

# Case Studies



## Case Study 2.1: The Opportunity Cost of College

What is your opportunity cost of attending college full time this year? What was the best alternative you gave up? If you held a full-time job, you have some idea of the income you gave up to attend college. Suppose you expected to earn \$20,000 a year, after taxes, from a full-time job. As a full-time college student, you plan to work part time during the academic year and full time during the summer, earning a total of \$10,000 after taxes (about 40 percent of college students hold jobs during the academic year). Thus, by attending college this year, you gave up after-tax earnings of \$10,000 ( $= \$20,000 - \$10,000$ ).

There is also the direct cost of college itself. Suppose you are paying \$6,000 this year for in-state tuition, fees, and books at a public college (paying out-of-state rates would add another \$6,000 to that, and attending a private college would add about \$15,000). The opportunity cost of paying for tuition, fees, and books is what you and your family could otherwise have purchased with that money.

How about room and board? Expenses for room and board are not necessarily an opportunity cost because, even if you were not attending college, you would still need to live somewhere and eat something, though these could cost more in college. Likewise, whether or not you attended college, you would still buy goods such as CDs, clothes, and toiletries, and services such as laundry, haircuts, and mobile service. Your spending for such products is not an opportunity cost of attending college but the personal cost that arises regardless of what you do. So for simplicity, assume that room, board, and personal expenses are the same whether or not you attend college. The forgone earnings of \$10,000 plus the \$6,000 for tuition, fees, and books yield an opportunity cost of \$16,000 this year for a student paying in-state rates at a public college. Opportunity cost jumps to about \$22,000 for students paying out-of-state rates and to about \$31,000 for those at private colleges. Scholarships, but not loans, would reduce your opportunity cost (why not loans?).

This analysis assumes that other things remain constant. But if, in your view, attending college is more of a pain than you expected your next best alternative to be, then the opportunity cost of attending college is even higher. In other words, if you are one of those people who find college difficult, often boring, and in most ways more unpleasant than a full-time job, then the money cost understates your opportunity cost, because your best alternative offers a more enjoyable quality of life. If, on the other hand, you believe the wild and crazy life of a college student is more enjoyable than a full-time job would be, then the dollar figures overstate your opportunity cost, because your next best alternative involves a less satisfying quality of life.

Apparently, you view college as a wise investment in your future, even though it's costly and perhaps even painful. College graduates on average earn about twice as much per year as high school graduates, a difference that exceeds \$1 million over a lifetime. These pay gains from college encourage a growing fraction of college students to pile up debts to finance their education. Among those earning a bachelor's degrees at public four-year institutions in 2008, 38 percent graduated without education debt, but 6 percent were more than \$40,000 in debt. One medical school graduate accumulated an education debt of \$550,000 (counting unpaid interest and default charges).

Still, college is not for everyone. Some find the opportunity cost too high. For example, Bill Gates and Paul Allen dropped out of college to cofound Microsoft (both are now among the richest people on earth). Tiger Woods, once an economics major at Stanford, dropped out after two years to earn a fortune in professional golf. And Paula Creamer, who skipped college to play golf, won her first \$1 million sooner than any LPGA player in tour history. High school basketball players who believed they were ready for the pros, such as Kobe Bryant and LeBron James, also skipped college (now players can't enter the pros until reaching 19 years of age and out of high school at least a year), as do most tennis pros. Many actors even dropped out of high school to follow their dreams, including Jim Carrey, Russell Crowe, Tom Cruise, Johnny Depp, Robert DeNiro, Cameron Diaz, Colin Farrell, Nicole Kidman, Jude Law, Lindsay Lohan, Demi Moore, Keanu Reeves, Kiefer Sutherland, Hilary Swank, Charlize Theron, and Kate Winslet.

**SOURCES:** Elyse Ashburn, "Why Do Students Drop Out? Because They Must Work at Jobs Too," *Chronicle of Higher Education*, 9 December 2009; Mary Pilon, "The \$550,000 Student Loan Burden," *Wall Street Journal*, 13 February 2010; "The World's Billionaires," *Forbes*, 11 March 2010; and "College Board Connect to College Success" at <http://www.collegeboard.com/>.



## QUESTION

1. During the Vietnam War, colleges and universities were overflowing with students. Was this bumper crop of students caused by a greater expected return on a college education or by a change in the opportunity cost of attending college? Explain.

Case Study 2.2: Rules of the Game and Economic Development

Rules of the game can affect the PPF by either nurturing or discouraging economic development. Businesses supply jobs, tax revenue, and consumer products, but business is risky even in the best of times. How hard is it for an entrepreneur to start a business, import products for sale, comply with tax laws, and settle business disputes? The World Bank, a nonprofit international organization, developed composite measure that rolls answers to all these questions into a single measure and ranks 183 countries from best to worst in terms of their ease of doing business. The table below lists the best 10 and the worst 10 countries in terms of the ease of doing business. The countries with the friendliest business climate all have a high standard of living and a sophisticated economy. The United States ranks fourth best, behind Singapore, New Zealand, and Hong Kong. The 10 most difficult countries all have a low standard of living and a poor economy. Nine of the 10 are in Africa.

Consider, for example, the burden facing a business that wants to sell an imported product. No business in the African country of Burundi makes bicycles, so a shop selling bicycles there must import them. Bicycles are shipped to Burundi via a port in Tanzania. In all, it takes the shop owner at least 10 documents and at least 71 days to get the bicycles from the port in Tanzania to the bicycle shop. Contrast this with the 3 documents and 5 days needed to import products in Denmark. Burundi is one of the poorest countries on earth, based on per capita income. Denmark is among the richest, with a per capita income about 120 times that of Burundi.

How does the burden imposed by business taxes differ across countries? In Burundi, businesses are subject to a tax rate totalling 279 percent of profit. So all business profits and much more are eaten up by taxes, in the process destroying the primary reason to even open a business. Meanwhile, a business in Hong Kong pays a tax rate amounting to only 24 percent of profit.

Of course, some level of business regulation and taxation is necessary to ensure public health and safety and to nurture market competition. Few would argue, however, the world's most prosperous economies have allowed businesses to go wild. But why would a country impose taxes and regulations so severe as to kill business development, thereby choking off the jobs, taxes, and consumer products that go with it? One possible explanation is that many countries with the worst business climate were once under colonial rule and have not yet developed the ability to operate government efficiently. Another possibility is that governments in poor countries usually offer the most attractive jobs around. Politicians create government jobs for friends, relatives, and supporters. Overseeing bureaucratic regulations give all these people something to do, and higher taxes are needed to pay the salaries of all these political cronies.

Perhaps the darkest explanation for the bad business climate in some countries is that business regulations and tax laws provide government bureaucrats with more opportunities for graft and corruption. For example, the more government signatures needed to execute a business transaction, the more opportunities to seek bribes. In other words, obstacles are put in the way of business so that government bureaucrats can demand bribes to circumvent those obstacles. Even Irish rocker Bono, a long-time advocate of aid to Africa, has called for "advances in fighting the evils of corruption in Africa." Regardless of the explanation, poor countries are poor in part because they have not yet developed the rules of the game that nurture a prosperous economy.

**SOURCE:** *Doing Business in 2010: Reforming Through Difficult Times*, (World Bank Publications, 2010) also available at <http://www.doingbusiness.org/documents/fullreport/2010/DB10-full-report.pdf>; and Bono, "A Time for Miracles," *Time*, 2 April 2007.

Best 10 and Worst 10 Among 175 Countries Based on Ease of Doing Business, According to the World Bank

Best 10	Worst 10
1. Singapore	174. Niger
2. New Zealand	175. Eritrea
3. Hong Kong, China	176. Burundi
4. United States	177. Venezuela
5. United Kingdom	178. Chad
6. Denmark	179. Republic of Congo
7. Ireland	180. São Tomé and Príncipe
8. Canada	181. Guinea-Bissau
9. Australia	182. Democratic Republic of Congo
10. Norway	183. Central African Republic

**SOURCE:** *Doing Business in 2010: Reforming Through Difficult Times*, (World Bank Publications, 2010) at <http://www.doingbusiness.org/documents/fullreport/2010/DB10-full-report.pdf>.

QUESTION

1. Why is the standard of living higher in countries where doing business is easier? Why do governments collect any taxes or impose any regulations at all?