Mars Censere Test Notebook

Richard Offer et al

This is a RStudio Test Notebook that is used to see how the simulation is running prior to commiting.

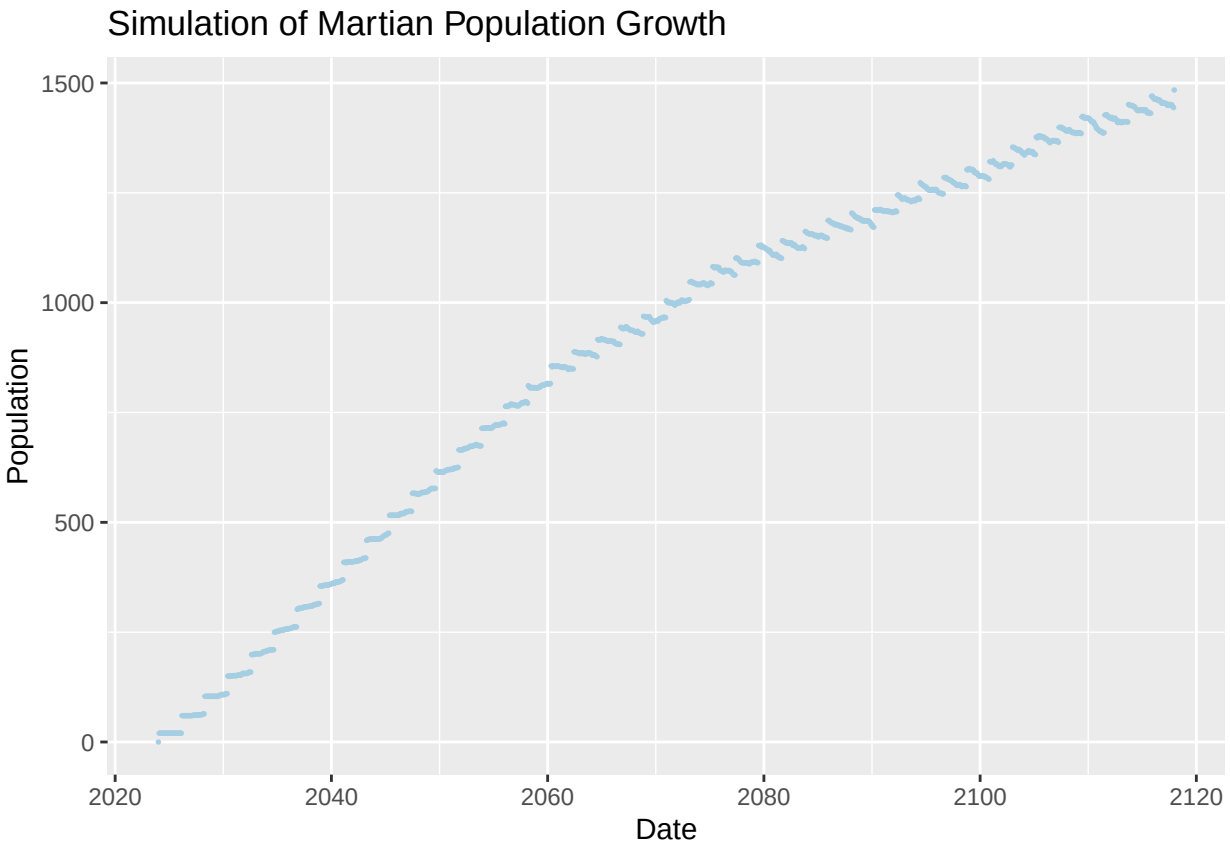
It requires a database that has been already been generated.

Loaded Database Details

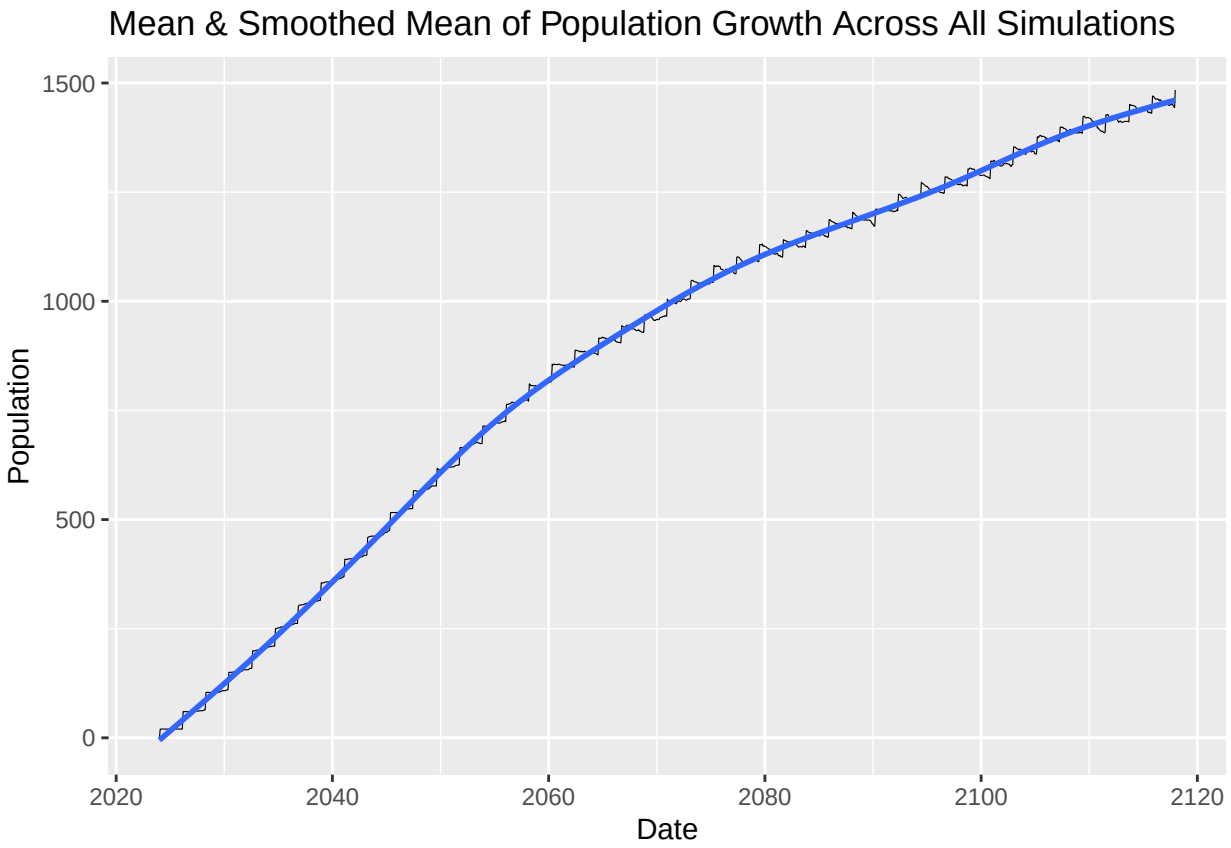
Value	Details
Path	demographics/e152cb28-9703-42d3-b80c-c02ce394e009.db
File Size	3 MBytes
Last Modified	2019-12-20 21:03:13
# Simulations	1

ID	DateLanded	Completed	#Sols	Pop.	Args
1	2024-01-01	2117-12-17	33400	1484	astronaut_age_range=32,45 astronaut_gender_ratio=50,50 astronaut_life_expectancy=72,7 continue_simulation= database_dir=demographics/ first_child_delay=350,700 fraction_singles_pairing_per_day=0.1 gap_between_siblings=380,1000 initial_mission_lands=2024-01-01 00:00:00.000+00:00 limit=sols limit_count=33400 martian_gender_ratio=50,50 martian_life_expectancy=72,7 orientation=90,6,4 settlers_per_initial_ship=20,20 settlers_per_ship=40,40 ships_per_initial_mission=1,1 ships_per_mission=1,1

Database Overview



Any uneveness at the target population limit is due to the simulations with the highest population count completing their target earlier, and obviously if the simulation with the highest population is removed, then the average will drop. Hense the short term spike and drops.



As a fraction in population, you should still see the impact of new missions landing, the sudden influx of adults depresses the fraction of population that are children.

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## Warning: Removed 1 rows containing missing values (geom_point).
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## Warning: Removed 1 rows containing missing values (geom_point).
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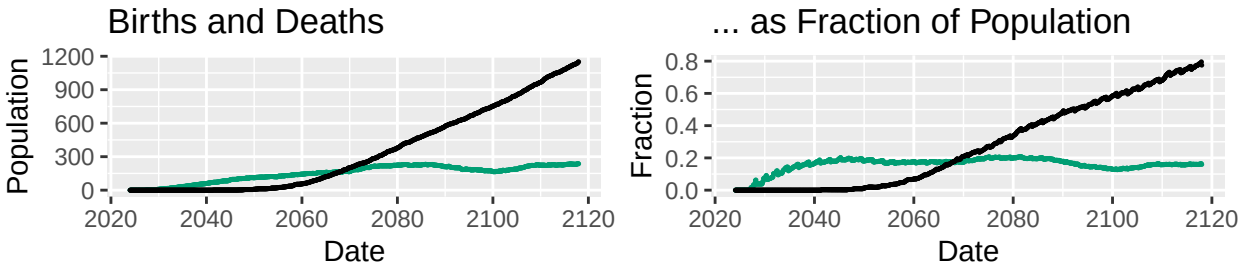
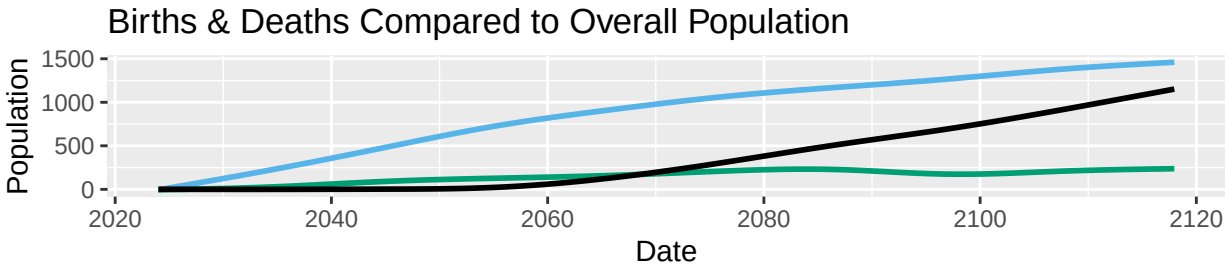
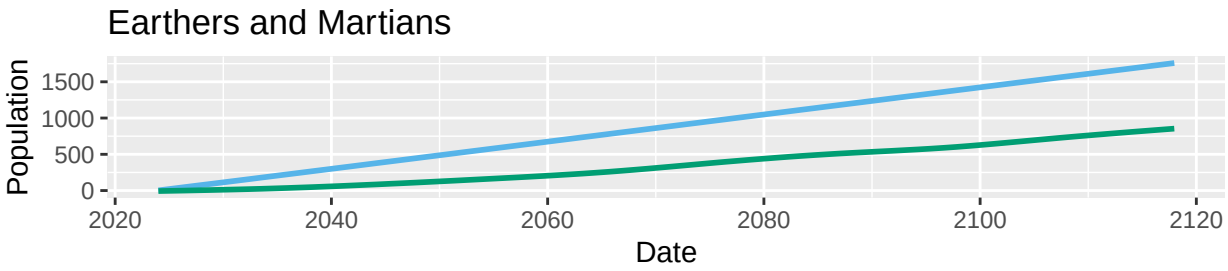
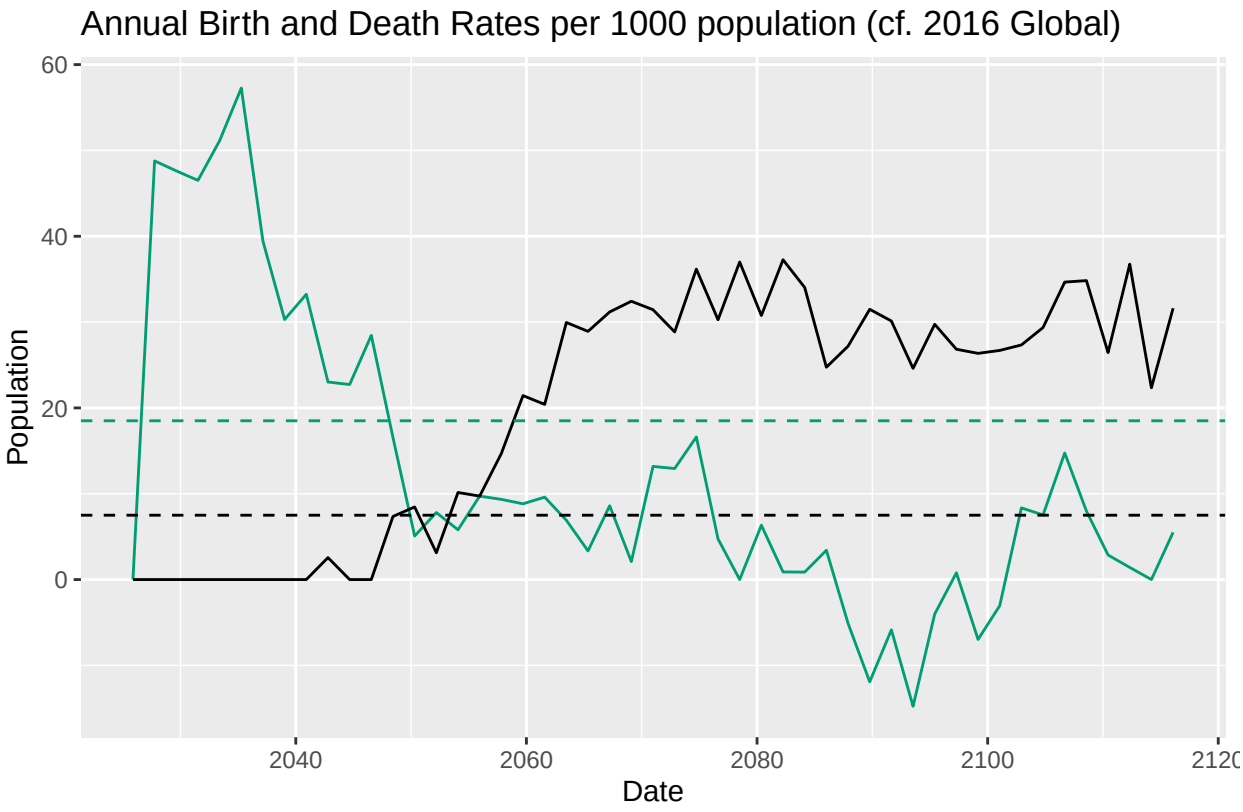
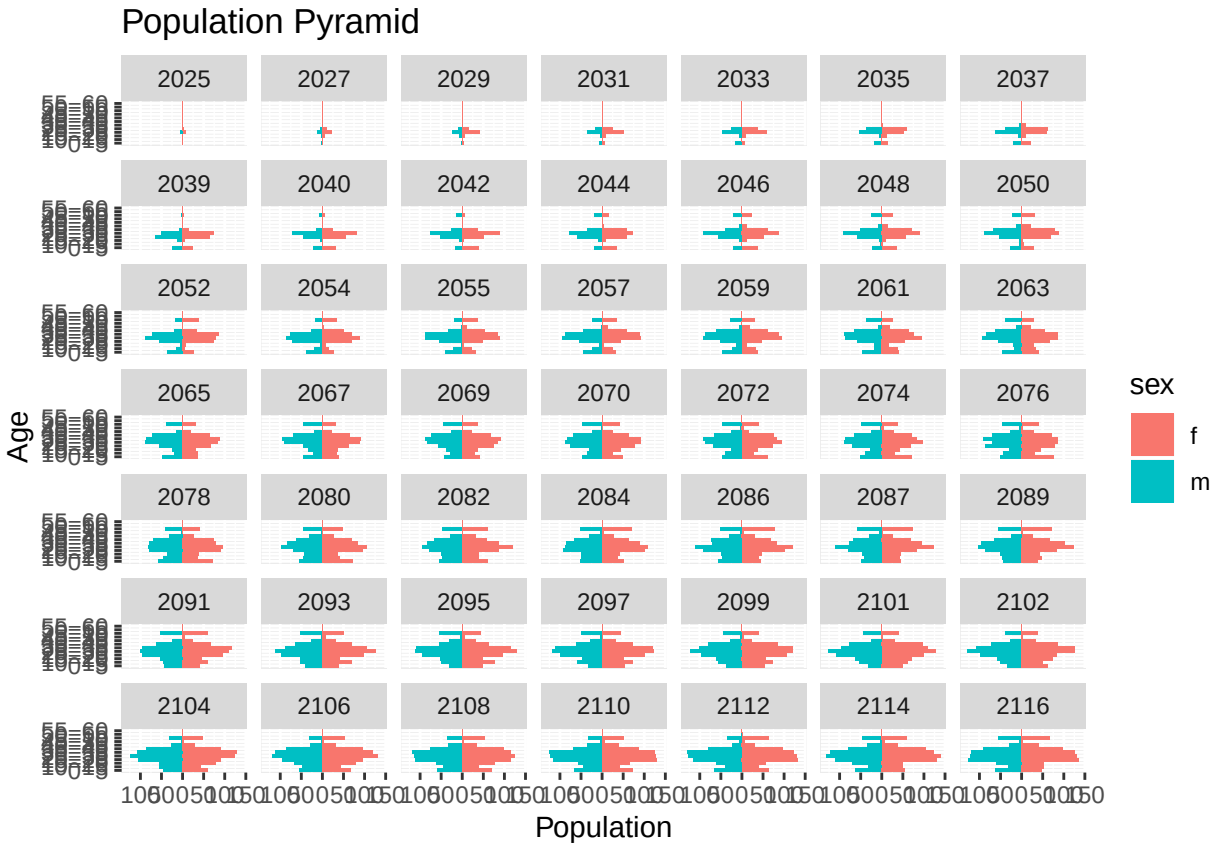








https://en.wikipedia.org/wiki/Birth_rate


Population Pyramid
2025
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2110
2112
2114
2116
Age
Population
sex
f
m