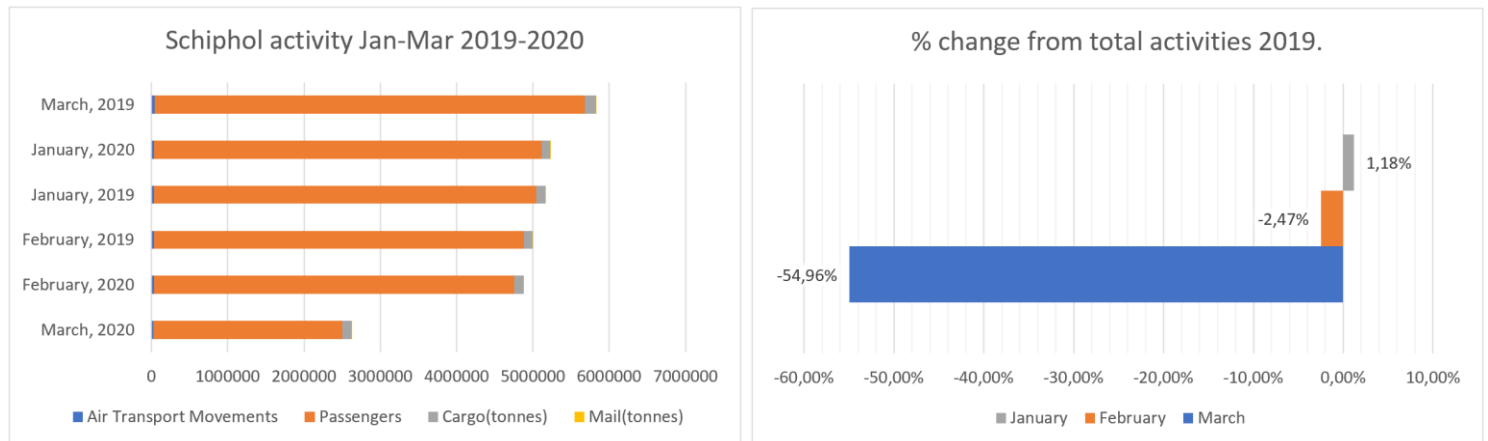


Are there still countries without any travel restrictions?

At least 133 countries have implemented a form of travel ban. Be it restricting travel to and from the country, implementing quarantine measures for incoming traffic or limiting the available and variety of transport. The unknown countries have not yet made their stance on the situation clear to the outside world as of the 3rd of May.

Impact of COVID-19 on the air travel industry. Scope: Schiphol.

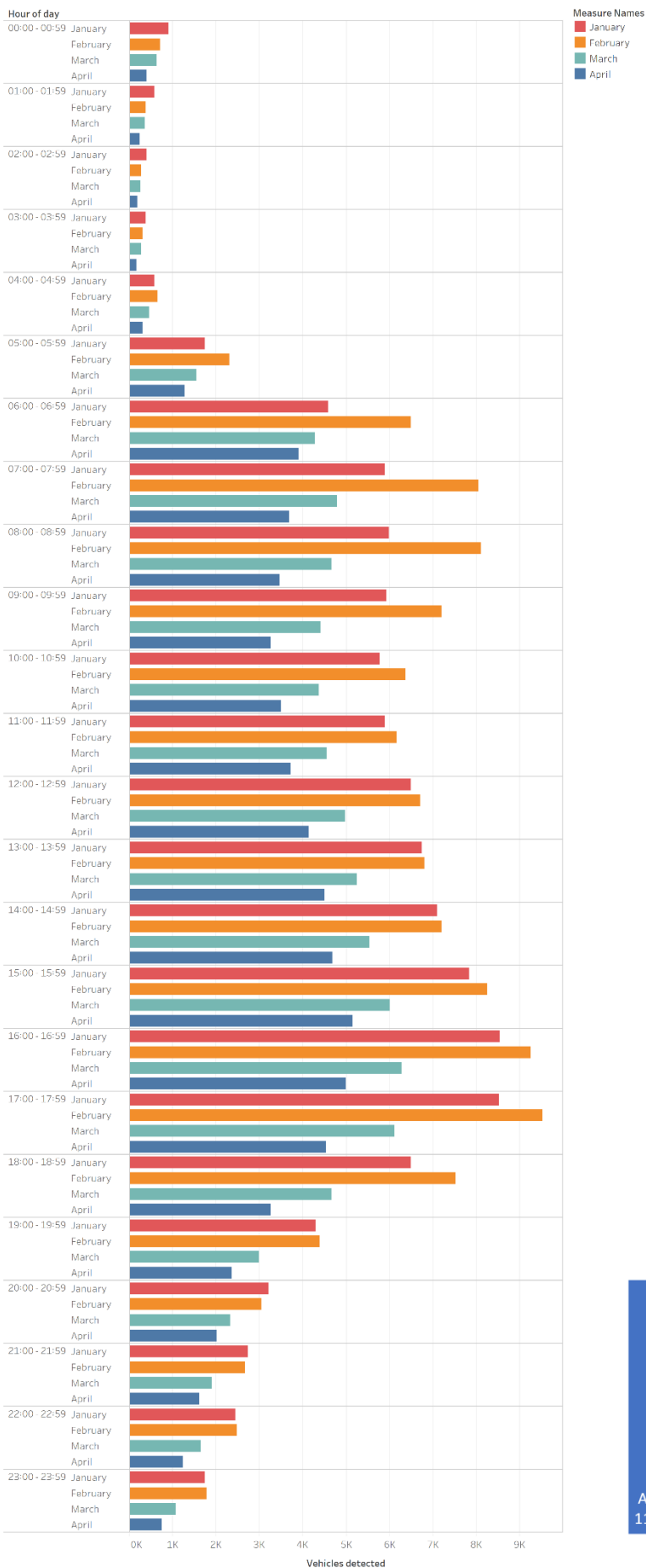
Schiphol was the 11th busiest airport of the world in 2018 and 3rd of Europe, counting a total of 71,053,147 passengers [\[source\]](#). This means that the traffic at Schiphol will be a good indication of the change that the pandemic has introduced.



On the left is the total amount of traffic featuring the amount of air transport movements, passengers, cargo and mail in tonnes. The sums of these per month have been compared to each other showing half the amount of normal activities at the airport. The visualization on the right shows the exact percentages for the change per month, comparing 2020 with 2019 shows that Schiphol Schiphol suffered the most in March, with an abnormal difference of 54.96%

Continued on next page

Sum of vehicle intensity on 3 measure points per hour of day per month in 2020



January, February, March and April for each Hour of day. Color shows details about January, February, March and April.

Traffic Intensity measured at 3 locations over the course of 4 months

On the [website](#) that provided the datasets, the following locations were chosen, followed by their ID:

A1 westbound naar Amsterdam:

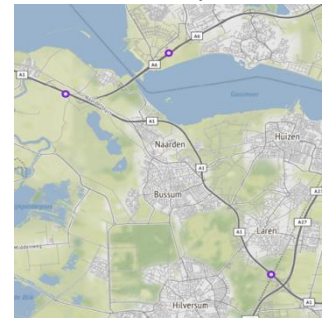
RWS01_MONIBAS_0011hrl0287ra

A1 eastbound naar Amersfoort:

RWS01_MONIBAS_0011hrr0143rb

A6 southbound naar muiden Noord:

RWS01_MONIBAS_0061hrr0463ra



The chosen measurement points feature a lot of activity throughout the day from personal experience, which is why these points were selected.

As shown, January and February appear to feature the most vehicles detected. March shows a noticeable decline compared to the previous 2 months, while the vehicles detected in April show as the least detected on each of the timeframes by a significant amount.

Additional check: comparing 2020 with 2019

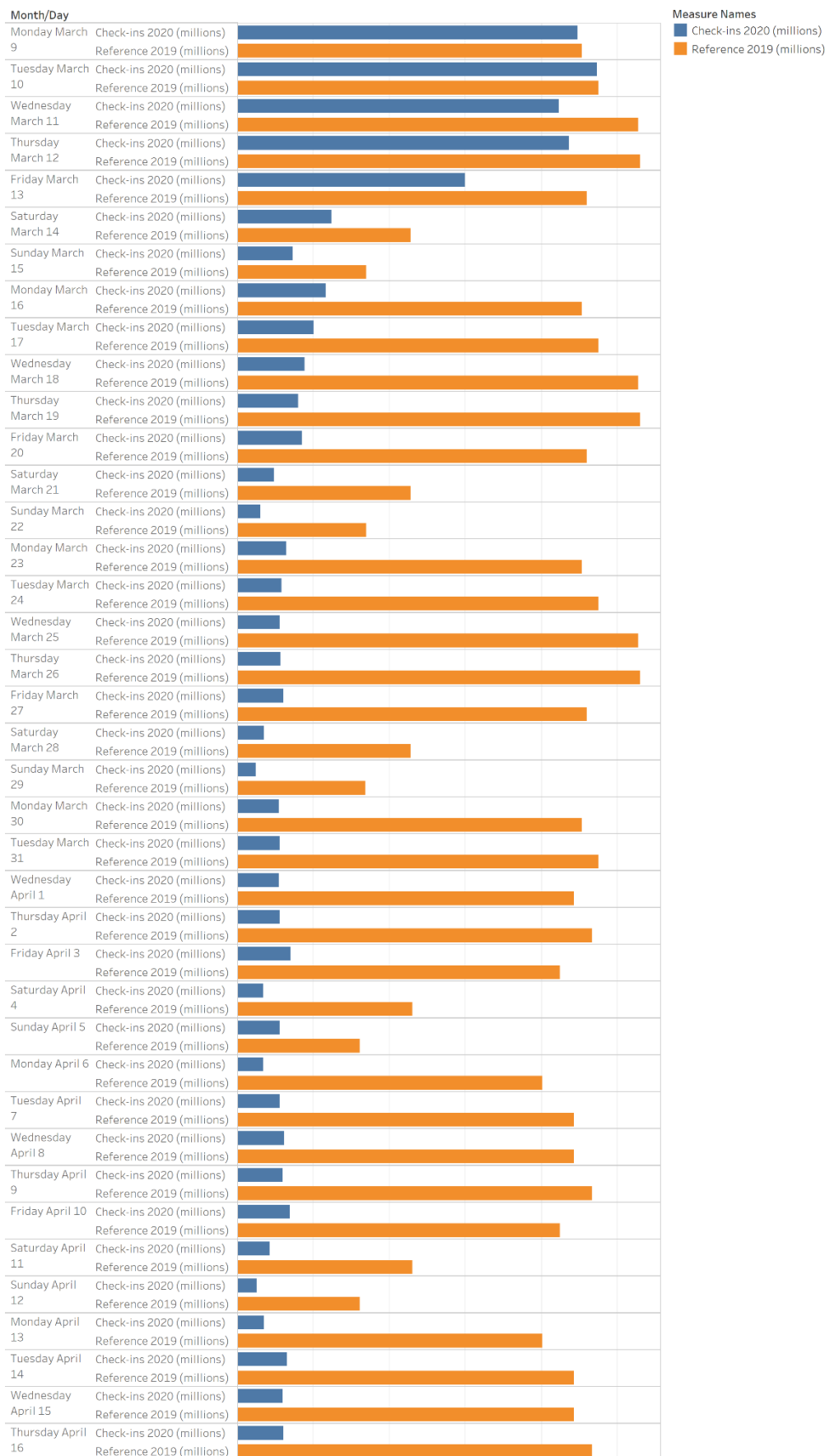
To confirm that the intensity has decreased due to the pandemic and that it is not a yearly occurrence, the data from April in 2020 was compared to the same timeframe from 2019 in the graph below, using the same source. This additional information established an even stronger confirmation that road traffic has indeed decreased. In April this change is recorded to be 43.26% on the 3 selected measuring points. This dataset does not represent the Netherlands as a whole, but is likely to be a representation of the general trend.

Percentage of change in measured traffic on 3 points 2020 Vs. 2019

■ Apr/19 ■ Apr/20



Check-ins on Public Transport in 2020 vs 2019



Check-ins 2020 (millions) and Reference 2019 (millions) for each Month/Day. Color shows details about Check-ins 2020 (millions) and Reference 2019 (millions).

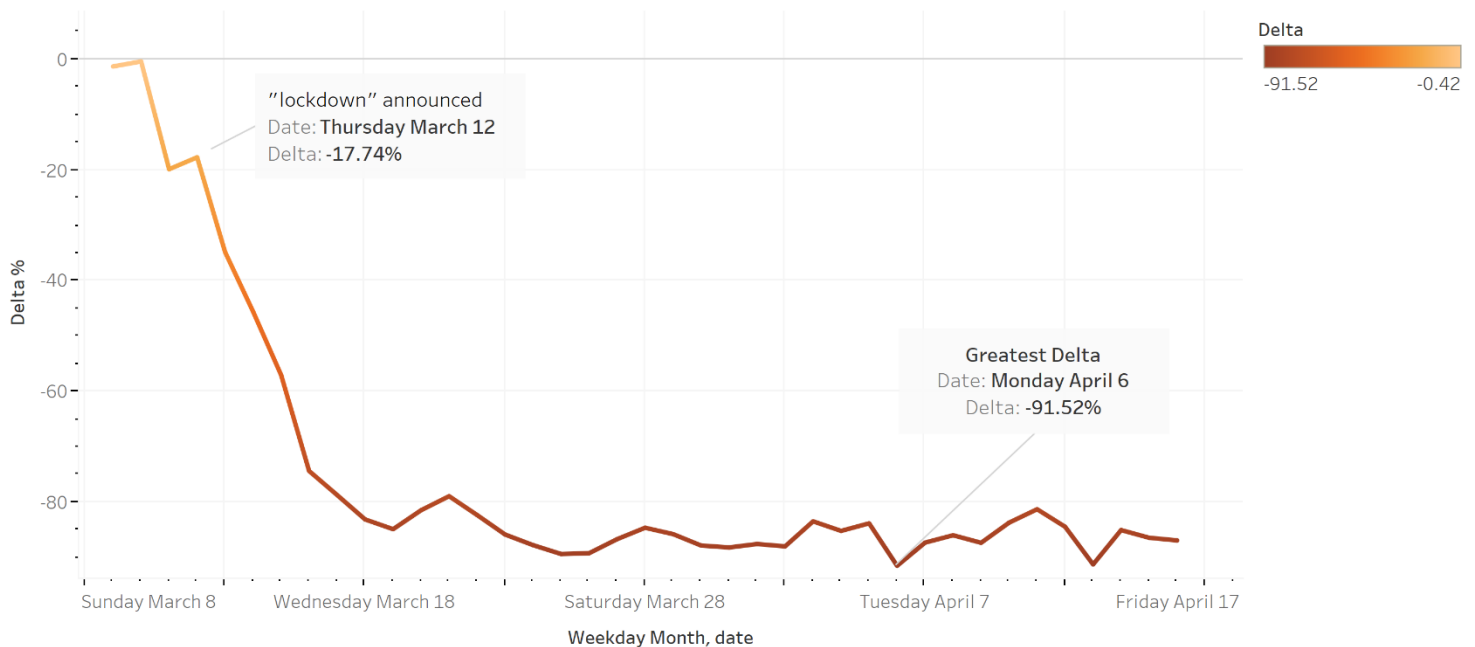
The public transport in the Netherlands 2020 Vs. 2019

The data shows the number of check-ins in millions over the period of March 9th up to April 16th. The “lockdown” was announced on the 12th of March.

While the public transport in the Netherlands is still operational, they follow newly designed basic service regulations to allow the ones who depend on it to still be able to travel. See [here](#) for complete details on each provider.

Focusing on check-in’s 2020 it becomes clear that there is a steady decline from the 12th of march and onward. This might be due to people not having or being able to travel to work or school anymore. Even with the vast decline in check-ins, the weekends still appear like the quietest times. The difference in travellers becomes even more clear in the delta visualization that follows on the next page.

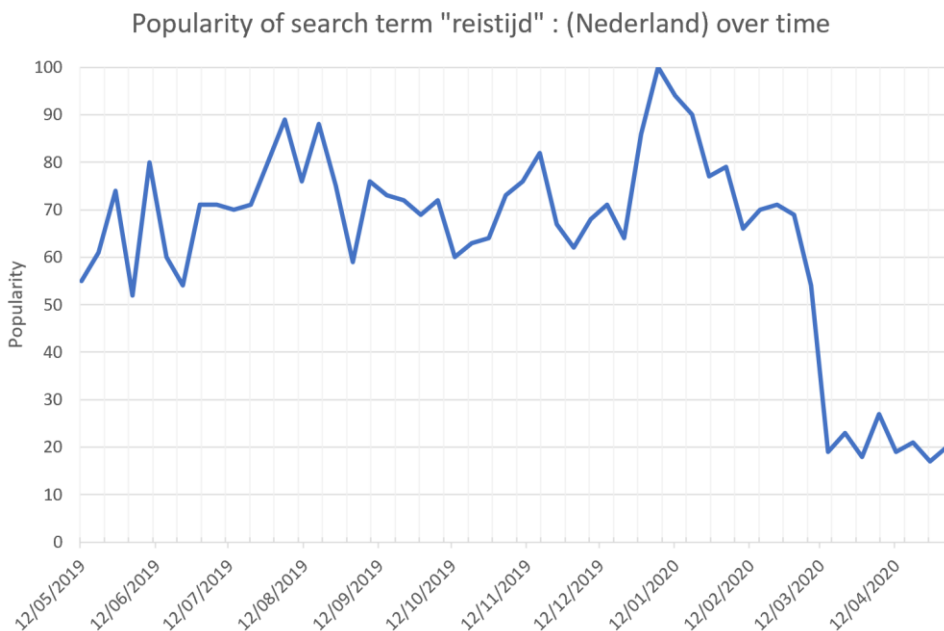
% Difference of Public Transport Check-ins 2020 Vs. 2019 in the Netherlands



The trend of sum of Delta for Month/Day Day. Color shows sum of Delta.

As shown in the percentage of change from 2020 compared to 2019, the decline in check-ins becomes even more apparent, with the greatest change of 91.52% which occurred on the 6th of April. In a matter of 10 days there was already a decline of 80% of check ins, which the check-ins varied around up until April 16th.

As of June 1st, the NS (Nederlandse Spoorwegen) plans to have adapted (most of) its trains to function with the 1.5m distance rule and material in between seats to separate people. They hope to transport more people this way to generate more income.



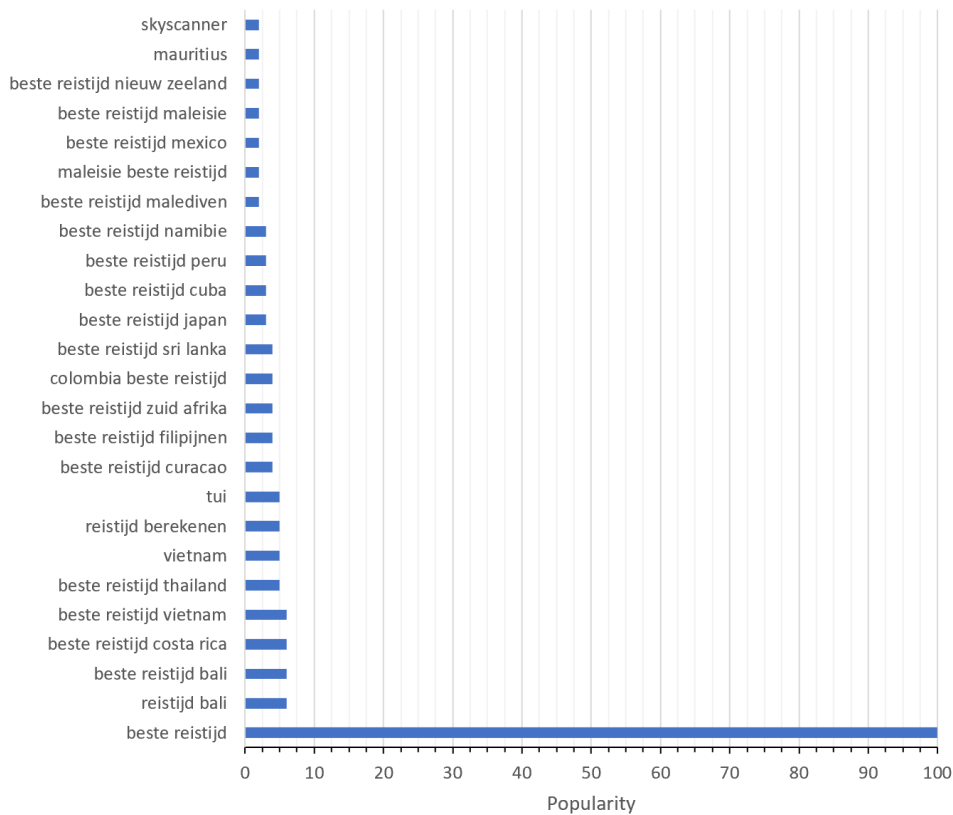
Popularity of search term related to mobility in the Netherlands.

For this part [Google trends](https://www.google.com/trends/) was used to analyse if there was even the slightest bit of interested in travelling in the Netherlands. The term in question is "Reistijd", meaning travel time in Dutch.

In the graph, a popularity of 100 indicates its most popular time, where zero is then respectively the lowest. The horizontal axis shows a grid per 10 days, where the 12th of each month is indicated. Even before the lockdown was announced people were already not googling this term as much.

Even though there is a steep decline in the popularity of "Reistijd", what are those who are interested in travel times looking for? This can be found on the *next page*.

most popular (parts of) search terms related to travel times on 06-05-2020

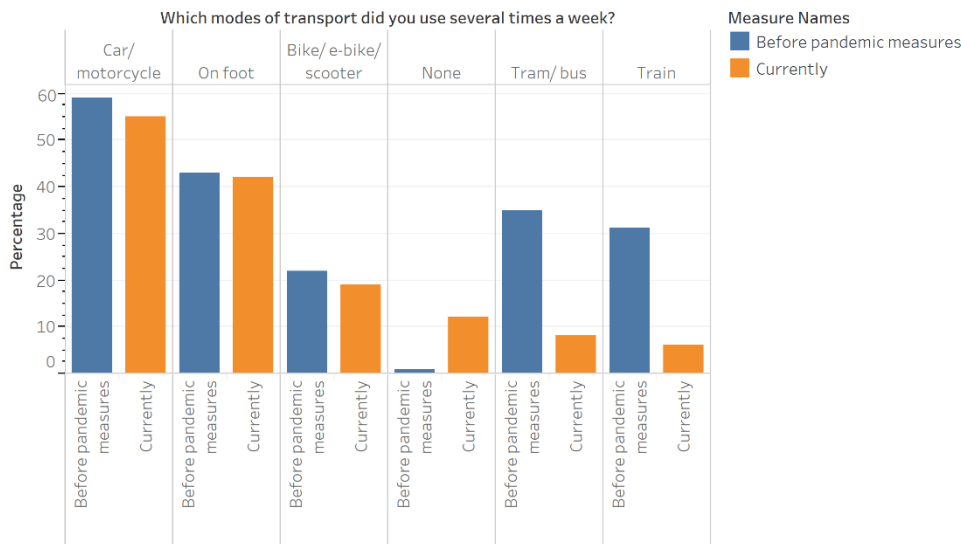


Related search queries to the search term in question reveal that, while they may not be popular, people are still interested in travelling abroad. Only 2 out of the entire list of most popular terms are not travel destinations (tui is a travel agency and skyscanner an application). This indicates that there is a very small percentage of people in the Netherlands who are already planning their next holiday amidst the chaos.

Additional: another popular search was related to cancelling flight tickets.

With the travel and transport sector in the Netherlands experiencing such a steady decline, it raised the question if this was the same in another, random country. The country happened to be Switzerland.

Modes of transport used during and before COVID-19 in Switzerland, 2020



Before pandemic measures and Currently for each Which modes of transport did you use several times a week?. Color shows details about Before pandemic measures and Currently.

Questionnaire regarding the means of transport preferred by citizens in Switzerland before and during their lockdown.

A questionnaire was conducted during 21-23 of march, with 2097 participants of the age of 15 plus. Participants were asked which modes of transport they used several times a week. This resulted in a clear indication that people avoid public transport and travel less in general. While public transport is down by 25%, 10% also indicated that they do not travel at all currently.

Design Decisions:

While most visualizations were made in tableau, some were easier to do in excel. The first visualization however was done in adobe illustrator. It was very hard to find adequate data regarding the travel restrictions for all of the countries of the world, so the visualization was made with more effort to balance out the lack of data. Bar charts and line charts were used the most in this assignment. This is because while they are the most basic format, they happen to be the most coherent way for presenting the information in its given context.

Sources:

Task 1, Countries and their travel restrictions:

https://en.wikipedia.org/wiki/Travel_restrictions_related_to_the_COVID-19_pandemic

Task 2, Schiphol data:

<https://www.schiphol.nl/en/schiphol-group/page/transport-and-traffic-statistics/>

Task 3, traffic count:

<https://dexter.ndwcloud.nu/opendata>

Data selected for the 1st of each month till its last day.

Task 4:

Public transport:

<https://www.cbs.nl/nl-nl/nieuws/2020/14/veel-minder-druk-in-openbaar-vervoer-in-maart-2020>

data values had to be adopted by hand as their public data tool is not yet public

Search term:

<https://trends.google.com/trends/explore?geo=NL&q=reistijd>

Questionnaire:

<https://www.statista.com/statistics/1110515/coronavirus-covid-19-modes-of-transport-switzerland/>