



working:  $u_m = \overbrace{w_m(a)} + \overbrace{r_m(a)} + e_m(a)$

wage:  $w_m(a) = p_m e_m(a) \propto \begin{cases} x_1(a) \\ x_2(a) \\ g(a) \end{cases}$

benefit:  $r_m(a) \propto g(a)$

choice:  $d(15)$   $d(16)$   $d(17)$  ...  $d(49)$

state :  $S(15)$   $S(16)$

type :  $K(15)$   $S(16)$

Schooling

$u(a) \propto c, k$

Q :

1. Information known  $E_m(a+1)$
2. Identification challenge

## Identification

① choice of a  $Y(a)$

$$\Pr(Y(a) \mid S(a), k(a), S(a-1), k(a-1))$$

② Latent type

$$\Pr(k(a) \mid S(a), S(a-1), k(a-1), Y(a-1))$$

$$P(\tilde{y}_3, y_2, \tilde{y}_1) = P(\tilde{y}_3 | x_2^*) D_1(P(y_2 | x^*)) D_2$$

$$P(\tilde{y}_3, \tilde{y}_1) = P(\tilde{y}_3 | x_2^*) D$$