Then,

$$\beta_{2SLS} = \frac{E\left[\omega_i\left(\bar{Y}_i(1) - \bar{Y}_i(0)\right)\right]}{E[\omega_i]} + \frac{E\left[\sum_{j=1}^{J} \lambda_j\left(p_j - p\right)\gamma_{ij}\right]}{\sum_{j=1}^{J} \lambda_j\left(p_j - p\right)^2}.$$