

Topic 6:

Education and other labor Market outcomes

By

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Objectives (Topic 6)

Main objectives of this topic are:

- ◆ To understand why we see that many children from poor family background do not achieve enough schooling, and other skills that are useful in the labor market.
- ◆ Such as poor socialization, motivation etc.
- ◆ Do children in the US and elsewhere have equal opportunity in life no matter what family background they come from?
- ◆ These problems are prevalent both in less developed countries as well as in developed countries, in particular in the US.
- ◆ To analyze these problem, first we would like to study the following topics:

Sub topics: (6.5 and 6.6 not covered in this course.)

- ◆ 6.1: The private and public benefits of education?
- ◆ 6.2: The important determinants of earnings or wages in the labor market (Mincer Earnings Function).
- ◆ 6.3: Optimal schooling levels of individuals with different family background, gender and ethnicity choose different schooling level.
- ◆ 6.4: The role of pre-school and who determines it and how it is determined.
- ◆ 6.5: School performance (private, public, and chartered schools)
- ◆ 6.6: Provision and financing of schooling (private, public and chartered)

6.1: The private and Public or Social benefits of Education

- Difference between private and Public Benefits:
- Private benefits are accrued directly to the individual who gets education. Public or social benefits are those that accrue to people other than the individual himself who gets the education, e.g., family members, the citizens of the whole nation or even the whole world.

Private Benefits

Private benefits of Education:

1. You acquire knowledge and derive happiness out of it. This benefit is distinct from making extra money. e.g. Studying art. Knowing about space, genetic research as part of general curiosity.
 2. Financial rewards – Higher and better quality education provides higher earnings for an individual in the labor market.
 3. More education leads to better decision one can make about one's life.
 4. Higher education can lead to better chance for promotion.
 5. Higher education leads to better chance to find a job in case of lay-off and lower chance of being laid-off.
 6. Opportunities to network and to have mentors at college.
- Next two slides give public benefits.

Public Benefits:

- ◆ At the family level: From your education, other family members such as your child (in future) & currently other siblings can get motivated for education. Examples:
 - Higher education of the mother leads to:
 - Lower fertility level
 - Higher education of the children
 - Better Health
 - Social Status of the whole family can go up.
 - Your education will make you independent and thus you will not be a burden to the parents.
 - Can provide parents better old-age support

Public Benefits (Continued)

- Community Level – people in your neighborhood can benefit from your knowledge especially if the neighborhood is a little village. For instance, your knowledge about some disease and its cure may help a neighbor who is not so educated, or if more people get educated, it reduces the crime rate in the neighborhood.
- Economy and World Level:
 - o Education -> higher earnings => higher tax revenues from which the whole economy can benefit.
 - o Improve civility, law & order.
 - o With your education, you may discover some new medicine and new technology from which the whole society can benefit.
- ◆ Suppose social benefits exceed the private benefits. This provides a case for government subsidy for education. Can you explain why it is good for the society to have such government policy?
- ◆ Example: People paying taxes to educate the younger generation will benefit everyone from their knowledge.

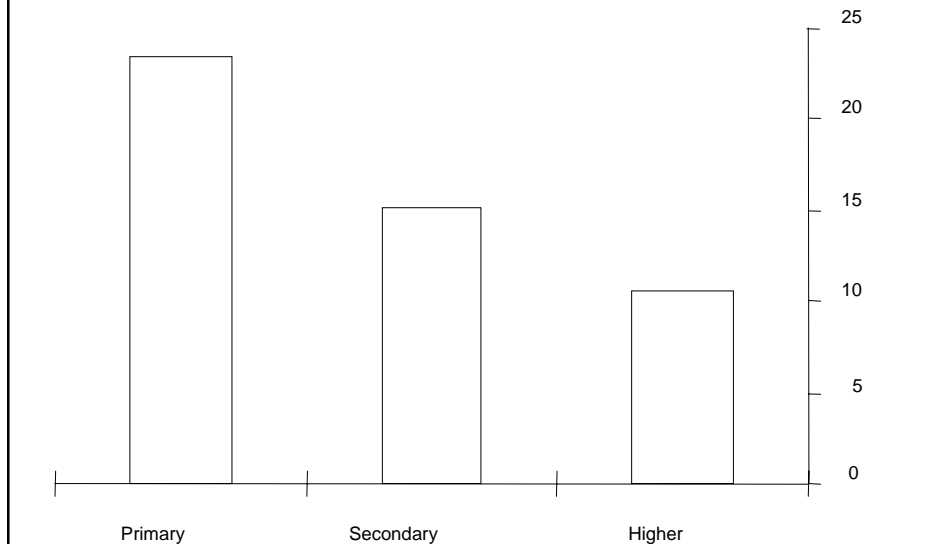
6.2: Earnings Function $w(s; \tau, \beta, \text{Gender, Race, Occupation})$

- ◆ Earnings function:
 - $w(s; \tau, \beta, \text{Gender, Race, Occupation, Health Status})$
- ◆ How to estimate Returns to Schooling?
- ◆ (You are not responsible for this part). Let s be schooling level, Mincer earnings function is generally given as

$$\text{Log}(\text{wage}) = a + \beta s + \gamma_1 \text{Age} + \dots$$

β in the above is the rate of returns from schooling. Generally found to be 10 to 20 percent.
- ◆ One can calculate also rate of returns separately for high primary school, high school and college and higher education. See some estimates next slide.

Rates of Return to Education, Low Income Countries

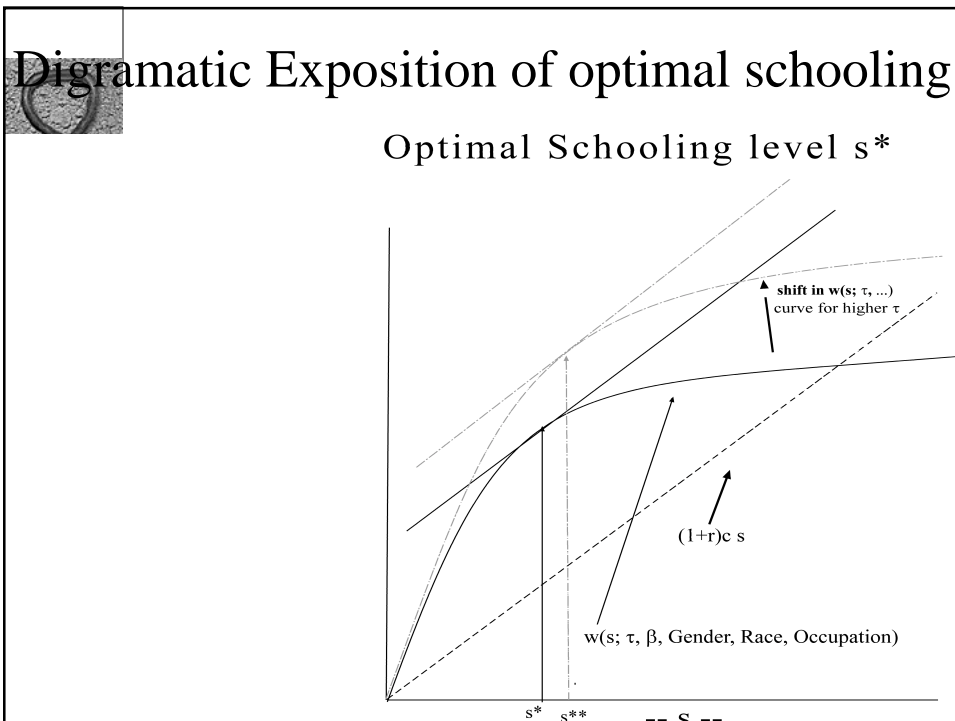


6.3: Optimal schooling level

- ◆ Optimal schooling level for a representative reference individual, say a white male with rich family background.
- ◆ Later we use him as a reference point to see the optimal schooling choices of individuals with other characteristics.
- ◆ The important point to understand here is:
 - why an individual with characteristics different from the reference individual chooses different schooling levels?
 - In our approach, the answer is because:
- ◆ The labor market rewards different characteristics differently.
- ◆ Are these good labor market practices? Which of these practices could be viewed as discrimination and which are ok? Characteristics: τ , β , Gender, Race, Occupation?
- ◆ Next slide shows the diagram and the slides that follow it considers the effects of various types

Main Assumptions

- ◆ Life Cycle in our set-up: [0-5], [5-16], [16-25], [25--]
- ◆ Given investments from [0-16] by parents, and subsume it in the family background variable, β , and given innate ability, τ , I will formulate a simple model of optimal schooling investment.
- ◆ **Assumptions:** Cost per year of schooling is c dollars. An individual borrows that amount during the schooling age [16-25] and do not work part time or full time. Then he goes to the labor market during [25--]. For an individual with years of schooling s , innate ability τ and family background β the competitive labor market rewards $w(s; \tau, \beta, \dots)$ as earnings, he maximizes the present value of investment in s years of schooling to determine the optimal schooling level.



Effects on optimal schooling level when an individual has: (w.r.t. the reference individual)

- ◆ Higher τ , innate ability?
- ◆ Poorer family background β ? Through which channels?
Channels of β are:
 - Sociability
 - Motivation
 - Cost of borrowing schooling investment fund, r .
- ◆ Definition of equality of opportunities
 - Individuals born with same ability τ be equally successful in the labor market, I.e., earn the same wages no matter what his race, family background or gender.
- ◆ Two ways it could be violated are
 - β : Sociability, motivation and other skills useful in the labor market
 - r : Interest rate r , the cost of investment

6.4: Parental Preschool Investment

Objectives

- ◆ What kind of skills are important in the labor market and to create entrepreneurs?
- ◆ How much of these are created in school and what else is important to generate these skills?
- ◆ What is the role of pre-school investment and early childhood development in generating these skills including educational achievements?
- ◆ Read the article by Entwisle in your course page.