In all models, $P_{S_2}(w|s,\hat{\phi}) \propto \exp(\lambda_{S_2} \cdot \mathbb{E}[U_{total}(w;s;\hat{\phi})])$ where $U_{total}(w;s;\hat{\phi})$:

Full model $\phi_{inf} \cdot U_{inf}(w;s) + \phi_{soc} \cdot U_{soc}(w;s) + \phi_{pres} \cdot U_{pres}(w;s) - C(w)$

Inf & Pres $\phi_{inf} \cdot U_{inf}(w;s) + \phi_{pres} \cdot U_{pres}(w;s) - C(w)$

Inf & Soc $\phi_{inf} \cdot U_{inf}(w;s) + \phi_{soc} \cdot U_{soc}(w;s) - C(w)$

Soc & Pres $\phi_{soc} \cdot U_{soc}(w;s) + \phi_{pres} \cdot U_{pres}(w;s) - C(w)$

Inf only $\phi_{inf} \cdot U_{inf}(w;s) - C(w)$

Socionly $\phi_{soc} \cdot U_{soc}(w;s) - C(w)$

Pres only $\phi_{pres} \cdot U_{pres}(w;s) - C(w)$