Observations

$o_{i,j=1}$ $o_{i,j=2}$ $\cdots$ $o_{i,j=n_j}$

$\mathbf{\Omega}_{i,j=1}$ $\mathbf{\Omega}_{i,j=2}$ $\mathbf{\Omega}_{i,j=n_j}$

Hidden states

$u_{i,t=1}$ $u_{i,t=2}$ $u_{i,t=3}$ $u_{i,t=4}$ $\cdots$ $u_{i,t=n_t}$

$\mathbf{\Psi}_{i,t=1}$ $\mathbf{\Psi}_{i,t=2}$ $\mathbf{\Psi}_{i,t=3}$

Dummy period   Introductions   Two surveys   Dummy period   Final period
$u_{i,t=1} = 1 \, \forall i$

Primary periods $t=1$ $t=2$ $t=3$ $t=4$ $\cdots$ $t=n_t$