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	/Users/richard/a.db
File Size	3 MBytes
Last Modified	2019-12-09 23:38:41
# Simulations	3

| ID	DateLanded	Completed	#Sols	Pop.	Args
1	2024-01-01	2046-11-07	8124	1000	astronaut_age_range=32,45 astronaut_gender_ratio=50,50 gap_between_children=380,1000 initial_child_delay=350,700 initial_mission_lands=2024-01-01 00:00:00.000+00:00 limit=population limit_count=1000 martian_gender_ratio=50,50 orientation=90,6,4
2	2024-01-01	2044-09-24	7371	1000	astronaut_age_range=32,45 astronaut_gender_ratio=50,50 gap_between_children=380,500 initial_child_delay=200,400 initial_mission_lands=2024-01-01 00:00:00.000+00:00 limit=population limit_count=1000 martian_gender_ratio=50,50 orientation=90,6,4
3	2024-01-01	2045-06-29	7641	1000	astronaut_age_range=32,45 astronaut_gender_ratio=50,50 gap_between_children=600,1000 initial_child_delay=500,800 initial_mission_lands=2024-01-01 00:00:00.000+00:00 limit=population limit_count=1000 martian_gender_ratio=50,50 orientation=90,6,4

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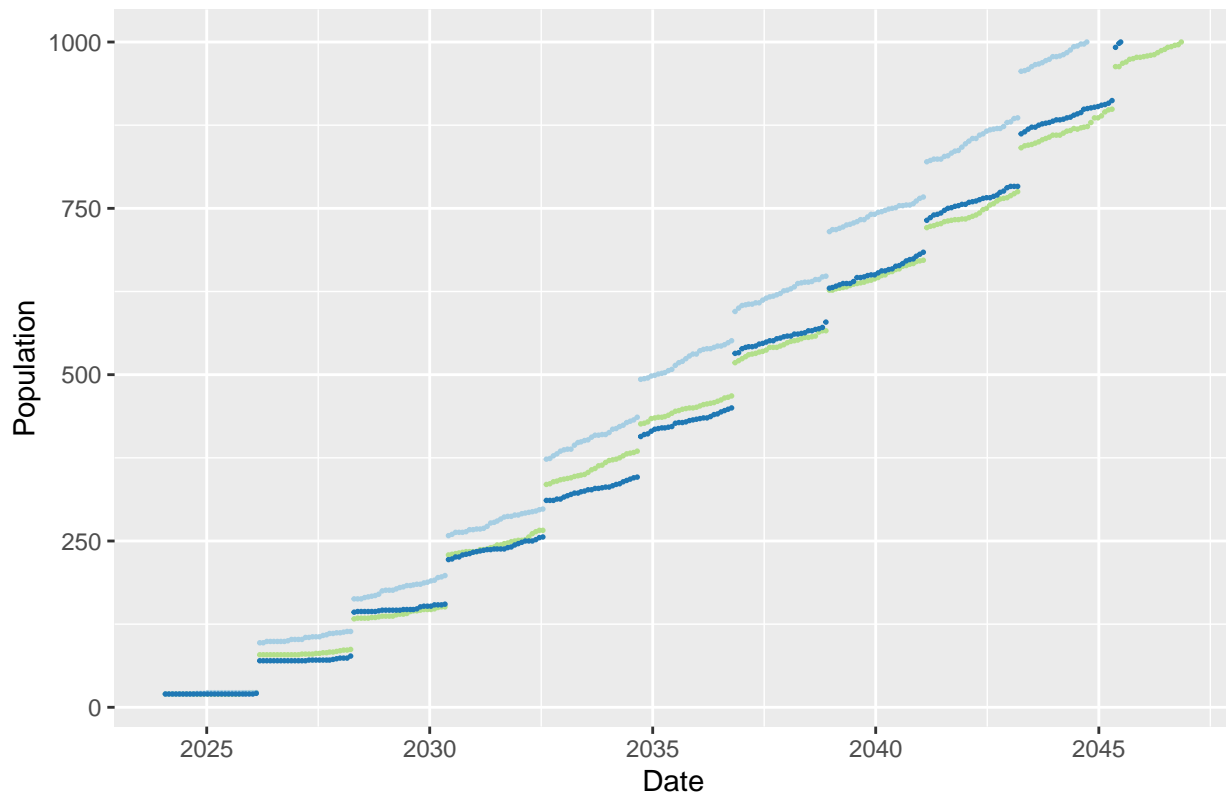
Any unevenness at the target population limit is due to the simulations with the highest population count completing their target earlier, and obviously if the simulation with the highest population is removed, then the average will drop. Hense the short term spike and drops.

Mean & Smoothed Mean of Population Growth Across All Simulations
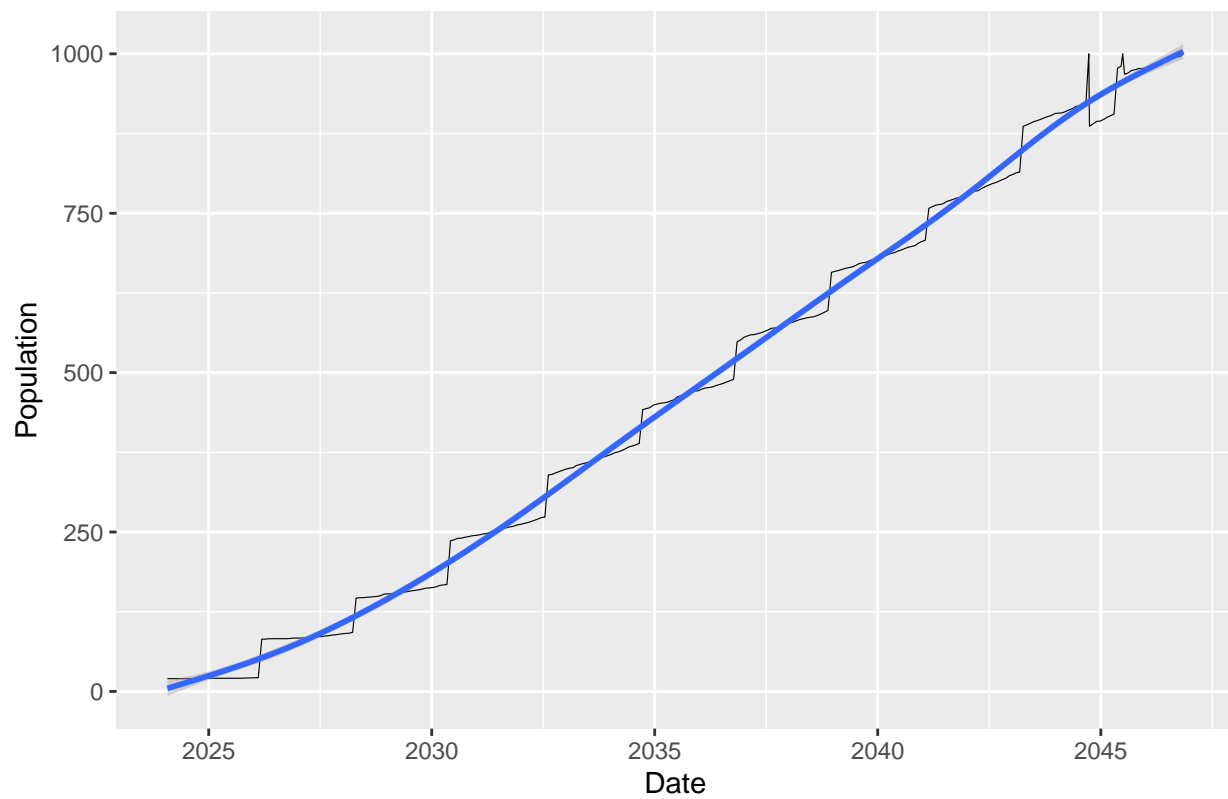
As a fraction in population, you should still see the impact of new missions landing, the sudden influx of adults depresses the fraction of population that are children.

Births and Deaths

... as Fraction of Population

Births & Deaths Compared to Overall Population

Earthers and Martians