



Pergamon

Economics of Education Review 22 (2003) 433–438

Economics of
Education Review

www.elsevier.com/locate/econedurev

The cost of specialized human capital

T.J. Perri *

Department of Economics, Appalachian State University, Raley Hall, Boone, NC 28608, USA

Received 13 June 2002; accepted 28 October 2002

Abstract

Since Gary Becker's classic treatise *Human Capital*, the cost of education has generally been viewed as the sum of direct cost plus net foregone earnings—the difference between what could have been earned without attending school and what is earned while in school. However, individuals invest in specialized and not generic human capital. For some individuals, the opportunity cost of a specialized education is what could have been earned after accumulating an alternative specialized education. As demonstrated in this paper, if some individuals belong to a *non-competing group*, then direct schooling cost plus net foregone earnings will tend to understate the cost of education for others. The notion of a non-competing group requires that some may not be able to enter certain occupations. The human capital approach considers supply of and demand for human capital *by individuals*, rather than the supply of and demand *for individuals* with specialized human capital.

© 2003 Elsevier Science Ltd. All rights reserved.

JEL classification: J24; J31

Keywords: Human capital; Occupational wage differences; Non-competing groups

1. Introduction

Becker in his pioneering book *Human Capital*, explains that the private cost of college is "...the sum of private direct and indirect costs...Since students earn less than if they were participating full time in the labor force, the earnings foregone are an indirect cost of schooling." (Becker, 1993, p. 166)¹ As early as his article in Becker (1962), he discusses the importance of net foregone earnings in measuring schooling cost. Thus

Becker's view of the cost of education has been known for approximately 40 years.

There were early critiques of the notion that educational cost is the sum of direct cost plus net foregone earnings. Lindsay (1971) and Parsons (1974) consider educational cost when individuals maximize utility and not income. Lindsay notes that an investment in human capital raises the price of leisure, inducing individuals to choose more goods and less leisure. Because the price of leisure has increased, the increased earnings from human capital investment overstates the increase in utility. Parsons demonstrates, theoretically and empirically, that utility-maximizing individuals will reduce both leisure and work hours as they increase schooling hours, so net foregone earnings significantly understate indirect schooling costs.

What motivates Lindsay's analysis of human capital cost and returns is the question of whether returns to human capital investment are excessive. Lindsay's argument is that, in order to understand individual decisions to invest in a particular type of human capital, one must

* Tel.: +1-828-262-2251; fax: +1-828-262-6105.

E-mail address: perritj@appstate.edu (T.J. Perri).

¹ All references to *Human Capital* herein are to the third edition. With one exception, all of the analysis in *Human Capital* that is relevant to the arguments herein is contained in the first edition, which was published in 1964. The exception is material from the Woytinsky Lecture, referred to subsequently, which was given in 1967, and which was published in later editions of *Human Capital*.

focus on the true cost of such investment—what is actually foregone when the investment is undertaken—because that is what will be reflected in the supply of individuals with that type of human capital.

Putting aside the issue of utility maximization, and assuming individuals maximize income, the question addressed herein is: do direct educational cost and net foregone earnings reflect the cost of human capital investment? As will be suggested subsequently, Becker apparently had some ambivalence on this point when he wrote *Human Capital*. The problem with using direct cost plus net foregone earnings is illustrated in a recent quote by Becker in the *Wall Street Journal*. When discussing the reduced supply and high academic salaries of PhDs in economics, Becker states “Students who would have gone on for [advanced] degrees in economics in the past are going for M.B.A.s and law degrees...The financial rewards are greater and they come quicker” (Hilsenrath, 2001, p. B16). Although Becker’s explanation is intuitive, it suggests that direct cost plus net foregone earnings are *not* what is important in determining the opportunity cost of investing in a particular type of human capital. If direct schooling cost plus net foregone earnings did reflect the opportunity cost of a PhD in economics, then what one could earn with a bachelors (or possibly a masters) degree in economics while one invested in a PhD would be what affected the supply of economics PhDs. The quote from Becker focuses on the correct measure of the opportunity cost of investing in specialized human capital: *what one could earn had one invested in the best alternative to the chosen specialization*.

In order to defend the direct cost plus net foregone earnings approach, one could argue that it is useful to consider investment in a generic education, and not in a specialized education (e.g. a bachelors degree in economics, an MBA etc.). One might defend analysis with generic education as a necessary simplification in order to consider the profitability of educational investment relative to alternative investments. For example, Becker (1993) notes that the private rate of return to education exceeds the rate of return on real capital.

However, it is not a benign simplification to assume generic education. Individuals actually choose specialized human capital, the best alternative to which for many is investment in other specialized human capital. To know whether educational returns are excessive or not, and what affects the supply of individuals with specialized human capital, one must look at the actual choices made and the best alternatives to these choices.

As noted above, although Becker argues in *Human Capital* that net foregone earnings are part of educational cost, he actually anticipates some of the arguments herein. First, he argues “...an investment in college education is subject to considerable risk, and is obviously extremely illiquid. Consequently, the gain from edu-

cation should be compared with that on investments with equally large risk and illiquidity” (Becker, 1993, p. 206). Becker also notes in *Human Capital* that he has not tried to estimate the gains to individuals taking specialized programs in high school and college, but that the average gains to those completing high school and college are useful because “...for example, since average gains are large the gains from particular specialties would have to be very large before they could be considered ‘excessive’” (Becker, 1993, pp. 249–250).²

Second, in *Human Capital* Becker notes the analysis in two other books, those by Friedman and Kuznets (1945) and Lewis (1963), of returns to different professions. In comparing medicine and dentistry, Friedman and Kuznets argue that many of those who enter either profession would have alternatively chosen the other. With free entry into either, returns would be at equilibrium levels, that is levels “...that would equalize their net attractiveness in the eyes of a considerable fraction of those in a position to choose between them” (Friedman & Kuznets, 1945, p. 124). Lewis expands on the analysis of Friedman and Kuznets, and notes that excess returns to either profession could result from changes in demand for either, or from changes in the relative cost of investing in either form of human capital. Neither of these books views direct cost plus net foregone earnings from investing in either profession as relevant for individuals who make human capital investment decisions.³

To this point, it has been argued that individuals invest in specialized human capital,⁴ which implies that the best alternative to such investment may be other investment in human capital. Thus the cost of investing in human capital may not be measured by what one could earn had one not invested at all in human capital. However, if all individuals are capable of obtaining different types of human capital, long run equilibrium between different specializations *could* imply that individuals on the mar-

² Judd (2000) argues that returns to education exceed returns on similar risk assets, implying underinvestment in education. However, as argued above, average returns to education do not indicate whether a particular specialized human capital investment is profitable because such information tells one neither the return on the investment in specialized human capital, nor the return on the best alternative form of specialized human capital.

³ Similarly, in what may be the first published work to refer to human capital, Mincer (1958) asserts that, if occupations differ in training requirements, and individuals with different amounts of training are to be compensated for training cost, then the present value of lifetime earnings in different occupations must be equalized at the time occupational choice is made.

⁴ Rosen (1983) shows that individuals specialize in human capital due to increasing returns from utilization.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات