

Why did you decide to become an economist?

I've wanted to be an economist from about the age of 13. That was when I took my first class in economics (an interesting story in itself) and discovered that all of the thoughts swimming around in my head belonged to a "science" and there was an entire body of people who understood this science—a lot better than I did, anyway. I can still recall reading *The Wealth of Nations* for the first time; it was a revelation.

What drew you to study the economics of education?

We all care about education, perhaps because it is the key means by which opportunity is (or should be) extended to all in the United States. Also, nearly everyone now acknowledges that highly developed countries like the United States rely increasingly on education as the engine of economic growth. Thus, one reason I was drawn to education is its importance. However, what primarily drew me was that education issues were so clearly begging for economic analysis and that there was so little of it. I try hard to understand educational institutions and problems, but I insist on bringing economic logic to bear on educational issues.

Why is education different from fast food? Why don't we just let people buy it from private firms that are regulated to maintain quality standards analogous to the safety standards that the FDA imposes on fast-food producers?

The thing that makes education different from fast food is not that we cannot buy it from private institutions that are regulated to maintain quality standards. We do this all the time—think of private schools and colleges. What makes education different is that it is (a) an investment, not consumption, and (b) the capital markets for financing the investments work poorly when left on their own. Essentially, our country has an interest in every person investing optimally in his or her education. To make investments, however, people need funds that allow them to attend good schools and take time away from work. Children don't have these funds and cannot arrange for loans that they may or may not pay off decades later. Therefore, children depend on their families for funds, and families do not necessarily have the funds to invest optimally or



the right incentives to do so. Society has a role in filling the gaps in the capital market; it fills this role by public funding of elementary and secondary education, government guaranteed loans, college savings programs, and so on. There is no particular reason, however, why government needs to actually run schools; it can provide the funding without actually providing schooling.

In one of your papers, you posed the question: Does competition among public schools benefit students or taxpayers? What are the issues, what was your answer, and how did you arrive at it?

We are all familiar with the fact that families choose public schools when they choose where to live. This traditional form is by far the most pervasive form of school choice in the United States, and few parents who exercise it would be willing to give it up. Yet, until quite recently, we did not know whether having such traditional school choice was good for students (high achievement) or taxpayers (more efficient schools). It is important to know because some people in the United States, especially poor people who live in central cities, are unable to exercise this form

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Professor Hoxby is a leading student of the economics of education. She has written many articles on this topic and has published books entitled *The Economics of School Choice* and *College Choices* (both University of Chicago Press, 2003 and 2004, respectively). She is Program Director of the Economics of Education Program at the National Bureau of Economic Research, serves on several other national boards that study education issues, and has advised or provided testimony to several state legislatures and the United States Congress.

Michael Parkin talked with Caroline Hoxby about her work and the progress that economists have made in understanding how the financing and the provision of education influence the quality of education and the equality of access to it.

of school choice. Economists hypothesized that this lack of choice might be a reason why many children from poor, central city families receive such a deficient education, especially considering the dollars spent in their schools (which spend significantly more than the median school).

To investigate this hypothesis, I examined all of the metropolitan areas in the United States. They vary a great deal in the degree of traditional choice available to parents. On one extreme, there is a group of metropolitan areas with hundreds of school districts. On the other extreme, there is a group of metropolitan areas with only one school district. Most are somewhere in between. A family in a metropolitan area with one district may have no easy way of “escaping” a badly run district administration. A family in a metropolitan area with hundreds of districts can choose among several districts that match well with its job location, housing preferences, and so on.

Looking across metropolitan areas with many districts (lots of potential competition from traditional school choice) and few districts (little potential competition), I found that areas with greater competition had substantially higher student achievement

for any given level of school spending. This suggests that schools are more efficient producers of achievement when they face competition.

What do we know about the relative productivity of public and private schools?

It is somewhat difficult to say whether achievement is higher at public or private schools in the United States. The best studies use randomly assigned private school scholarships, follow the same children over time, or use “natural experiments” in which some areas accidentally end up with more private schools than others. These studies tend to find that, for the same student, private schools produce achievement that is up to 10 percent higher. However, for understanding which type of school is more productive, we actually do not need private schools to have higher achievement. For the sake of argument, let’s “call it a draw” on the achievement question.

In recent studies comparing achievement in public and private schools, the public schools spent an average of \$9,662 per student and the private schools spent an average of \$2,427 per student. These spending numbers, combined with achievement that we will call equal, suggest that the private schools were 298 percent more productive. I would not claim that this number is precisely correct; we could think of some minor adjustments. But it is difficult not to conclude that the private schools are significantly more productive. They produce equal achievement for a fraction of the cost.

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What can economists say about the alternative methods of financing education? Is there a voucher solution that could work?

There is definitely a voucher solution that could work because vouchers are inherently an extremely flexible policy. People often see the word “voucher” and think of, say, a \$2000 voucher being given to a small share of children. But this need not be so. Anything that we can do with public school financing we can do better with a voucher because vouchers can be specific to a student, whereas the

government can never ensure that funds get to an individual student by giving those funds to his or her district.

Any well-designed voucher system will give schools an incentive to compete. However, when designing vouchers, we can also build in remedies for a variety of educational problems. Vouchers can be used to ensure that disabled children get the funding they need and the program choices they need. Compared to current school finance programs, vouchers can do a better job of ensuring that low-income families have sufficient funds to invest in the child's education. Well-designed vouchers can encourage schools to make their student bodies socio-economically diverse. Economists should say to policy makers: "Tell me your goals; I'll design you a voucher."

Is there a conflict between efficiency and equity in the provision of quality education?

To raise the public funds that allow all families to invest optimally in their children's education, we have to have taxes. Taxes always create some deadweight loss, so we always create some inefficiency when we raise the funds we need to provide equitable educational opportunities. However, if the funds are used successfully and actually induce people to make optimal investments in their education, we have eliminated much more inefficiency than the taxes created. Thus, in an ideal world, there need not be a conflict between efficiency and equity.

In the real world, public funds are often raised with taxes (creating deadweight loss) and then are not successfully used. If we spend twice as much on public schools and do not have higher achievement to show for it, then there are no efficiency gains to overwhelm the efficiency losses from taxation. In other words, to avoid a conflict between equity and efficiency, we must learn how to use public funds productively in education. This is what the economics of education is all about.

What advice do you have for a student who is just starting to study economics? Is economics a good subject in which to major? What other subjects go well alongside it? And do you have anything special to say to women who are making a career choice? What must we do to get more women involved in our subject?

Students who are just starting to study economics should do two things. First, learn the tools even if they seem abstruse. Once you have mastered the tools, you will be able to "see the forest for the trees." As long as you don't master the tools, you will be in the trees and will find it hard to think about economic problems. Second, think about economic problems! The real world is a great moving textbook of economics, once you have the tools to analyze it.

Economics is a great subject in which to major because it trains you for life, for many careers, and for the thinking that you would need in a leadership position. I think that it is the best training for a future career in business, the law, or policy making. Don't forget nonprofits: every year, nonprofit organizations try to hire people with economics skills who are also interested in charitable schemes.

Math and statistics courses are complementary to economics because they make it easier for a student to master the tools quickly. Economics goes well with many studies in the arts and sciences, too. It all depends on what you want to use economics for. If you want to do health policy making, take economics along with premedical courses. If you want to be a policy maker in the performing arts, take economics along with music.

I wish that there were more women in economics. Our field loses far too many talented minds. Also, women who need to understand economics for their careers are sometimes without it. To aspiring women economists, I can only say to hang in there. Mastering economics is empowering. You will never have to worry about your opinion not being taken seriously if you are a good economist.