Going to College

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- Whom does it pay to go to college
- When does it pay to go to college?

Going to College

- College is an Investment in Human Capital

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  - The more you know, the more you earn

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  - The more you know, the more you earn
  - Thus college is not viewed as certification

Going to College

- A HS graduate earns $H_1, H_2, H_3,\ldots$
- A college graduate earns

$C_1, C_2, C_3,\ldots$

Going to College

- A HS graduate earns H_1, H_2, H_3,…
- A college graduate earns

$$C_1, C_2, C_3,\ldots$$

- But
  - College takes time:
  - It delays the entry into the labor market.

Going to College

- A HS graduate earns H_1, H_2, H_3,…; a college graduate earns C_1, C_2, C_3, …
- The present values are

$$PV^H = H_1/(1+r) + H_2/(1+r)^2 + H_3/(1+r)^3 + H_4/(1+r)^4 + \ldots$$

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- The present values are

$$PV^H = H_1/(1+r) + H_2/(1+r)^2 + H_3/(1+r)^3 + H_4/(1+r)^4 + \ldots$$

$$PV^C = C_1/(1+r) + C_2/(1+r)^2 + C_3/(1+r)^3 + C_4/(1+r)^4 + \ldots$$

Going to College

- A HS graduate earns H_1, H_2, H_3,…; a college graduate earns C_1, C_2, C_3, …
- Go to college if $PV^C > PV^H$.

Some Simplifying Assumptions

- People go to standard four-year colleges.
- After graduating, they have infinite lives
- High school graduates earn I_h each year and college graduates earn I_c each year.

Some Simplifying Assumptions

$$PV^H = I_h/r$$

$$PV^C = I_c/[r(1+r)^4]$$

- We account for time delay
- We don't account for tuition, books, etc.

Equilibrium

- Equilibrium requires that

$PV^H = PV^C$

Equilibrium

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$I_h/r = PV^H = PV^C = I_c/[r(1+r)^4]$

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$I_h = I_c/[(1+r)^4]$

Equilibrium

- Equilibrium requires that

$PV^H = PV^C$

$I_h/r = I_c/[r(1+r)^4]$

$I_h = I_c/[(1+r)^4]$

$$\frac{I_h}{I_c} = \frac{1}{(1+r)^4}$$

The Crucial Ratio

Annual Interest Rate	$\frac{I_h}{I_c}$
5.0%	1.22
7.5%	1.34
10.0%	1.46

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- The highest return from going to college is earned by going when you are young.
- Well, sometimes. MBA programs like experience.

End