**Final Write-up Hasan Khan | Data Visualization S18**

**Project Statement**

Over the past couple of years, Europe has faced surge in migration unlike any since the end of the second World War. Such large demographic shifts in populations pose important questions about a nation's economy, demography, and security. More specifically, there has been lots of debate on whether refugees cause violence and terrorism in their host countries, an idea that anti-immigration parties consistently emphasize as part of their policy. Germany, the leading European acceptor of foreign refugees, stands as the nation most involved with these issues. In this visualization, I aim for the viewer to explore one subset of the broader conversation surrounding immigration: how, if at all, does the influx of refugees relate to terrorist incidents in the country? By using the time slider, the viewer can begin to understand the temporal and demographic scale of the migrant crisis, as well as how it has (or has not) subsequently effected terrorism incidents in Germany.

**Visual Strategies**

My main strategy was to synchronize all my data to time. By using the slider, the viewer sees only the information he/she needs to see, and nothing more. I kept demographic information to one side, and attacks information on the other.

**Analysis & Insight**

The migrant crisis really starts to kick in for Germany towards the end of 2015, when there is a spike in refugee applications coming from the Arab world. Notice the demographics of the incoming migrants: a majority are young men between the ages of 18 and 35 (which is the primary demographic known to commit crime and terrorist attacks irrespective of origin or ethnicity). Regardless, using the filters, it is easy to see that attacks committed directly by refugees are almost non-existent. It is also easy to see that a majority of terrorist incidents are actually committed by unknown perpetrators, or by extreme left/right wing groups, further complicating the story behind the primary perpetrators of terrorist activities.

**Process & Challenges**

The process for this project was extremely difficult and rewarding. I was challenged consistently on both the technical and conceptual front. What should the scope of my project be? Should I focus only on terrorism, or crime as well? What demographic metrics should I include? What narrative do I want to tell? And oh – how do I get this all done in D3, and what is the best way to organize the visuals I have to tell the most impactful story?

Another unique challenge I faced was one of working with foreign data and datasets. A lot of perfectly usable data was hidden away in lengthy German immigration reports, which made them difficult to access and translate on scale.

On the technical front, positioning elements on the webpage proved to be most difficult. I am still getting the hang of the HTML/SVG coordinate system, absolute vs relative positioning, and the ordering of elements on the webpage. For this project, I chose to go with absolute positions for all elements, but this of course does not scale well to different window sizes.

**Limitations**

Even when narrowed to terrorism, the scope of this subject is huge, and the data presented here is still very limited in its analysis of the impact of refugees on local and national safety. Terrorism can tell only so much about safety - metrics like crime, and who’s committing crime, are key to understanding how refugees and citizens behave on the local level. While I initially planned to include this data (and even had processed some data on murder and rape statistics), I found the depth of analysis as displayed by my crime visual to be lacking, and incomplete over the full time range (2012-2016). The inclusion of a more complete crime aspect would provide further insight into the subject matter.

One key limitation is that the Asylum seekers data is limited to UNHCR asylum applications – it does not necessarily represent the *acceptances* of refugees into Germany. I chose to use this data regardless, since it conveniently provided information on a monthly basis with detailed information on country origin and region. That being said, Germany also has the highest refugee acceptance rates of Europe across all groups, so the number of applications definitely correlates with the resettlement of refugees.

**Data Sources**

**Direct:**

* + UNHCR Population Statistics Database
  + Global Terrorism Database (GTD)
  + Simplemaps World Cities Database

**Hand compiled from:**

* + Das Bundesamt in Zahlen (2012-2016)
  + Zur Entwicklung der Gewalt in Deutschland Schwerpunkte: Jugendliche und Flüchtlinge als Täter und Opfer