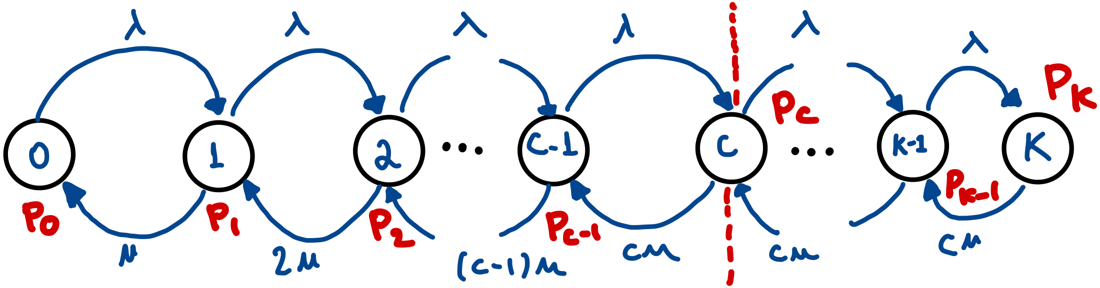

$$\lambda_m = \begin{cases} \lambda, & 0 \le m < K \\ 0, & m \ge K \end{cases}$$

$$\mu_m = \begin{cases} m\mu, & 1 \le m \le c \\ c\mu, & c \le m \le K \end{cases}$$

for $0 \le m \le c$:

$$\lambda P_0 = \mu P_1 \rightarrow P_1 = \frac{\lambda}{\mu} P_0$$

$$\lambda P_0 - \mu P_1 = \lambda P_1 - 2\mu P_2 \rightarrow P_2 = \frac{\lambda}{2\mu} P_1$$

$$\lambda P_1 - 2\mu P_2 = \lambda P_2 - 3\mu P_3 \rightarrow P_3 = \frac{\lambda}{3\mu} P_2$$

$$\vdots$$

$$\boxed{P_m = \left(\frac{\lambda}{\mu}\right)^m \frac{1}{m!} P_0}$$

for $c \le m \le K$:

$$\underbrace{\lambda P_{c-1} - c\mu P_c}_{0} = \lambda P_c - c\mu P_{c+1}$$

$$c\mu P_{c+1} = \lambda P_c \rightarrow P_{c+1} = \frac{\lambda}{c\mu} P_c$$

$$c\mu P_{c+2} = \lambda P_{c+1} \rightarrow P_{c+2} = \frac{\lambda}{c\mu} P_{c+1}$$

$$P_{\underbrace{c+m}_{m}} = \left(\frac{\lambda}{c\mu}\right)^{\cancel{m}\; m-c} P_c$$

$$P_m = \left(\frac{\lambda}{c\mu}\right)^{m-c} \left(\frac{\lambda}{\mu}\right)^{c} \frac{1}{c!} P_0$$

$$\boxed{P_m = \frac{1}{c^{m-c}\, c!} \left(\frac{\lambda}{\mu}\right)^m P_0}$$