

Mini project.

A quantitative approach of summarising Schengen short-term visa validity/ approval rate based in London consulates' data.

Abstract.

The Schengen states share a common policy on issuing short-term visa, which requires the same documents and the same guild line. Visa-requiring nationals can apply a single visa allowing them to travel among all Schengen states, thus short-term visa issued by any Schengen states are supposed to be equal. This report analysed the share of multiple entry visa and the rejection rate for short-term visa issued by every Schengen consulate in London during 2013 to 2021. Short-term visa issued from different Schengen states differs largely and it can be described as random. Due to lack of data, we do not know what factor causes this difference, but the dispersal patterns of each Schengen consulates in the past 9 years still provide us some hints on some consulates are more “reliable” in the visa issuing process.

Introduction.

The Schengen Area is an area established based on the EU agreement of “Freedom of movement”. It functions as one single border-free jurisdiction under a common visa policy for short-term visits. Non-EU nationals who are not from a part of Schengen visa-waiver list can visit and travel throughout Schengen states on a single visa. As a part of visa facilitation, travellers would have to apply for the visa from the first Schengen state they enter or the Schengen state they stay for the longest during the visit.

How visa regime changes have been largely under-researched, and it is hard to predict and modelling (Mau *et al.*, 2015). This report attempts to analysis how random Schengen states issuing short-term visa, based on the data from their London consulates from 2013-2021. We aim to get an overview of the Schengen visa issued in the UK in the past 9 years. This report seeks to answer the following questions: Are all Schengen tourist visas issued equal? If not, how predictable for a certain country to issue/reject multiple entry visa throughout years? Which country has higher chance for granting multiple entry visa?

Methods.

Schengen short-term visa can be single, double and multiple entry, each of them allowing travellers to stay up to 90 days within 180 days. Multiple entry visa tends to have longer authorised stay duration. The share of multiple entry visa and the rejection rate for short-term visa issued by every Schengen consulate in London during 2013 to 2021 were gathered from the official website of EU migration and home affairs. There are 25 Schengen States eligible to issue short-stay visa, and they all have consulate offices in London. Iceland only started to issue their own Schengen visa from 2019 so we did not consider them due to lack of data. A data frame of 24 countries with MEV and rejection rate was summarised. One-way ANOVA was performed on the data frame to see if there is a difference between visa issued by each state. We calculated the standard deviation of each country and then plotted two boxplots to summarise how disperse these states issuing tourist visa throughout the past 9 years.

Results.

One-way ANOVA suggests there is a significant difference in rejection rate ($P=0.0015$) and a much higher difference in share of multiple entry visa($p=1.37e-15$) issued by each Schengen states. Not all Schengen visas were issued equal in the past 9 years.

Schengen.State	Austria	Belgium	Czech.Republic	Denmark	Estonia	Finland	France	Germany
1 sd (MEV)	0.27430037266552232	7.832003433207739E-2	0.12721940802321699	0.26912842865648939	8.5802259747501844E-2	0.14164548861310211	0.150565415831274	0.30136167823914028
2 sd (Rejection)	3.003932607618072E-2	5.9116410581157582E-2	1.3536986370680879E-2	2.7114469281998579E-2	2.0760539492026699E-2	4.8938737212968618E-2	5.7307891641940951E-2	9.4339811320566045E-3
3 Schengen.State	Greece	Hungary	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands
4 sd (MEV)	0.23632028642877401	0.18701277437057021	0.1537806879942992	4.2320207938997642E-2	0.18166483179501511	0.1920364548725059	0.15914615923735009	0.30755722141488467
5 sd (Rejection)	1.7007351351694951E-2	2.6822461565718471E-2	3.0207614933986431E-2	4.8598982613951E-2	4.0996951106149343E-2	4.0511658130030243E-2	1.842854066688708E-2	3.2226197072843979E-2
6 Schengen.State	Norway	Poland	Portugal	Slovakia	Slovenia	Spain	Sweden	Switzerland
7 sd (MEV)	0.1556863834765263	0.18520424161209459	0.1135044052008555	0.27185428081970681	0.2051662604924222	0.39868345839776198	9.3427779594722232E-2	0.14980070093293951
8 sd (Rejection)	8.9054758435470463E-2	8.3666002653407547E-3	1.281708928648692E-2	1.546591233792706E-2	2.2884371183068249E-2	3.428597056782523E-2	9.6580421296336132E-3	8.3283318324326554E-3

Table 1. How random and how predictable these consulates issuing tourist visa (2013-2021).

Standard deviation result shows Latvia (sd=0.042), Belgium (sd=0.078), Estonia (sd=0.085) are the three most predictable countries in issuing multiple entry visa. Spain (sd=0.399), The Netherlands (sd=0.308), Germany (sd=0.301) are the three most least predictable countries in issuing multiple entry

visa. In terms of reject rate, Czech Republic (sd=0.008), Poland (sd=0.008), Germany (sd=0.009) are the three most predictable countries to reject visa application whereas Norway (sd=0.089), Belgium (sd=0.059) and France (sd=0.057) are the three least predictable countries to reject visa application.

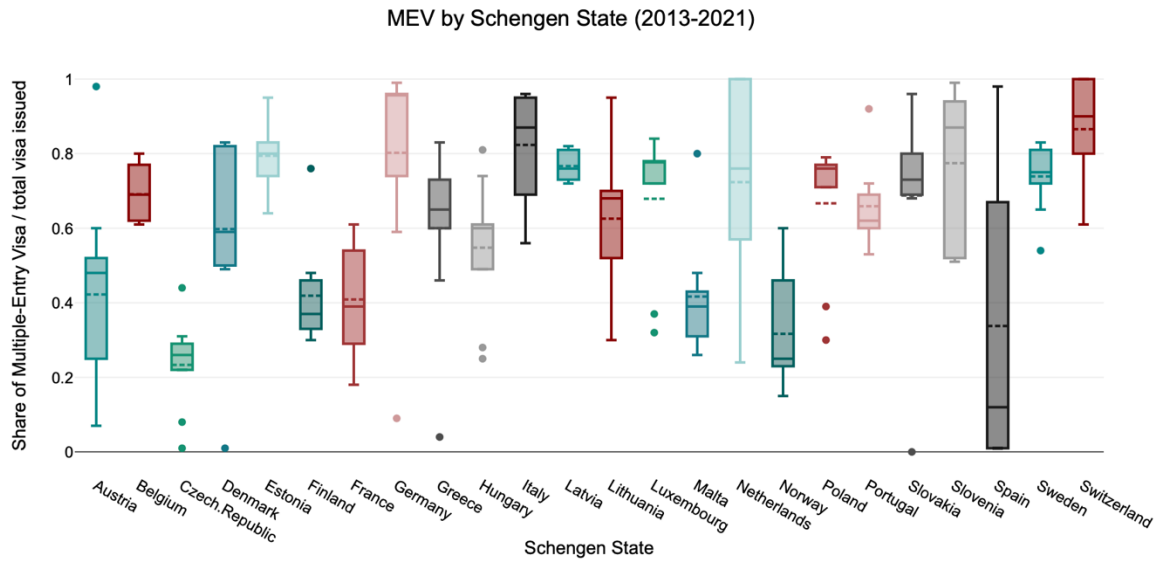


Figure 1. This figure summarised the dispersal of individual consulate issuing tourist multiple entry visa in the past 9 years. More than 80% visa issued by Germany, Switzerland, Slovenia, and Italy are multiple entry (with their median higher than 80%). The visa issued by Spain is not only the most unpredictable but also with the lowest median of MEV share (<20% visa issued by Spain were multiple entry). 60%-80% of visas issued by most Schengen states (12 out of 24 states) were multiple entry.

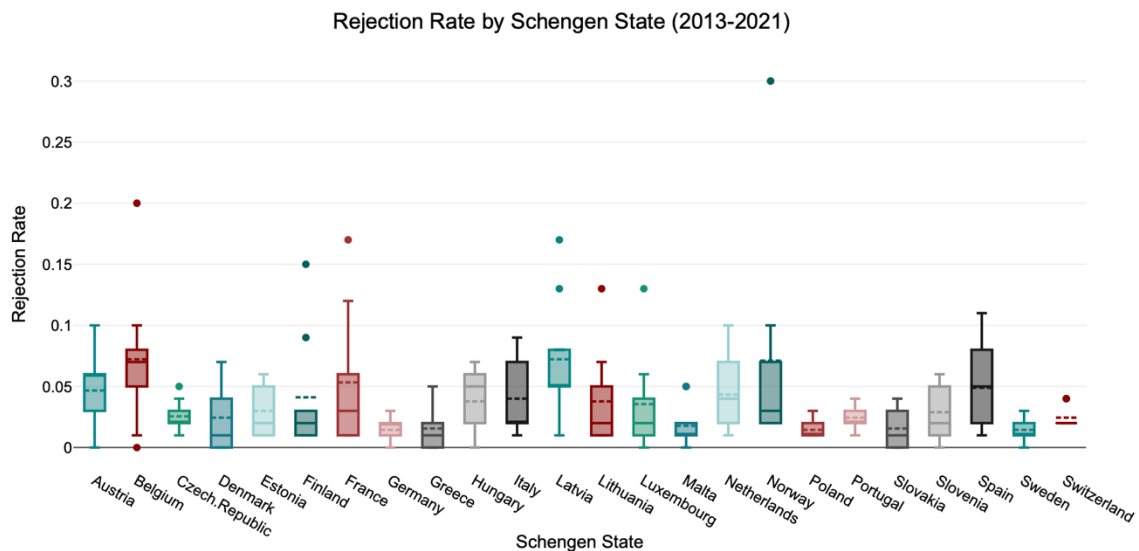


Figure 2. This figure summarised the dispersal of individual consulate rejecting visa in the past 9 years. Most countries fall within a similar range from with their median less than 5%.

Limitation and Discussion.

The main problem of this project was the lack of data. The predictability of visa regime is a multi-factorial problem (Mau *et al.*, 2015), and the only available data we have were the share of multiple entry visa, numbers of application and rejection rate in each Schengen consulates in the UK. We cannot find any data regarding to the type of residency the applicant holds, the financial statement they have and their nationality which are all crucial factors of visa decision (Czaila *et al.*, 2018). EU home office states that visa requirements may be different for certain nationals depending on the “reciprocity” agreements between EU and their home countries. Mau *et al.*, (2015) suggested “border selectivity” is a common practice in countries issuing visa to differentiate “unwanted/ risky” and “trustworthy”

travellers. In this case, the nationality of the applicant may affect the outcome of the visa. UK passport holders do not need to apply for a Schengen visa for stay up to 180 days and only foreigners holding UK residency can apply for Schengen short term visa within the UK. Visa decision may be influenced as the result of not applying from their home country.

“Popular destinations” may be less generous in issuing visa. In 2021, 30% of the total Schengen short term visa were issued by the French consulate and another 20% were issued by the Spanish consulate. More than 70% of the total Schengen visa were issued by the top five “most popular” destinations. On the other hand, the top five “least popular” countries only issued 1.58% of the total Schengen visa in 2021. More than 80% of visa issued by Slovenia are multiple entry, although it is among the “least popular” options. Interestingly, the Spanish and French are among the least predictable Schengen consulate as our result shows. Mau *et al.*, (2015) suggest seasonality of the main destination may influence visa decisions. For example, Greece issues less multiple entry visa in the winter compared to summer.

The lack of transparency in the visa application steps and the scarce resource of consulates led to the use of official intermediaries (agents). Fieldwork done by Zampagni (2016) shows consulates are likely to issue longer multiple-entry visa with the presence of agents, as many agents are more “experienced” in preparing documents thus more “trustworthy”. Although multiple entry visa usually come with longer stay duration quoted by the visa, it is not always the case. Tkach *et al.* (2021) shows Schengen multiple entry visa are not issued equal as some countries generally grants longer stay than the others. In the rare cases, some country issues “Multiple entry visa” that only valid for 3 days. This kind of “MEV” is not practically different to single entry visa and sometimes has even shorter granted durations of stay. This randomness and arbitrariness in the issuing process and the lack of granted durations of stay data makes it nearly impossible to summarise the outcome of visa decision via a quantitative approach.

Conclusion.

Short-term visa issued from different Schengen states differs largely despite technically they share the same visa policy which requires the same documents. It is also impossible to predict the outcome of the visa while submitting visa applications with the limited available official data. The share of multiple entry visa issued by states differs largely, with a significant difference in rejection rate among states.

Due to lack of data, we do not know what factor causes this difference. However, with the dispersal patterns of each Schengen states in the past 9 years, we can conclude that some consulates are more “reliable” in the visa issuing process. Therefore, I would recommend visa required third-countries UK residents to get a visa from the German, Italian, Slovenian and Swiss consulates and avoid getting one from the Spanish consulate in London.

Reference.

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Self-reflective essay.

My ADHD symptoms have made me always struggling with time managements. My worst nightmare would be working full night to finish my report before the due date. To avoid this, I tried to divide my time into individual deadlines and make sure there will be spare time if something goes wrong. Ideally, I can finish the research and coding part by the end of the first Friday, so I would have plentiful of time to rethink and writing up my report. Even in the worst case, if I ended up switching topics, as if unfortunately, the topic I picked was a dead-end, I would still have some time to rewrite my report completely. This time, the individual deadlines did help me in keep on a good pace for searching, coding and writing up my report. Despite being two days later than the plan, I was relieved when I finished my codes and drafts by the end of the first Sunday. However, I did not have time for plan B or plan C.

I wanted to do something novel and interests me this time, and I thought it would be a nice chance to test the skills I learnt into other field, which may be a precious experience for me do some data analysis. The idea that came out of my mind was how hard it is to get a reasonable Schengen visa, if there are data available and it can be quantified? After been struggling for 4 days (which was basically wasted) in research and cleaning the available dataset, my anxiety grows as I realised that it is a topic that is impossible to be quantified, as the result of its multi-factorial nature, for example, the discrimination in the visa processing.

I tried most models and statistical methods taught in the lectures but the easiest way to illustrate my dataset would be a simple one-way ANOVA and boxplots. I attempt to do a lm model but got a R^2 less than 0.4 for MEV and less than 0.1 for rejection which seems useless thus I removed this part. The coding part was relatively smooth this time and I did not struggle much in writing up the report as I commented in detail almost every step of codes I wrote so I had a good train of thought while writing up the report.

In particular, I found it useful to writing up things that came out of my mind (free writing) to catch my train of thoughts. As English is not my first language, I normally interrupt my writing with grammar checks, and I tend to focus more on if this sentence makes any sense or “sound scientific”. By doing this, I would drop my train of thought and end up with totally forgetting what I was about to write. The take home message for me in writing will be write up things come up in my mind and make sure it is logical. It is totally fine with some random sentences with key words as long as it makes sense. By doing this, I would arrange my train of thought in a logical way and save time in editing as I will be editing afterwards anyway.

The main take home message for my next project will be make a detailed timetable which summarises all the individual deadlines I need in steps such as ticking up topic, collecting data, model selection, computing and writing up my final report. I realised I was less struggling with time management this time with the extra time reserved in my planning, in this case I would have the opportunity to test different statistical methods and models to see which one fits the best. Sometimes easier models explain better in descriptive data. Make a doable plan with extra time left to recheck and plan B even plan C is essential. Try not to be anxious if the code does not work for numerous attempts, give yourself a break and go for walk instead.