A Cross-verified Database of Notable People, 3500BC-2018AD

We add to the literature on notable individuals by collecting first a massive amount of data from various editions of Wikipedia and Wikidata along with deduplication techniques; and then using these partially overlapping sources to cross-verify each retrieved information. This strategy results in a cross-verified database of 2.3 million individuals, including a third who are not present in the English edition of Wikipedia. We adopt a social science approach: data collection is driven by specific social questions on gender, economic and cultural development and quantitative exploration of cultural trends.

Project team:

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Context

A new strand of literature has emerged that attempts to build the most comprehensive and accurate database of notable individuals. Two recent projects by Schich et al. (2014) and Yu et al., (2016) particularly influenced our work.

We collect a massive amount of data from various editions of Wikipedia and Wikidata. Using deduplication techniques, we cross-verify each retrieved information. For some variables, Wikipedia adds 15% more information when missing in Wikidata. We find very few errors in the part of the database that contains the most documented individuals but nontrivial error rates in the bottom of the notability distribution, due to sparse information and classification errors or ambiguity.

Data collection

We consider two main sources of information: Wikidata and Wikipedia (7 language editions).
Wikipedia: we analyze the source code of each Wikipedia biography to extract the following information: birth and death (date and location), main occupations, gender and citizenship.
Wikidata: we use the "instance of humans" category to figure out a sample of individuals in this universe. We collect the same information as in Wikipedia along with the Q code (identifier) of the individual.
Merging: we use this feature to improve the reliability of each information extracted from both sources. We develop and use a series of algorithms to i) come up with a relevant sample of humans, ii) eliminate duplicate biographies, iii) detect systematic errors contained either in Wikipedia or Wikidata and correct them.

Domains of influence

Discovery/Science
 – Academia (research, historian, scientist, academic, …)
 – Explorer (engineer, explorer, inventor, sailor, pioneer, …)
Culture
 – Core (actor, writer, painter, singer, music, …)
 – Periphery (journalist, architect, designer, presenter, ...)
Leadership
 – Politics (politician, activist, trade unionist, etc.)
 – Military (military, officer, commander, soldier, army, etc.)
 – Law (lawyer, diplomat, judge, jurist, civil service)
 – Nobility (aristocrat, noble, king, sovereign, monarch, etc.)
 – Religious (priest, prelate, rabbi, missionary, bishop, etc.)
 – Corporate leadership (business, entrepreneur, bank, etc.)
Sports/Games
Other: Worker (farmer, librarian, musher, ...) + Family (son, wife, father,...) + Misc. (esperantist, criminal, philanthropist,...)

Share of individuals, breakdown by domain of influence
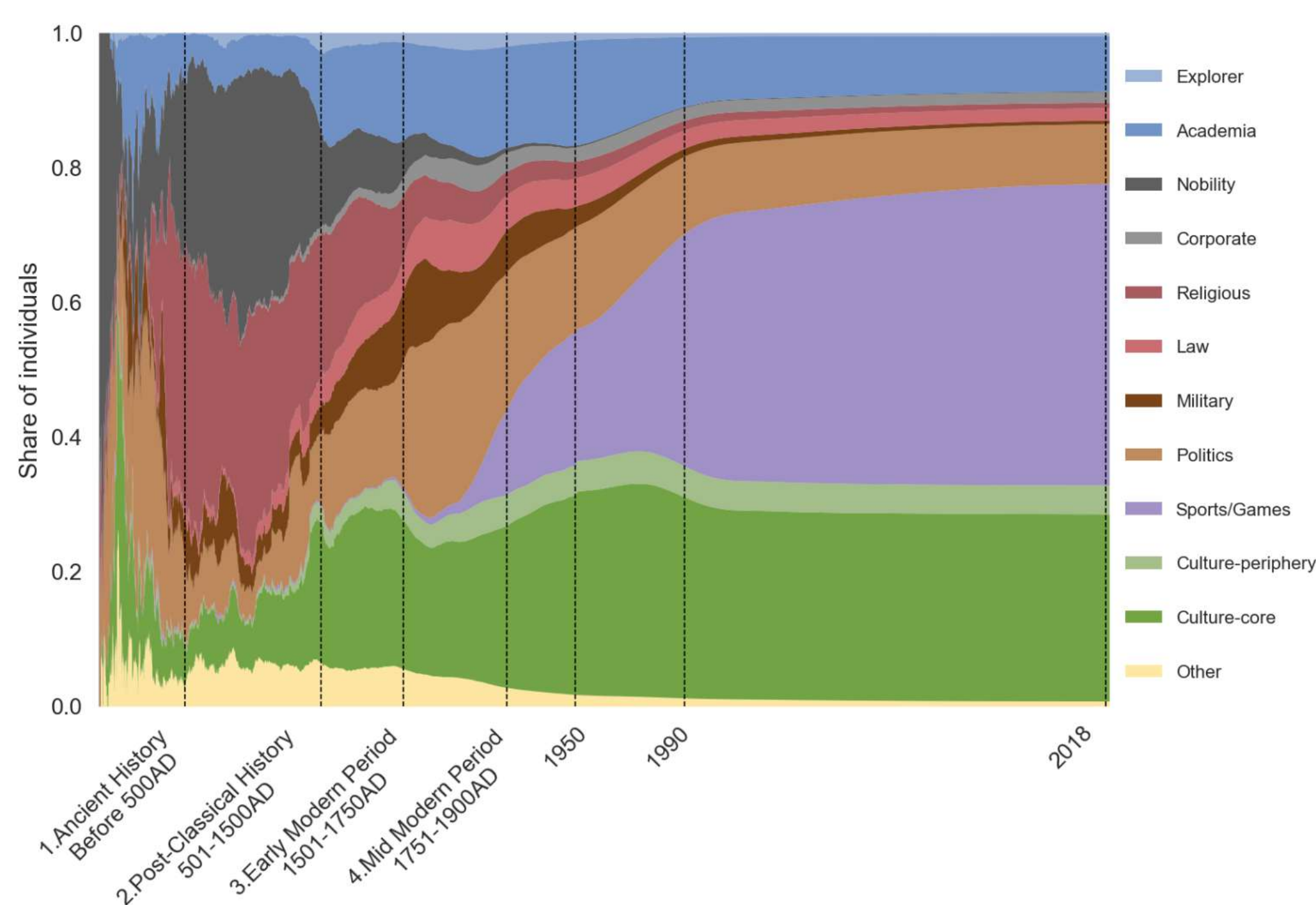
Language groups

English language : individuals with at least one biography in the English edition of Wikipedia;
**Western non-English** : individuals with a Wikipedia biography in at least one of the Western languages but absent from the English edition.

Western, non-English editions are dominated by Culture and Politics and individuals from continental Europe (mostly Germany, France and Sweden) while the English edition is dominated by Sports, Culture and UK and US citizens.

Documenting key historical periods

French and American Revolution (category: "politics")
The share of French and US politicians has been rising in a significant way around and after the end of the 18th century (creation of the new independent nation of the USA, French revolution)
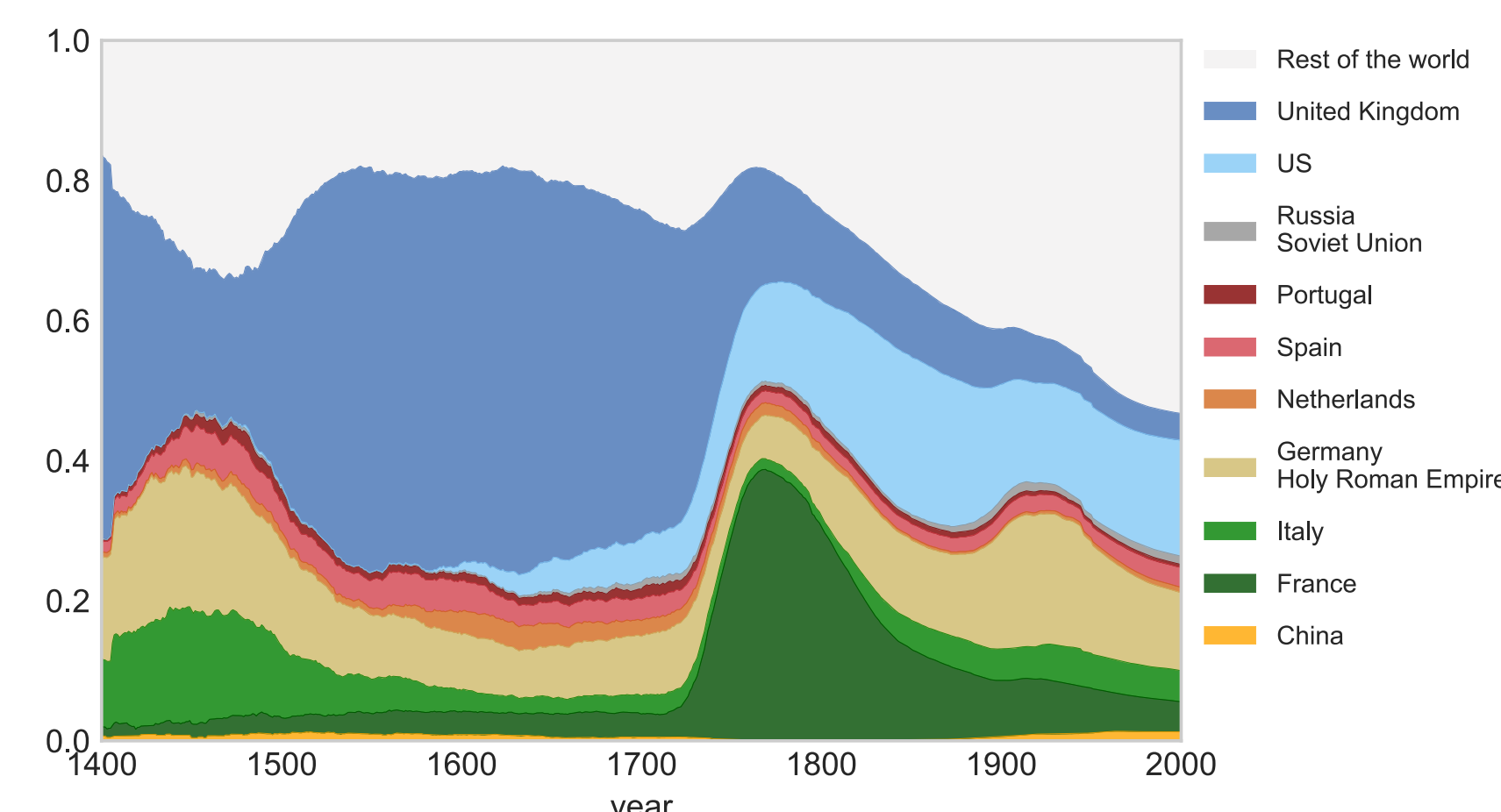

Age of discovery & European exploration (category: "explorer, Inventor, developer")

It illustrates the end of the Chinese exploration period which lasted until the 15th century followed by the European age of discovery and explorations conducted by Portugal and Spain in the 15th and 16th centuries.
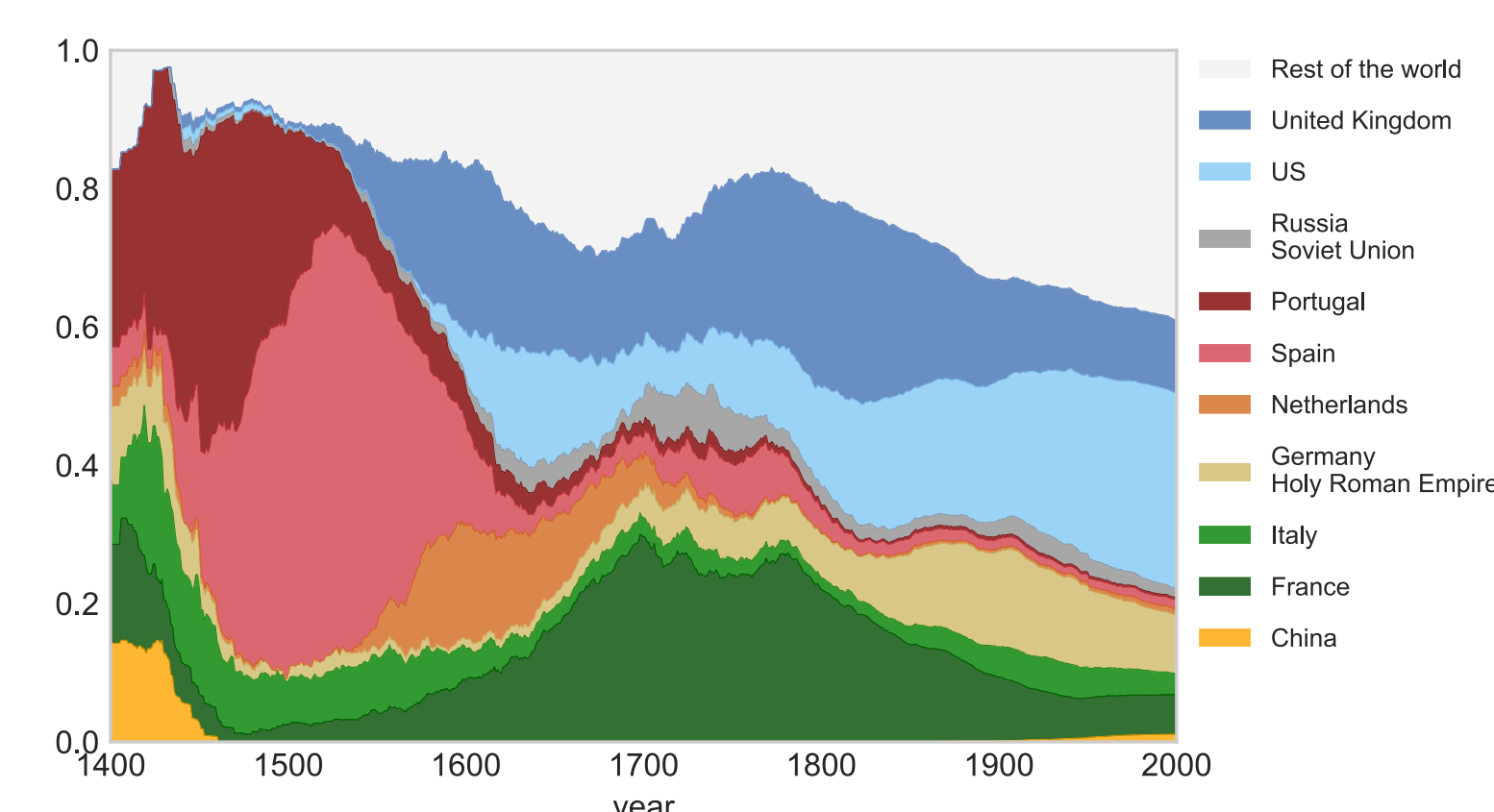
Median longevity…

… is lower for individuals in military and nobility, compared to academia and religion. Concerning nobility, the death of noble children drives down the median life expectancy of this category.
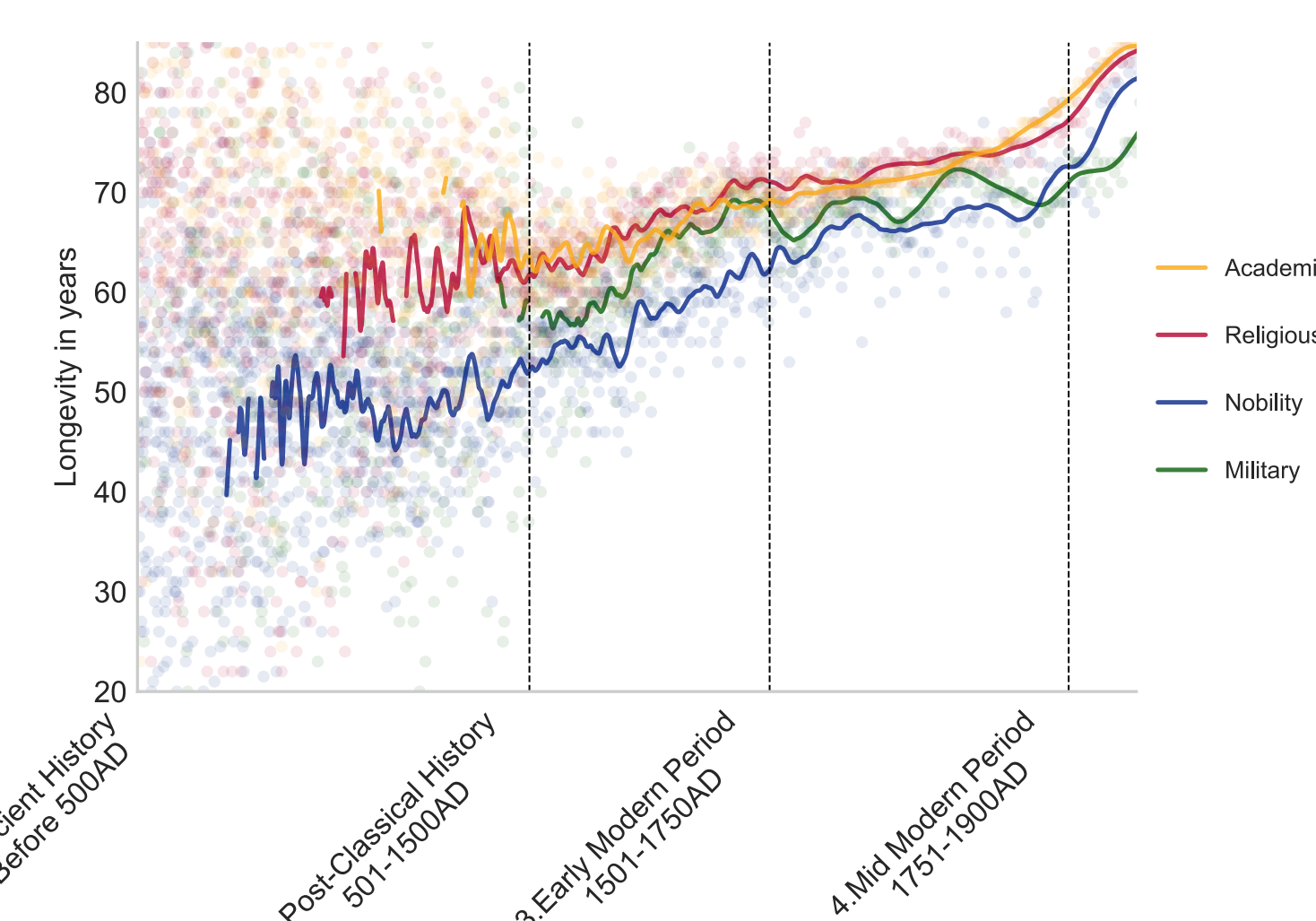
Covariance matrix ellipses and barycenters of birth places (Before 500AD to 1751-1900)

www.sciencespo.fr/liepp