In [1]:

```
%load_ext autoreload
%autoreload
import pandas as pd
import numpy as np
import altair as alt
import graphs
import heatmap
import worldmap
```

Datastory Asylum Applications in Switzerland

Abstract

The aim of the following analyses was to examine in more detail the development of asylum applications submitted to Switzerland over the last 25 years. For this purpose, asylum applications were analyzed over time according to gender distribution, decision, canton, or nation. The results show that men apply for asylum more frequently than women, but are accepted less often in percentage terms and are also granted less protection. Over the years, the recognition rate of refugees, i.e. the percentage of recognized applications, has increased. After a reform of the Swiss asylum law, a redistribution of decisions is evident, which results in less bureaucratic work for the state. Serbian citizens have submitted the largest proportion of asylum applications. However, most of the accepted refugees come from Eritrea. Continents such as North America, South America Australia, and Oceania are the least likely to apply for asylum in Switzerland. Most applications come from African, Eastern European, Asian, or Middle Eastern countries. Refugees are distributed among the cantons on a percentage basis according to the number of inhabitants in each canton.

Introduction

For this project, data from the State Secretariat for Migration (SEM) containing information on asylum applications in Switzerland was analyzed. The following analyses show how asylum applications have developed over the last 25 years. It is examined how the distribution of asylum applications by gender and the decisions of the asylum applications have developed over the years. In addition, countries with the highest number of asylum applications, the highest number of accepted asylum applications and those with only rejected applications are shown. Subsequently, the cantonal distributions of asylum applications, relative to the population density of the respective canton, are discussed in more detail, using an additional data set from the Federal Statistical Office for the population figures. Finally, a map graphic shows the number of asylum applications per nation.

Asylum applications and recognition rate over the years

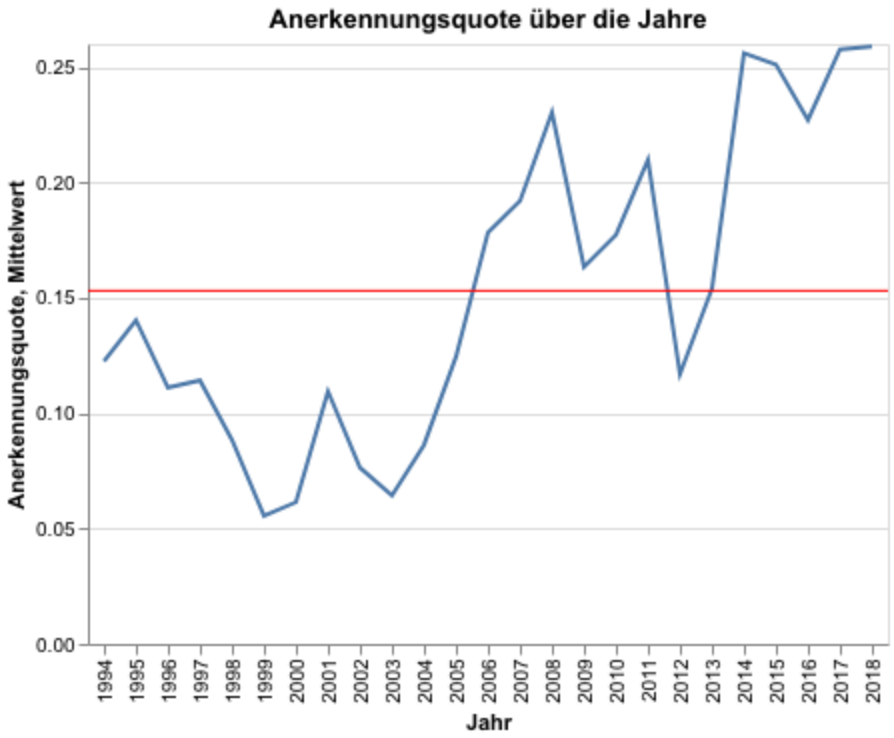
Analysis: The recognition rate is the percentage of asylum granted in relation to the total number of decisions (asylum granted, rejections and decisions not to grant asylum), excluding write-offs. In other words, the percentage of refugees who have been granted asylum in Switzerland. This is shown in the left figure for all asylum applications per year. There are two important events in the asylum history of Switzerland, which can be seen at first glance in the right graph. One event is due to the Kosovo war, in 1998/99, and the second event, in 2015, was triggered by the refugee crisis in Europe. In these years, the number of asylum applications increased significantly. In the years of the Kosovo war (1998/99), the recognition rate reached its lowest point with only 6%, which is far below the average of 16% (red line). In comparison, the recognition rate of the second major event, the refugee crisis in 2015, is almost 4 times

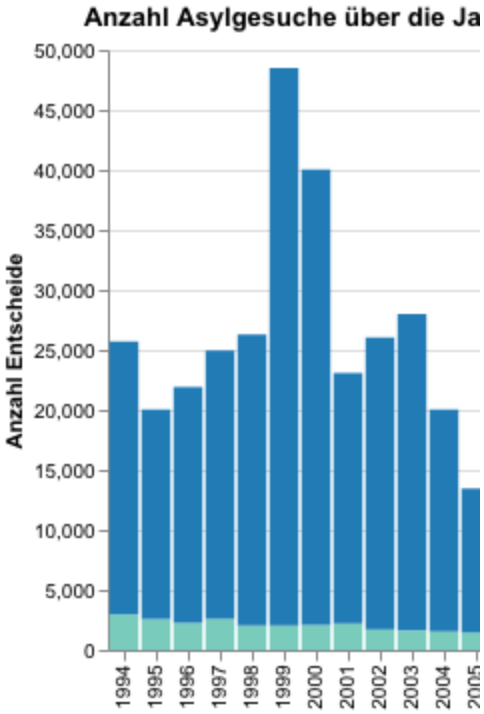
higher at nearly 25%. One explanation for this could be that those affected by the Kosovo war were not granted asylum but were provisionally admitted. This would not be evident in either of these graphs and will be examined in more detail later. After the year 2003, the recognition rate increases steadily until the year 2008. This is mainly due to the fact that the number of asylum applications decreases steadily after 2003 until 2007, but Switzerland still grants asylum to a similar number of asylum seekers as before. In 2006, the Swiss asylum law was tightened. It is interesting to note that this only had a short-term effect on the number of applications. The graph on the right shows that in 2007 the fewest applications were processed and in the following years, the number of applications increased. The highest recognition rates are reached in the years after 2012. The reason for this is most likely the difficult political situations in the Middle East and North Africa, which lead to more refugees meeting the national right for asylum.

In [2]:
```
graphs.get_accepted_declined_overview_graph()
```

```
Totale Anzahl Asylgewährungen über die letzten 25 Jahre:
77442
Totale andere Entscheide über die letzten 25 Jahre:
519535
```

Out[2]:





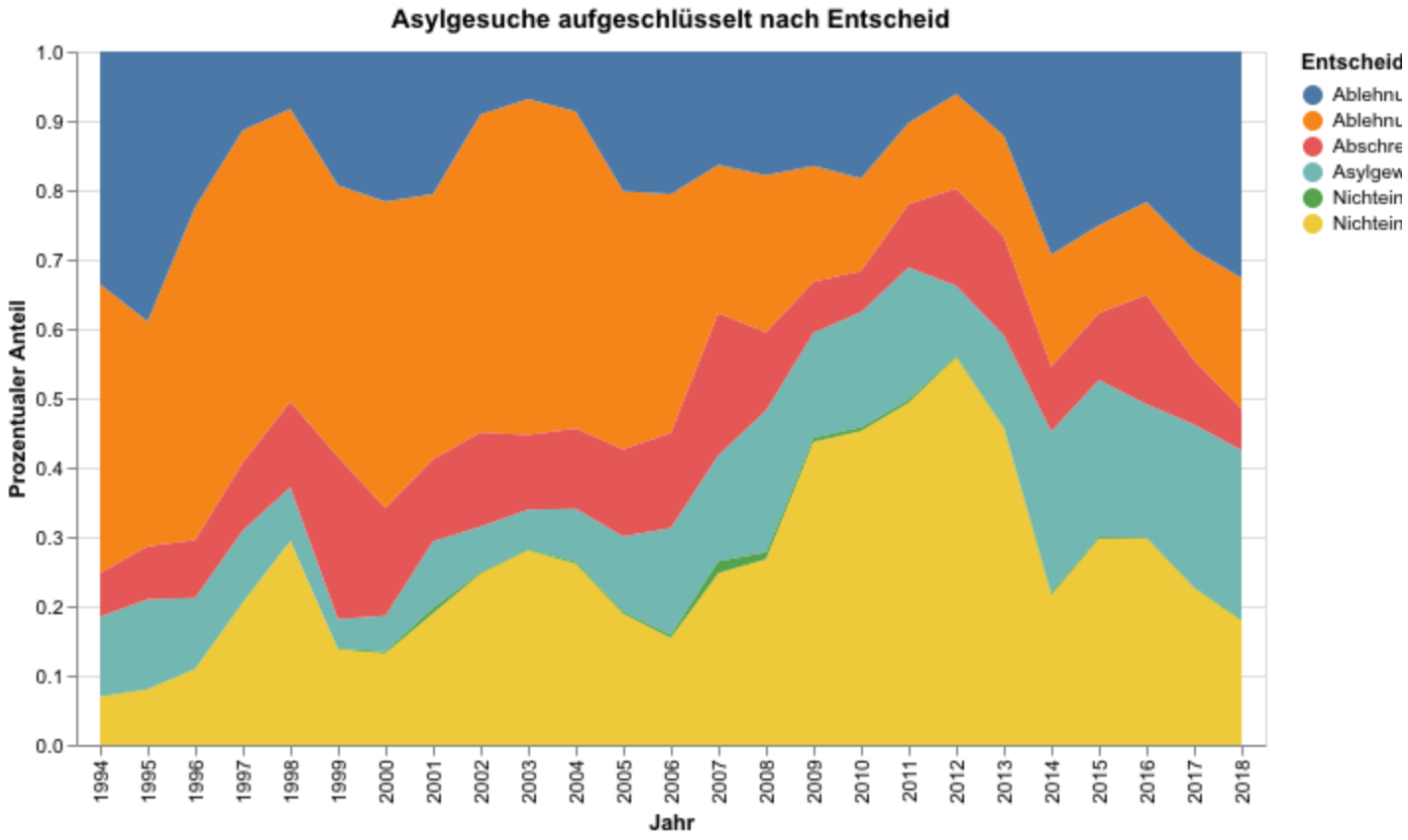
Breakdown of decisions

Analysis: This graph shows the number of asylum applications over the years, broken down by the decision of the application. The abbreviation VA stands for provisional admission, which has already been described in the top section. In 2006, the Swiss asylum law was tightened, as already mentioned. The non-admission decision was redefined as follows: Asylum applications from applicants without valid identity papers will in principle no longer be considered, unless the asylum applicant does not have papers for excusable reasons, or the persecution claimed does not prove to be manifestly groundless and relevant to asylum. As the graph below shows, this exception is extremely rare. In the previous section, we hypothesized the temporary admission of refugees from the Kosovo war, rather than their granting of asylum, as the reason for the low recognition rate. However, it is clear from the present figure that in 1998/99 a very large proportion of asylum applications were decided with no provisional acceptance. For example, in 1998 only 10% of the applications were decided with 'rejection with VA' and 6% with 'granting of asylum'. This means that 84% of

the asylum seekers were not allowed to stay in Switzerland. It should be noted that not all refugees who applied for asylum in these years were affected by the war. Nevertheless, during the Kosovo war, a large part of the refugees was sent away again, affected or not. This changed in the following years, during the refugee crisis. The proportion of 'rejections with provisional admission' and 'asylum granted' has increased significantly. Additionally interesting is the change in the composition of the decisions after 2006. With the enactment of the new asylum law, the 'rejection without VA' decisions decreased and the 'non-admission decisions without VA' became much more frequent.

In [3]:
```
graphs.get_decision_status_graph()
```

Out[3]:



Asylum applications by gender

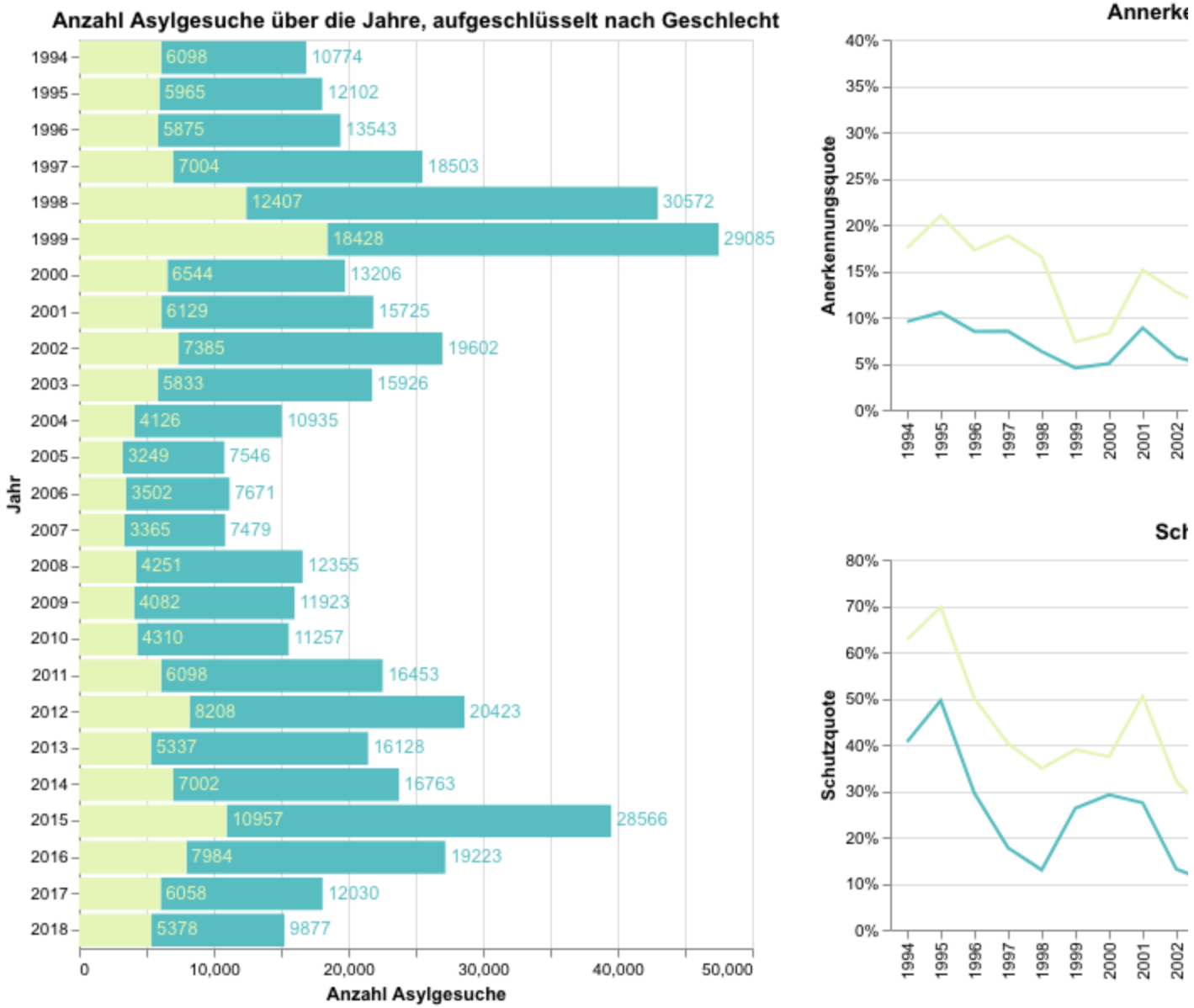
Analysis: This graph shows the number of new asylum applications over the past 25 years, coded by gender. Regarding gender distribution, it can be said that massively more men than women tend to apply for asylum in Switzerland. Causes for this could be economic refugees. In more traditional family constructs, the man is still often the family breadwinner. In addition, in the case of underage refugees, the male children are sent abroad because parents are often more afraid of their daughters.

The two graphs on the right visualize the recognition rate and protection rate for both genders. The protection rate describes the share of asylum grants plus temporary admissions in the total of all decisions (asylum grants, rejections, and decisions not to grant asylum) without write-offs. With both ratios, it is quickly apparent that women have a better chance of being granted asylum or at least temporary protection in Switzerland. The recognition rate is always lower than the protection rate, which is to be expected. Temporary admission means that an asylum seeker has been recognized as a refugee, but is excluded from asylum under national law. He/she can stay in Switzerland for a maximum of five years, after which a review is carried out to determine whether repatriation is reasonable or the refugee is granted asylum. Temporary admission is thus granted more frequently than asylum since repatriation to the home country is often still an option.

In [4]:
```
graphs.get_gender_overview_graph()
```

```
Totale Anzahl Asylanträge über die letzten 25 Jahre:
553242
```

Out[4]:



Countries with the most asylum applications

Analysis: The left graph lists the countries with the most asylum applications in descending order. The middle graph shows the number of accepted applications for these countries and the right graph shows the number of protection grants. The granted protection also includes the accepted applications. Serbia is by far the country with the most numerous asylum applications. About one-fifth of all new asylum applications (519,535) in the last 25 years were submitted by Serbs. However, only a small part of the applications (3454) was accepted, which is slightly more than 3 percent. On the other hand, almost one-fifth of the Serbs were offered protection. Since Serbia was a country affected by the Kosovo conflict, it is correct to hypothesize that during the Kosovo war more "temporary admission" decisions were taken than "asylum" decisions were granted. Nevertheless, compared to other conflict areas, such as Eritrea, very few asylum seekers were admitted. Eritrea is in second place with half of the Serbian applications. Unlike Serbia, however, almost half of the Eritrean asylum applications were accepted and protection was even offered for 75%. Nigeria's refugees were offered conspicuously little protection.

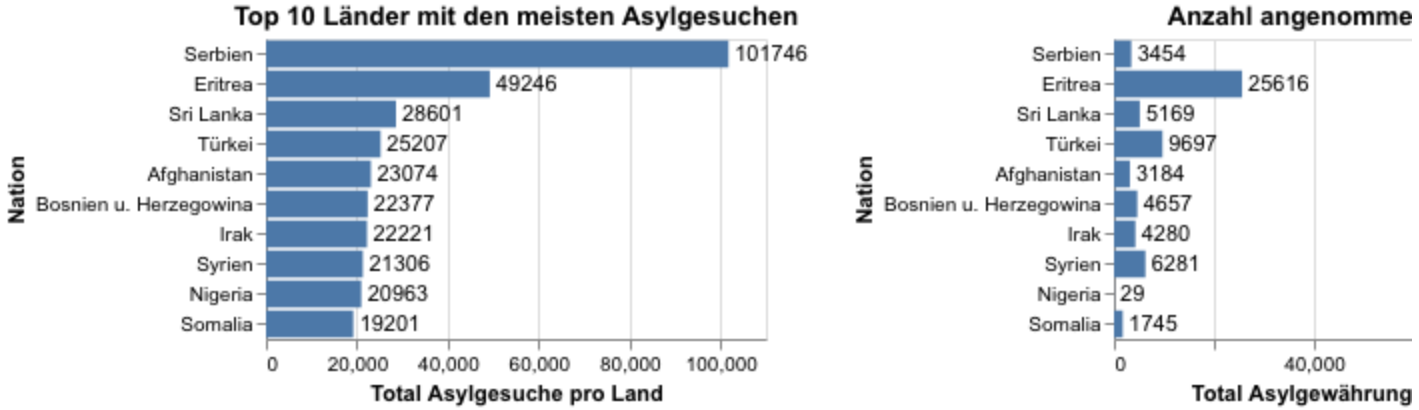
Countries with the most accepted asylum applications

Analysis: In terms of quantity, Eritrea holds the record for the most asylum applications accepted, as can be seen in the left graph. Eritrea also ranks 6th in relation to all accepted asylum applications, as shown in the graph on the right. Turkish refugees are also granted a lot of asylum in terms of quantity and percentage. Fiji has made only one application and this was accepted, for this reason, this nation is in first place in the percentage statistics.

In [5]:
```
graphs.get_most_applied_graph()
```

```
Anzahl Länder, von welchen die Asylbeantragenden stammen:
176
```

Out[5]:



In [6]:
```
graphs.get_most_accepted_graph()
```

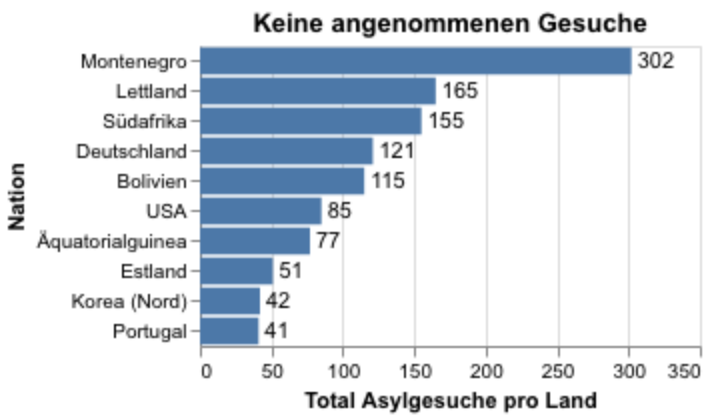
Out[6]:

Countries with only rejected asylum applications

Analysis: The chart below shows the 10 countries that submitted the most asylum applications and none of these applications were accepted. It is surprising that no applications were accepted from North Korea. North Korea is a socialist state and is one of the countries where human rights are least respected. If a North Korean citizen flees, there is no return for him/her. For this reason, it is rather surprising that no application was accepted. One conjecture to explain this would be the diplomatic relations between Switzerland and North Korea. Thanks to its neutrality, Switzerland enjoys a high reputation in North Korea and often serves as a mediating authority. Perhaps Switzerland did not want to violate this status by accepting North Korean refugees. However, this is neither proven nor can be read from the data, so it is purely hypothetical.

In [7]:
```
graphs.get_none_accepted_graph()
```

Out[7]:



Percentage calculations for the cantonal population figures

The first heatmap shows the distribution of asylum seekers who have submitted a new asylum application as a percentage of the population. The second plot describes the asylum grants per canton as a percentage of the population over the last 25 years.

Distribution key: Refugees who are provisionally admitted or for whom no legally binding decision has yet been made are distributed among the cantons. The distribution to the cantons is based on a distribution key according to Article 21 AsylV1, taking into account nationality, already living family members, and the distribution of the more care-intensive cases. Since 2018, the State Secretariat for Migration has been testing a distribution algorithm in cooperation with ETH so that asylum seekers can find work more quickly in the future. This is why distribution is likely to change in the future.

Analysis: It can be seen that the distribution of asylum seekers who have submitted a new application is fairly even in the different cantons. However, as of 2013, the distribution of asylum seekers was no longer entirely regulated in proportion to the number of residents. It can be seen that the cantons which took in fewer refugees between 2012 - 2016, basically took in more from 2016. This can be seen, for example, in the canton of Basel-Stadt and Thurgau. The canton of Obwalden has taken in almost no new refugees since 2016. There is a fundamental increase in asylum applications in 1998/1999 because of the Kosovo war and in 2011 because of the numerous crisis and conflict hotspots around the Mediterranean and on the African continent. In 2015, the latter reached its peak in the decade. Now a tremendous downward trend for new asylum applications can be seen.

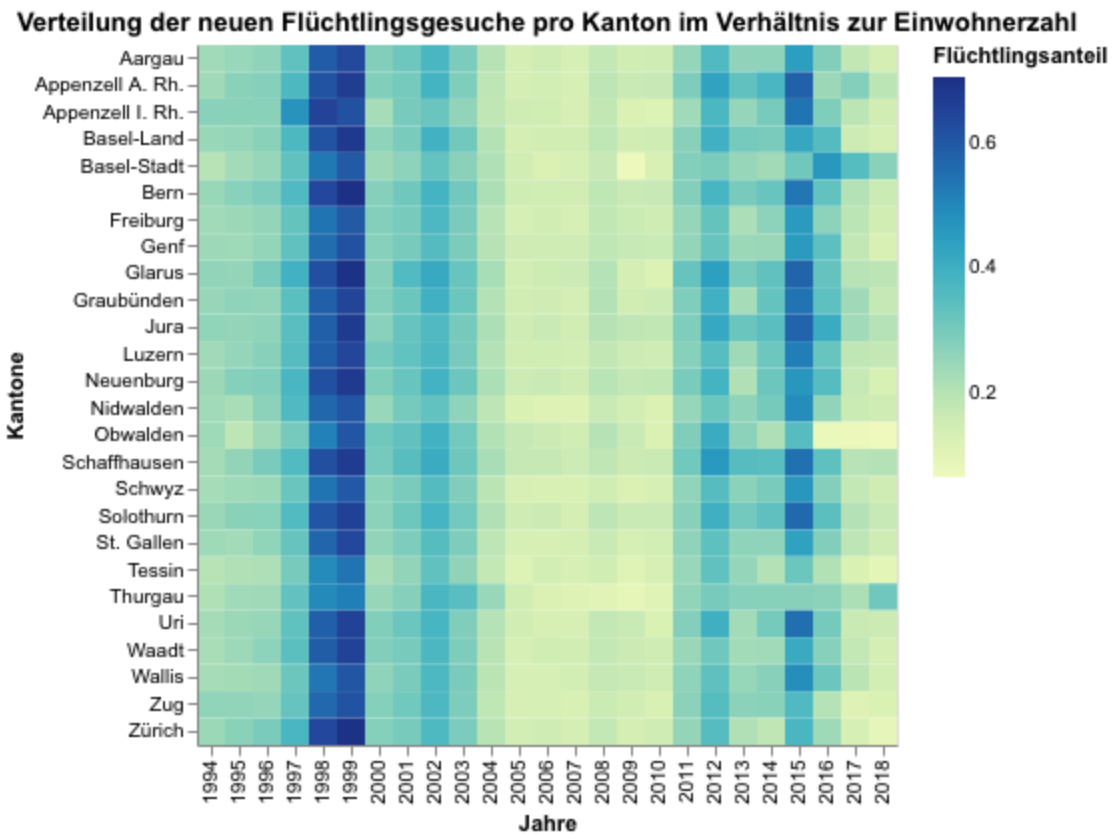
The comparison with asylum grants per canton is also very interesting. These also seem to be balanced, although these values vary more in contrast to the distribution. There are some cantons that basically grant more asylum, such as Appenzell A. Rh, Geneva, or Jura. However, this can also be random, since the asylum seekers are distributed randomly according to this distribution key. In 1998/1999, during the largest wave of refugees, surprisingly no more asylum was granted despite the many applications. These findings were already noted in the upper graphs. Only from 2010 and then especially from 2014, more grants were allocated in all cantons.

In [8]:
```
#clean canton data (can be used for both heatmaps)
df_canton = heatmap.clean_canton_habitant_data()
df_refugees = heatmap.calculate_percentage_refugee_data(df_canton)
```

```
/Users/tabea/opt/anaconda3/lib/python3.9/site-packages/openpyxl/worksheet/header_footer.p
y:48: UserWarning: Cannot parse header or footer so it will be ignored
  warn("""Cannot parse header or footer so it will be ignored""")
```

In [9]:
```
heatmap.generate_heatmap_neue_gesuche(df_refugees)
```

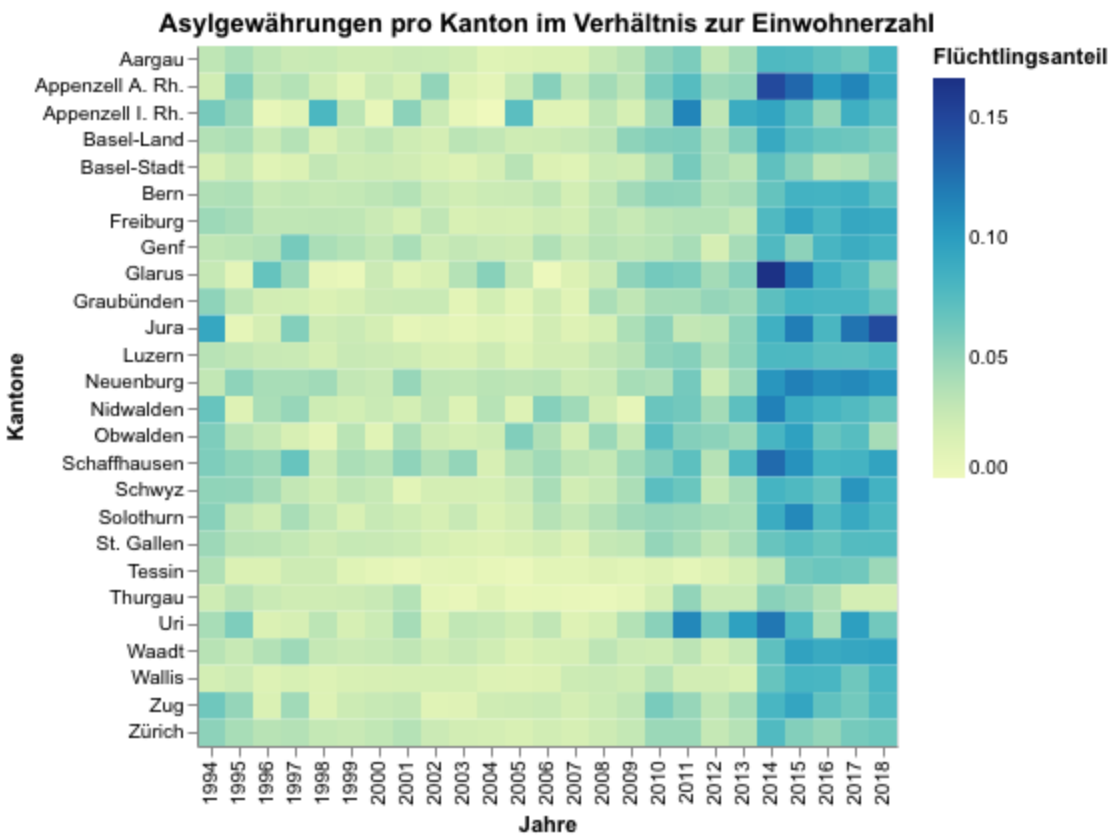
Out[9]:



In [10]:

```
heatmap.generate_heatmap_gewaehrungen(df_refugees)
```

Out[10]:



Number of asylum applications by nation

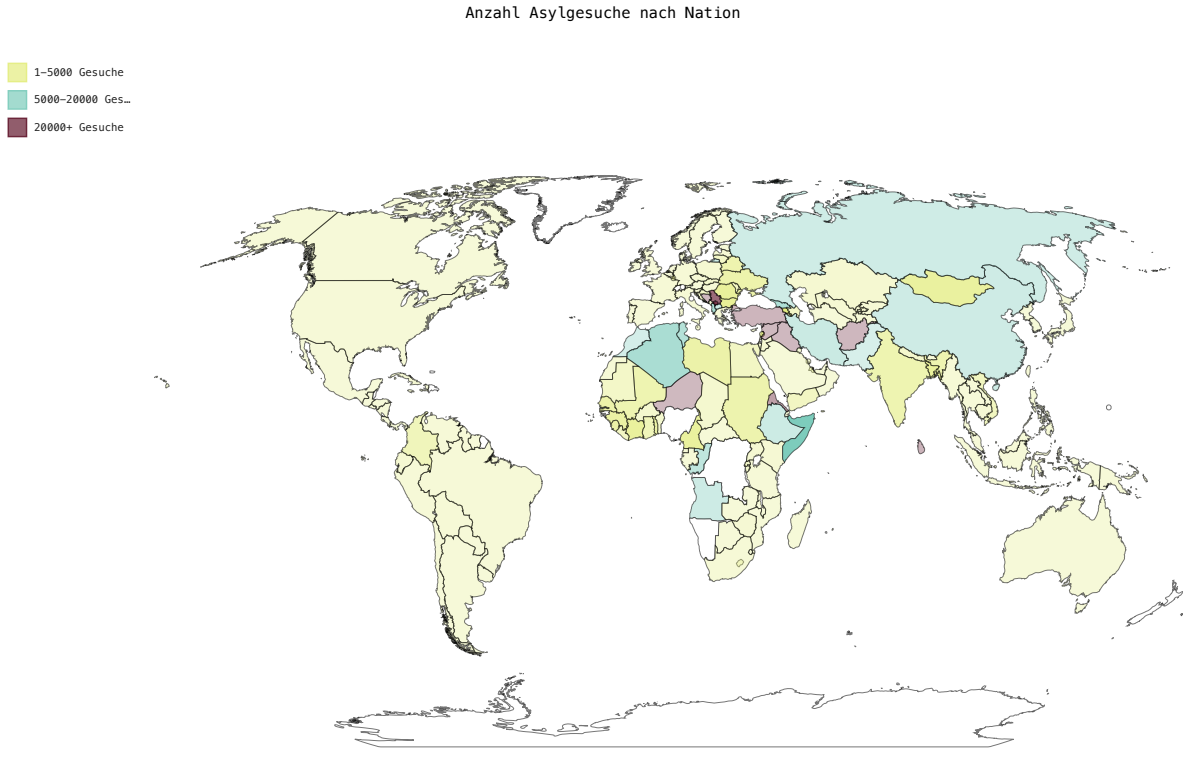
This plot shows the number of asylum applications filed by the nation in the form of a world map.

Data: Two island nations are not included in the pygal-library used. These are the Solomon Islands and Trinidad u. Tobago. There were also some applications from persons of the Soviet Union and Czechoslovakia, but these countries no longer exist. However, since the number of applications from the mentioned countries is less than 10, they were not taken into account. Since 2003 Kosovo is independent of Serbia. However, this country is still counted as part of Serbia in the pygal-library. Therefore, these two figures were added together after 2003.

Analysis: It is obvious that the applications of the continents North America, South America as well as Oceania are very low. This is also understandable since there were almost no wars or degenerating conflicts in these countries in the last 25 years. Countries in Africa and Asia submit the most applications for asylum in Switzerland. In Europe, applications come mainly from individual countries to the east, such as Serbia, Bosnia, and Albania. The largest "cluster" of countries that are close to each other is in the Middle East and includes countries such as Iraq, Turkey, and Afghanistan. This region has been affected by the Middle East conflict from 1948 until today. Also, requests from Russia and China have accumulated in the last 25 years, but it should be noted that these are very large countries with many inhabitants.

In [11]:
```
worldmap.get_worldmap()
```

```
/Users/tabea/Documents/Projekte BSC FHNW/DataStory-Asylgesuche/worldmap.py:62: FutureWarni
ng: In a future version of pandas all arguments of DataFrame.drop except for the argument
'labels' will be keyword-only
  df_country_code = df_country_code.drop(['LANG', 'LANG_NAME', 'COUNTRY_ALPHA3_CODE', 'COU
NTRY_NUMERIC_CODE'], 1)
```



Results

In the data, two striking conflicts became apparent, on the one hand, the Kosovo war in the 1998/99 years, and on the other hand the refugee crisis around the year 2015. The number of asylum applications

increased massively during these periods. Here, it was found that more men than women apply for asylum, but more women are granted protection or asylum in percentage terms. The general recognition rate has increased over the last 25 years, and more refugees are granted asylum today than in 1994. This can be seen, for example, in the comparison of the recognition rate during the two conflicts mentioned above. At the time of the refugee crisis, four times more refugees were accepted than during the Kosovo war. In addition, refugees in 1998/99 were also offered less protection, in the form of temporary admission, than refugees from more recent conflicts. The tightening of the asylum law in 2006 led to a redistribution of the decisions made. Significantly more asylum applications ended in a 'non-admission decision without VA' than in a 'rejection without VA' decision. This can be explained by the fact that a decision not to accept an asylum application is much less bureaucratic for the state than a rejection. In the case of a non-entry decision, the asylum application is not reviewed but rejected directly. One-fifth of all asylum applications submitted in Switzerland are from Serbs. However, Eritrea has received the most asylum grants. The distribution of new asylum applications per canton is mostly even. In the accepted asylum applications per canton, a tendency of certain cantons to grant more asylum can be seen. These include Appenzell A.Rh, Geneva, and Jura. It cannot be excluded that these tendencies occur by chance, due to the distribution key. On the basis of the world map, it can be said that North America, South America, and Oceania, from a continental point of view, submit the fewest applications. Most applications are made by citizens of African or Asian countries. In Europe, most asylum seekers come from the Balkans or Eastern Europe. People from countries affected by the Middle East conflict, such as Iraq, Iran, Afghanistan, Syria, and Turkey also often apply for asylum in Switzerland.

Conclusion

The data set of the State Secretariat for Migration offers very extensive and interesting data. Within the scope of this data story, we were able to address some aspects, but more in-depth analyses would be conceivable. In order to make more substantiated statements about the Kosovo war, it would be exciting to take a closer look at the individual countries involved. This would mean a precise breakdown of the decisions, over the relevant years, per country involved. This approach could also be done for the Middle East conflict. For additional time, we would also have liked to look more closely at the history of a single country, such as Eritrea. What is not available in this dataset are the ages of asylum seekers. We would have been interested in gender analyses as well as trends in the age distribution of refugees. In conclusion, we found answers to our initial questions. If more time were available, these could be elaborated on in more detail.

In [ ]: