Strange years

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This project involves parsing and analysing the French "Deceased Persons File" from the INSEE database. We retrieved these datasets using the API from the data.gouv.fr website.

Introduction

This project is the culmination of a series of analyses that began during the second lockdown in France, from 30 October to 15 December 2020. It initially stemmed from a casual discussion regarding the various arguments against the implementation of public health measures. The argument that led us to examine the data was as follows:

> **"The excess mortality during the COVID-19 pandemic is comparable to the cold epidemics of previous years in France, which did not require lockdown measures. The response to COVID-19 is, therefore, at the very least, an overreaction."**

Following this discussion, we decided to use the skills we acquired during our physics studies to test this claim using data. However, as we experimented with different data analysis and visualisation methods, what started as a playful inquiry soon evolved into something much more profound than the initial question we had set out to answer. New questions arose, and the following is the result of these explorations.

This work is the product of discussions, aesthetic choices, and both insightful and less relevant observations. It is a work focused on questions, more than answers.

> **"There are naive questions, tedious questions, ill-phrased questions, questions put forth after inadequate self-criticism. But every question is a cry to understand the world. There is no such thing as a dumb question."**
>
> — *Carl Sagan, The Demon-Haunted World: Science as a Candle in the Dark*

To all those seemingly insignificant discussions that weave through our lives, to the friends who engage with them, and to those who admit their ignorance. Thank you to all of you who contributed to this work, from the first moment to the long years when it gathered dust in the corners of our minds.

To the countless curious minds that this work has intrigued, offering their insights, questions, or simply their presence—thank you. To the associations that brought us together, to the Discord conversations that broke our isolation, and to the games that united us. A special thanks to the association whose name resonates in so many ways within this work: **CurieOsity**, whose name intriguingly fits so well with the spirit of this paper.

Finally, thank you *Guillaume Beaujard*, whose curiosity and questions have inspired so many minds. Your first question, which started it all, along with your enthusiasm, incisive insights, and kindness, have been invaluable to this project.

Here's a corrected and rephrased version of the **"Brief overview of the dataset"** section in British English:

Brief Overview of the Dataset

The dataset contains the following fields:

- Surname
- First name
- Gender
- Date of birth
- Code of the locality of birth
- Name of the locality of birth

- Country of birth
- Date of death
- Code of the locality of death
- Code of the death certificate

Using the years of birth and death, we can plot the distributions over time, as shown in figures figs. 1, 2, 3. The impact of the two world wars is evident in the reduced number of births during the periods 1915-1919 and 1940-1945.

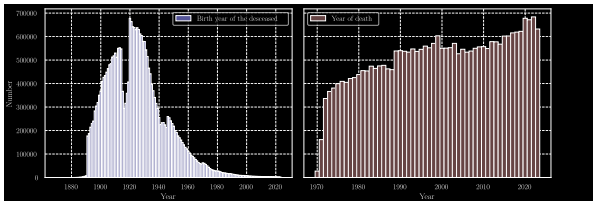

Figure 1: Distribution of the years of birth and death in the dataset

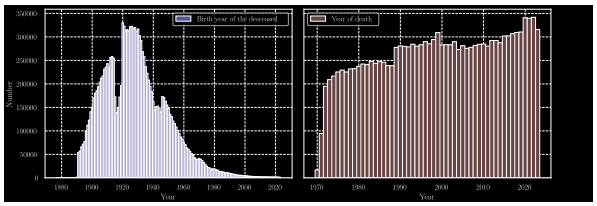

Figure 2: Distribution of the years of birth and death for males

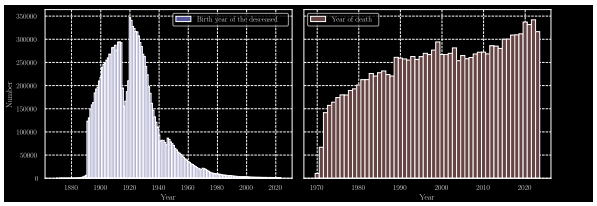

Figure 3: Distribution of the years of birth and death for females

We can also observe the relationship between birth year and year of death in figures figs. 4, 5, 6. These figures display a line where the birth year matches the death year, which can be easily attributed to infant mortality.

Another noteworthy aspect is the presence of a “death peak”, which isn’t surprising, as most people tend to die at an older age. However, the dynamics of this peak are worth exploring further. The increase in life expectency is shown by this dynamic, as the time goes the crest follows curve whose directive coeficient is above 1. Thus the gap between birth and death increase.

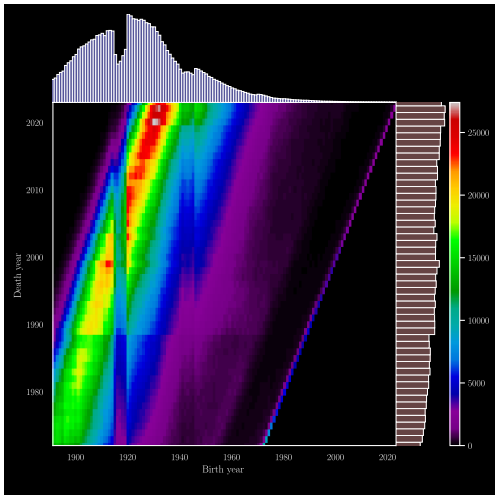

Figure 4: Distributions of year of death given the year of birth

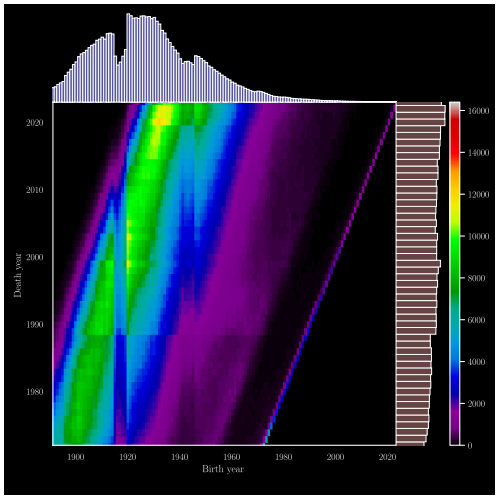

Figure 5: Distributions of year of death given the year of birth for males

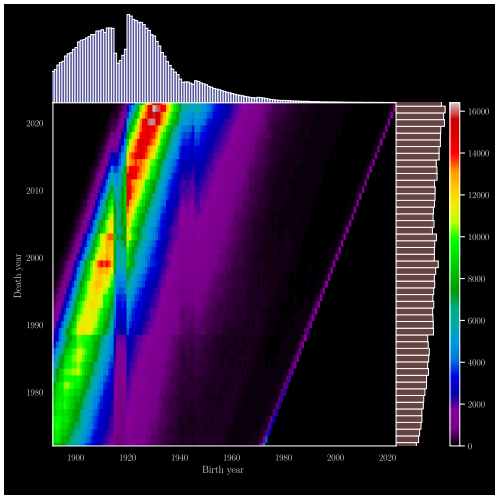

Figure 6: Distributions of year of death given the year of birth for females