Human Capital

1 Specific vs. General Human Capital

A. Difference
B. Who pays?
C. Tenure effects (duration dependence)
D. Effects on wage profile
E. Layoffs
F. Example: Army recruitment

2 Returns to Schooling

A. 12% for college, white, urban males
B. Lower for blacks, females, rural
C. More for high school

3 Wage Profiles

Discuss Polacheck picture

4 Mincer’s Schooling Model

Assume there exists a fixed working life $T$. Let $Y_s$ be the yearly wage of a worker with $s$ years of schooling and $V_s$ be the present value of earnings before schooling for a worker with $s$ years of schooling. Then

$$V_0 = Y_0 \int_0^T e^{-rt} dt = Y_0 \frac{1}{r} (1 - e^{-rT})$$

$$V_s = Y_s \int_s^{T+s} e^{-rt} dt = \frac{Y_s}{r} e^{-rs} (1 - e^{-rT}).$$

If all have the same ability and opportunities, then, in equilibrium, $V_s = V_0 \forall s$

$$\Rightarrow \quad \frac{Y_0}{r} (1 - e^{-rT}) = \frac{Y_s}{r} e^{-rs} (1 - e^{-rT})$$

$$\Rightarrow \quad Y_0 = e^{-rs} Y_s$$

$$\Rightarrow \quad \ln Y_s = \ln Y_0 + rs.$$
Now add on-the-job training. Let $C_t$ be the dollar expenditure on on-the-job training at time $t$, $E_t$ be gross earnings at time $t$, and $Y_{ts}$ be net earnings for someone with $s$ years of schooling. Then

$$Y_{ts} = Y_s + r \int_0^t C_x dx - C_t.$$ 

Therefore

$$\frac{dY_{ts}}{dt} = rC_t - \frac{dC_t}{dt} \geq 0$$

because $\frac{dC_t}{dt} \leq 0$ (why?).

5 Selection Bias and Measuring the Return to Schooling

Repeat discussion

6 Changes in the Distribution of Income and the Effect of Education

Have discussion