

Data Importation

Using SAS and SAS Studio

Dr. Austin Brown

Kennesaw State University

Data Importation

- ▶ **Objective:** Learn how to import data from CSV and XLSX files into SAS Studio.
- ▶ **Importance:** Importing data is a fundamental step in data analysis and data science workflows.

Importing Data in SAS Studio

- ▶ There are multiple ways to import data into SAS Studio.
- ▶ For us, since we are working with external files we've downloaded from D2L (e.g., the Cars.csv file), we will need to upload these files into SAS Studio much like we did with Google Colab and Posit Cloud.
- ▶ To do this, we will use the following code:

```
PROC IMPORT DATAFILE="/path/to/your/Cars.csv"  
  OUT=cars  
  DBMS=CSV  
  REPLACE;  
  GETNAMES=yes;  
RUN;
```

Importing Data in SAS Studio

- ▶ Note, unlike R and Python, SAS is not case-sensitive.
- ▶ So `PROC IMPORT` and `proc import` are the same.
- ▶ Now, let's try importing an Excel file!

Importing Data in SAS Studio

```
PROC IMPORT DATAFILE="/path/to/your/Penguins.xlsx"  
  OUT=cars  
  DBMS=XLSX  
  REPLACE;  
  GETNAMES=yes;  
RUN;
```

Explore Imported Data

- ▶ Once we have imported data, it is important to explore it to ensure that it was imported correctly.
- ▶ There are a few ways to go about this using SAS, but one of the simplest ways is to use the PRINT procedure. The PROC PRINT (along with the OBS option) displays the first few rows of a data frame.
- ▶ Let's use the print the first five rows of the Cars and Penguins dataframes:

Explore Imported Data

```
PROC PRINT DATA=cars(OBS=5);  
RUN;
```

Obs	VAR1	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
1	Mazda RX4	21	6	160	110	3.9	2.62	16.46	0	1	4	4
2	Mazda RX4 Wag	21	6	160	110	3.9	2.875	17.02	0	1	4	4
3	Datsun 710	22.8	4	108	93	3.85	2.32	18.61	1	1	4	1
4	Hornet 4 Drive	21.4	6	258	110	3.08	3.215	19.44	1	0	3	1
5	Hornet Sportabout	18.7	8	360	175	3.15	3.44	17.02	0	0	3	2

Explore Imported Data

```
PROC PRINT DATA=penguins(OBS=5);  
RUN;
```

Obs	species	island	bill_length_mm	bill_depth_mm	flipper_length_mm	body_mass_g	sex	year
1	Adelie	Torgersen	39.1	18.7	181	3750	male	2007
2	Adelie	Torgersen	39.5	17.4	186	3800	female	2007
3	Adelie	Torgersen	40.3	18	195	3250	female	2007
4	Adelie	Torgersen		2007
5	Adelie	Torgersen	36.7	19.3	193	3450	female	2007