Strange years

Yohan Duarte

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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.

Brief overview of the dataset

The Data contains the following entries:

- Family name
- 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 birth

• Code of the death certificate

With the years of births and deaths, we can graphs the distributions through time as shown in the figs. 1, 2, 3. We can see the impact of the two world wars in numbers of births during the periods 1915-1919 and 1940-1945.

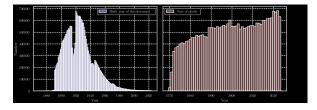


Figure 1: Distribution of the years of birth and death in the dataset

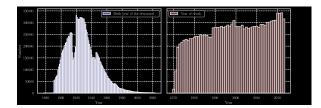


Figure 2: Distribution of the years of birth and death for the male

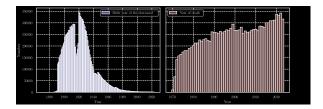


Figure 3: Distribution of the years of birth and death for the female

We can also see the link between the birth year and the year of death, in the figures figs. 4, 5, 6. Thoses figures show a line when the year of birth match the year of death, we can easily understand that infant mortality is the cause of that structure in the figure. Another interesting aspect is highlighted by the presence of a "mount of death", nothing new about the fact that most of the population tend to die "old" but the dynamic of this mount is

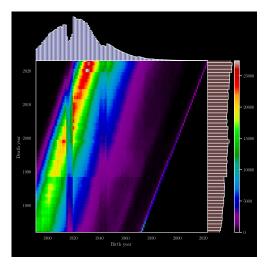


Figure 4: Distributions of year of death given the year of birth

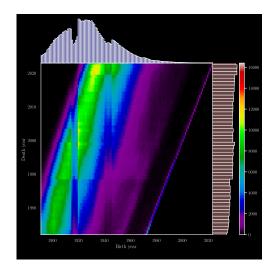


Figure 5: Distributions of year of death given the year of birth for the male

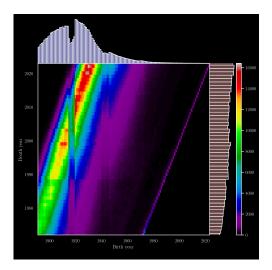


Figure 6: Distributions of year of death given the year of birth for the female