$$T_{r=0}\begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p \\ i_o \mathbin{/\mkern-5mu/} n_o \end{bmatrix} = \left(1 - \frac{n_p - 1}{N}\right) \frac{n_p - i_p}{n_p} \sum_{r=0}^{r_{max}} T_r \begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p - 1 \\ i_o \mathbin{/\mkern-5mu/} n_o - 1 \end{bmatrix} \qquad \text{(A)}$$

$$+ \frac{n_p - i_p}{N} \sum_{r=0}^{r_{max}} T_r \begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p \\ i_o \mathbin{/\mkern-5mu/} n_o - 1 \end{bmatrix} \qquad \text{(B)}$$

$$+ \left(1 - \frac{n_p - 1}{N}\right) \frac{i_p}{n_p} (1-s)^{1-\delta_{i,r_{max}}} \sum_{r=0}^{r_{max}} T_r \begin{bmatrix} i_p - 1 \mathbin{/\mkern-5mu/} n_p - 1 \\ i_o - 1 \mathbin{/\mkern-5mu/} n_o - 1 \end{bmatrix} \qquad \text{(C)}$$

$$+ \frac{i_p}{N} (1-s)^{1-\delta_{i,r_{max}}} \sum_{r=0}^{r_{max}} T_r \begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p \\ i_o - 1 \mathbin{/\mkern-5mu/} n_o - 1 \end{bmatrix} \qquad \text{(D)}$$

$$T_r \begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p \\ i_o \mathbin{/\mkern-5mu/} n_o \end{bmatrix} = \left(1 - \frac{n_p - 1}{N}\right) \frac{i_p}{n_p} s T_{r-1} \begin{bmatrix} i_p - 1 \mathbin{/\mkern-5mu/} n_p - 1 \\ i_o \mathbin{/\mkern-5mu/} n_o \end{bmatrix} \qquad \text{(rC)}$$

$$+ \frac{i_p}{N} s T_{r-1} \begin{bmatrix} i_p \mathbin{/\mkern-5mu/} n_p \\ i_o \mathbin{/\mkern-5mu/} n_o \end{bmatrix} \qquad \text{(rD)}$$