```
\begin{aligned} \text{Maximize } p_1d_1 + p_2d_2 - \left(c_11r_1 + c_2r_2 + c_3d_1 + c_4d_2\right) \\ \text{Subject to: } 0.9955a_1r_1 + 0.98a_2r_2 - a_3d_3 - a_4d_4 &\geq 0 \\ t_1^Md_1 + t_2^Md_2 &\leq \text{MPH} \\ t_1^Ed_1 + t_2^Ed_2 &\leq \text{EH} \\ r_1 + r_2 &\leq \text{S} \\ c_11r_1 + c_2r_2 + c_3d_1 + c_4d_2 &\leq \text{B} \\ d_1, d_2 &\geq 0 \\ r_1, r_2 &\geq 0 \end{aligned}
```