

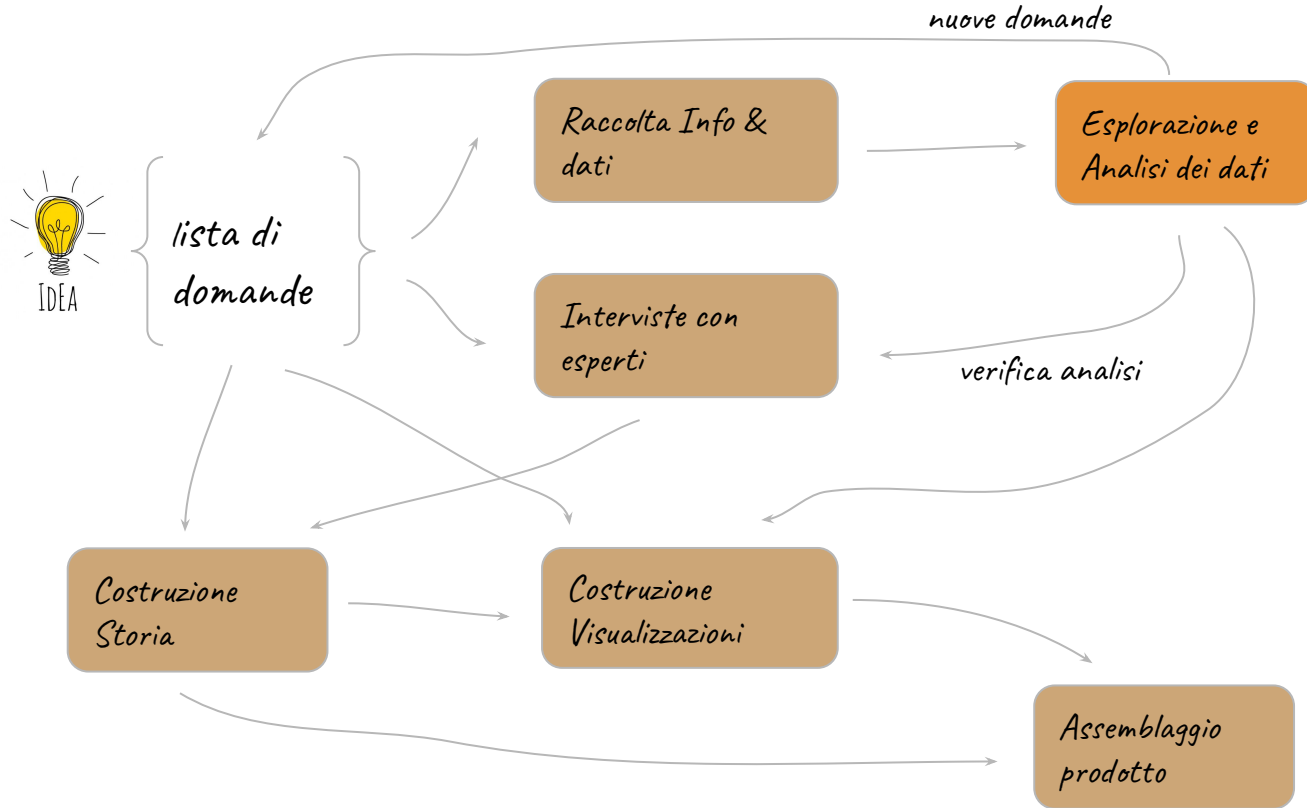


Data Exploration

with Tableau

AndreaMarchetti@cnr.it

Data Journalism Workflow



Data Exploration: Syntax Targets

L'esplorazione dei dati consente di capire cosa si trova in un set di dati

- dimensioni o quantità di dati,
- completezza dei dati,
- correttezza dei dati,
- possibili relazioni tra elementi di dati o file / tabelle nei dati.

Data Exploration: Semantic Targets

L'esplorazione dei dati consente di scoprire aspetti interessanti nascosti nei dati.

- Necessità di trovare nuovi dati
- Nuove domande che possono sostituire le precedenti

Data Exploration

L'esplorazione dei dati è un **processo iterativo**

Si parte da una domanda generale a cui si tenta di dare una risposta

Si passa a domande via via più particolari

Demo

<https://www.start.umd.edu/gtd/>

Global Terrorism Database

Information on more than 190,000 Terrorist Attacks

Access the GTD

What is GTD?

The GTD™ is an open-source database

provides information on domestic and international terrorist events around the world since 1970,

includes more than 190,000 events

“The threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.”

ACCESS THE GTD

GTD Access

SEARCH & BROWSE

DOWNLOAD

GTD 1970 – 2018

🕒 1 month, 12 hours, 40 minutes ago

Data on terrorist attacks between 1970 – 2018

Download the GTD or Contact GTD Team

We welcome questions and feedback from users. For the quickest answers, please consult our [FAQ page](#) to see if your question has already been addressed before submitting it using the form below.

*** = Required Field**

*** Action:**
To download the data and documentation select 'Download full GTD dataset' from the Action list above.

Title:
(e.g., Mr., Ms., Dr., Gen., etc.)

*** First Name:**

*** Last Name:**

Institution:

*** E-Mail Address:**



DOWNLOAD ATTACHMENT - GLOBALTERRORISMDB_0919DIST

Numeri dal dataset

191.464 Attacchi terroristici registrati

nel periodo dal **1-1-1970** al **31-12-2018**

Modello dei dati

Luogo

Data

Organizzazione
Terroristica



Danni

Tipo
attacco

Tipo del
bersaglio

Tipo arma
utilizzata

Bataclan - Parigi - 13 novembre 2015



Place

region: Western Europe
country: France
provincestate: Ile-deFrance
city: Paris
lat: [48.856644](#);
lng: 2,34233

Date

year:2015
month: 11
day:13

Group Name

Islamic State of Iraq and the Levant (ISIL)

Attack Type

Hostage Taking (Barricade Incident)
Bombing/Explosion

Three suicide bombers opened fire on Bataclan concert hall, where an Eagles of Death Metal concert was being held, in 11th arrondissement, Paris, France
...

Target Type

Business
Private Citizens & Property

Damages

Num kill: 93
Num Attackers Killed: 3
Num Wounded: 217

Weapon Type

Explosives: Suicide (carried bodily by human being)
Explosives: Grenade
Firearms: Automatic or Semi-Automatic Rifle
[Three explosives-laden vests, grenades, and AK-47 assault rifles were used in the attack]

GTD ID:
201511130008

WHEN:
2015-11-13

COUNTRY:
France

REGION:
Western Europe

PROVINCE/ADMINISTRATIVE
REGION/U.S. STATE:
Ile-de-France

CITY:
Paris

LOCATION DETAILS:
**The incident
occurred in the
11th
Arrondissement.**

INCIDENT SUMMARY:

11/13/2015: Three suicide bombers opened fire on Bataclan concert hall, where an Eagles of Death Metal concert was being held, in 11th arrondissement, Paris, France. In addition to the three bombers, at least 90 people were killed and 200 others were injured in the attack. Additionally, at least 20 civilians were taken hostage for two hours during the incident. This was one of eight coordinated attacks carried out in Paris on the same day. Later reports state that an additional 132 people were injured across all eight incidents. The Islamic State of Iraq and the Levant (ISIL) claimed responsibility and stated that the attacks were carried out in retaliation for France's participation in the United States-led coalition that carried out airstrikes on ISIL targets in Iraq and Syria.

WHAT

HOW

WHO

INCIDENT SOURCES

Attack Information

| | |
|---|-------------------------------------|
| Type of Attack (more) | Bombing/Explosion |
| Type of Attack (more) | Hostage Taking (Barricade Incident) |
| Successful Attack? (more) | Yes |

Target Information ([more](#))

Target Type: Business

| | |
|-----------------------|--------------|
| Name of Entity | Bataclan |
| Specific Description | Concert Hall |
| Nationality of Target | France |

Target Type: Private Citizens & Property

| | |
|-----------------------|----------------|
| Name of Entity | Not Applicable |
| Specific Description | Civilians |
| Nationality of Target | Multinational |

Additional Information

| | |
|---------------------------|------------------------------|
| Hostages | Yes |
| Number of Hostages | 20 |
| US Hostages | 0 |
| Hours of Kidnapping | 2 |
| Outcome | Combination |
| Ransom | No |
| Property Damage | Yes |
| Extent of Property Damage | Minor (likely < \$1 million) |
| Value of Property Damage | Unknown |

| Weapon Information | |
|---|--|
| Type | Sub-type |
| Explosives/Bombs/Dynamite | Suicide (carried bodily by human being) |
| Explosives/Bombs/Dynamite | Grenade |
| Firearms | Automatic Weapon |
| Weapon Details | |
| Three explosives-laden vests, grenades, and AK-47 assault rifles were used in the attack. | |
| Additional Information | |
| Suicide Attack? | Yes |
| Part of Multiple Incident? | Yes |
| Criterion 1 (more) | Yes |
| Criterion 2 (more) | Yes |
| Criterion 3 (more) | Yes |
| Doubt Terrorism Proper (more) | No |
| Additional Information | Casualties numbers conflict across sources. Following GTD protocol, the most recent reliable estimates are reported here. Casualty numbers represent a division of the total number of those wounded across incidents 201511130002, 201511130003, 201511130004, 201511130005, 201511130006, 201511130007, 201511130008, and 201511130009. |

Perpetrator Group Information

Group Name

Islamic State of Iraq and the Levant (ISIL)

Claimed Responsibility

Yes (Confirmed: Unknown; Mode: Posted to website, blog, etc.)

Perpetrator Statistics

Number of Perpetrators

3

Number of Captured Perpetrators

0

Casualty Information

Total Number of Casualties

93 Fatalities / 217 Injured

Total Number of Fatalities

93

Number of U.S. Fatalities

0

Number of Perpetrator Fatalities

3

Total Number of Injured

217

Number of U.S. Injured

0

Number of Perpetrators Injured

0

Sources

"For Survivors of Paris Attacks, Mental Scars May Outlast Wounds," The New York Times, November 30, 2015."

"Stories of those who died in the Paris attacks," The Associated Press, November 25, 2015."

"In Memoriam: Paris Terror Attacks," CNN, November 28, 2015."

www.TABLEAU.com

Caratteristiche

Tableau Software è una compagnia sw con centro a Seattle.

Fondata nel 2003, ha ha circa 3500 impiegati.

Produce sw di **data visualization interattivo** focalizzata su business intelligence

Prodotti



Tableau Prep
Builder



Tableau Desktop



Tableau Server



Tableau Online



Tableau Mobile

Tableau Reader

Browser

tableau⁺public

Create

Publish

Read

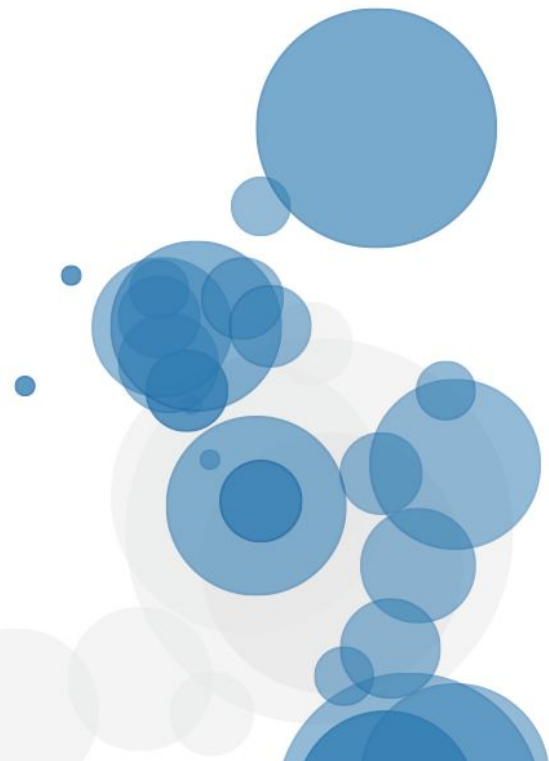
2019.1.2 (20191.19.0321.1733) 64-bit

Tableau Desktop

Professional Edition



Patent - <http://www.tableau.com/ip>
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All rights reserved.





HTML | PDF | WINDOWS 64-BIT HELP | MAC OS HELP

Help

What's New

Get Started

Connect to and Prepare Data

Build Charts and Analyze Data

Present Your Work

Publish Data Sources and Workbooks

Using Tableau on the Web

Reference

Manuali in
vari formati

Tutorials and Guides

Getting Started with Tableau Desktop

Tableau Desktop and Tableau Prep
Deployment Guide

Training Videos

Tableau Training Videos

Whitepapers

Tableau Whitepapers

Knowledge Base

Tableau Knowledge Base

Community Forums

Tableau Community Forums

Tutorial and
Guides

Video Tutorials (esiste
anche la versione in
italiano)



Connect

To a File

Microsoft Excel

Text file

JSON file

Microsoft Access

PDF file

Spatial file

Statistical file

More...

To a Server

Tableau Server

Microsoft SQL Server

MySQL

Oracle

Amazon Redshift

More... >

Saved Data Sources

Sample - EU Superstore

Sample - Superstore

World Indicators

Open



Global Terrorism DB



GTD_Global Terroris...

Open a Workbook

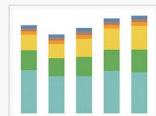
Sample Workbooks



Superstore



Regional



World Indicators

More Samples

Discover

▶ Training

Getting Started

Connecting to Data

Visual Analytics

Understanding Tableau

More training videos...

📁 Resources

Get Tableau Prep

Blog - Applications are open! Why you should apply today to speak at TC19

Forums

VIZ OF THE WEEK

Spell-O-L: Hilarious Misspellings in Reddit Comments →



GYLENHAAL

164 20

gylennh41

gylennh41

gylennh41 x29



KARBASHIAN

120 22

kardashian442

kardashian435

kardashian48



Data (globalterrorismdb_07)

Creazione di nuove colonne di dati

Filters
0 | Add

Connections Add

globalterro...db_0718dist
Microsoft Excel

Sheets +

Cleaned with Data Interpreter
[Review the results.](#) (To undo changes, clear the check box.)

Data
Data A1:EE10000

New Union

Sort fields Modified ▼

Show aliases Show hidden fields 1,000 rows

| # | # | # | # | Abc | # | | # | # | # |
|-----------------|------|--------|------|-----|---|--|---|---|--------------------|
| Data | Data | Data | Data | | | | | | |
| eventid | year | imonth | iday | | | | | | |
| 197.000.000.001 | 1970 | | 7 | | | | | | |
| 197.000.000.002 | 1970 | | 0 | | | | | | |
| 197.001.000.001 | 1970 | | 1 | | | | | | |
| 197.001.000.002 | 1970 | | 1 | | | | | | |
| 197.001.000.003 | 1970 | | 1 | | | | | | |
| 197.001.010.002 | 1970 | | 1 | | | | | | |
| 197.001.020.001 | 1970 | | 1 | 2 | | | | | |
| 197.001.020.002 | 1970 | | 1 | 2 | | | | | |
| 197.001.020.003 | 1970 | | 1 | 2 | | | | | |
| 197.001.030.001 | 1970 | | 1 | 3 | | | | | |
| 197.001.050.001 | 1970 | | 1 | 1 | | | | | |
| 197.001.060.001 | 1970 | | 1 | 6 | | | | | |
| 197.001.080.001 | 1970 | | 1 | 8 | | | | | |
| 197.001.090.001 | 1970 | | 1 | 9 | | | | 0 | United States |
| 197.001.090.002 | 1970 | | 1 | 9 | | | | 0 | United States |
| 197.001.100.001 | 1970 | | 1 | 10 | | | | 0 | East Germany (GDR) |

- Rename
- Copy Values
- Hide
- Create Calculated Field...**
- Create Group...
- Create Bins...
- Pivot (select multiple fields)
- Describe...

Date

```
DATE ( STR ([iday] ) + "-" + STR ([imonth] ) + "-" + STR ([iyear] ) )
```

The calculation is valid.

Apply OK



Connections

Add

globalterro...db_0718dist
Microsoft Excel

Sheets

Search

 Cleaned with Data Interpreter
[Review the results.](#) (To undo changes, clear the check box.)Data
Data A1:EE10000

New Union

Data (globalterrorismdb_0718dist)

Data

Connection

 Live Extract

Extract will include all data.

Edit

Refresh

Filters

0

Add



Sort fields

Modified



Show aliases



Show

| # Data eventid | # Data year | # Data imonth | # Data iday | Calendar Date | Abc Data approxdate | # Data extended | Calendar Data resolution | # Data country | # Data city |
|----------------------|-------------------|---------------------|-------------------|------------------|---------------------------|-----------------------|--------------------------------|----------------------|-------------------|
| 197.000.000.001 | 1.970 | 7 | 2 | 07/02/1970 | null | 0 | null | | |
| 197.000.000.002 | 1.970 | 0 | 0 | null | null | 0 | null | | |
| 197.001.000.001 | 1.970 | 1 | 0 | null | null | 0 | null | 160 | Philippines |
| 197.001.000.002 | 1.970 | 1 | 0 | null | null | 0 | null | 78 | Greece |
| 197.001.000.003 | 1.970 | 1 | 0 | null | null | 0 | null | 101 | Japan |
| 197.001.010.002 | 1.970 | 1 | 1 | 01/01/1970 | null | 0 | null | 217 | United States |
| 197.001.020.001 | 1.970 | 1 | 2 | 01/02/1970 | null | 0 | null | 218 | Uruguay |
| 197.001.020.002 | 1.970 | 1 | 2 | 01/02/1970 | null | 0 | null | 217 | United States |
| 197.001.020.003 | 1.970 | 1 | 2 | 01/02/1970 | null | 0 | null | 217 | United States |
| 197.001.030.001 | 1.970 | 1 | 3 | 01/03/1970 | null | 0 | null | 217 | United States |
| 197.001.050.001 | 1.970 | 1 | 1 | 01/01/1970 | null | 0 | null | 217 | United States |
| 197.001.060.001 | 1.970 | 1 | 6 | 01/06/1970 | null | 0 | null | 217 | United States |
| 197.001.080.001 | 1.970 | 1 | 8 | 01/08/1970 | null | 0 | null | 98 | Italy |
| 197.001.090.001 | 1.970 | 1 | 9 | 01/09/1970 | null | 0 | null | 217 | United States |
| 197.001.090.002 | 1.970 | 1 | 9 | 01/09/1970 | null | 0 | null | 217 | United States |
| 197.001.100.001 | 1.970 | 1 | 10 | 01/10/1970 | null | 0 | null | 499 | East Germany |

Imposta "live" se prevedi che i dati si possano modificare nel tempo

Data Source

Sheet 1



Data Analytics Pages Columns Rows

Data (globalterrorismdb_0...

Dimensions

- country_txt
- Date
- dbsource
- divert
- gname
- gname2
- gsubname
- hostkidoutcome_txt
- kidhijcountry
- location
- motive
- natlty1_txt
- natlty2_txt
- natlty3_txt
- propcomment
- propexter..._txt

Measures

- INT_BEG
- INT_LOG
- INT_MISC
- ishostkid
- iyer
- latitude
- longitude
- multiple
- natlty1
- natlty2
- natlty3
- ndays
- nhostkid

Filters

Marks

Automatic

Color Size Text

Detail Tooltip

Sheet 1

Drop field here

Drop field here

Drop field here

Data Source Sheet 1

Dimensions Vs Measures

Dimensioni: date, categorie, luoghi geografici

Misure: numero di attacchi, numero di persone uccise, danni

Le Dimensioni costituiscono il dominio dei nostri grafici, le ascisse, le righe

Le Misure costituiscono il codominio dei nostri grafici, le ordinate, le colonne

Numero di persone uccise (**misura**) nel tempo (**dimensione**)

Numero di attacchi (**misura**) nei vari stati (**dimensione**)

Danni complessivi (**misura**) commessi dai vari gruppi
(**dimensione**)

Domande

Il terrorismo è un fenomeno in espansione?

Quali paesi sono maggiormente interessati?

Qual'è il gruppo terroristico più attivo?

Qual'è stato l'attentato terroristico più nefasto?

Domande - Indagini

1. Numero di persone uccise ogni anno in attacchi terroristici
2. Numero di persone uccise (1970-2018) in ogni paese
3. Gruppi terroristici responsabili del maggior numero di attentati (1970.2018)
4. Attacchi terroristici più gravi
5. Numero di persone uccise filtrate per paese e anno

Numero di persone uccise ogni anno in
attacchi terroristici

Measures

- # crit3
- # doubtterr
- # eventid
- # extended
- # guncertain1
- # guncertain2
- # hostkidoutcome
- # iday
- # imonth
- # individual
- # INT_ANY
- # INT_IDEO
- # INT_LOG
- # INT_MISC
- # ishostkid
- # **iyear**
- 🌐 latitude
- 🌐 longitude

Data Source Sheet 1

Add to Sheet

Duplicate

Rename

Hide

Create ▶

Transform ▶

Convert to Discrete

Convert to Dimension

Change Data Type ▶

Geographic Role ▶

Default Properties ▶

Group by ▶

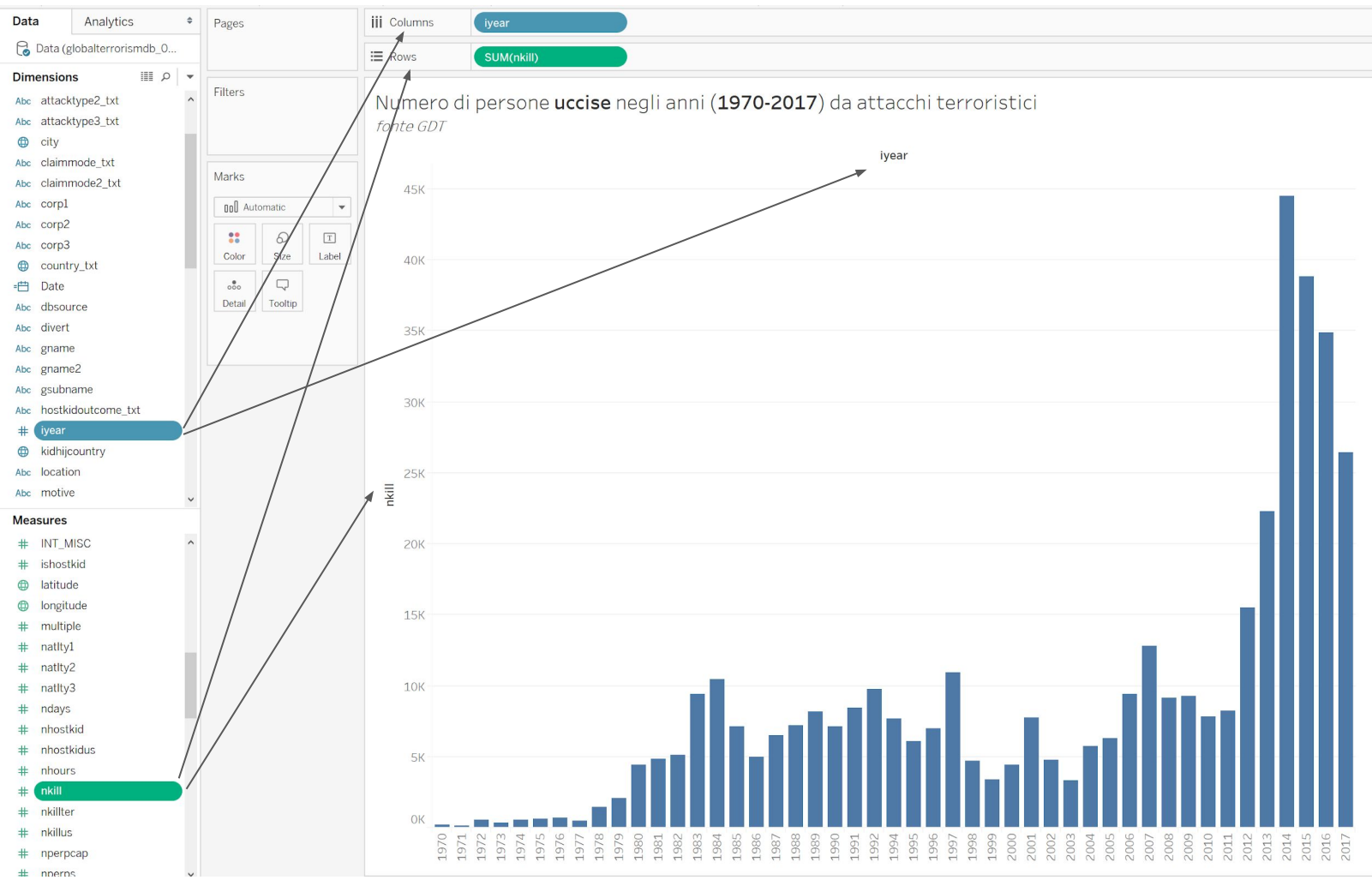
Folders ▶

Replace References...

Describe...

L'anno automaticamente è stato posizionato tra le misure in quanto il software mette tutti i numeri tra le misure.

Si converte a dimensione



Numero di persone uccise in ogni paese

Dimensions

- Abc attacktype2_txt
- Abc attacktype3_txt
- city
- Abc claimmode_txt
- Abc claimmode2_txt
- Abc corp1
- Abc corp2
- Abc corp3
- country_txt
- Date
- Abc dbsource
- Abc divert
- Abc gname
- Abc gname2
- Abc gsubname
- Abc hostkidoutcome_txt
- # iyear
- kidhijcountry
- Abc location
- Abc motive

Measures

- # INT_MISC
- # ishostkid
- latitude
- longitude
- # multiple
- # natly1
- # natly2
- # natly3
- # ndays
- # nhostkid
- # nhostkidus
- # nhours
- # nkill
- # nkiller
- # nkillus
- # nperpcap
- # nperpcap

Automatic

Color Size Label

Detail Tooltip

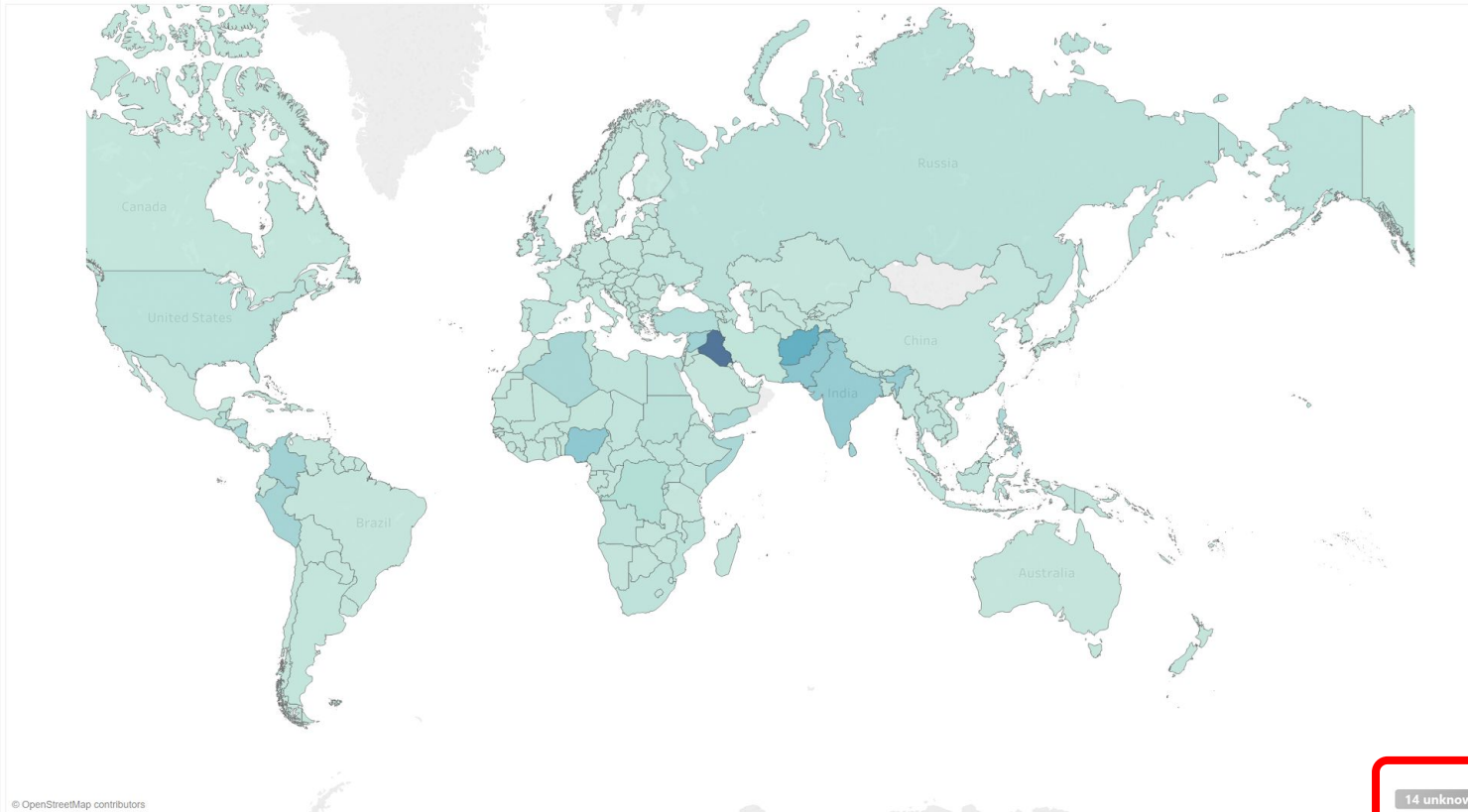
country_txt

SUM(nkill)

Longitude (generated)

Latitude (generated)

Numero di persone **uccise** da attacchi terroristici negli anni (1970-2017) suddivisi per paese
fonte GDT



Edit Locations ×

Geographic roles

Country/Region: ! 14 issues

Match values to locations

! Country/Region

| Your Data | Matching Location |
|--------------------------------|-------------------|
| Czechoslovakia | Unrecognized |
| East Germany (GDR) | Unrecognized |
| International | Unrecognized |
| New Hebrides | Unrecognized |
| North Yemen | Unrecognized |
| People's Republic of the Congo | Unrecognized |
| Rhodesia | Unrecognized |
| Serbia-Montenegro | Unrecognized |
| South Vietnam | Unrecognized |
| South Yemen | Unrecognized |

Show only unmatched locations in drop down list

Reset Matches OK Cancel

Unioni

- North Vietnam + South Vietnam > Vietnam; 1976
- East Germany + West Germany > Germany; 1989
- North Yemen + South Yemen > Yemen; 1990

Frammentazioni

- Yugoslavia > Bosnia Herzegovina; Croatia; Kosovo; Macedonia; Montenegro; Serbia.
- Czechoslovakia > Czech Republic, Slovakia
- Soviet Union > Russia; Azera; Armenia; Lettonia, Lituania, Estonia, Georgia, Bielorussia, Ucraina, Uzbekistan, Turkmenistan, Kazakistan, Kirgikistan, Moldavia.

Cambio di nome/confini

- Rhodesia > Zimbabwe
- People's Republic of the Congo > Republic of the Congo 1991
- West Bank and Gaza Strip
- New Hebrides > Vanuatu

Processo Iterativo nelle domande

Abbiamo visto:

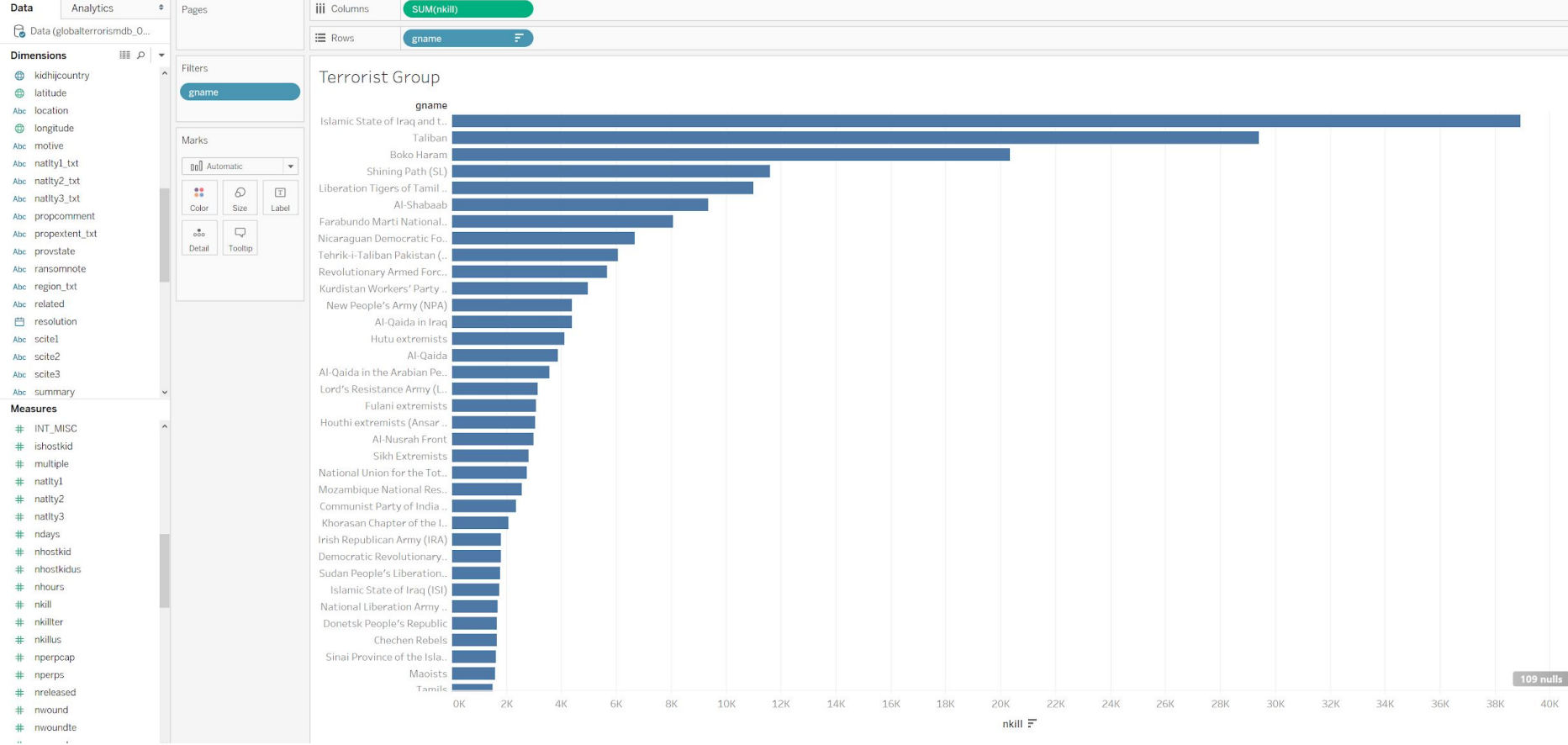
- Quante persone sono state uccise in attacchi terroristici negli anni?
- Quali sono gli stati dove sono state uccise più persone?

Possiamo chiederci:

- Quali gruppi terroristici sono stati responsabili dei maggiori attacchi?
- Quali sono gli attacchi terroristici più letali ?
- C'è stata una evoluzione nel tempo delle zone interessate dal terrorismo?

Gruppi terroristici responsabili dei
maggiori attacchi

Quali gruppi terroristici sono stati responsabili dei maggiori attacchi?



Attacchi terroristici più gravi

Assicurarsi che i campi **longitude** e **latitude** siano tra le **dimensioni** e siano riconosciuti come tali da Tableau

A screenshot of the Tableau interface showing a list of fields on the left and a context menu for the 'longitude' field. The 'Measures' section includes 'idday', 'imonth', 'individual', 'INT_ANY', 'INT_IDEO', 'INT_LOG', 'INT_MISC', 'ishostkid', 'latitude', and 'multiple'. The 'Dimensions' section includes 'dbsource', 'divert', 'gname', 'gname2', 'gname3', 'gsubname', and 'gsubname2'. The 'longitude' field is highlighted in green. A context menu is open over it, with 'Convert to Dimension' highlighted in blue.

- dbsource
- divert
- gname
- gname2
- gname3
- gsubname
- gsubname2

Measures

- idday
- imonth
- individual
- INT_ANY
- INT_IDEO
- INT_LOG
- INT_MISC
- ishostkid
- latitude
- longitude
- multiple

Context Menu for 'longitude':

- Add to Sheet
- Show Filter
- Duplicate
- Rename
- Hide
- Create
- Convert to Discrete
- Convert to Dimension
- Change Data Type
- Geographic Role
- Default Properties
- Group by
- Folders
- Replace References...
- Describe...

A screenshot of the Tableau interface showing the 'Dimensions' shelf with 'longitude' highlighted in green. A context menu is open over 'longitude', with 'Geographic Role' highlighted in blue. A sub-menu is open for 'Geographic Role', with 'Longitude' highlighted in blue.

Dimensions

- Date
- dbsource
- divert
- gname
- gname2
- gsubname
- hostkidoutcome_txt
- iyear
- kidhijcountry
- latitude
- location
- longitude
- motive
- natly1_txt
- natly2_txt
- natly3_txt
- propcomment
- propextent_txt
- provstate

Measures

- crit1
- crit2
- crit3
- doubtterr
- eventid
- extended
- guncertain1
- guncertain2
- hostkidoutcome
- idday
- imonth
- individual
- INT_ANY
- INT_IDEO
- INT_LOG

Context Menu for 'longitude':

- Add to Sheet
- Duplicate
- Rename
- Hide
- Create
- Transform
- Convert to Discrete
- Convert to Measure
- Change Data Type
- Geographic Role
- Default Properties
- Group by
- Folders
- Hierarchy
- Replace References...
- Describe...

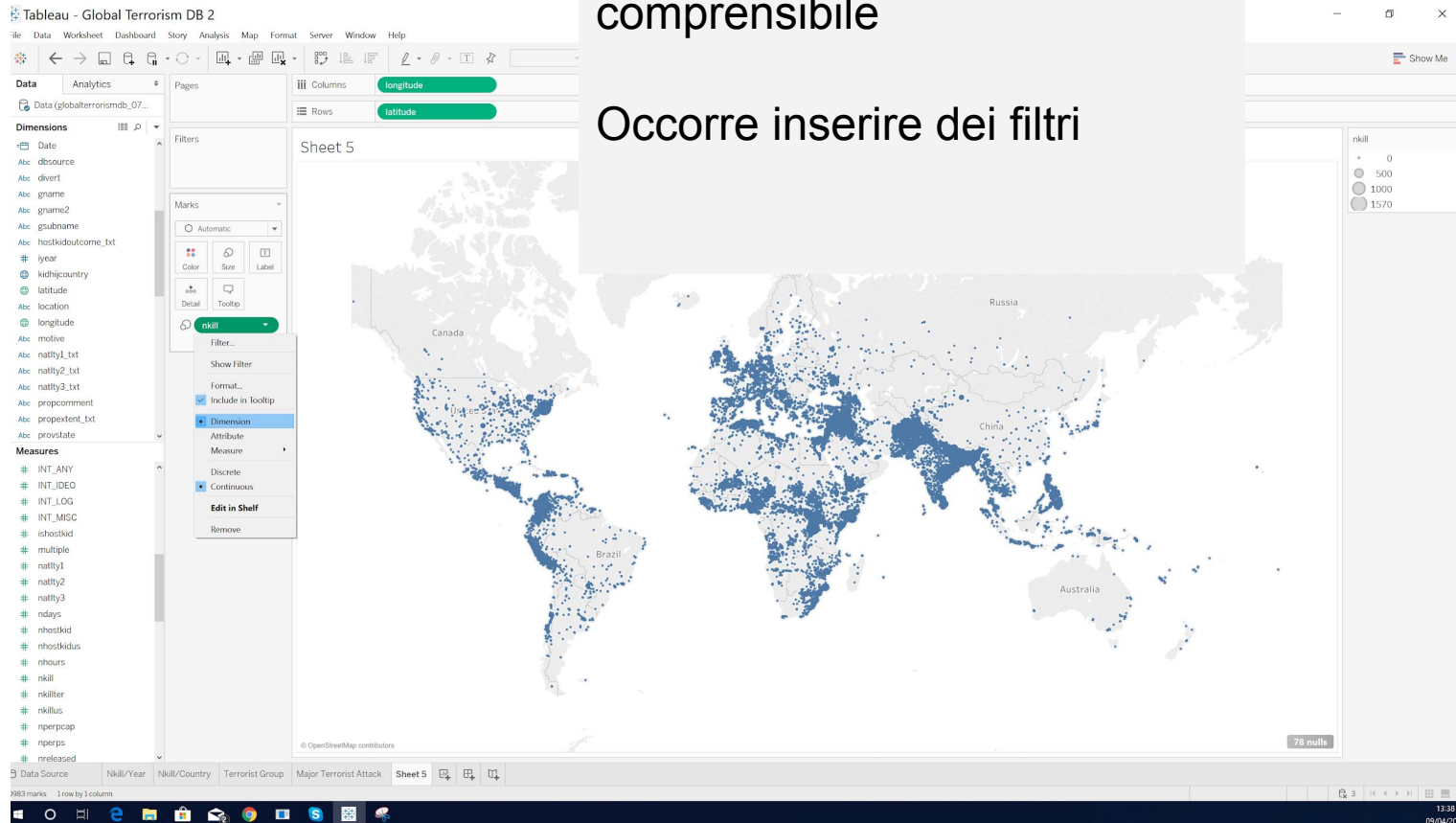
Sub-menu for 'Geographic Role':

- None
- Airport
- Area Code (U.S.)
- CBSA/MSA (U.S.)
- City
- Congressional District (U.S.)
- Country/Region
- County
- Latitude
- Longitude
- NUTS Europe
- State/Province
- ZIP Code/Postcode
- Create from

Double click on latitude e longitude



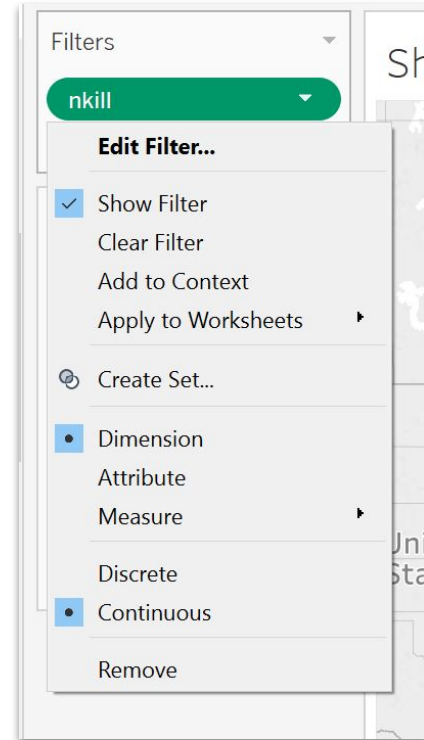
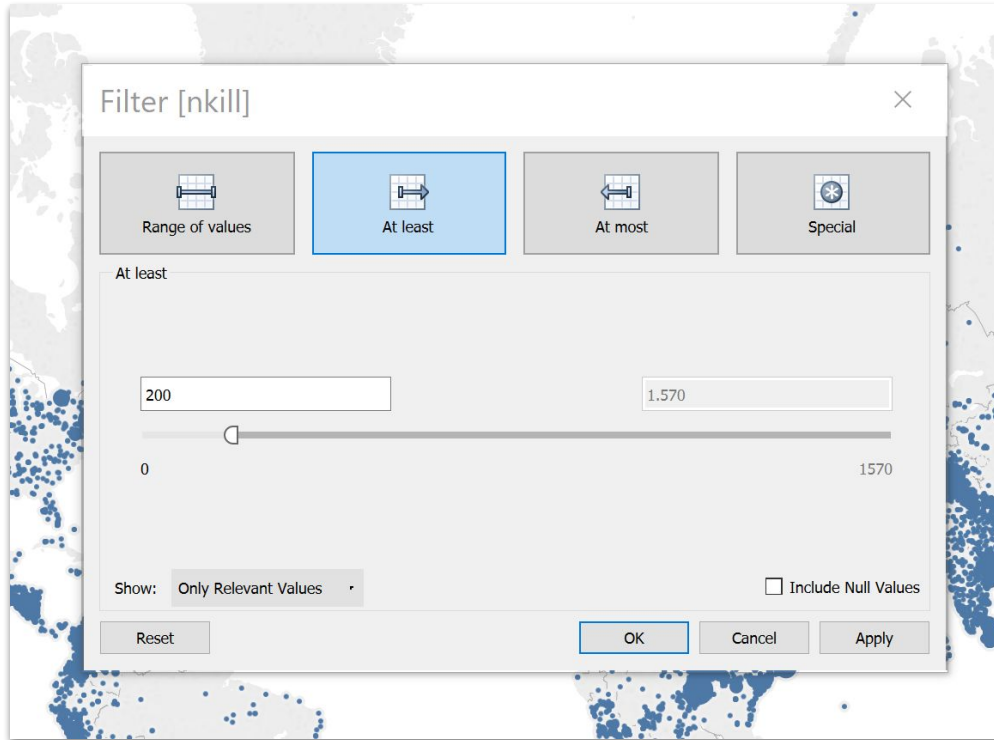
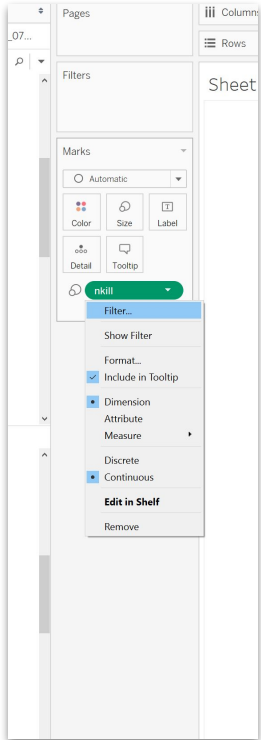
Trascina nkill su size



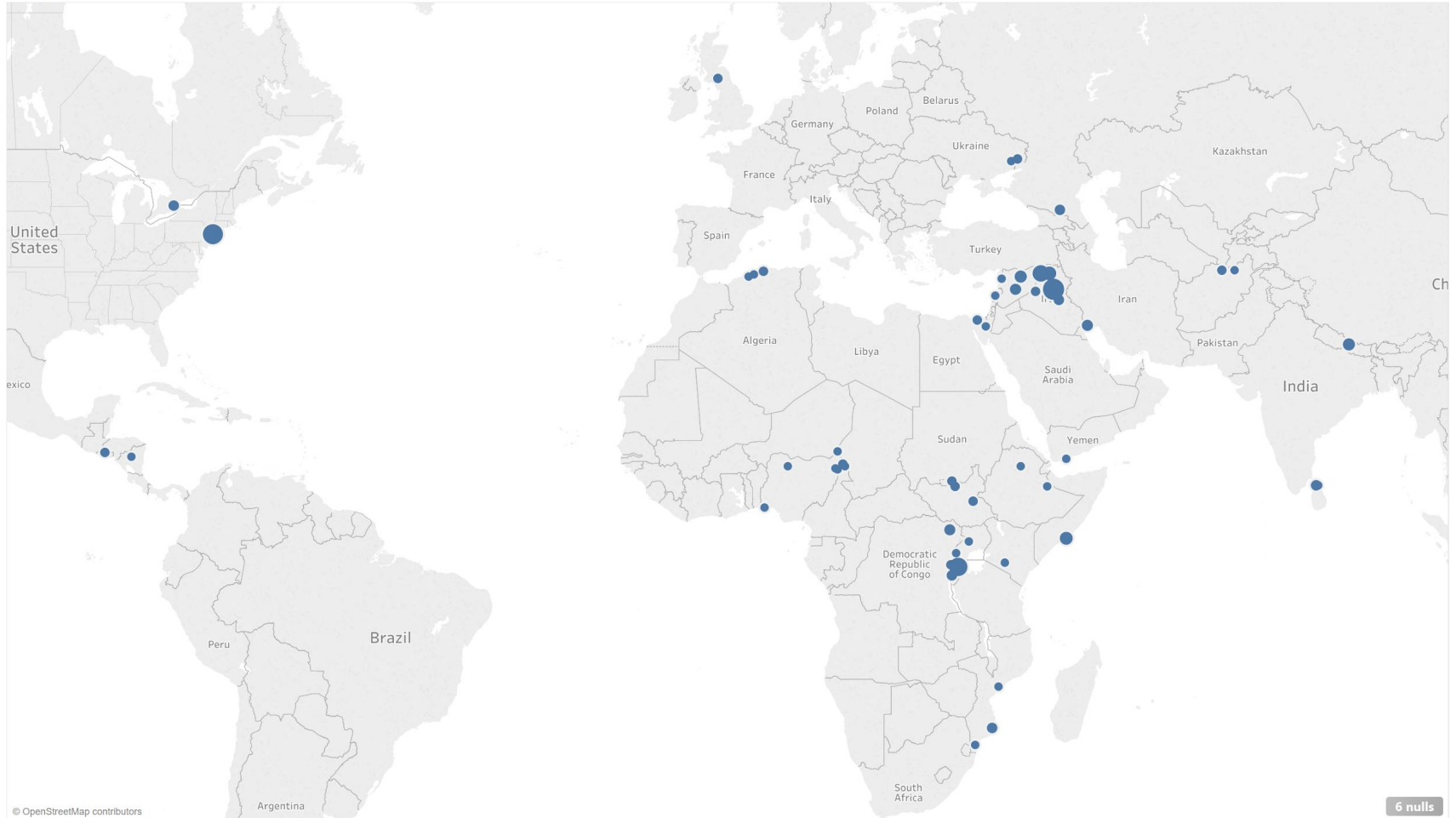
Questa visualizzazione non è comprensibile

Occorre inserire dei filtri

Inside Marks area click on nkill and select Filter, select At least 200.
Inside Filters area click on nkill and select show filter



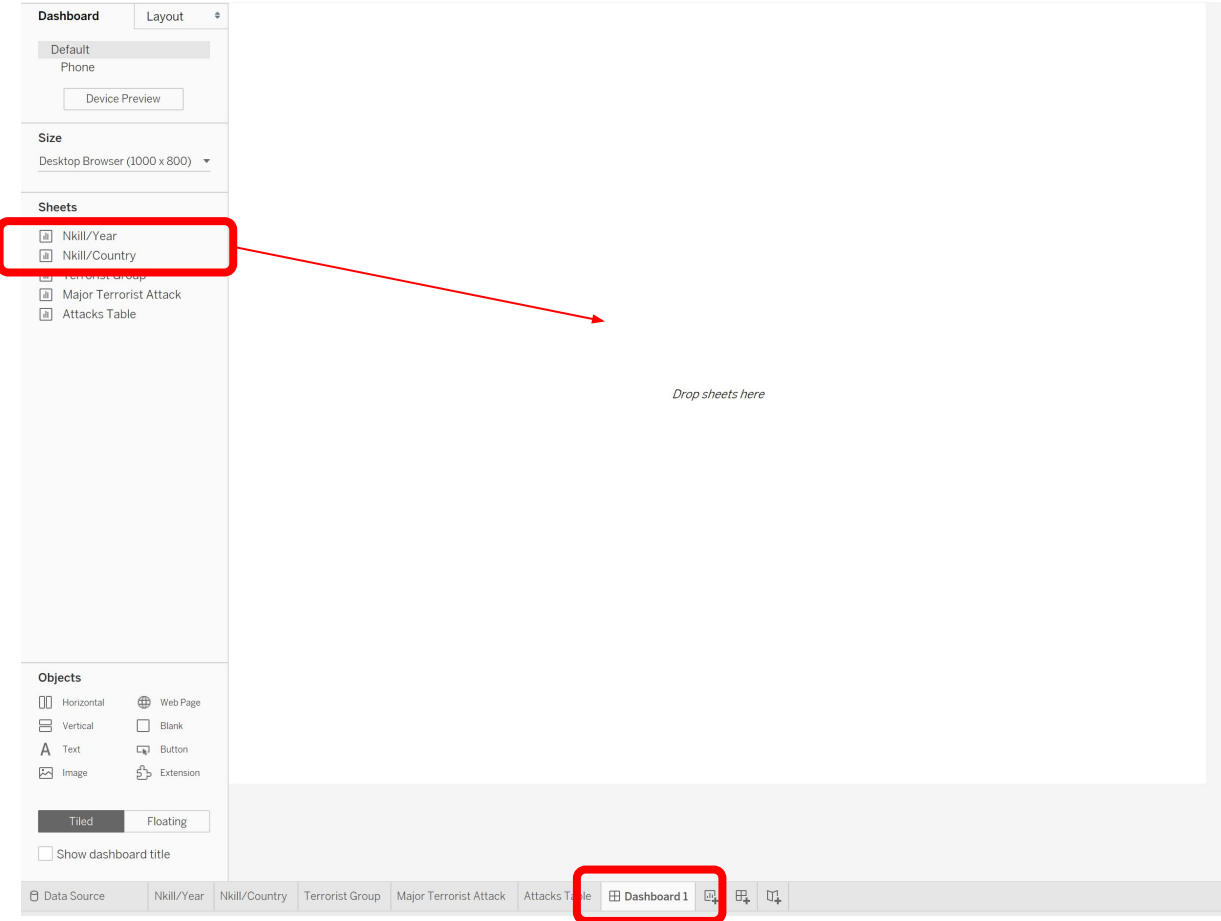
Major Terrorist Attack



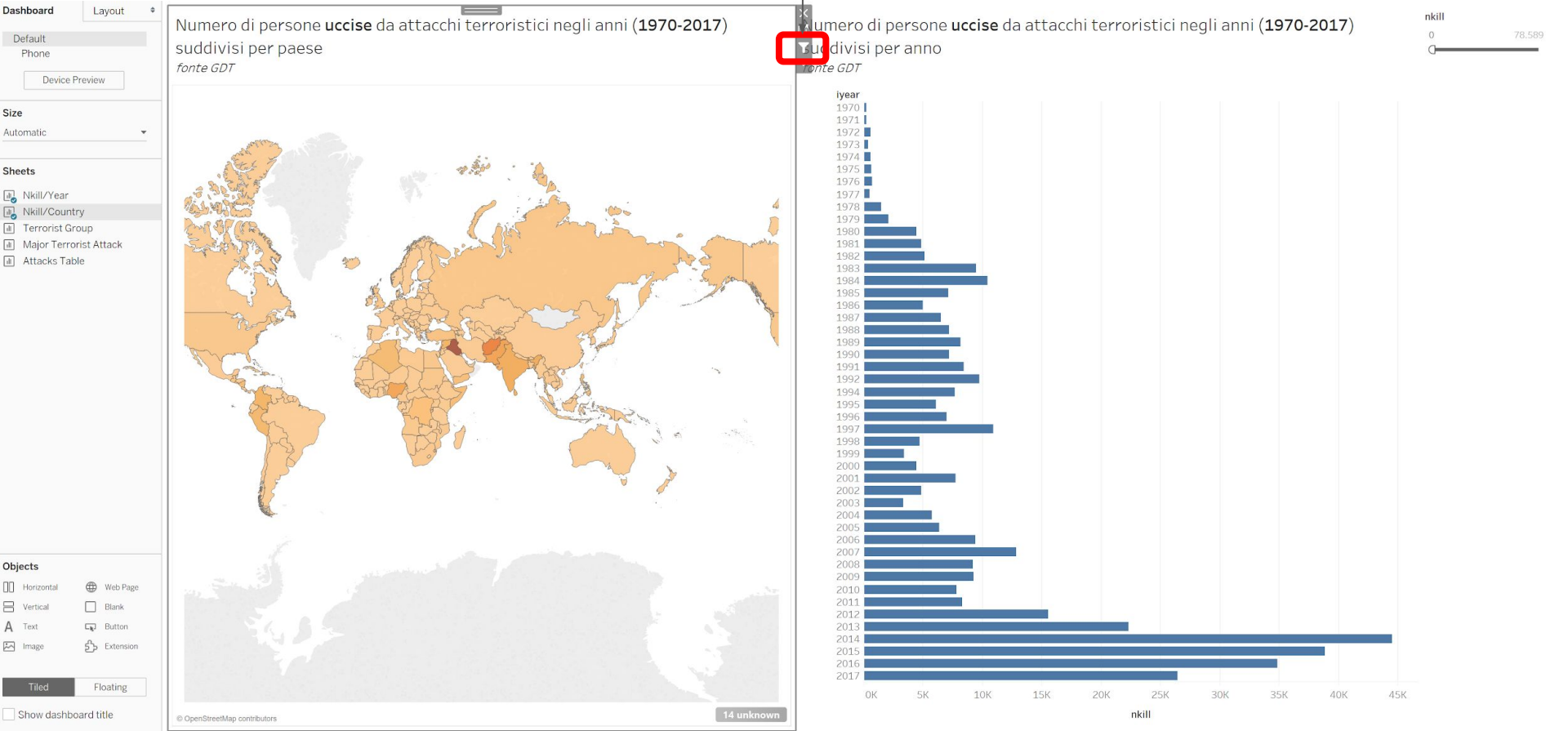
Dashboard

Select new dashboard

Drag and drop
“Nkill/Country” and
“NKill/Year” sheets



Set Filter symbol to connect the two sheets



Stories

2 - drag and drop sheets and dashboards

- Nkill/Year
- Nkill/Country
- Terrorist Group
- Major Terrorist Attack
- Attacks Table
- Nkill/Country/Year

Story 2

Add a caption

3 - for each sheet or dashboard create a caption

Drag a sheet here

Drag to add text

Show title

Size
Story (1016 x 964)

1 - create a new story

Story 2

Story

Layout

New story point

Blank Duplicate

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Show title

Size

Story (1016 x 964)

Data Source

Nkill/Year

Nkill/Country

Terrorist Group

Major Terrorist Attack

Attacks Table

Nkill/Country/Year

GTD Overview

Story 2

GTD Overview

New story point

Blank Duplicate

- Nkill/Year
- Nkill/Country
- Terrorist Group
- Major Terrorist Attack
- Attacks Table
- Nkill/Country/Year

Major Terrorist Group Major Attacks Number of killed people in space and time

Numero di persone **uccise** da attacchi terroristici negli anni (1970-2017) suddivisi per paese

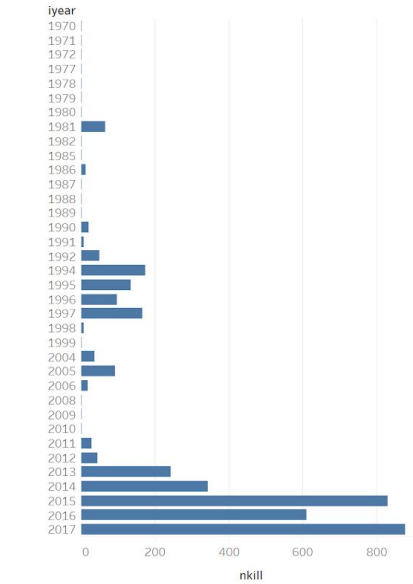
fonte GDT



Numero di persone **uccise** da attacchi terroristici negli anni (1970-2017) suddivisi per anno

fonte GDT

nkill 0 78.589



A Drag to add text

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Size

Automatic

Altri tipi di grafici

ScatterPlot

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