Accuracy Level, Coordinates mapping

TOTAL: 5,690



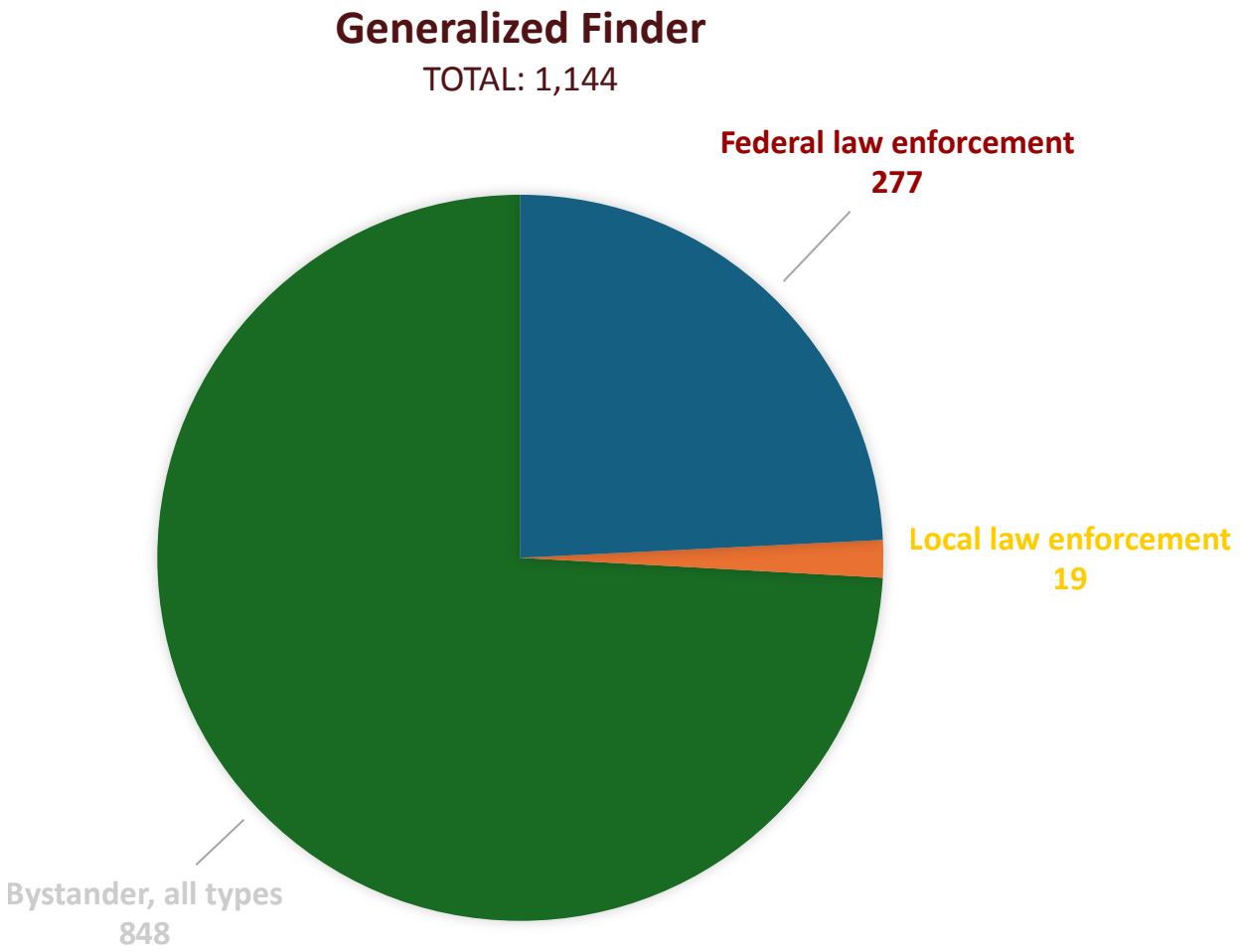
OBSERVATIONS

- Coordinates: objective was to **standardize**, starting from AZ categories and including **Narratives** (where available) → **large scale**
- Additional 951 events mapped at the **County** level
- ZIP excluded (size, extent → **scale variations**)
- This is needed to guide **appropriate choice of spatial analytical/visualization** techniques and strategies

Coordinate Decimal Places	Narrative Specificity	Accuracy Level	Rationale	Analogous Arizona OGIS Positional Accuracy Measure
6–7	Specific (e.g., canal, road, survey)	High	High precision and detailed spatial description	GPS Coordinate (precise to within ca. 300ft./100m)
6–7	Vague (e.g., desert, remote area)	Medium	Precise coordinates, but narrative lacks confirmable location info	Physical description with directions, distances, and landmarks (within 1mi/2km)
4–5	Specific	Medium	Moderate precision supported by specific description	Street Address (precise to within ca. 1000ft/300m)
4–5	Vague	Low	Precision is moderate, but vague location lowers confidence	Vague physical description (precise to within 10mi/15km)
≤ 3	Any	Low	Low coordinate precision always results in low confidence	Vague physical description (precise to within 10mi/15km)

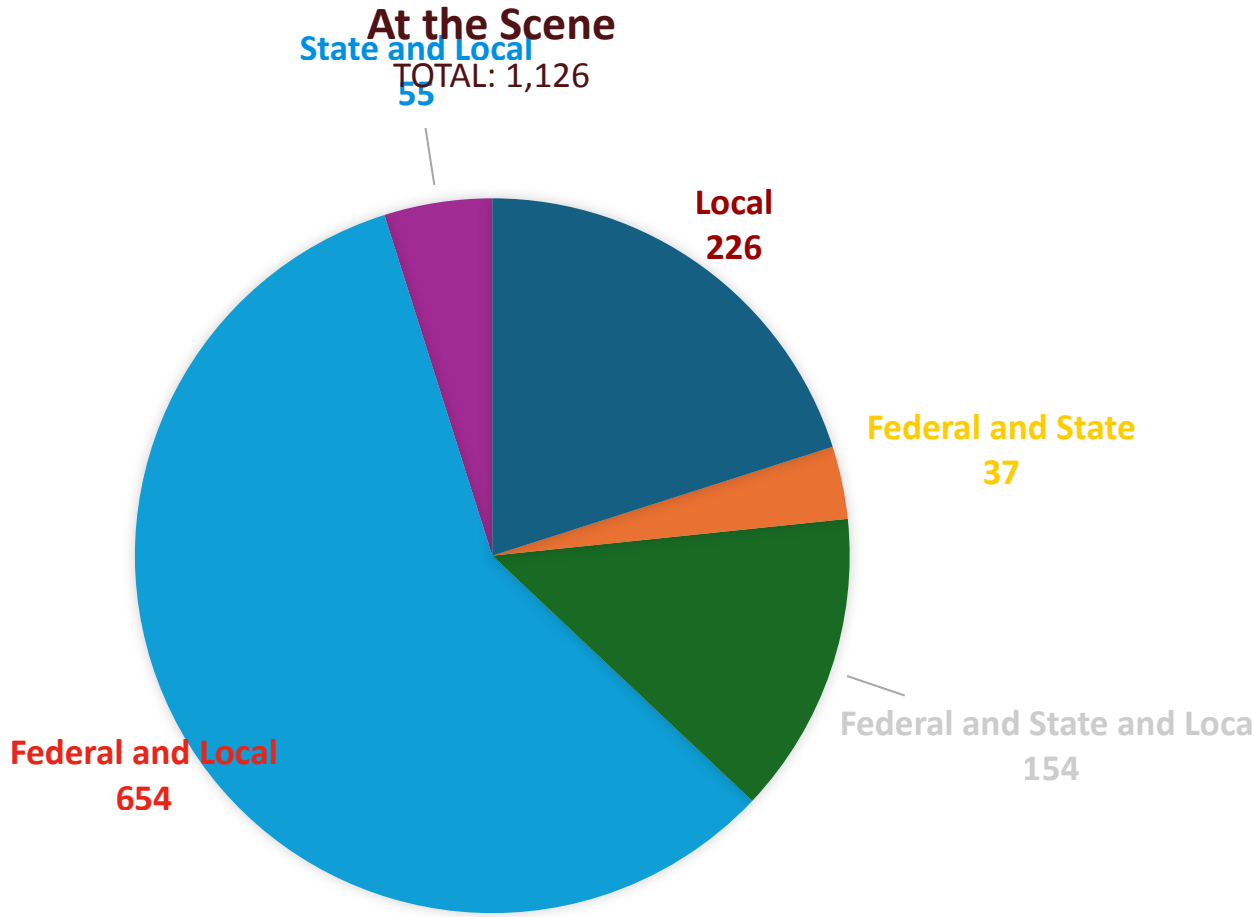
Generalized Finder

US-Mexico border	Count
Federal law enforcement	277
Local law enforcement	19
Bystander, all types	848
TOTAL	**1144**
Other	*12*
Other includes:	
State law enforcement	3
Federal and State law enforcement	2
Federal and Local law enforcement	5
State and Local law enforcement	1
Mexican State Police	1
Not specified	*371*
Uncertain	*23*



At the Scene

US-Mexico border		Count
Local		226
Federal and State		37
Federal and State and Local		154
Federal and Local		654
State and Local		55
TOTAL		**1126**
Other		*43*
Other includes:		
	Federal	24
	State	18
	State and Other	1
Not specified		*381*



The M3P2 project

Selected takeaways – U.S.-Mexico border

Summary results

BUILDING A DATASET OF MIGRANT MORTALITY

- Migrant deaths are underreported, particularly in parts of Texas. Reporting practices vary not only across state jurisdictions but also at the local, or county, level. Arizona is often regarded as the "gold standard" for statewide reporting, while Brooks County, Texas, represents a comparable county-level model
- Obtaining reliable migrant mortality data is extremely difficult. Data-sharing efforts are often constrained by limited institutional collaboration, inconsistent access, and longstanding trust issues among agencies and stakeholders
- The available data are also highly heterogeneous. Differences in format, terminology, geographic coverage, and time period make records difficult to compare and, in many cases, challenging to reconcile across sources

Across the full dataset, migrant deaths are **highly clustered rather than evenly distributed**. This **clustering** operates at **multiple spatial scales**

- **Macro-scale:** deaths concentrate in specific border states (**AZ, TX more cases than CA, NM**)
- **Meso-scale:** within states, **deaths cluster** in particular counties or corridors
- **Micro-scale:** repeated recoveries occur near the same **landscape features** (rivers, deserts, roads, canals)

Indicator	Texas	Arizona	New Mexico	California
Total death records	1,717	4,167	259	494
% Desert landscape	0.1%	**76.5%**	16.6%	5.9%
% Built / agricultural areas	**1.9%**	15.6%	13.1%	19.0%
% Public land	**10.7%**	41.3%	**90.3%**	**92.5%**
% Private land	**57.8%**	15.6%	9.7%	2.2%
% Summer deaths	34.8%	39.2%	**54.4%**	30.6%
% Winter deaths	21.1%	16.5%	**9.3%**	23.7%
% Drowning as cause of death	6.6%	1.1%	0.4%	24.5%

Texas

- Fragmented
- Dominated by **private land**
- Moderate seasonality

Arizona

- Overwhelmingly desert
- High **public land**
- Strong summer peak

New Mexico

- Extremely high **public land** share
- Small absolute numbers but strong **summer** concentration
- Near-perfect geolocation

California

- Minimal desert
- Nearly all deaths on **public land**
- **Drowning**

"Prevention through Deterrence" and M3P2

POLICY DIMENSION

1993–1994 – "Prevention Through Deterrence"

- Operational strategy
- Concentrated enforcement in **urban crossing corridors** (San Diego, El Paso)
- Intentionally redirected crossings into **remote deserts and mountains**

(Spatial) Consequence: sharp rise in migrant deaths due to exposure, dehydration, and terrain

Environmental and landscape concentration

- A large share of deaths occur in:
  - **Desert landscapes**
  - **Public land**

Summer deaths dominate, especially in desert landscapes → consistent with **heat exposure and dehydration**; **winter deaths are fewer but not rare**, particularly in northern or higher-elevation zones → consistent with **hypothermia/cold shock**

Many records list:

- Undetermined cause or manner of death
- Environmental exposure rather than interpersonal violence

Combined with incomplete or degraded remains, this suggests

- **Long exposure intervals**
- **Delayed recovery**
- **Deaths occurring far from surveillance and aid**

The M3P2 project

Selected takeaways – Texas

Selected takeaways – Texas

Geographic factors
Legal framework

Dominated by the **Rio Grande corridor**

Much higher proportion of

- **Private land**
- **Agricultural and ranch landscapes**
- **Riparian and semi-riparian environments**

Access is legally and practically **constrained**

- Fewer public lands
- Recovery often depends on **landowners**

→

Law enforcement
case notes

How death is managed

- Strong role of:
  - County sheriffs
  - Justices of the Peace
  - Local medical examiners
- Highly **uneven documentation practices across counties**
- Deaths may be:
  - Recovered quickly but minimally documented
  - Discovered long after death with no precise location

→

How deterrence works

Deterrence operates through:

- **Legal geography** (private land, trespass risk)
- **River chokepoints**
- **Local enforcement variation**
- **Informal surveillance** by landowners

While Arizona exemplifies **classic** Prevention Through Deterrence, Texas exemplifies **delegated deterrence**

- Since 2012, **migrant death in Texas has been high**, outpacing Arizona at time
- Unlike other southwestern border states, **Texas lacks a centralized medical examiner system**, which results in **inconsistent record keeping** of unidentified deceased cases that are likely migrants
- Justices of the Peace often **lacks medical training**
- These challenges are further complicated by **limited county and state funding**, **lack of sufficient personnel**, and/or **lack of training**
- **Unwillingness to share data**
- Due to **private land ownership**, there are **no regular, systematic search operations**

Selected takeaways – Brooks County

DIVISION OF LABOR

U.S. Border Patrol most often appears as:

- **First discoverer**, **gatekeeper of access** (escorting deputies and JPs onto private ranchland), **initial narrator** (providing the first account of how the body was found)
- **Local law enforcement** (sheriff's office) then:
  - **Formalize the event** through dispatch logs
  - Contact **Justices of the Peace**
  - Manage **pronouncement and transport**

There are **clear seasonal differences** in inter-agency roles:

Summer (June–August)

- Border Patrol more frequently discovers **recently deceased bodies**
- Encounters often occur during tracking or patrol
- Bodies are sometimes described as still recognizable

Winter/Early spring

- **Ranch workers, hunters, and locals** more often find **skeletal remains**
- **Border Patrol appears later**, or only as an escort
- Time of death is **indeterminate**

There is a remarkably consistent **temporal order** in the narratives:

1. **Federal agents** encounter remains (often hours or days before)
2. **Local dispatch** is notified
3. **Deputies and JP** are escorted in
4. The death becomes "**official**"

This pattern **does not substantially vary over time**

NOTABLE NARRATIVE TROPES

1. **"Found during routine activity"**

2. **"Miles into the ranch"** (remoteness)

3. **"Vegetation and shade"** (micro-landscape: trees, brush, fence lines)

4. **"Escort narrative"** (access to the body almost always requires **mediation**, e.g., ranch owners or ranch hands, Border Patrol)

The M3P2 team

- Principal Investigator (PI): Alberto Giordano (PI), Professor, Department of Geography and Environmental Studies, Texas State University
- Co-Principal Investigator (Co-PI): Nicholas Herrmann, Professor, Department of Anthropology, Texas State University
- Senior Personnel:
  - Rachel Daniell, Pratt Institute, Visiting Assistant Professor
  - Heather Edgar, Professor, Department of Anthropology, University of New Mexico, and Forensic Anthropologist, Office of the Medical Investigator, University of New Mexico
  - Molly Miraker, Independent researcher
  - Kate Spradley, Professor, Department of Anthropology, Texas State University
- Consultant:
  - Sam Chambers, Assistant Research Scientist, Arizona State University
- Funded Graduate and Undergraduate students:
  - At Texas State University: Veronica Flores-Guillen, Diane Nunez, Ivanna Robledo, Courtney Beth Siegert. Who else?
  - At the University of New Mexico: Jasmine Hernandez

Technical Partner:

- GreenInfo Network (https://greeninfo.org). Special thanks to Stephen Smith, María Lamadrid, Tim Sinnott, and Tom Allnutt

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- Over the course of the project, we have benefited greatly from valuable conversations at academic conferences, professional meetings, and other formal and informal exchanges with journalists, advocates, members of humanitarian organizations, and many other individuals whose expertise and perspectives have informed this work. **We especially wish to acknowledge** Molly Kaplan (Texas State University), Mike Kreyche (Humane Borders), Marni La Fleur (University of San Diego), Stephanie Leutert (The University of Texas at Austin), Daniel Martinez (University of Arizona), Robin Reineke (University of Arizona), Gabriella Soto (Arizona State University), and Caitlin Vogelsberg (Pima County)

- The Migrant Deaths Regional Working Group