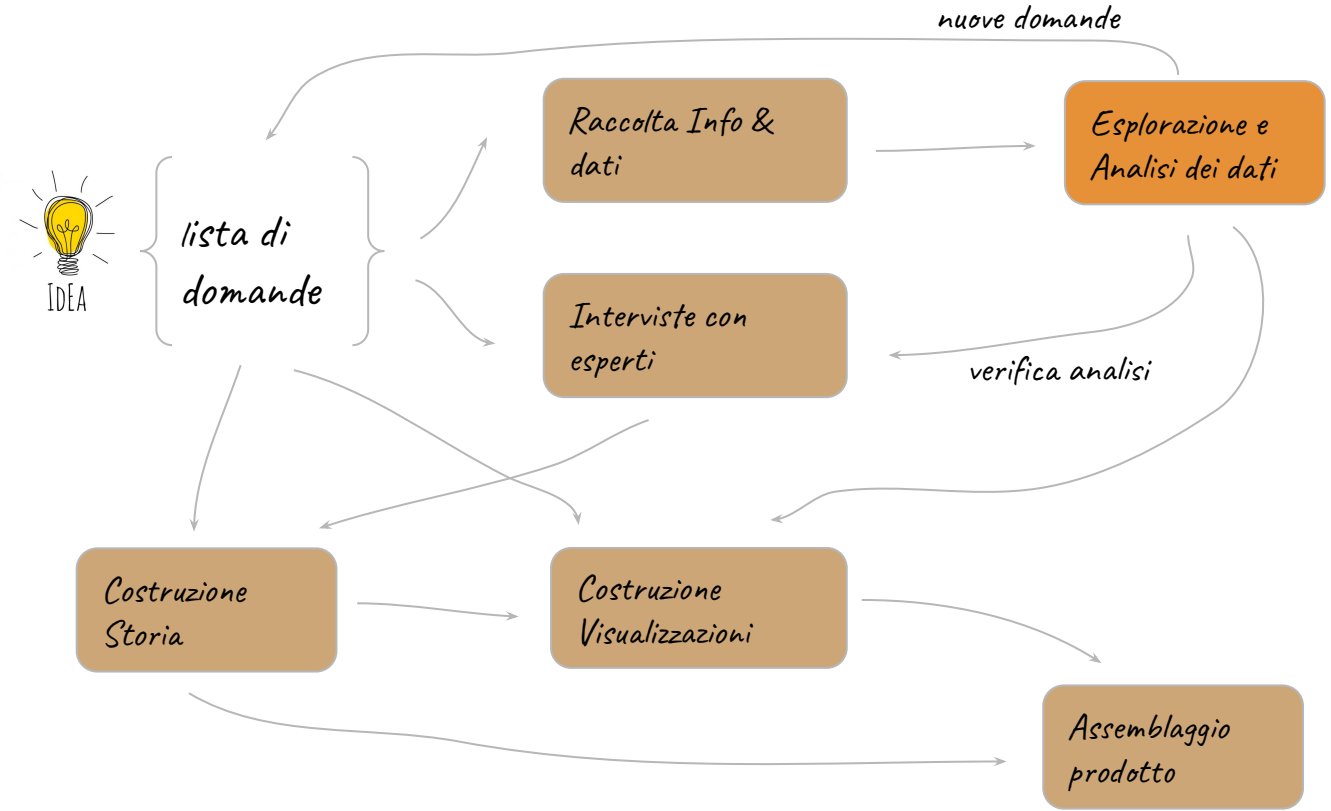
Data Exploration

Tableau

Data Journalism Workflow



Data Exploration

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.

Processo Iterativo

L’obiettivo è quello di scoprire aspetti interessanti nascosti nei dati.

L’approccio è iterativo

Si parte da una domanda generale e si passa via via a domande più specifiche

Esempio
Global Terrorism DB

Search the Database

SEARCH

I'm a New User ADVANCED SEARCH

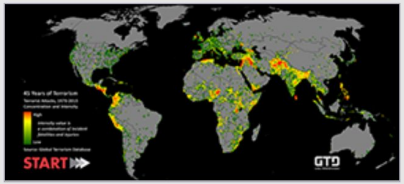
Browse by: Go

Information on more than 180,000 Terroris…

The Global Terrorism Database (GTD) is an open-source database including information on terrorist events around the world from 1970 through 2017 (with annual updates planned for the future). Unlike many other event databases, the GTD includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 180,000 cases. **Learn more**

Read more about **Global Terrorism in 2017**

GTD DATA VISUALIZATIONS



The **GTD World Map: 45 Years of Terrorism** displays terrorist violence that occurred worldwide between 1970 and 2015.

The GTD 2017 World Map is available here.

The GTD 2016 World Map is available here.

The GTD 2015 World Map is available here.

The GTD 2014 World Map is available here.

THIS DATE IN TERRORISM

April 8

2008 Rabiaa, Iraq

04/08/2008: On Tuesday, two civilians were killed and two others were wounded from an IED explosion inside a motorcycle repair shop in the industrial area of al-Hai al-Sinaie neighborhood, Rabiaa district west of Mosul city, Nineveh province, Iraq. No claim of responsibility was made for the incident.

Learn more

2017 Mosul, Iraq

04/08/2017: Assailants executed fleeing civilians in Ras al-Jaddah neighborhood, Mosul, Iraq. This was one of two similar attacks in different Mosul neighborhoods on the same day. More than 50 people were killed across both incidents. No group claimed responsibility; however, sources attributed the attacks to the Islamic State of Iraq and the

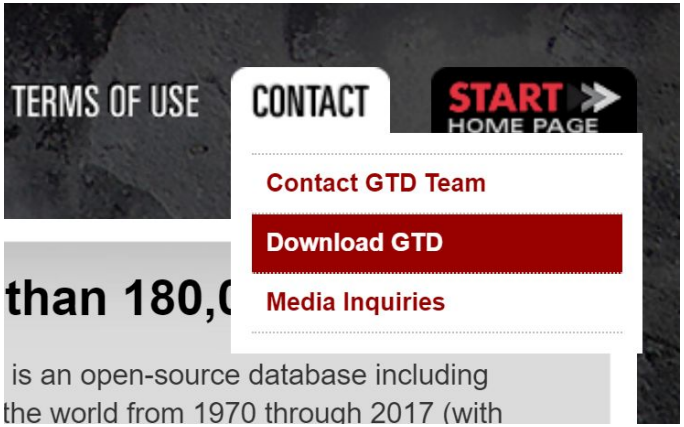
FEATURED

Message from the Global Terrorism Database Manager

For more than a decade, START has compiled and published the Global Terrorism Database (GTD) for use by scholars, analysts, journalists, security professionals, and policy makers. It has been our privilege to work closely with these user communities to continually improve the data and inform stakeholders.

Since 2012, the majority of the costs of collecting the GTD have been funded by the U.S. State Department, for the past year almost exclusively. Our contract with the State Department ended in May 2018 and, although we received only positive feedback from the Bureau of Counterterrorism and our 2018 data collection was well underway, we recently learned that we were not awarded a follow-on contract for base data collection.

At the moment, the loss of the State Department funding means two things: First, we do not currently



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

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

* **First Name:** Andrea

* **Last Name:** Marchetti

Institution: IIT

* **E-Mail Address:** Andrea.Marchetti@iit.cnr.it

Download the GTD or Contact GTD Team

1. Distribution letter (132 KB)
2. GTD Codebook (561 KB)
3. EULA (93 KB)
4. Entire GTD dataset (~86 MB)
5. GTD from 1970 to 1995 (~21 MB)
6. GTD from 1996 to 2013 (~36 MB)
7. GTD from 2014 to 2017 (~29 MB)
8. GTD 1993 (408 KB): More information on this dataset can be found here.
9. The entire collection above in Zip format (~173 MB)
10. GTD GIS files (file geodatabase) (~11 MB)

download the entire GTD dataset (xslx)

globalterrorismdb_0718dist

Numeri dal dataset

181.691 Attacchi terroristici registrati

nel periodo dal **1-1-1970** al **31-12-2017**

Modello dei dati

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)

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

Attack Type
Hostage Taking (Barricade Incident)
Bombing/Explosion

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	**Claimed Responsibility**
Islamic State of Iraq and the Levant (ISIL)	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 Public

workbook

Tableau Server

Tableau Online

workbook

Tableau Reader

Tableau Mobile

Browser

Create

Publish

Read

About Tableau

2019.1.2 (20191.19.0321.1733) 64-bit

Tableau Desktop

Professional Edition

Patent - http://www.tableau.com/ip
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Tableau Desktop and Web Authoring

https://www.tableau.com/support/help

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

Manuali in vari formati

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

Tutorial and Guides

Tutorials and Guides

Getting Started with Tableau Desktop

Tableau Desktop and Tableau Prep Deployment Guide

Video Tutorials (esiste anche la versione in italiano)

Training Videos

Tableau Training Videos

Whitepapers

Tableau Whitepapers

Knowledge Base

Tableau Knowledge Base

Community Forums

Tableau Community Forums

Tableau - Book1

File Data Server Help

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...

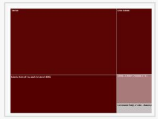
Saved Data Sources

- Sample - EU Superstore
- Sample - Superstore
- World Indicators

Open

Open a Workbook

Global Terrorism DB



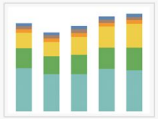
GTD_ Global Terroris...

Sample Workbooks

More Samples

Superstore

Regional



World Indicators

Discover

Training

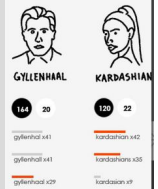
- Getting Started
- Connecting to Data
- Visual Analytics
- Understanding Tableau
- More training videos...

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 ⟶



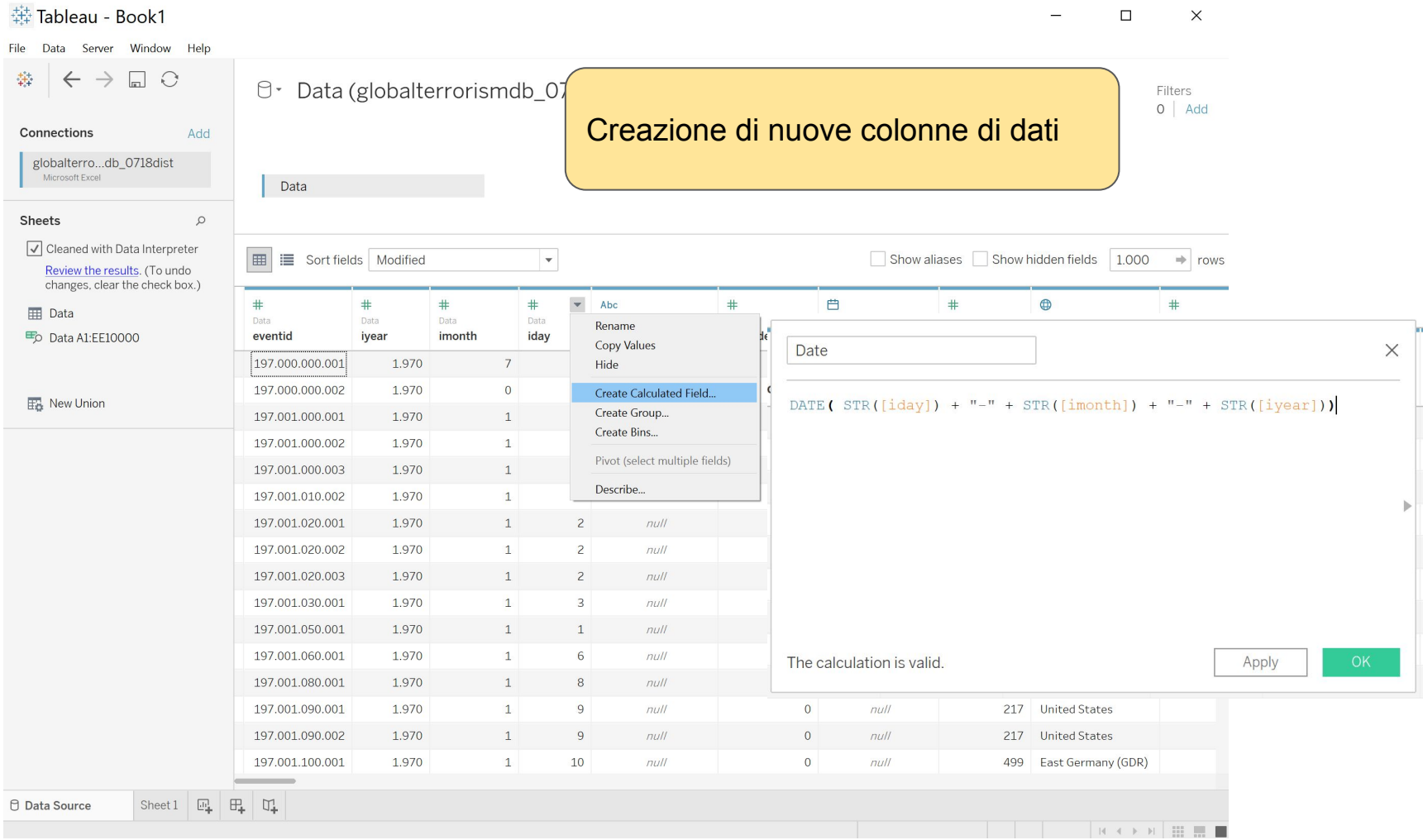
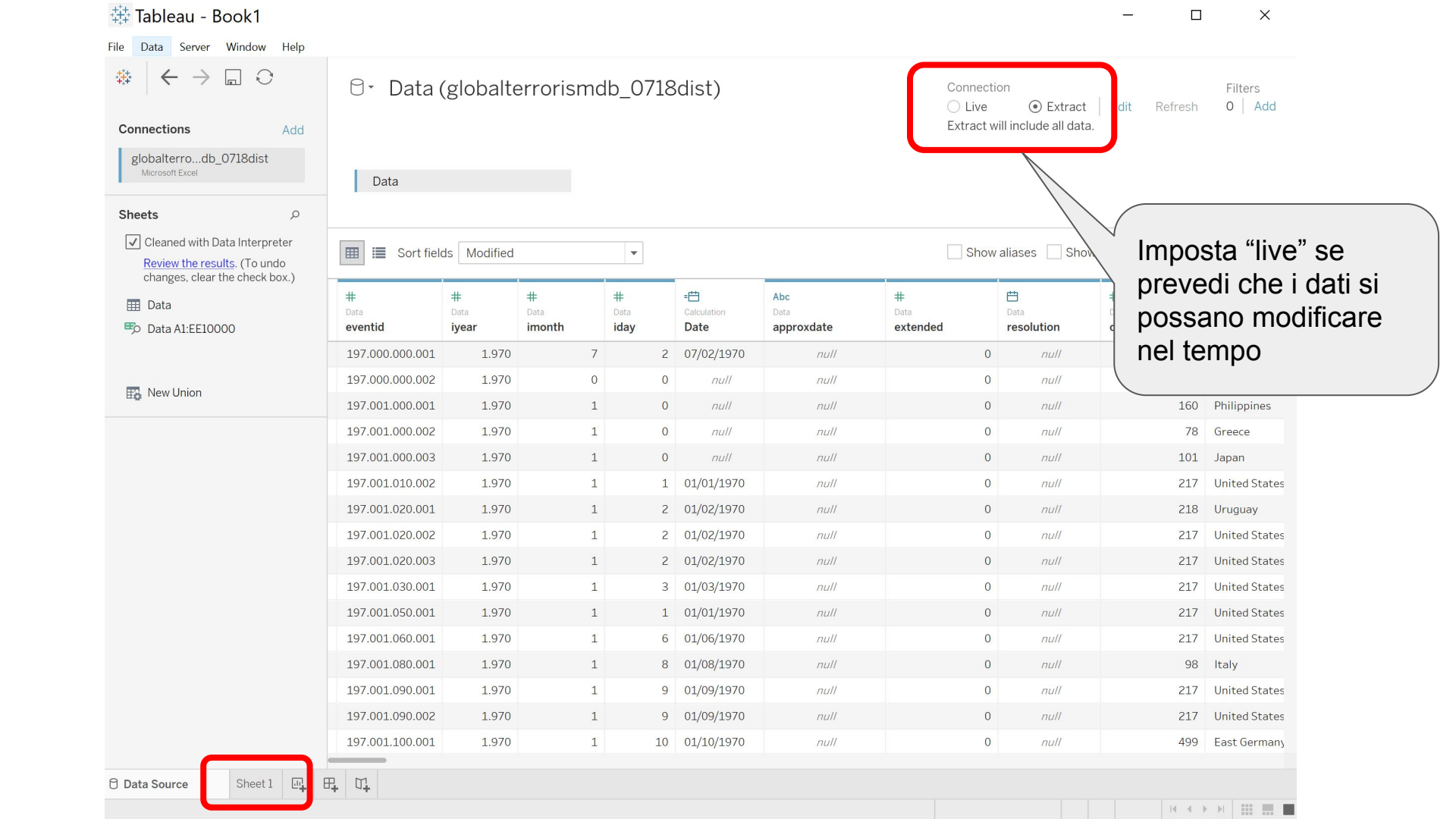


Tableau - Book1
File Data Server Window Help
Connections Add
globalterro...db_0718dist
Microsoft Excel
Sheets
Cleaned with Data Interpreter
Review the results. (To undo changes, clear the check box.)
Data
Data A1:EE10000
New Union
Data (globalterrorismdb_07
Creazione di nuove colonne di dati
Filters
0 Add
Data
Sort fields Modified
Show aliases Show hidden fields 1.000 rows
eventid iyear imonth iday
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
197.000.000.001 1.970 7
197.000.000.002 1.970 0
197.001.000.001 1.970 1
197.001.000.002 1.970 1
197.001.000.003 1.970 1
197.001.010.002 1.970 1
197.001.020.001 1.970 1 2 null
197.001.020.002 1.970 1 2 null
197.001.020.003 1.970 1 2 null
197.001.030.001 1.970 1 3 null
197.001.050.001 1.970 1 1 null
197.001.060.001 1.970 1 6 null
197.001.080.001 1.970 1 8 null
197.001.090.001 1.970 1 9 null 0 null 217 United States
197.001.090.002 1.970 1 9 null 0 null 217 United States
197.001.100.001 1.970 1 10 null 0 null 499 East Germany (GDR)
Data Source
Sheet 1



eventid	iyear	imonth	iday	Date	approxdate	extended	resolution		
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

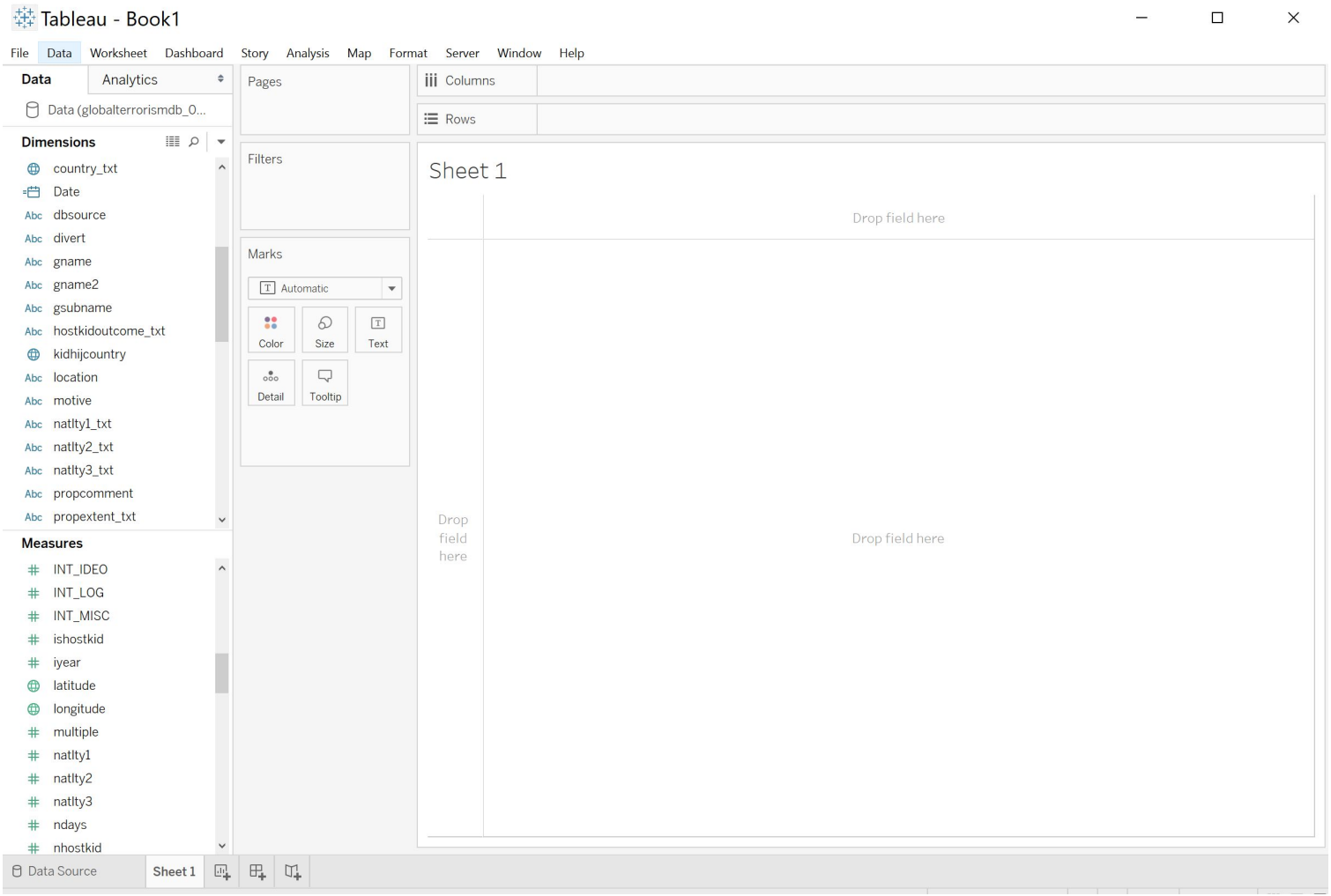


Tableau - Book1
File
Data
Worksheet
Dashboard
Story
Analysis
Map
Format
Server
Window
Help
Data
Analytics
Data (globalterrorismdb_0...
Dimensions
country_txt
Date
dbsource
divert
gname
gname2
gsubname
hostkidoutcome_txt
kidhijcountry
location
motive
natlty1_txt
natlty2_txt
natlty3_txt
propcomment
propextent_txt
Measures
INT_IDEO
INT_LOG
INT_MISC
ishostkid
iyear
latitude
longitude
multiple
natlty1
natlty2
natlty3
ndays
nhostkid
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sheet 1
Drop field here
Drop field here
Drop field here
Data Source
Sheet 1

Dimensions Vs Measures

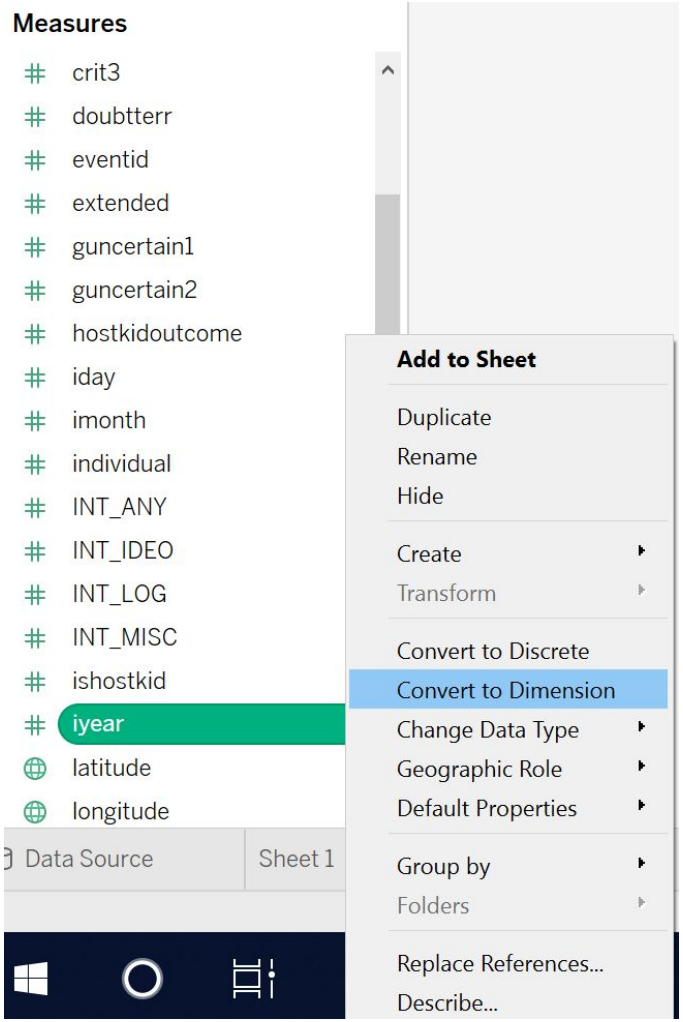
Dimensioni: date, categorie, luoghi geografici

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

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

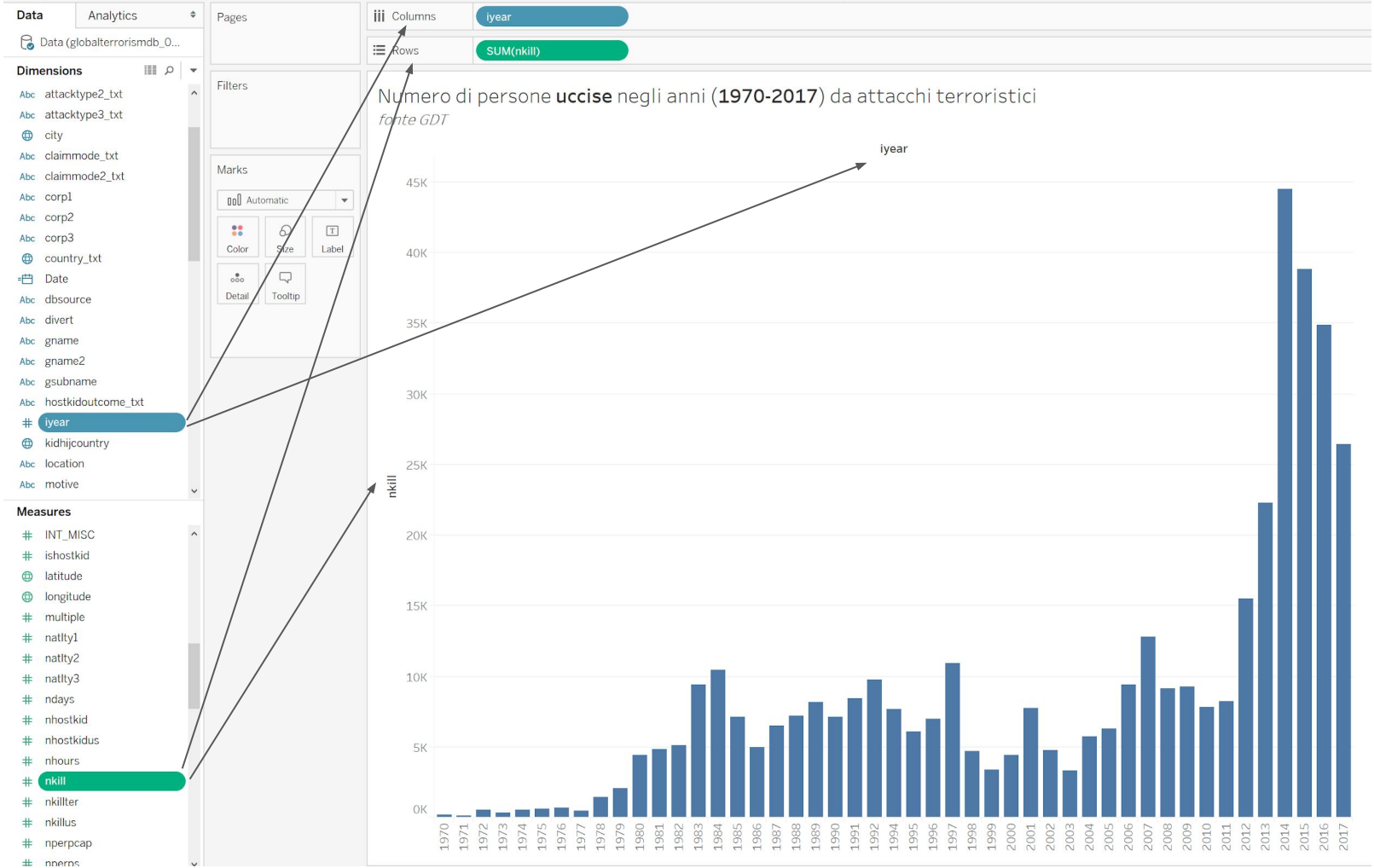
Measures costituiscono il codominio dei nostri grafici, le ordinate, le colonne

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



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

Si può convertire a dimensione


Data
Analytics
Data (globalterrorismdb_0...
Dimensions
attacktype2_txt
attacktype3_txt
city
claimmode_txt
claimmode2_txt
corp1
corp2
corp3
country_txt
Date
dbsource
divert
gname
gname2
gsubname
hostkidoutcome_txt
iyear
kidhijcountry
location
motive
Measures
INT_MISC
ishostkid
latitude
longitude
multiple
natlty1
natlty2
natlty3
ndays
nhostkid
nhostkidus
nhours
nkill
nkillter
nkillus
nperpcap
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
iyear
Rows
SUM(nkill)
Numero di persone uccise negli anni (1970-2017) da attacchi terroristici
fonte GDT
iyear
nkill
45K
40K
35K
30K
25K
20K
15K
10K
5K
0K
1970
1971
1972
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2007
2008
2009
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2011
2012
2013
2014
2015
2016
2017

Data | Analytics

Data (globalterrorismdb_0...

Dimensions

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

Measures

- INT_MISC
- ishostkid
- latitude
- longitude
- multiple
- natlty1
- natlty2
- natlty3
- ndays
- nhostkid
- nhostkidus
- nhours
- nkill
- nkillter
- nkillus
- nperpcap
- nperps

Pages

Filters

Marks

Automatic

Color | Size | Label | Detail | Tooltip

country_txt

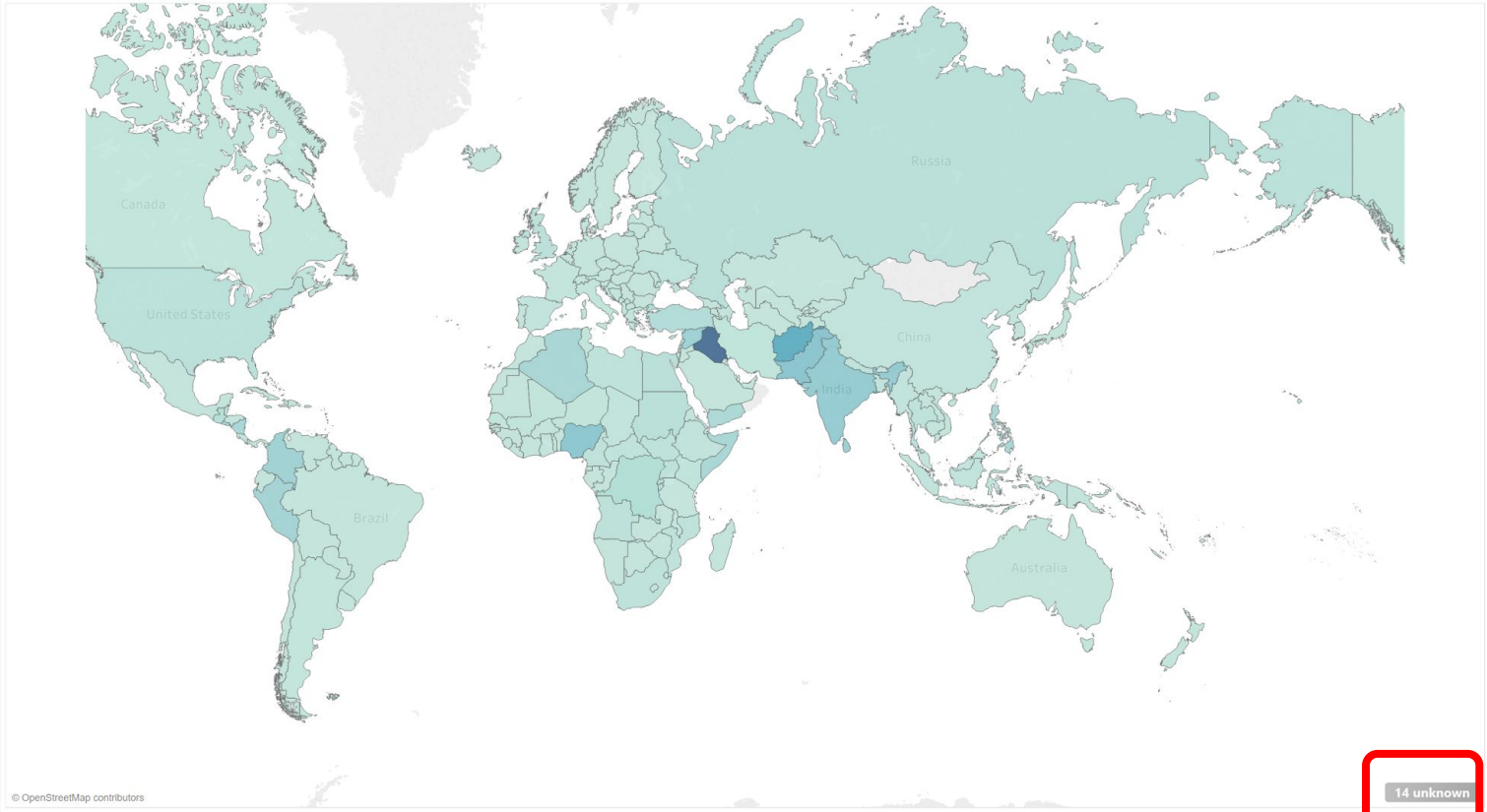
SUM(nkill)

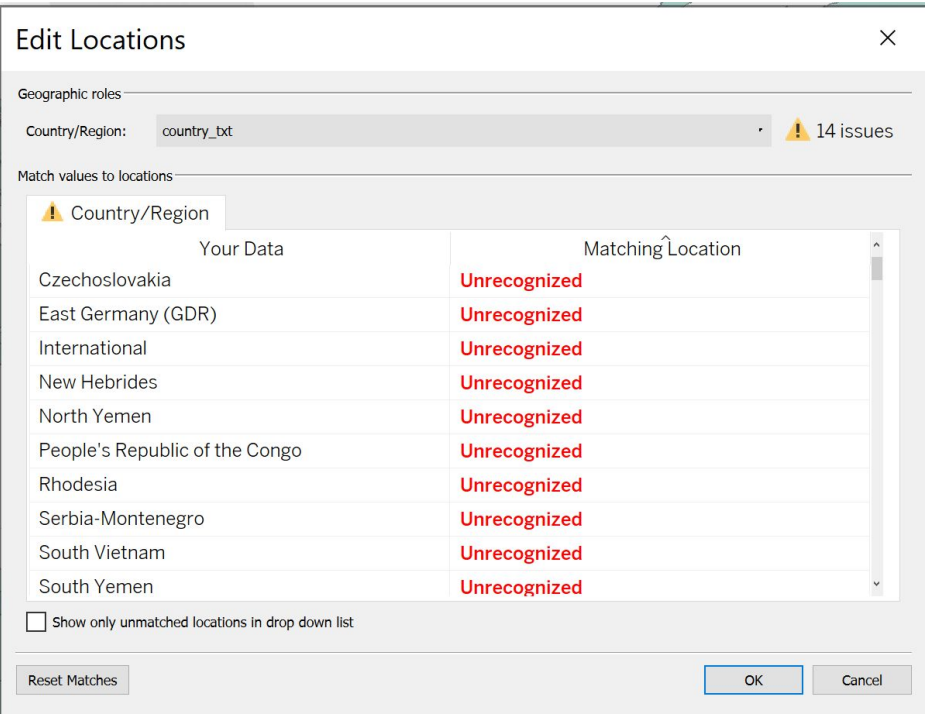
Columns: Longitude (generated)

Rows: Latitude (generated)

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

fonte GDT





Unioni

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

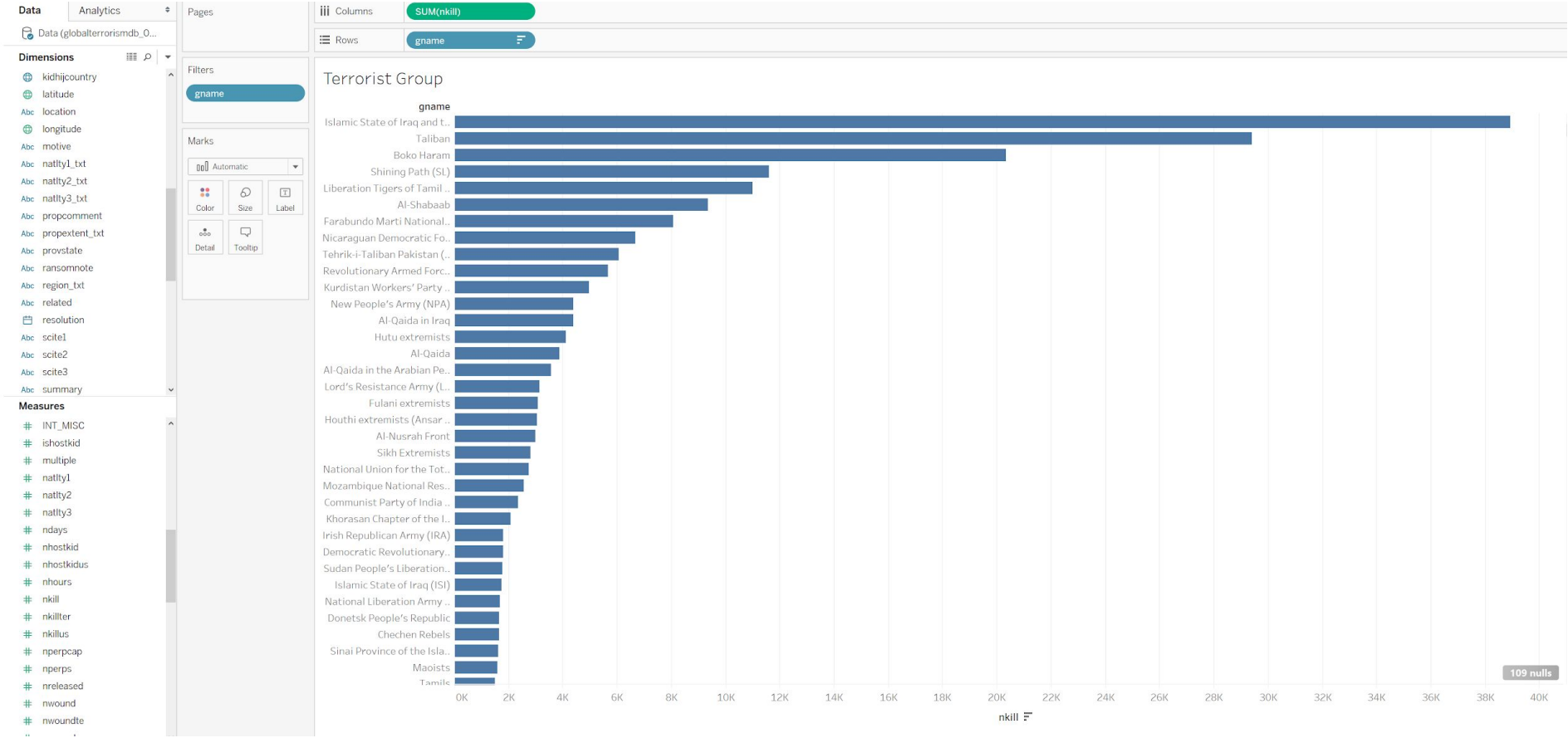
Abbiamo visto:

- 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?

Quali gruppi terroristici sono stati responsabili dei maggiori attacchi?

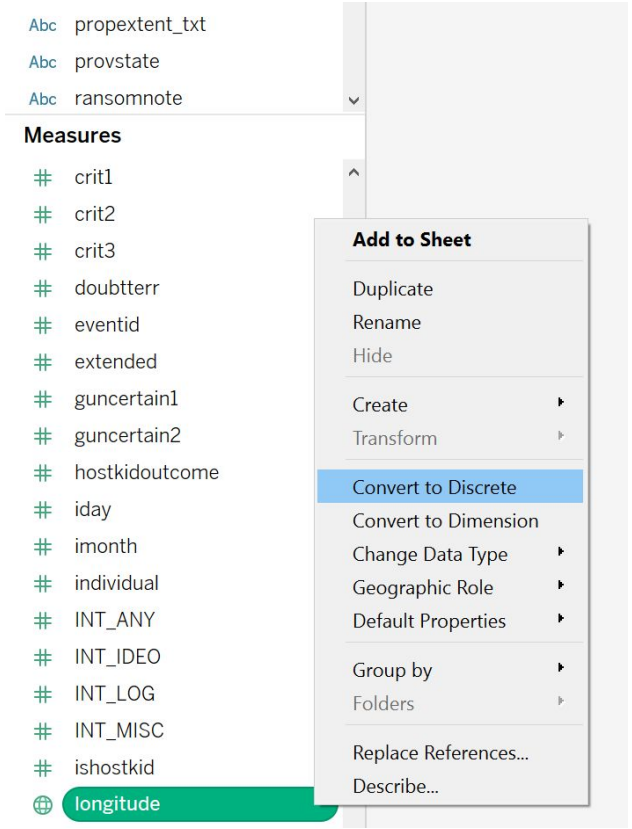


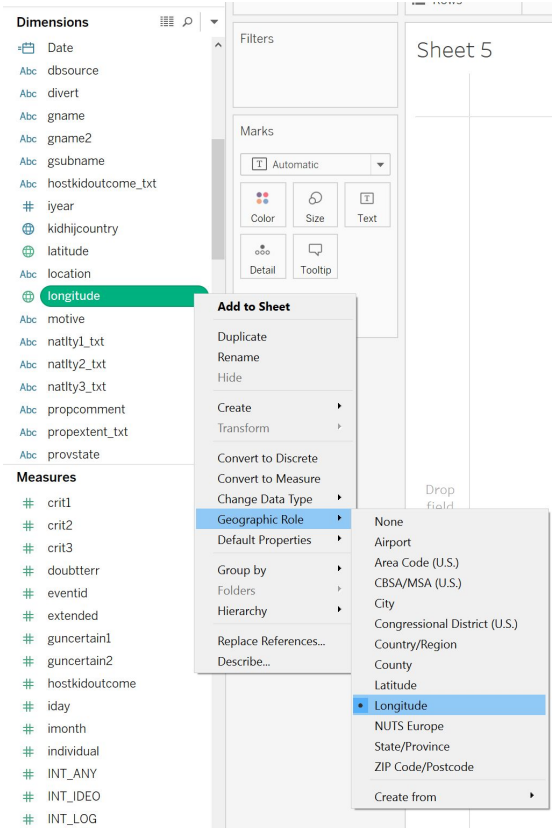
Quali sono gli attacchi terroristici più letali ?

Creo una buble map con circonferenze proporzionali al numero di vittime

Create Maps that Show Quantitative Values in Tableau

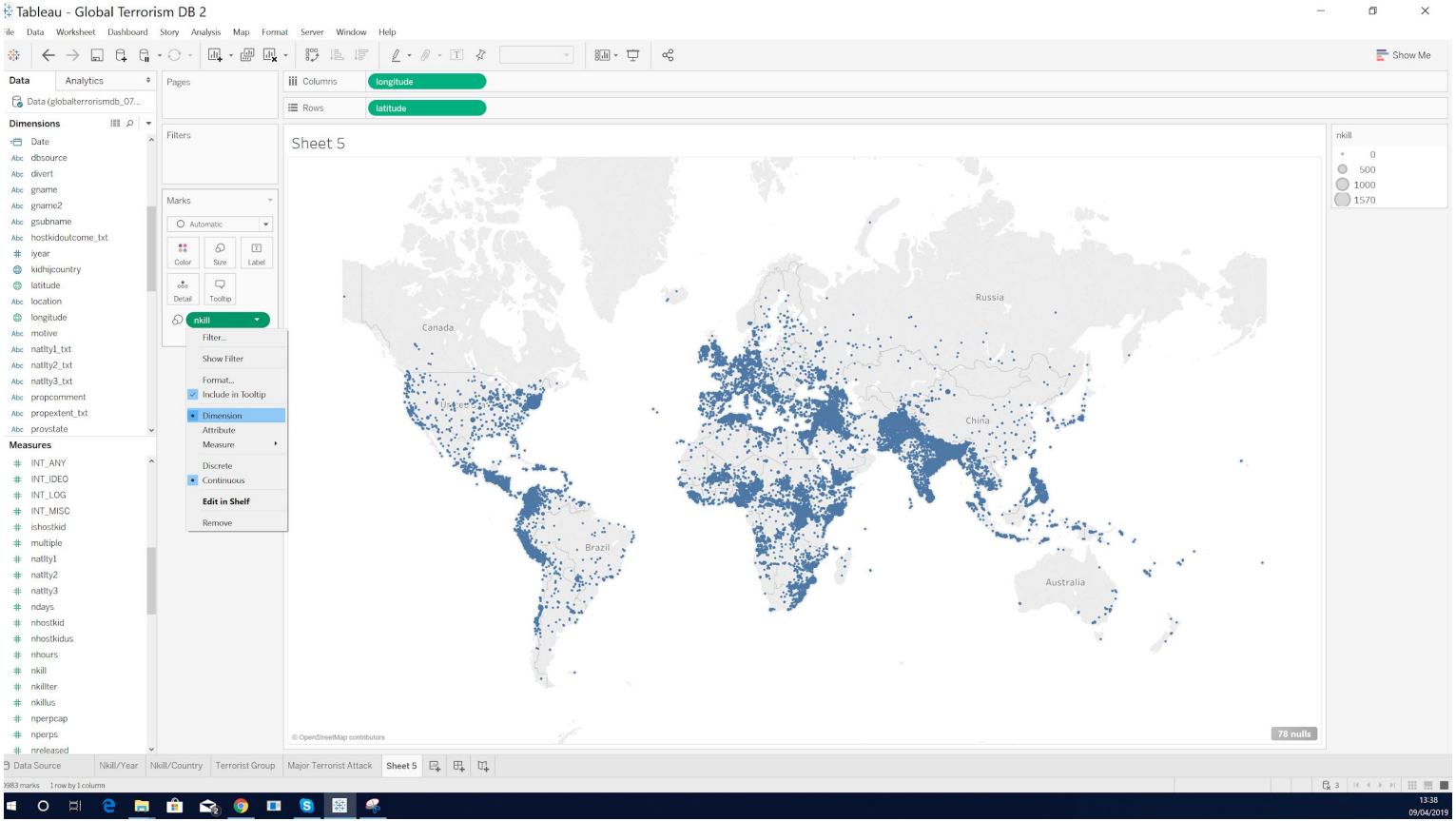
Assicurarsi che i campi **longitude** e **latitude** siano tra le **dimensioni** e siano riconosciuti come tali da Tableau



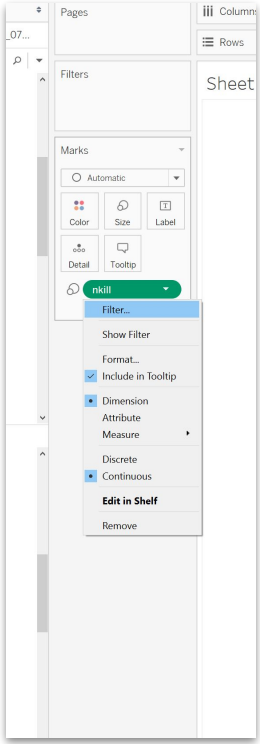


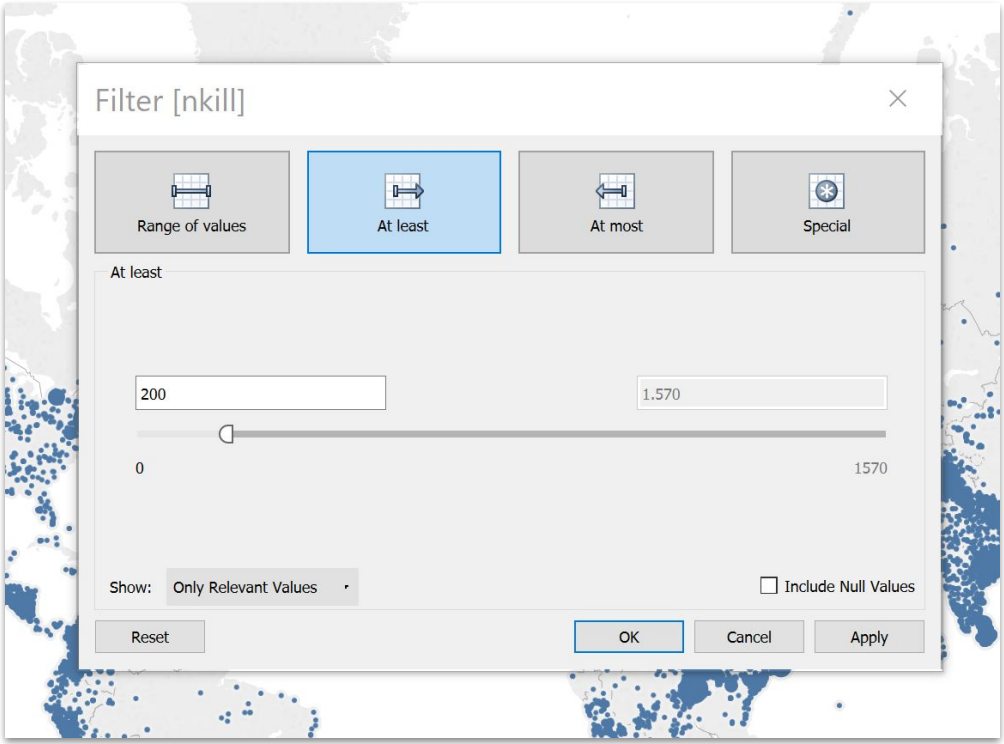
Double click on latitude e longitude

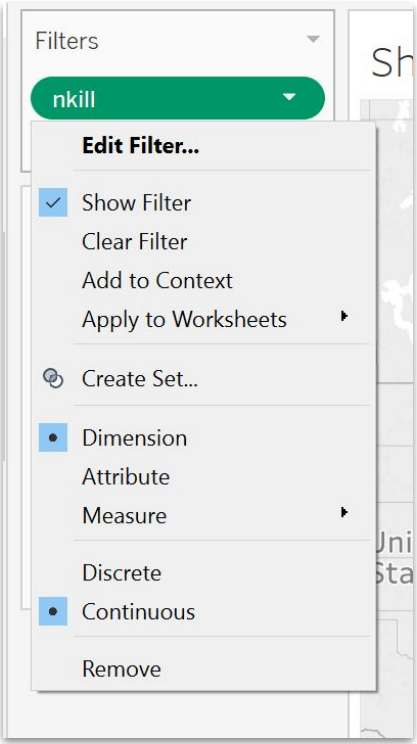
Trascina nkill su size



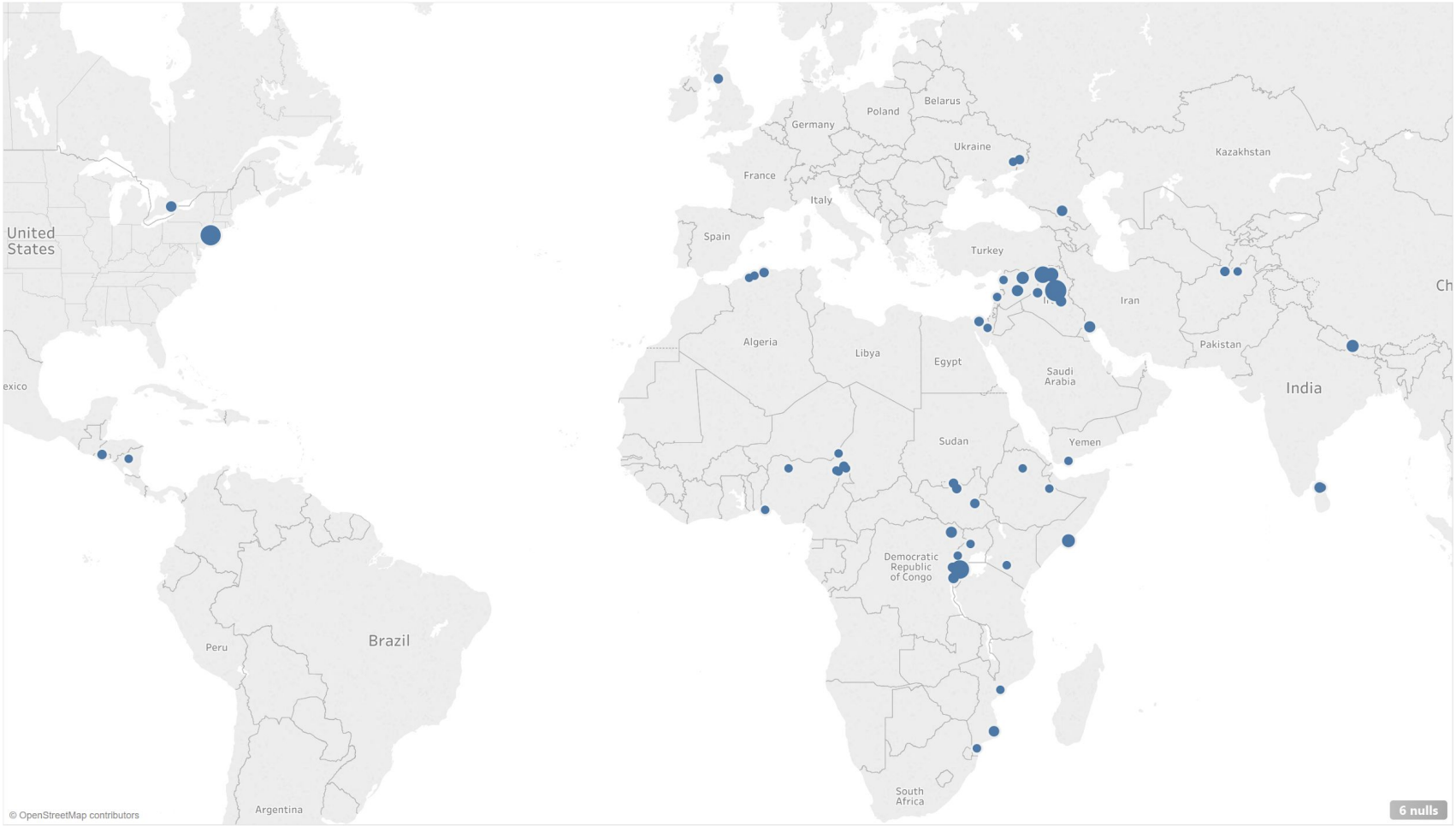
Inside Marks area click on nkill and select Filter, select At least 200.
Inside Filters area click on nkill and select show filter







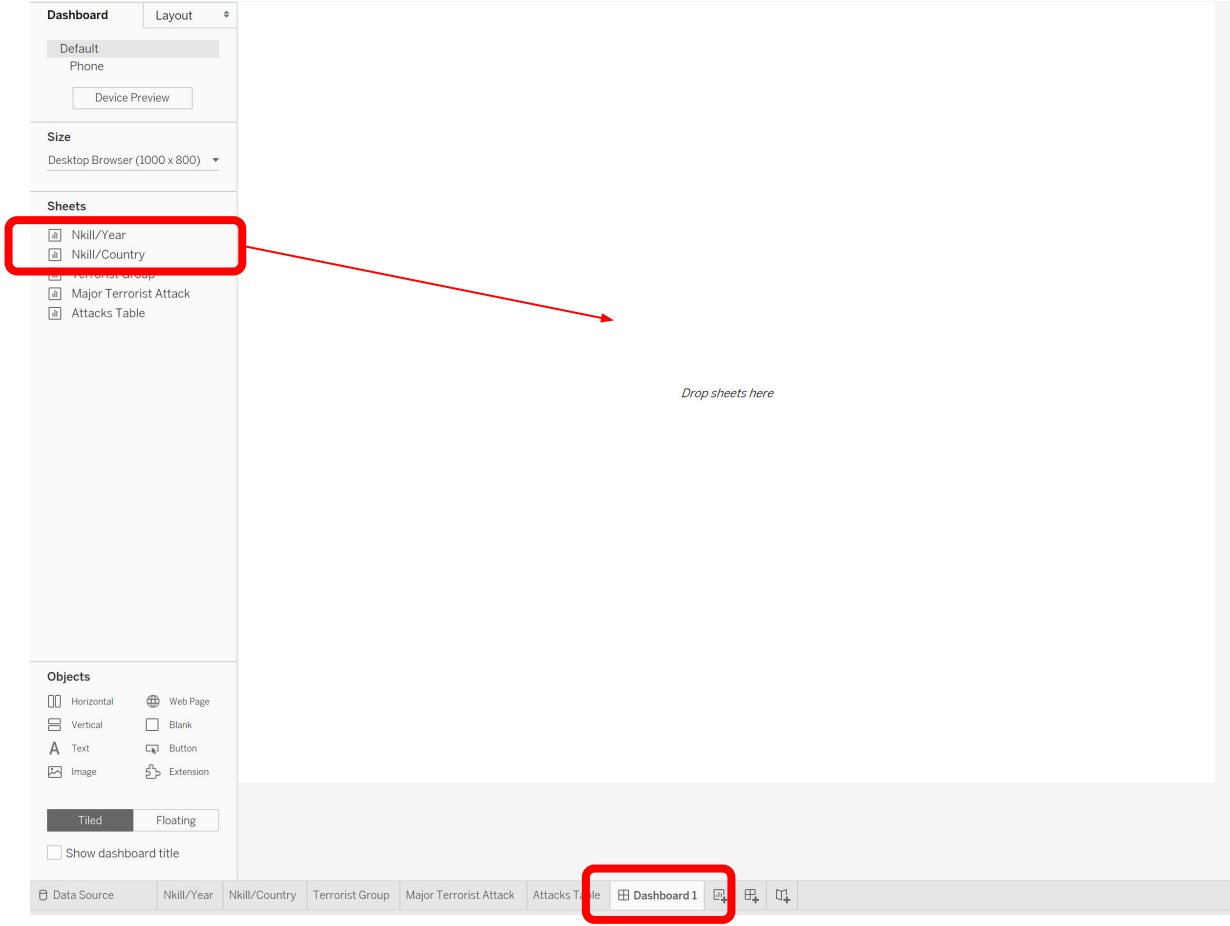
Major Terrorist Attack



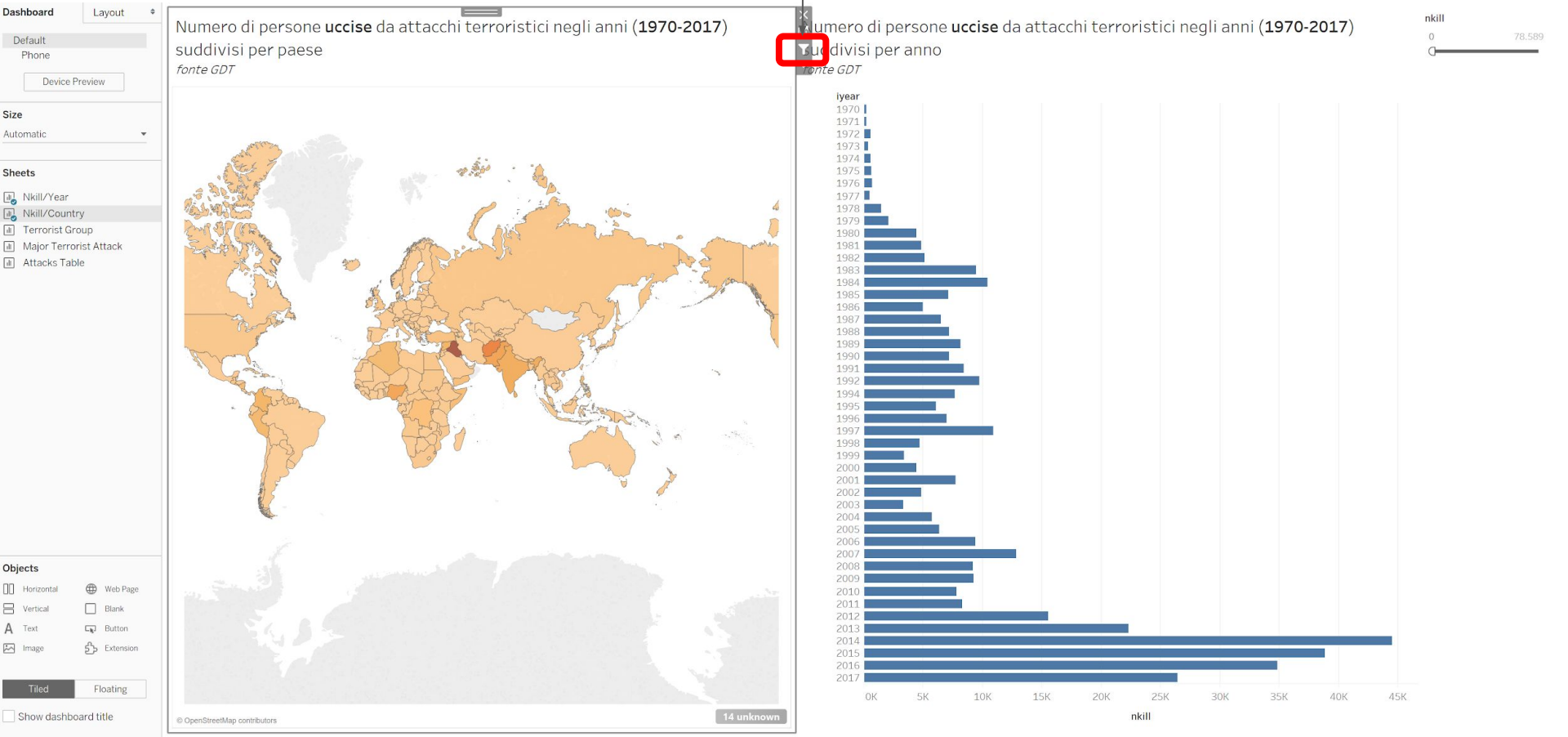
Dashboard

Select new dashboard

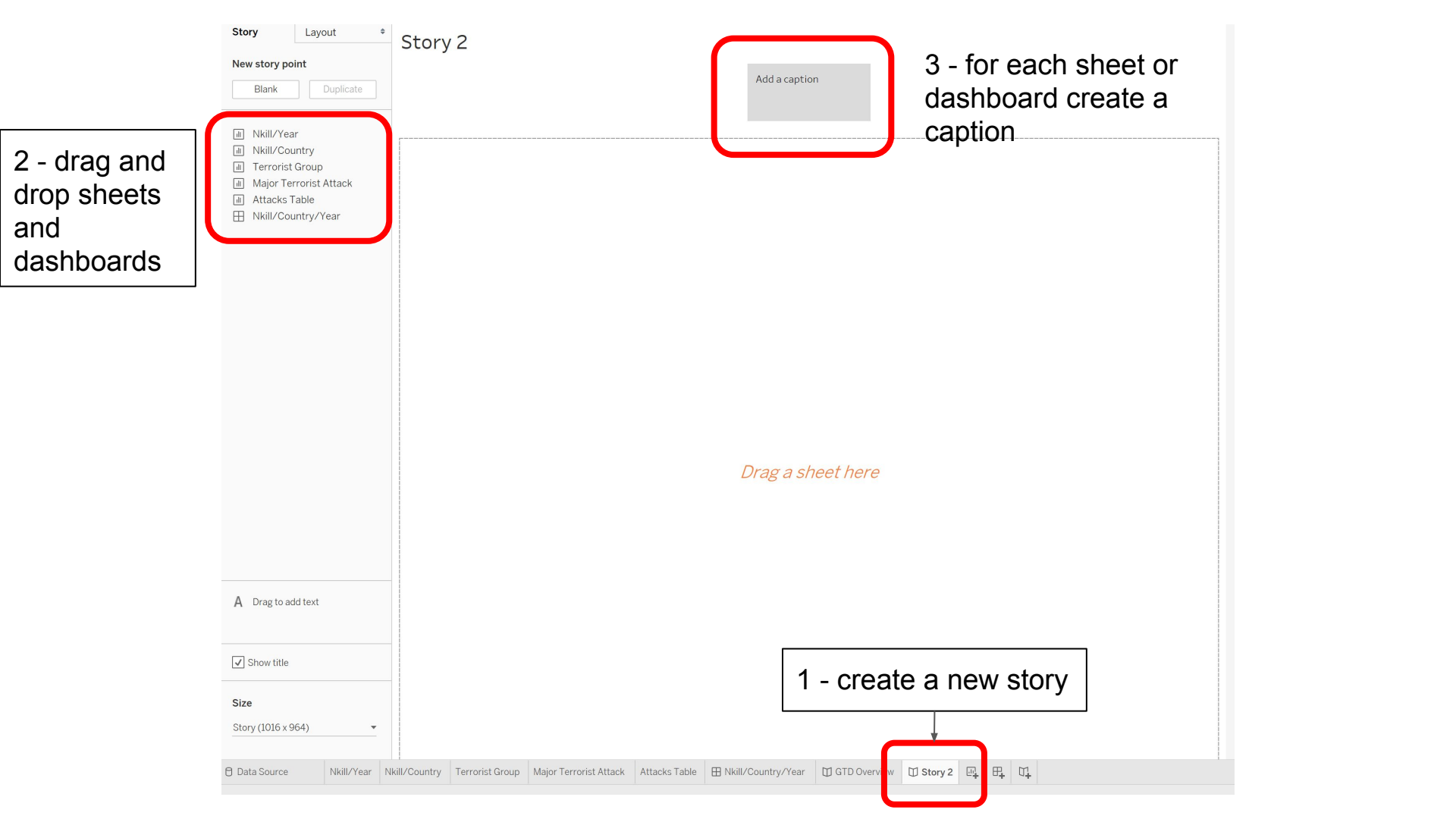
Drag and drop “Nkill/Country” and “NKill/Year” sheets



Set Filter symbol to connect the two sheets



Stories


2 - drag and drop sheets and dashboards
Story
Layout
New story point
Blank
Duplicate
Nkill/Year
Nkill/Country
Terrorist Group
Major Terrorist Attack
Attacks Table
Nkill/Country/Year
Drag to add text
Show title
Size
Story (1016 x 964)
Story 2
Add a caption
3 - for each sheet or dashboard create a caption
Drag a sheet here
1 - create a new story
Data Source
Nkill/Year
Nkill/Country
Terrorist Group
Major Terrorist Attack
Attacks Table
Nkill/Country/Year
GTD Overview
Story 2

Story | Layout

New story point

Blank | Duplicate

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

A Drag to add text

☑ Show title

Size

Automatic

GTD Overview

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

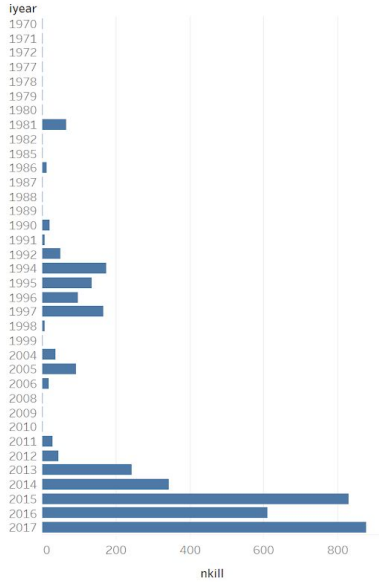
Numero di persone **uccise** da attacchi terroristici negli anni (**1970-2017**) suddivisi per paese

fonte GDT

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

fonte GDT

nkill
0 78.589



Tips & Tricks

build-your-own-custom-territories-tableau-10

Create Bins from a Continuous Measure

Bibliografia

Global Terrorism DB with Tableau

Tesi 2017

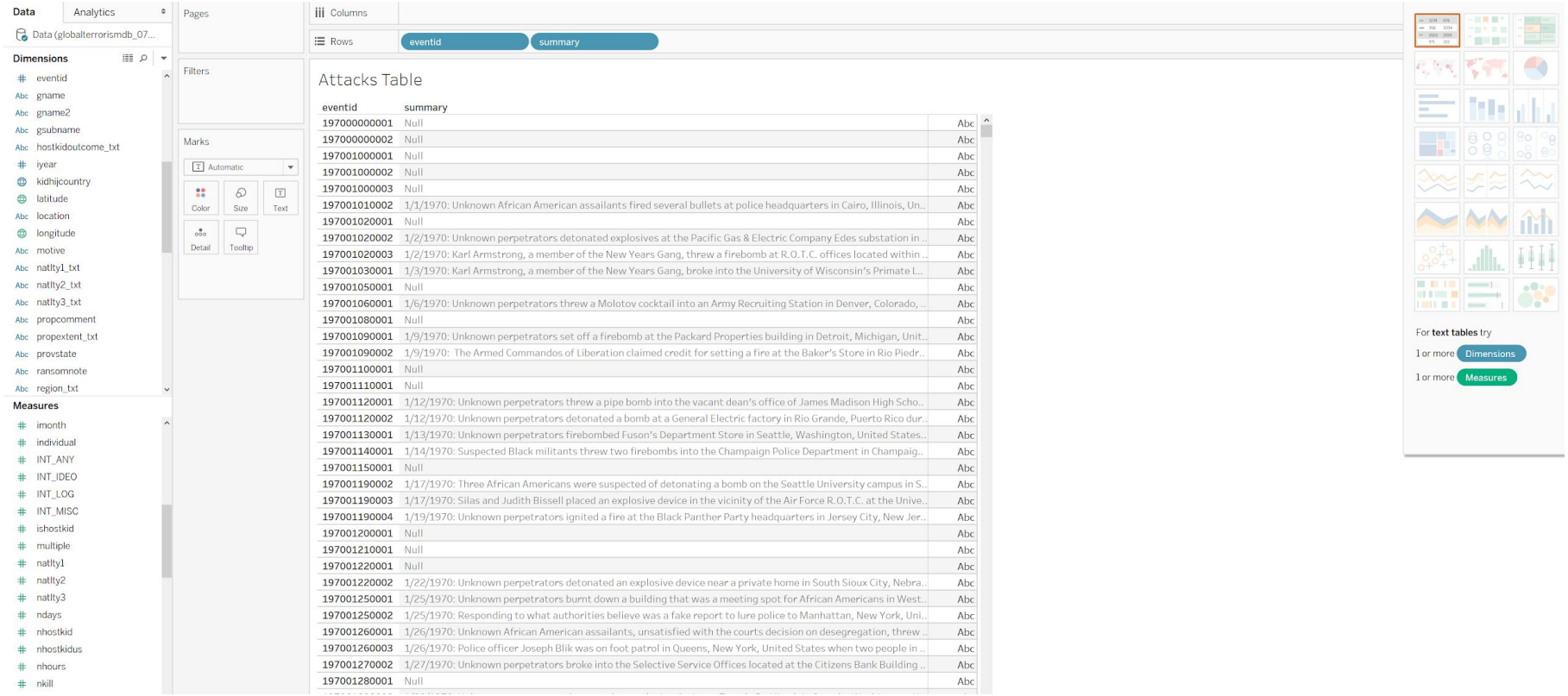
https://public.tableau.com/views/InteractiveVisualization_0/Dashboard3?:display_count=yes&:embed=y&:showTabs=y&:showVizHome=no

https://public.tableau.com/profile/conor.brown#!/vizhome/GlobalTerrorismOverview/GlobalTerrorismOverview

https://public.tableau.com/views/GTD_5/GTDStory?:embed=y&:showVizHome=no&:display_count=y&:display_static_image=y&:bootstrapWhenNotified=true

https://pdfs.semanticscholar.org/c3d3/8ed6a1125c9f1f4f84c87cac177cdbf789d8.pdf

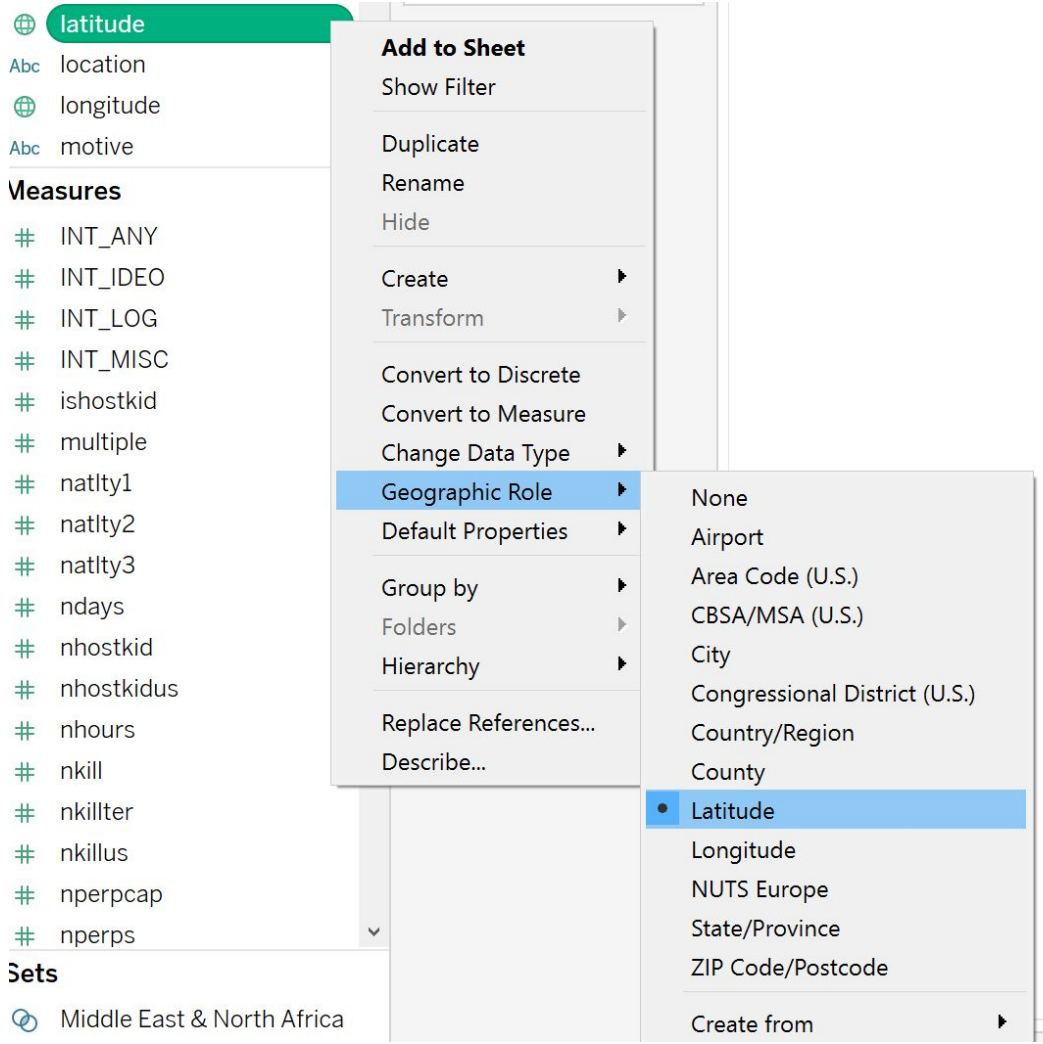
Creiamo un worksheet table



Gestire le coordinate

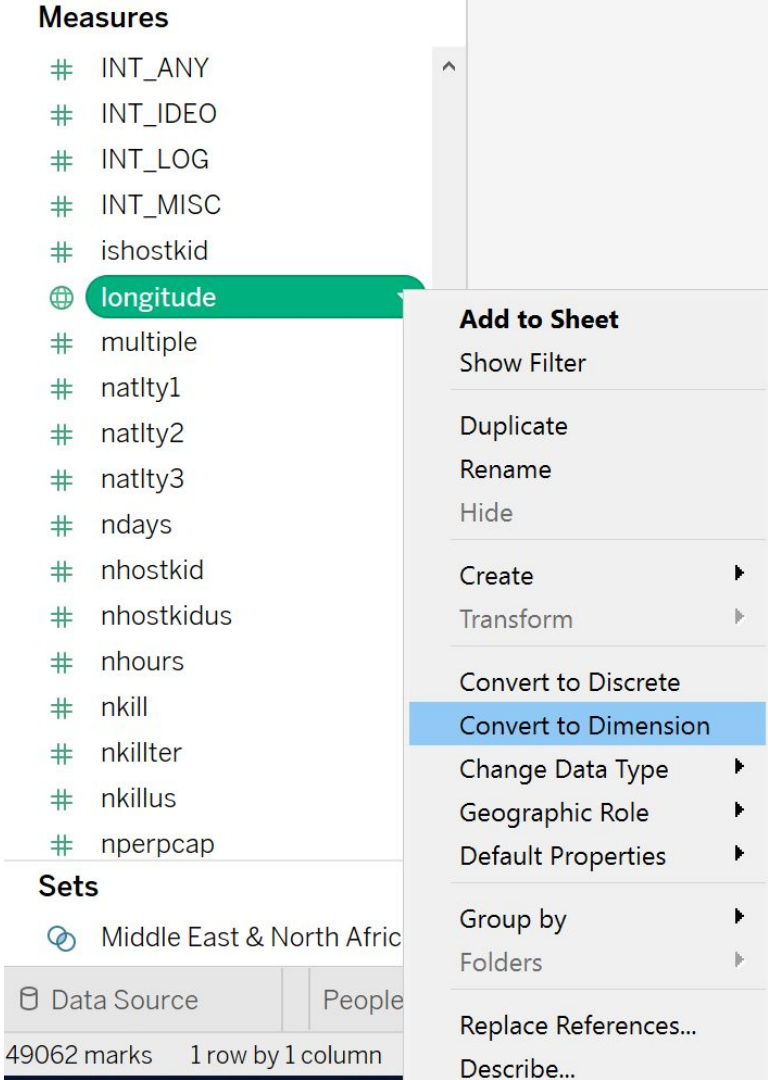
Seleziona il campo **Longitude** e imposta **Geographic Role** > **Longitude**

Seleziona il campo **Latitude** e imposta **Geographic Role** > **Latitude**.



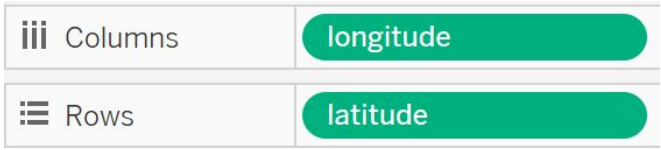
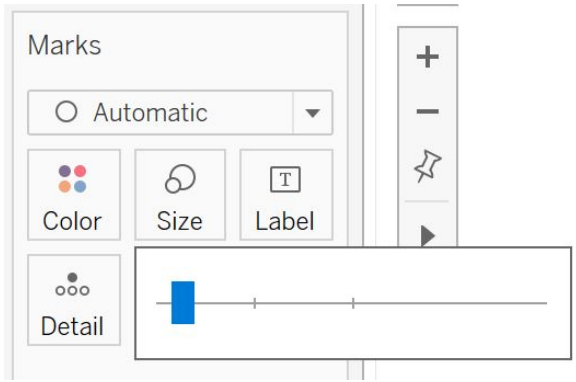
Gestire le coordinate

Se i campi **Latitude** e **Longitude** sono in **Measures** convertirli in **Dimension**



Gestire le coordinate

Trascinare **Latitude** su **Rows** e **Longitude** su **Columns**



Impostare l'ampiezza dei cerchi