In this document we provide all necessary information for the replication of the article *Spring Forward, Don't Fall Back - The Effect of Daylight Saving Time on Road Safety* and the corresponding online appendix. In particular, we name all data sources and show where to find them. Merging of individual data sets, data preparation and all analyses were carried out using Stata/SE 15.1 for Windows and are documented in do-files. The original data, the do-files and all other information necessary for replication except for weather data, which is proprietary data and requires an application (see below), is part of the *spring forward.tar* archive. Additionally, the archive also entails the packed final dataset excluding weather variables (*final.zip*), which can be used to replicate all results that are based on specifications without weather controls. The text file *variable description.txt* contains variable labels for the final data set. In the following, we provide information about the original data and how to get from the original data to the final data set and to the results.

1 Original data

1.1 STATS19

Source:

https://data.gov.uk/dataset/cb7ae6f0-4be6-4935-9277-47e5ce24a11f/road-safety-data

Relevant files:

dftRoadSafetyData_Accidents_2017.zip
dftRoadSafetyData_Casualties_2017.zip
dftRoadSafetyData_Vehicles_2017.zip
dftRoadSafety_Accidents_2016.zip
dftRoadSafetyData_Vehicles_2016.zip
dftRoadSafetyData_Casualties_2016.zip
RoadSafetyData_2015.zip
Stats19_Data_2005-2014.zip
Stats19-Data1979-2004.zip

Notes:

On the website you will also find a variable description file (Road-Accident-Safety-Data-Guide.xls). Furthermore, we provide the original data packed in the *spring forward.tar* file.

1.2 Sunrise and Sunset times

Source:

https://www.esrl.noaa.gov/gmd/grad/solcalc

Relevant files:

NOAA_Solar_Calculations_day.xls

Notes:

The calculation of sunrise and sunset times for each region and day are based on the above stated file and are implemented in the corresponding do-file. As we are interested in the timing of onset and offset of darkness (i.e. in the timing of transition out of civil twilight in the evening and the transition into civil twilight in the morning) instead of sunrise and sunset times, the calculations provided in the do-file differ slightly from those provided by the NOAA.

1.3 MIDAS

Source:

https://catalogue.ceda.ac.uk/uuid/916ac4bbc46f7685ae9a5e10451bae7c

and

https://catalogue.ceda.ac.uk/uuid/bbd6916225e7475514e17fdbf11141c1

Relevant files:

midas_wxhrly_199601-199612.txt	midas_rainhrly_199601-199612.txt
midas_wxhrly_199701-199712.txt	midas_rainhrly_199701-199712.txt
midas_wxhrly_199801-199812.txt	midas_rainhrly_199801-199812.txt
midas_wxhrly_199901-199912.txt	midas_rainhrly_199901-199912.txt
midas_wxhrly_200001-200012.txt	midas_rainhrly_200001-200012.txt
midas_wxhrly_200101-200112.txt	midas_rainhrly_200101-200112.txt
midas_wxhrly_200201-200212.txt	midas_rainhrly_200201-200212.txt
midas_wxhrly_200301-200312.txt	midas_rainhrly_200301-200312.txt
midas_wxhrly_200401-200412.txt	midas_rainhrly_200401-200412.txt
midas_wxhrly_200501-200512.txt	midas_rainhrly_200501-200512.txt
midas_wxhrly_200601-200612.txt	midas_rainhrly_200601-200612.txt
midas_wxhrly_200701-200712.txt	midas_rainhrly_200701-200712.txt
midas_wxhrly_200801-200812.txt	midas_rainhrly_200801-200812.txt
midas_wxhrly_200901-200912.txt	midas_rainhrly_200901-200912.txt
midas_wxhrly_201001-201012.txt	midas_rainhrly_201001-201012.txt
midas_wxhrly_201101-201112.txt	midas_rainhrly_201101-201112.txt
midas_wxhrly_201201-201212.txt	midas_rainhrly_201201-201212.txt
midas_wxhrly_201301-201312.txt	midas_rainhrly_201301-201312.txt
midas_wxhrly_201401-201412.txt	midas_rainhrly_201401-201412.txt
midas_wxhrly_201501-201512.txt	midas_rainhrly_201501-201512.txt
midas_wxhrly_201601-201612.txt	midas_rainhrly_201601-201612.txt
midas_wxhrly_201701-201712.txt	midas_rainhrly_201701-201712.txt

Notes:
All weather data is proprietary data. To download MIDAS UK Hourly Weather Observation Data and MIDAS UK Hourly Rainfall Data, you have to register at the Centre for Environmental Data Analysis first. Afterward, you have to click on one of the above links and select *Request Access* to get to the application form.

Excel files containing characteristics (including longitude and latitude) of the relevant MIDAS stations can be downloaded here for each postcode starting character but are also provided packed in the *spring forward.tar* file. Additional information about the MIDAS data is provided in the MIDAS Users Guide and column headings are available for both MIDAS: UK Hourly Weather Observation Data and MIDAS: UK Hourly Rainfall Data.

2 How to get to the final dataset

All steps of the data preparation are documented in the do-files. The do-files are part of the *spring forward.tar* archive. To make sure that you can replicate our final data set easily, keep the folder structure after unpacking the *spring forward.tar* file and copy the weather data to the folder `C:...\spring forward\data\midas\hourly`. Open the master do-file *0 master.do* and adjust the global *path* accordingly. Afterward, you can run the do-files *1 preparation weather data.do* to combine the MIDAS data files and to prepare and aggregate the weather data. In do-file *2 preparation accident data.do* we combine and aggregate the STATS19 data, calculate sunrise and sunset times, merge the aggregated weather data and assemble the final dataset *final.dta*.

3 Analysis

The do-file *3 tables and figures main.do* can be used to replicate all tables and figures shown in the main text while the do-file *4 tables and figures online appendix.do* provides the code for the results shown in the online appendix. Note that if you want to use the provided data set *final.dta* and do not assemble it on your own based on the original data, you have to unpack it first. Furthermore, when using this data set, you can only replicate results that are based on specifications that do not include controls for weather conditions, as it does not contain weather information.