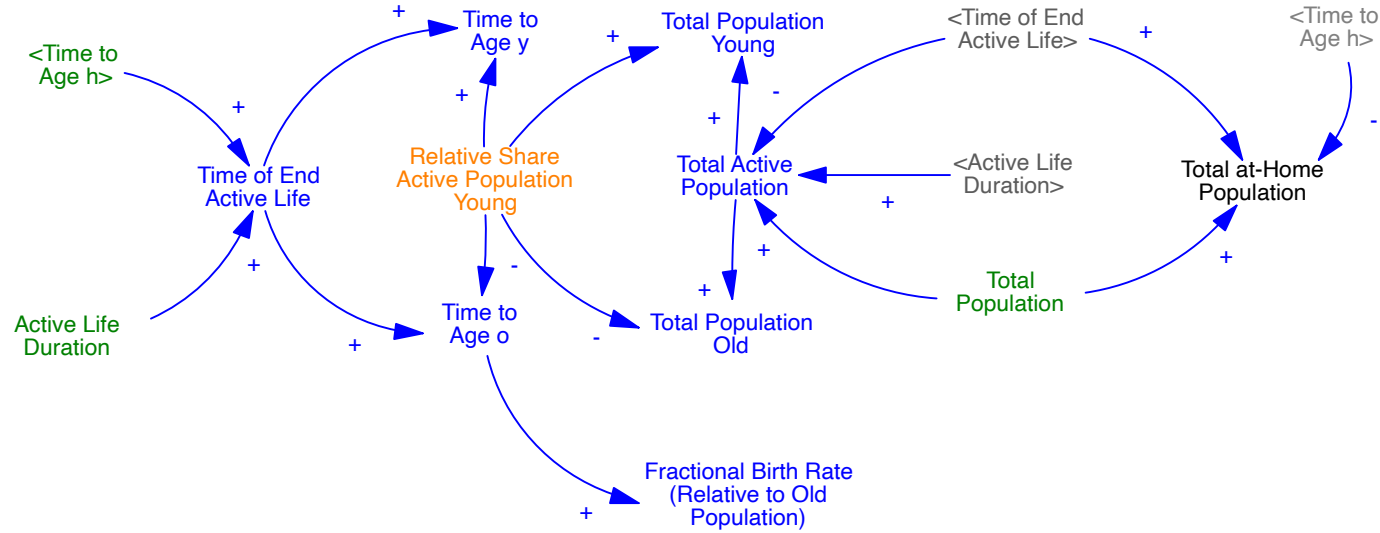


## Appendix A.1. Derived Population-Related Constants and their inputs.



**Figure A.1.** Relations for derived population-related constants (equations below)

- Total Active Population  $P_{yo} = \frac{\tau_{yo}}{\tau_h + \tau_{yo}} P$ ;  $\tau_{yo}$ : Active Life Duration (time to age young plus old).
- Total Population Young  $P_y = \theta_y \cdot P_{yo}$ ;  $P_o = (1 - \theta_y) \cdot P_{yo}$ ;  $\theta_y$ : Share of Active Population Young (vs old).
- Total at-Home Population  $P_h = b \cdot \tau_h \cdot P_o = \frac{\tau_h}{\tau_h + \tau_{yo}} P$ ;  $b$ : fractional birth rate (relative to old population)
- Time to Age y  $\tau_y = \theta_y \cdot \tau_{yo}$ ; Time to Age o  $\tau_o = (1 - \theta_y) \cdot \tau_{yo}$
- Fractional Birth Rate (Relative to Old Population)  $b = \frac{1}{\tau_o}$ .

## Appendix A.2. Other Derived Constants and their inputs.

1. Relative Social Pressure Effectiveness  $\pi_{a \rightarrow a} = \begin{bmatrix} 1 & \pi_x \\ \pi_o \cdot \pi_x & \pi_o \end{bmatrix}$ , with:
  - the matrix indicating the following social pressure effects:  $\begin{bmatrix} y \rightarrow y & o \rightarrow y \\ y \rightarrow o & o \rightarrow o \end{bmatrix}$ ,
  - $\pi_o$  the Relative Susceptibility to Social Pressure Effectiveness of the old population, and
  - $\pi_x$  the Relative Cross-Age Cohort Social Pressure Effectiveness.
  
2. Maximum Effect of Social Pressure on Conversion  $\gamma_0 = \gamma'_0 / \pi_{ref}$ 
  - We normalize the Maximum Effect of Social Pressure on Conversion so that when one of the social pressure parameters changes the total social pressure effect—holding sustainable lifestyle populations within the cohorts constant—remains constant. To achieve this, irrespective of cross-cohort population distributions, the Reference Relative Susceptibility to Social Pressure Effectiveness  $\pi_{ref} = \frac{\sum_a \pi_{a \rightarrow a} \cdot P_a}{P}$ , where  $\pi_{a \rightarrow a} \cdot P_a$  is a matrix-vector multiplication.
  
3. Propensity to Convert to Sustainable Lifestyles  $\chi_a = \chi'_0 \cdot r\chi_a / r\chi_{ref}$ 
  - We normalize the Propensity to Convert to Sustainable Lifestyles so that when the relative propensity of across cohort differs, the adoption rate—holding populations with established lifestyles within the cohorts and lifestyle attractiveness constant—remains constant. To achieve this, irrespective of cross-cohort population distributions, the Reference Relative Propensity  $r\chi_{ref} = \frac{\sum_a r\chi_a \cdot P_a}{P}$
  - Further, the relative propensity  $r\chi_a = (r\chi_y, 1/r\chi_y)$  with  $r\chi_y$  the relative propensity of the young population cohort.