Intro
oo

Model
ooooo

Data
oooooooo

Solution and estimation
ooo

Simulations
ooooooo

Conclusions
oo

Effects of taxes and safety net pensions on life-cycle labor supply, savings and human capital: The case of Australia

Fedor Iskhakov,
Australian National University and CEPAR

Michael Keane,
University of Oxford and CEPAR

Asian and Australasian Society of Labor Economics
Inaugural Conference
7-9 December, 2017

Intro
○○

Model
○○○○●

Data
○○○○○○○○

Solution and estimation
○○○

Simulations
○○○○○○○

Conclusions
○○

Bellman equation

$$V_t(X_t) = \max_{\substack{0 \leq c_t \leq M_t + a_0, \\ h_t \in H_t(\tau)}} \left\{ u(c_t) - v_t(h_t, \tau_{uh}) \right.$$

$$+ \delta_t \beta(\tau_{edu}) E\left[V_{t+1}(X_{t+1}) \,|\, X_t, c_t, h_t \right]$$

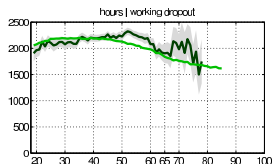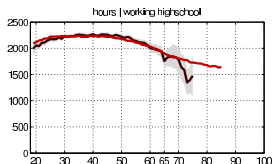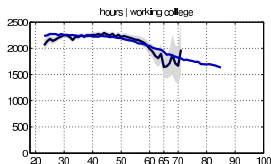$$\left. + (1 - \delta_t) w(M_t - c_t) \right\},$$
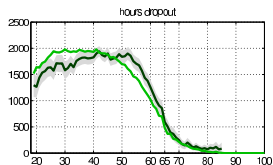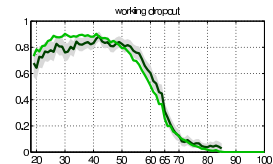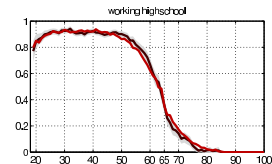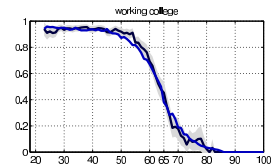
Note: c_t continuous, h_t discrete

$\tau = (\tau_{uh}, \tau_{edu})$ types for education and taste of work
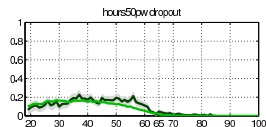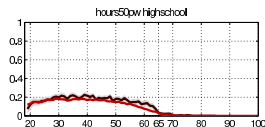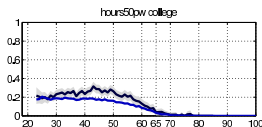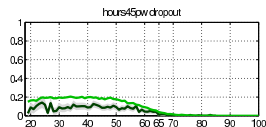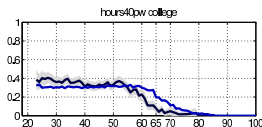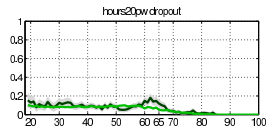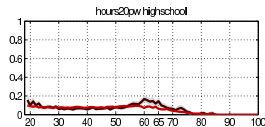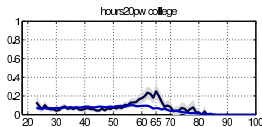
$H_t(\tau)$ type-specific choice set in period t

$\beta(\tau_{edu})$ discount factor dependent on education

δ_t survival probability
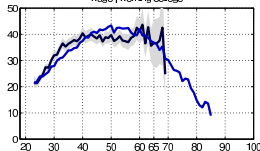
Goodness of fit: fraction working and hours
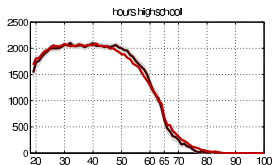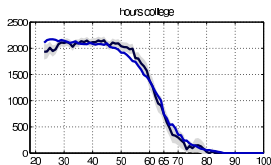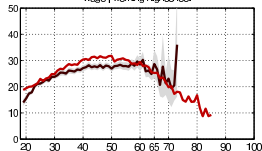
Goodness of fit: discrete levels of hours
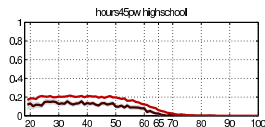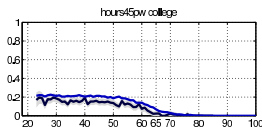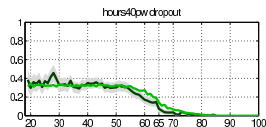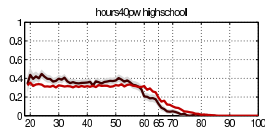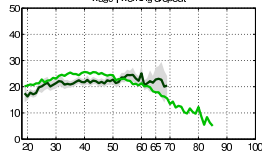
Goodness of fit: wage and wealth
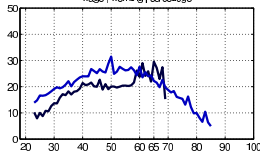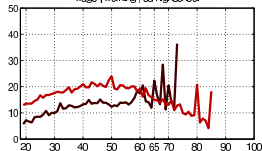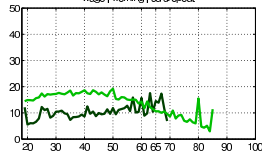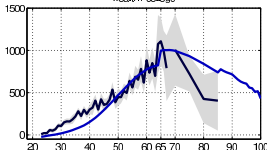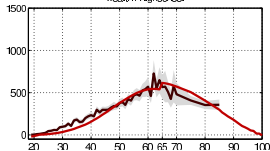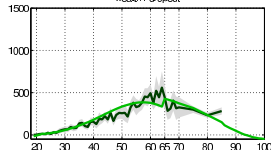
Policy simulations

Baseline: No policy change

Anticipated: Fully anticipated policy change

Unanticipated: Exogenous shift from regime 1 to regime 2

- 1000 individuals in each education/type
- Identical sequence of (pseudo) random variables in all simulations
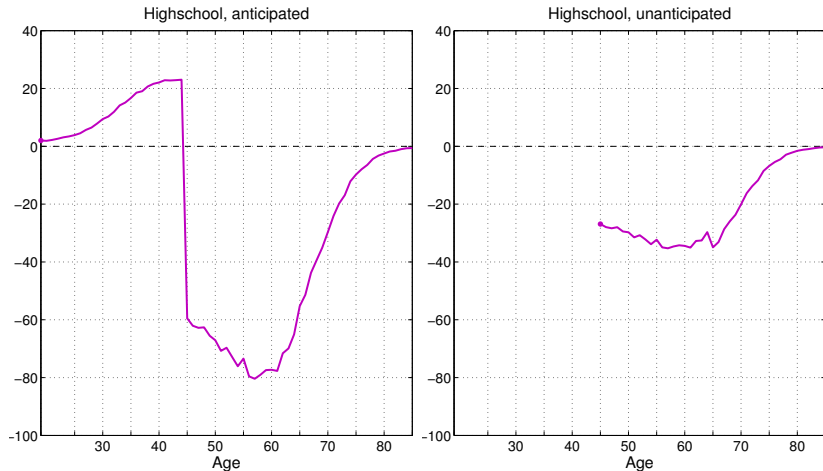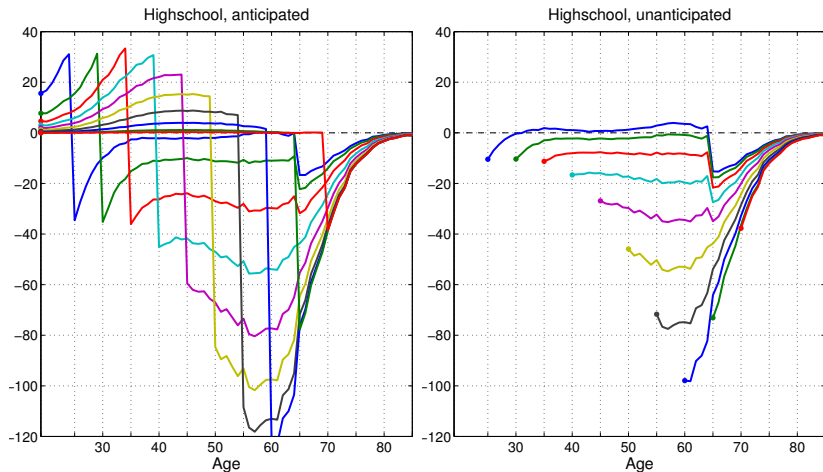- Varying revelation age

Permanent 10% wage decrease ⤳ hours

No compensation ⟶ Marshall effects

Highschool, anticipated
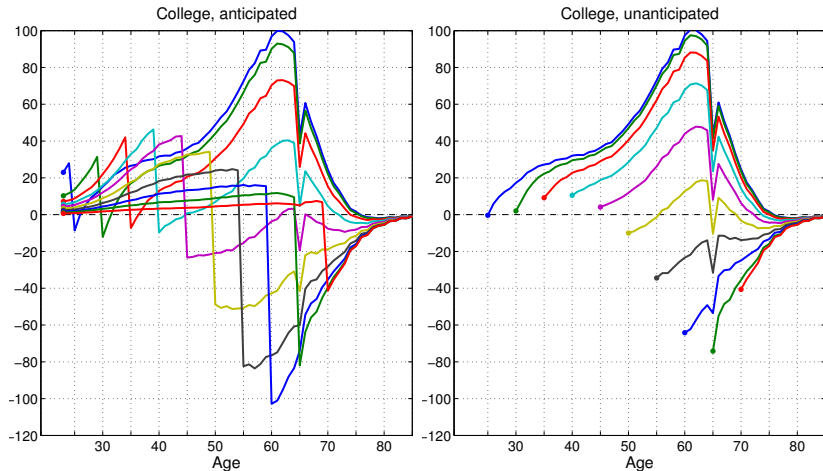
Highschool, unanticipated

Permanent 10% wage decrease ⇝ hours (high school)

No compensation ⟶ Marshall effects

Permanent 10% wage decrease ⤳ hours (college)

No compensation ⟶ Marshall effects

Transitory 10% wage decrease ⤳ hours (high school, %)

Transitory ⟶ Frisch effects

Highschool, anticipated   Highschool, unanticipated