Team member:

Ying He – 180011028

Xuan Zhang – 180026889

Data Source:

Our data was selected from Kaggle [1]. The topic of our data set is the global terrorism happened during 1970-2017. This is quote from Kaggle website:

"*The Global Terrorism Database (GTD) is an open-source database including information on terrorist attacks around the world from 1970 through 2017. 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 attacks. The database is maintained by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START), headquartered at the University of Maryland.*"

Data Description:

In the original dataset, there were 135 attributes with over 180,000 records. With this massive data, we cleaned it and now there are 36 attributes remain in the data set with 7836 records.

The main attributes will be used by our web page are the year and the country of each incident that happened; the motivation of each attack; the number of people participated, been killed and suffered from the attack; the group of people who started the attack and the way of their attack.

[1] Kaggle: https://www.kaggle.com/START-UMD/gtd

10 rows of the data set

eventid	eid	iyear	imonth	extended	country	country_txt	city	latitude	longitude	vicinity	attacktype1	attack	Summary	multiple	success	suicide	targtype1	target	gname	motive	nperps	nperpcap	weaptype1	weapon	compclaim	Nkill	nkillus	Nwound	nwoundus	Nhostkid	nhostkidus	Ransom	ransompai	Ransoman	ransompai
2.02E+11	E3	2015	4	0	228	Yemen	Qatn	15.840202	48.45438	0	3	Bombing	04/05/20	0	1	0	4	Military	Al-Qaida ir	Unknown	-99	0	6	Explosives	"unknown"	0	0	0	0	"unknown"	"unknown"	"unknown"	"unknown"		
2.02E+11	E5	2015	4	1	228	Yemen	Mukalla	14.54397	49.12458	0	6	Kidnapping	04/29/20	0	1	0	4	Military	Al-Qaida ir	The specifi	-99	0	13	Unknown	"unknown"	"unknown"	0	"unknown"	0	2	0	"unknown"	"unknown"	"unknown"	"unknown"
2.02E+11	E9	2015	4	1	229	Democratic Republic of the Congo	Rutshuru district	-1.17645	29.450939	0	6	Kidnapping	04/15/20	0	1	0	14	Private Cit	Democrati	The specifi	10	0	13	Unknown	"unknown"	"unknown"	0	"unknown"	0	37	0	-99	-99	0	0
2.02E+11	E10	2015	4	0	229	Democratic Republic of the Congo	Kamuronza	-1.397963	28.816619	0	3	Bombing	04/06/20	0	1	0	4	Military	Democrati	Unknown	-99	0	6	Explosives	"unknown"	3	0	9	0	"unknown"	"unknown"	"unknown"	"unknown"		
2.02E+11	E11	2015	4	0	229	Democratic Republic of the Congo	Katwiguru	-1.051389	28.991056	0	6	Kidnapping	04/07/20	0	1	0	3	Police	Democrati	Unknown	-99	0	13	Unknown	"unknown"	0	0	0	0	1	0	"unknown"	"unknown"	"unknown"	"unknown"
2.02E+11	E12	2015	4	0	229	Democratic Republic of the Congo	Mbau	0.651881	29.497663	1	6	Kidnapping	04/15/20	0	1	0	14	Private Cit	Allied Dem	Unknown	-99	0	9	Melee	"unknown"	19	0	8	0	9	0	"unknown"	"unknown"	"unknown"	"unknown"
2.02E+11	E13	2015	4	0	229	Democratic Republic of the Congo	Kalonge	-0.424976	29.191776	0	2	Armed Assault	04/24/20	0	1	0	14	Private Cit	Allied Dem	Unknown	-99	0	9	Melee	"unknown"	5	0	0	0	"unknown"	"unknown"	"unknown"	"unknown"		
2.02E+11	E14	2015	4	0	229	Democratic Republic of the Congo	Goma	-1.658501	29.220455	0	2	Armed Assault	04/04/20	0	1	0	7	Governme	Unknown	Unknown	-99	0	5	Firearms	"unknown"	0	0	"unknown"	0	"unknown"	"unknown"	"unknown"	"unknown"		
2.02E+11	E15	2015	4	1	229	Democratic Republic of the Congo	Kimbumba	-1.482222	29.345833	1	6	Kidnapping	04/23/20	0	1	0	7	Governme	Unknown	Unknown	-99	0	13	Unknown	"unknown"	0	0	0	0	3	0	"unknown"	"unknown"	"unknown"	"unknown"

Sketches

Geographic Map

Map based on Longitude (generated) and Latitude (generated). Size shows sum of Number of Records. Details are shown for country_txt. The data is filtered on attack, which keeps Armed Assault, Assassination, Bombing, Facility Infrastructure Attack and Kidnapping. The view is filtered on country_txt, which keeps 23 of 23 members.

The visualisation created is based on a sample of 50 records of the whole data set.
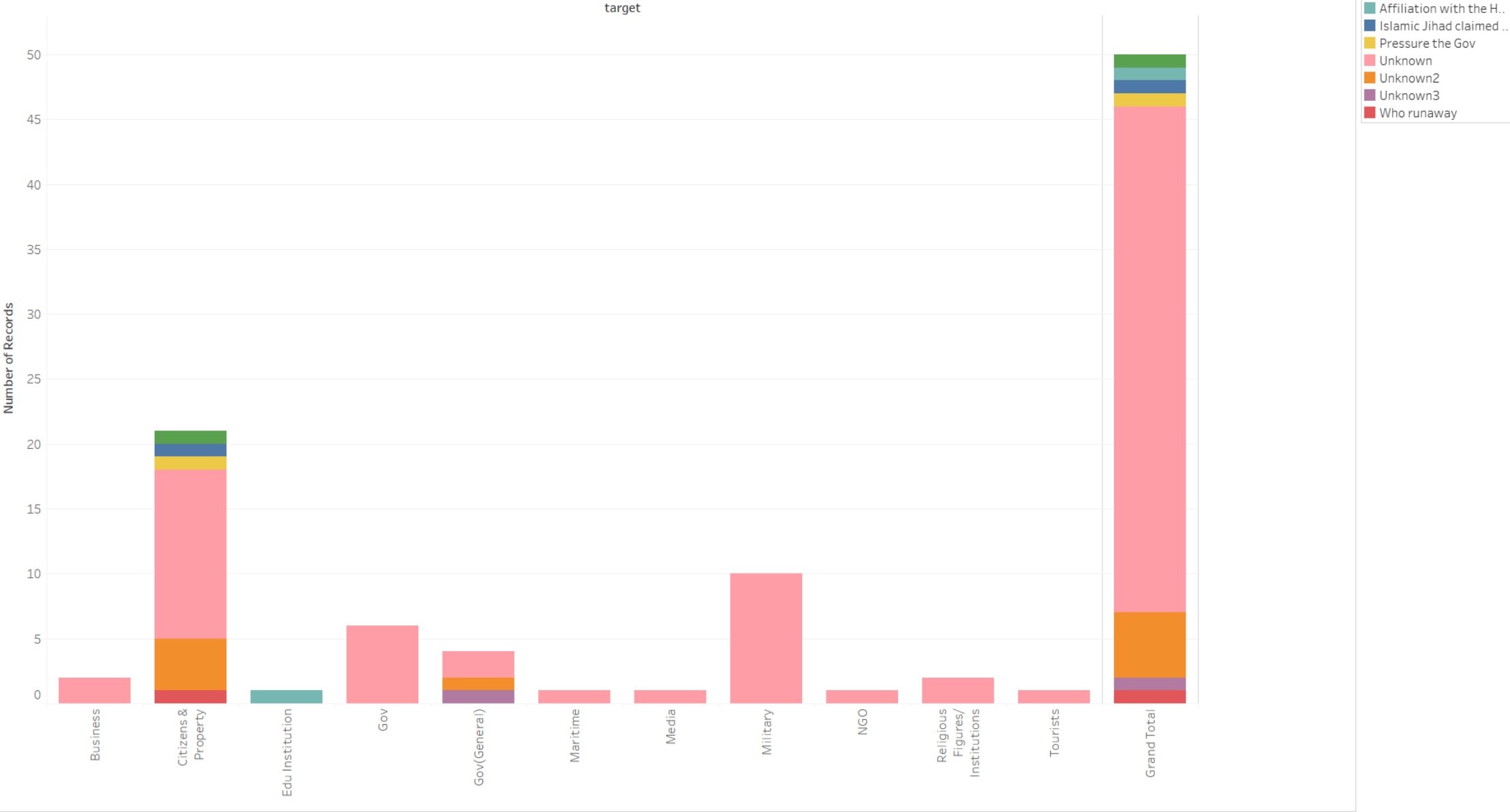The first geographic map shows the total number of terrorist that happened worldwide. The bigger circle represent more terrorist incidents happened. In our website, each circle will link to details of each country if user click it. Also, the map will be more representative when it shows in the website.

There should be another charts on the welcome page. Such as the main reason that cause terrorist, most of the targets, average number suffering for these incidents etc. For each graph user could click to certain to get more information. This is for give people who is viewing our page a general idea about our topic and also for attracting their interests.
Then after users jump into the details page, they can still jump back to main page.
The colour for our web page will be dark colour, as this is a sad topic for everyone. Additionally, we are trying to figure out more graphs that could give user more insights.

Target and Reason

target

motive
- Accused of spying
- Affiliation with the H..
- Islamic Jihad claimed ..
- Pressure the Gov
- Unknown
- Unknown2
- Unknown3
- Who runaway

Number of Records

Business | Citizens & Property | Edu Institution | Gov | Gov(General) | Maritime | Media | Military | NGO | Religious Figures/ Institutions | Tourists | Grand Total

This graph includes the types of the target and the reasons why the group of people attack the target. As shown in the graph, data is not clean enough. For different country the reason why a terrorism happened may differ due to different situation. So this graph will definitely shown in the detain page.
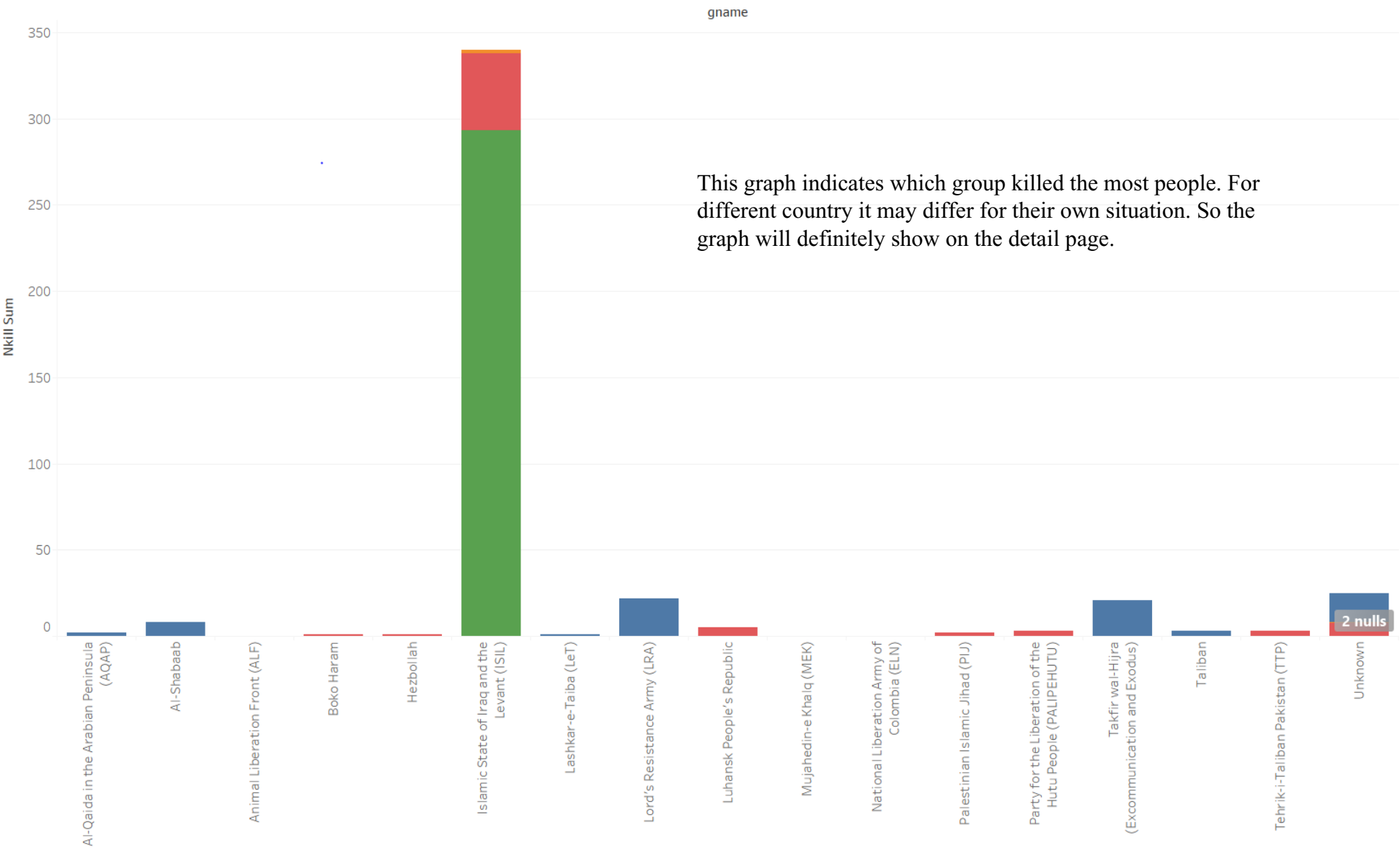
Motive and hostkid

motive

The graph shows the connection between the motivation for the terrorist and the number of hostage and kidnap.
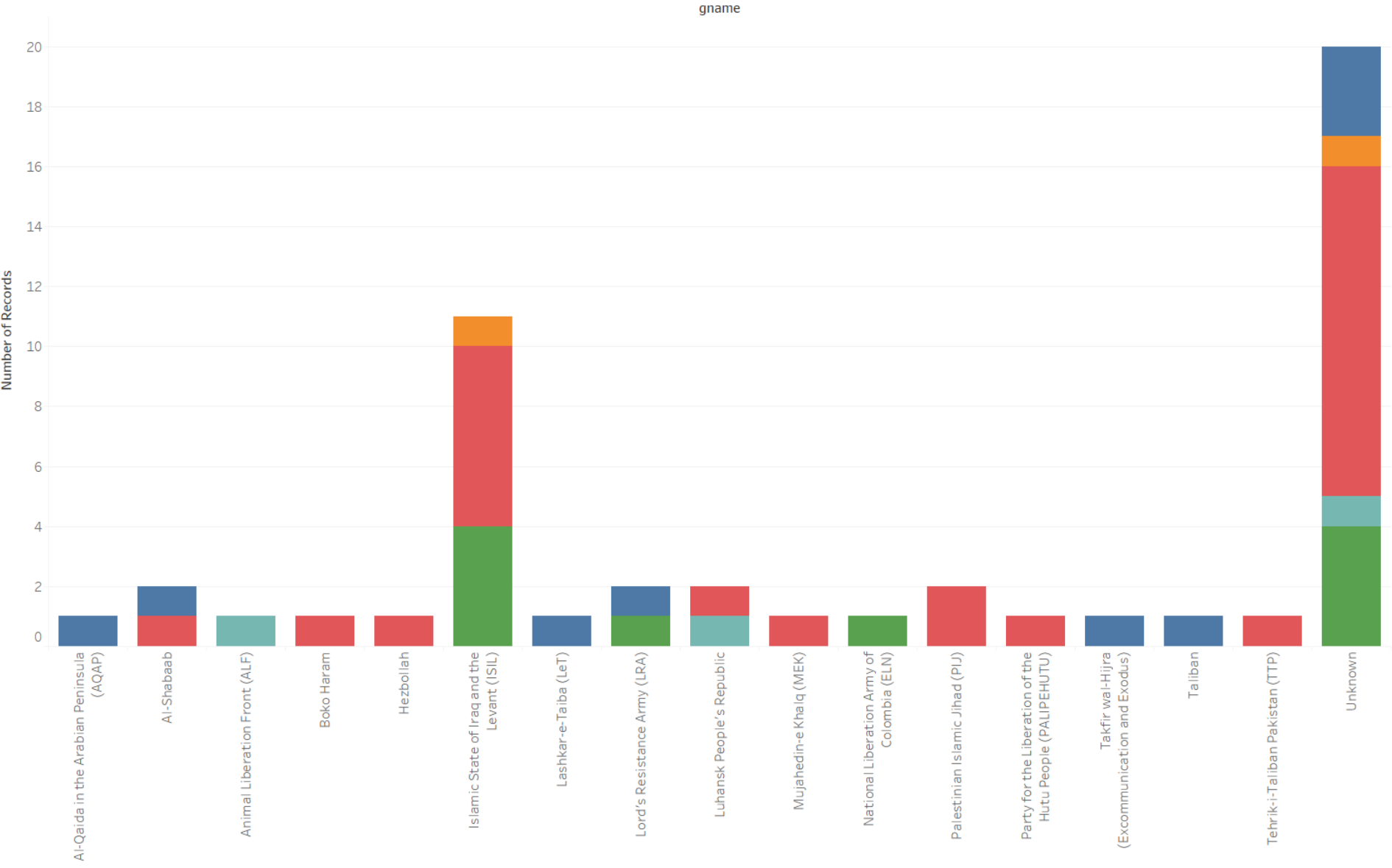The graph will also shown on the same page after user click the circle on the map.

Here we have the first interactive attributes: motivation. So, if user want focus on one specific motivation on each country, they could click it on the graph (or the legend?).

Groups and kill num

This graph indicates which group killed the most people. For different country it may differ for their own situation. So the graph will definitely show on the detail page.

Groups Attrack

gname

attack
- ☑ (All)
- ☑ Armed Assault
- ☑ Assassination
- ☑ Bombing
- ☑ Facility Infrastructure Attack
- ☑ Kidnapping

attack
- Armed Assault
- Assassination
- Bombing
- Facility Infrastructure Attack
- Kidnapping

The graph shows the way each group attack their target.

These two graph shows the number of people participated in each terrorist and the number of people been killed each time. It will have a obvious compare between two numbers.

Number of people involve and been killed

iyear