Should There Be a General Subsidy for Higher Education in Developing Countries?[1]

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Abstract

The view that developing countries ought to offer general subsidies for higher education has many supporters. We use traditional economic logic to specify the conditions under which such an investment policy would promote a socially efficient allocation of resources. We identify three necessary conditions. First, the net social benefit from the investment must be positive. Second, private actors must have insufficient ability or incentive to undertake the socially optimal level of investment. Finally, the investment must generate more net social benefits than competing uses of public funds. We reason that the first condition is likely to be satisfied, the second might not, and third is even more questionable. Without empirical evidence to the contrary, we therefore reason that there is no clear-cut efficiency reason for a general subsidy for higher education in developing countries.

Résumé

Beaucoup sont d'avis que les pays développés doivent offrir des subventions globales pour soutenir l'enseignement supérieur. Nous nous servons de la traditionnelle logique économique pour spécifier les conditions selon lesquelles une telle politique d'investissement pourrait promouvoir une attribution de ressources adaptées sur le plan social. Nous avons identifié trois conditions préalables. Premièrement, le bénéfice social net provenant de ces

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investissements doit être positif. Deuxièmement, les acteurs privés ne doivent pas disposer des capacités nécessaires pour assurer un niveau d'investissement optimal sur le plan social. Enfin, les investissements doivent générer plus de bénéfices sociaux nets que les autres formes d'usage de fonds publics. Nous pensons que la première condition est susceptible d'être réalisée, la seconde l'est moins, et la troisième est encore plus incertaine. En l'absence de preuve empirique prouvant le contraire, nous affirmons donc qu'il n'y a pas de justification précise à l'octroi de subvention globale destinée à l'enseignement supérieur dans les pays en développement.

Introduction

In this note, we take up the following question: Should there be a general subsidy for higher education in developing countries, whereby state subsidies are provided to all those wishing to attend a higher education institution? In economic policy analysis, there are usually two objectives policy makers ought to promote: efficiency and equity. This approach allows us to break down our question into two smaller ones. Are there efficiency reasons for a general subsidy? Are there equity reasons? Most of those who argue for a general subsidy would probably agree that there is no strong equity reason for it. On average, college students in developing countries belong to the elite socioeconomic classes; hence, subsidizing their education would be regressive, at least relative to subsidizing primary and secondary schooling. For this reason, we focus mainly on the question of whether there are efficiency reasons for a general subsidy.

We rely exclusively on results of traditional economic theory to clarify the logic under which general subsidies would promote efficiency. In this sense, we develop no new theoretical arguments and mainly see our contribution as applying general economic principles to the analysis of a particular educational policy question.[2] If our reasoning is convincing, it provides support for conducting the empirical research required to assess whether the conditions that justify a general subsidy to higher education, in fact, hold.[3]

Taxonomy of Costs and Benefits

To address our question, it will help to look at higher education as an investment. For an economist, this means it is an activity that requires incurring costs in the short term to enjoy benefits that extend into the perhaps very distant future. Assessing whether an investment is worth making, therefore, requires comparing short-term costs and long-term benefits.

It is important to note that the costs and benefits of an investment are not limited to the individual who is considering it. An investment may also entail

costs and benefits for the rest of society. It is traditional to refer to the costs and benefits to the individual as "private," and those to the rest of society as "public."

In the case of investments in higher education, private costs include school tuition, fees, and other related expenses like transportation and books. They also include an opportunity cost: the income that an individual could have earned if he or she had decided to work instead of going to college. As to private benefits, economists have traditionally focused—perhaps too narrowly, as we argue below—on the trajectory of higher future wage rates that becomes possible because of a college education.

This appraisal does not exhaust all the costs and benefits of higher education. When an individual chooses to go to college, this decision also entails costs and benefits for the rest of society. In many countries, higher education is heavily subsidized by government revenues. This means that taxpayers bear part of the schooling costs of college students. On the other hand, investments in higher education may produce benefits to the rest of society over and above private benefits. These public benefits are commonly referred to as positive externalities. A critical mass of highly educated citizens can provide society with an informed citizenry and a larger pool of capable business and political leaders, scientists, and academics who augment society's stock of basic and applied science.

To recap this brief taxonomy, higher education can be thought of as an investment that has both costs and benefits. These may accrue both to the individuals and to households who make these investments, in which case they are private, and to the rest of society, in which case they are public. So a complete accounting of the costs and benefits associated with investments in higher education can be made using a table like Table 1.[4]

Table 1

Point of View	Benefits	Costs	Net Benefit
Private	Private benefits: lifetime earnings	Private costs: tuition, foregone income	Private net benefit
Public	Public benefits: externalities	Public costs: tuition subsidies	Public net benefit
Social	Social benefits	Social costs	Social net benefit

The third row of this table contains social costs and benefits, simply defined as the sum of private and public costs and benefits, and therefore represents the

overall benefits and costs experienced by society as a whole. Under the assumption that benefits and costs can be measured in the same units and appropriately discounted into present values, we can define "net benefit" as the difference between benefits and costs. It measures the advantages to the people concerned of the investment taking place.

Decision Rules

Given the above taxonomy of costs and benefits accruing to the different actors in society, let us now ask:

1. Under what conditions would private individuals choose to invest in higher education?
2. Under what conditions should the state encourage individuals to invest in higher education by subsidizing part or all of the costs?

Using our taxonomy, the first question, which asks when individuals ought to choose to go to college, is simple to answer. The individual ought to attend college if the net private benefit is positive. This decision rule is premised on economists' standard view of individuals as being self-interested. The only costs and benefits relevant to individual decision making are private ones. It is also premised on the assumption that the individual is not credit constrained. In other words, it assumes that any individual for whom higher education yields a net private benefit can borrow whatever money is necessary to finance the investment at reasonably competitive market rates. We discuss the implications of relaxing this assumption below in the section on "Credit Constraints."

The second question is, in fact, a restatement of our main question: Under what conditions should the state implement a general subsidy for higher education? We are ignoring equity considerations, so we assume that the state, as representative of society as a whole, cares only about producing the largest social net benefit and is indifferent to the distribution of this benefit. Under this assumption, the state would like the investment in higher education to occur if the social net benefit from doing so is positive. But this is not the same thing as saying that the state should take the action necessary to make this happen or that it should bear some of the costs of bringing this investment about. It could be that private individuals left to their own devices will make these socially beneficial investments without inducements from the state. The state should refrain from bearing the costs of socially desirable investments if these investments would take place anyway in the absence of state support. Thus, the state should bear the cost of investments if the following two *necessary* conditions hold:

Condition 1. The social net benefit from the investment is positive.

Condition 2. Private actors do not have sufficient incentive or ability to undertake the socially desirable level of investment themselves.

But are these two conditions *sufficient* to justify a general subsidy of higher education? Not necessarily. Developing country governments usually face many competing investment priorities that satisfy these two conditions. Primary and secondary school education, primary health care, HIV/AIDS prevention and treatment are some simple but compelling examples. Ideally, a government should undertake all such investments, but under the all-too-realistic assumption that it cannot, it ought to prioritize those that have the largest social net benefits. This gives us a third necessary condition:

Condition 3. It has the highest net social benefit among all competing investments for which the first two conditions are true.[5]

Thus, we have our full decision rule. The state should implement a general subsidy for higher education if Conditions 1–3 are true.

On Two Potential Arguments for a General Subsidy

Now we proceed to use our taxonomy and decision rules to evaluate arguments that proponents of a general subsidy have or could invoke in favor of it. We evaluate two arguments. The first is the existence of positive externalities. The second is the existence of credit-constrained individuals for whom the private net benefit of higher education is positive but who cannot afford it and who may benefit from the subsidy. To simplify the exposition, we shall discuss each argument separately. Thus, we will initially focus on externality arguments, assuming that credit constraints do not exist. We will then focus on credit constraints assuming away externalities. The coexistence of these problems in reality will not invalidate the reasoning used in analyzing each problem separately.

The Role of Externalities

Many people have argued that a strong efficiency reason for the state to bear some of the costs of higher education is the existence of positive externalities.[6] We can now use our taxonomy and decision rules to examine the circumstances under which this view makes sense. As we have said, externalities are a kind of public benefit. The larger the public benefits, the larger the over-all social benefits. Thus, the existence of positive externalities is more likely to make Condition 1 true.

The presence of externalities produces larger net social benefits without pro-ducing larger net private benefits. This implies that the larger the externalities, the larger the potential gap between optimal investments from the private and social points of view. So the existence of positive externalities may make Condition 2 true. But traditional economic reasoning tells us that what is also needed for Con-dition 2 to be true is for individuals' schooling decisions to be relatively responsive to the costs of higher education, or in economists' language, for the demand for a college education to be price elastic. It is a combination of the existence of positive externalities and elastic demand that makes Condition 2 likely.

To see this, consider the case where demand for education is inelastic, or unresponsive to costs. The most likely reason for this to occur would be for people to so strongly value the benefits of higher education that reasonable variations in its costs do not dissuade them from investing in it. Under these conditions, subsidies are ineffective as an inducement to investing in college, since people would have made the investment in the absence of the subsidy anyway. Since people receiving the subsidy do not alter their behavior in re-sponse to it, the subsidy effectively becomes a resource transfer to them. Whether positive externalities exist or not does not alter the futility of the policy as an inducement for behavioral change when demand is inelastic. On the other hand, when demand is elastic, whether people go to school or not is sensitive to the costs of schooling. This is likely to be true when incentives to go to school are not especially strong and can be affected by moderate variations in school costs. It is when these incentives are not especially strong that private indi-viduals may end up investing in less schooling than is best from society's point of view. Hence, elastic demand makes Condition 2 more likely.

Elastic demand also creates conditions for an effective subsidy, since small subsidies that lower costs could produce significant inducements for these people to go to school. In sum, while positive externalities may make Condition 2 more likely, one has to also assume that demand is sufficiently elastic for this to be the case. Under these conditions, the state could implement a general subsidy that would result in lower private costs, and therefore higher net private benefits. The general subsidy would serve to align private interests with public ones. In other words, individuals would invest and earn the private benefits, and the rest of society would bear some of the costs of this investment but enjoy the positive externalities. The importance of the elasticity of the demand for higher education makes empirical estimation of this magnitude a research priority.[7]

It may be interesting to estimate the elasticity of demand directly using individual survey data to examine the effect on school enrollment decisions of schooling costs. If we find that among noncredit constrained individuals, school-ing decisions tend to be sensitive to price, then the existence of positive exter-

nalities would be more likely to make Condition 2 true, as advocates of a general subsidy would argue.

In this connection, it would also be interesting to account for variations in educational quality. If colleges vary in the quality of the education they offer, and if higher quality schools are more costly, then individuals' demand for quality may be elastic, even if the demand to go to school is not. A student may be willing to go to a lower-quality college if it is cheaper. In this case, variations in the cost of schooling may not affect whether an individual goes to college, but such variations may affect whether that individual goes to a good school or a bad one. If a high-quality education yields more positive externalities than a low-quality education, then while a general subsidy might not increase the number of people going to college, it may raise the proportion of college students who go to high-quality institutions and, therefore, the amount of positive externalities they produce.

Paul Schultz, however, makes a second point: that those who argue for the existence of positive externalities have no convincing empirical evidence for them. This observation implies that, although the net social benefits from higher education are positive, this condition is probably mainly due to the size of the private benefits, rather than public ones. And if there are no positive externalities, the elasticity of demand for higher education is irrelevant since there would be nothing gained, from the point of view of the rest of society, from inducing more people to go to college.

Thus, it seems that Condition 2 highlights two empirical tasks that must be borne by advocates of general subsidies. First, they must demonstrate the existence and relevance of positive externalities. Second, they must show sufficient elasticity either in the demand for higher education or in the demand for quality in higher education, and they must show that high-quality education yields larger externalities than low-quality education.

The last hurdle is Condition 3. It implies that a general subsidy would not be justified even if one could show that externalities exist, that demands are elastic, and that the quality of education affects the size of externalities. This condition also requires proof that the net social benefits are large relative to alternative investments satisfying Condition 1 and Condition 2. To do so is a tall order. We have already emphasized the absence of direct empirical data that renders the fulfillment of Condition 2 plausible. We ought to also consider the prior beliefs held by many that there are many other investments satisfying Conditions 1 and 2 with much, much larger net social benefits. The competing priorities are obvious: primary and secondary education, primary health care, universal health insurance, and, perhaps most relevant in many African settings, HIV/AIDS prevention and treatment. If public sectors have sufficient resources to fund all in-

vestments for which Conditions 1 and 2 hold, they should certainly do so. But in the absence of sufficient resources, they ought to prioritize.

Credit Constraints and the Difficulties of Targeting

The second line of argument used by advocates of a general subsidy has to do with the existence of credit-constrained individuals and the difficulties of targeting subsidies to these individuals. We have defined credit-constrained individuals as those who would enjoy net private benefits from higher education, but who cannot access sufficient funds to pay for the investment. This category may include the bulk of secondary school graduates in developing countries. A general subsidy, by making college cheaper for everyone who goes, could help this subset of students.

The clear problem with the general subsidy, one readily admitted by those who aim to ease the credit constraint, is known as "leakage." If the potential college population consists of both the credit-constrained and the non-credit-constrained, then a general subsidy induces the socially appropriate action from the former but, according to the reasoning developed in the previous section, is no more than a transfer to the latter. Thus, only a part of the general subsidy performs the necessary task of inducing investment; and the rest, while a drain on the public's resources, goes into the hands of the relatively well off, since it is these who are less likely to be constrained by credit.

A potential solution to the leakage problem, if it were feasible, would be to replace a general subsidy with a targeted one. That is, if the state could find some mechanism to distinguish those who are credit constrained from those who are not, then it could target the subsidy only to those who need it. Thus, targeting could eliminate the need for a general subsidy and its accompanying leakages.

The problem is that targeting is not always feasible, so it may be argued that given these difficulties, the best solution to helping credit-constrained individuals is to offer a general subsidy. To assess the reasonableness of this view, we may once again resort to the three necessary conditions that comprise the state's decision rule. As we said, to simplify exposition, we can consider the problem of credit constraints while ruling out the problem of externalities. And if no externalities exist, Condition 1 is satisfied if it can be shown that investments in education yield sufficiently high private benefits. Most people would agree with this, including Schultz, who in fact invokes estimates of high private benefits to argue against general subsidies. On the other hand, among the social costs of the investment are now these leakages mentioned above. These are real resource burdens shouldered by the public that do not produce any new benefits, private or public, beyond those that would have existed in their

absence. We therefore see that the size of the leakages has a negative impact on the size of the net social benefit, although, on the whole, people are likely to believe that total net benefits remain positive.

It may seem surprising that, although the exposition of the conditions under which Condition 2 might be true in the previous section was relatively complex, here it is rather simple. Under the assumption that net private benefits are positive—and because net private benefits are a component of net social benefits—then any individual who does not have sufficient funds to make this investment is failing to make the socially desirable investment. So the mere presence of credit constraints, along with the assumption of positive net private benefits, is very likely to make Condition 2 true.

Lastly, whether Condition 3 will be satisfied is largely an empirical matter, but one on which many of us probably have strong prior beliefs. We do not doubt that there are large private gains from higher education, but we do question whether these gains are likely to be as large as the gains from the alternative investments already mentioned above.

So we find that arguing for a general subsidy to aid credit-constrained individuals requires evidence of the following: positive net private benefits, small leakages from a general subsidy, difficulties of targeting, and large net social benefits relative to other competing investments.

Expanding the Idea of Returns to Education

As we have seen, economists approach questions about educational policy by treating education, whether primary, secondary, or tertiary, as an investment decision. That is, it is a decision that requires us to incur costs in the short term in order to reap benefits to be enjoyed over the longer term. Economists traditionally define the private benefits of this investment as equal to the present discounted value of the higher lifetime trajectory of earnings that result from having a college education. The larger this value, the stronger an individual's incentive for pursuing this investment. They also traditionally define the public returns in terms of the positive externalities mentioned above. But the question ought to be asked: Are these really the only private and public benefits of education?

We would like to argue that the work done by economists who study health, fertility, and human capital issues in developing countries implies that the current definitions are too narrow. For example, we know that female and maternal education are among the central determinants of such outcomes as children's health, women's fertility, and women's mortality. We know that the better educated tend to experience lower morbidity and mortality rates. While the precise extent of the causal relationship from education to these outcomes is debatable, most would probably agree that there is some true genuine causal effect from

education to these outcomes. If so, then this body of work shows that there are substantial benefits to education other than higher lifetime earnings.

Whether these benefits flow mainly from basic and secondary education or from higher education, it is clear that they have both a private and public nature. The better educated tend to live longer and healthier lives. In addition, better educated women tend to have a smaller number of "higher quality" children and are less likely to experience maternal mortality. These are benefits enjoyed by the individuals who make the investment. That is, they are private benefits. But they have a public character as well. Economists speak of the quality-quantity trade-off in children, referring to a woman's choice to either have a small number of children in whose health and education they can invest greatly or to have a large number of children, each of whom receives much smaller investments. The better educated the parents, the more likely they are to choose the former option. These choices in aggregate may have a profound effect on the possibilities for socioeconomic development decades after they are made. Societies that choose smaller numbers of higher quality children will, in twenty years time or so, have a much higher endowment of human capital upon which to rely for development, as well as reduced exposure to the pressures and strains that accompany larger populations. The welfare benefits from this could be truly large.

What are the implications of our argument? We draw two. First, the private and public benefits to education are probably much larger than economists have traditionally argued. This is not an argument in favor of a general subsidy for higher education. These benefits potentially result from all levels of education and are, in fact, more likely to result from investments in primary and secondary education. Thus, considering the existence of these benefits is more likely to strengthen the argument for subsidies at the primary and secondary level beyond the level that would be supported by the traditional calculations.

But the second implication is that, although the benefits are potentially much larger than we had thought, it will probably be very difficult to estimate how much larger. This "measurement" problem has an empirical aspect and a philosophical one. First, while there is relative agreement on the value of the improved lifetime earnings that result from education, there is much less consensus on the size of these health and population benefits. How many years of life, what is the lower probability of experiencing morbidity, how many fewer children, and how much better educated and healthier will these children be as a result of more education? Empirical work is only starting to shed light on these questions. Much more intractable are the philosophical obstacles of attaching a monetary value to these outcomes—a value which is necessary to compute a rate of return—even if we did have an accurate estimate of their magnitudes.

Here, with this second difficulty, we run into the boundaries of economics. A central assumption in this discipline is that we can express how valuable objects are by attaching a price to them. Thus, a computer may have a price tag of $700, and a pound of rice, $2. A numerical computation of how valuable education is can only be done if we impute a monetary value to all of its benefits, including those of improved health and smaller, better-educated populations. Can we really do this?

The philosophical obstacles are themselves twofold. First, can we impute a monetary value to health benefits experienced by particular people? If we could, then we would have no problem recalculating the rate of return to incorporate the improved health outcomes enjoyed by the individuals who make the investment. While this is a thorny issue, there is a relatively well-developed line of inquiry in health economics that answers this question in the affirmative. One can observe the income compensation demanded by people for taking on risky occupations, or observe what consumers are willing to pay for safety devices that reduce the risk of harm, or survey individuals directly about their willingness to pay for health improvements. From these observations, we can make inferences about how much people themselves value health outcomes and use these inferences in the rate of return calculations. In the United States, for example, it is customary to value a year of life lived in good health at $100,000. One often hears the rule of thumb that the value of a year of life can be estimated at roughly three times the per capita income of a person's home country.

But the second aspect is much more intractable, and the economic tradition here offers very little systematic guidance. What is the monetary value of the net benefit, to a household and to society, of having a smaller number of highly educated and healthy people over a larger number of less educated and less healthy ones? This question is different from the previous one because the previous one never has to ask how to value the lives, or the quality of life, of people who do not already exist. As long as we ask about the money value of a particular health gain to a particular person who already exists, we can resort to the admittedly controversial but sufficiently well-entrenched logic in the previous paragraph. In fact, if offspring and future populations are relevant to our welfare calculations only to the extent that they provide benefits to people who already exist, then they would pose no deeper problems than those already discussed. If a smaller number of offspring allows parents to enjoy higher standards of living today, these benefits are easily monetized. If these offspring will be future sources of retirement income for their parents, these benefits are easily monetized too. But we assume that these people's existence has intrinsic value, independent of the value contributed to people who already exist. If we have more education today, we will probably have fewer people with higher

standards of living tomorrow. Thus, education reduces the number of future people but raises their standard of living. How do we value this outcome? How does the number of these future people matter? And how does their quality of life matter? What kinds of answers could one give to these questions?

A ruthlessly consistent economist might say that the capitalized value of the life of a highly educated person is $3M while that of a less educated person is $1M. The problem thus is a simple matter of multiplying the capitalized values by population sizes, and doing the math to compute the net benefit. But does this really work? Work in ethics by Derek Parfit (1984) shows that this kind of logic leads to what he calls the "repugnant conclusion," which adapted to our example, says that if we try to argue this way, it will be better to have a great many poorly educated people than a smaller number of well-educated people, because $1M times a very large number will be much larger than $3M times a smaller number. In the limit, this logic could lead us to prefer the largest possible number of barely literate individuals, a truly repugnant conclusion.

Another answer might say that, to measure the benefit to households and societies of fewer, higher quality children, one should define the benefit as being equal only to the improvement in the average quality of the children. While this gets around the repugnant conclusion and gives us the intuitively sensible result that it is better to have fewer, higher quality children, it does so at a serious cost. It assumes that the numbers of people who are born, conditional on the well-being these people will have, does not matter. Do we really believe this? When parents decide they want to have one more child, certainly they do so because they believe they will be better off if they do. To them, numbers matter. Shouldn't they therefore also matter to society?

We do not know how to resolve this last conundrum. And perhaps, recalling all the difficulties of valuation introduced by these additional benefits, it is not surprising that economists omit them from their calculations. But we ought to guard against simplifying the rate of return calculations for pragmatic reasons and then deriving policy rules as if the simplifications were truly valid. If we really believe that these outcomes of educational investments are real, then we have reasons for devoting more resources to them. Exactly how much more is a matter that may never be fully resolved because of the valuation problems we have only briefly discussed. But our gut feeling is that these arguments justify substantially larger allocations of resources to education, especially at the primary and secondary levels.

Conclusion

The view that developing countries ought to offer general subsidies for higher education has strong supporters. We have tried to use traditional economic logic to specify the conditions under which such a policy would promote a more socially efficient allocation of resources. We came up with three necessary conditions. Condition 1: The net social benefit from the investments must be positive. Condition 2: Private actors must have insufficient ability or incentive to undertake the socially optimal levels of investment. Condition 3: These subsidies must generate more net social benefits than competing uses of public funds. We reason that the first condition is likely satisfied, the second criterion not clearly so, and the third perhaps not. We therefore conclude that, on the whole, there is no clear-cut efficiency reason for a general subsidy. We also describe the elasticities that, if measured, could give us a clearer idea of whether the second criterion is fulfilled. These would be fruitful subjects of future empirical research.

Notes

1   This note evolved from a set of discussants' comments prepared in response to a paper presented by T. Paul Schultz, "Higher Education in Africa: Monitoring Efficiency and Improving Equity," at the Conference on International Higher Education and African Development organized by the Yale Center for International and Area Studies on October 18-21, 2001.

2   In particular, we ignore what could in reality be decisive political factors determining whether general subsidies continue or not. There is very strong political support for general subsidies for higher education among local elites in developing countries. Their existence has come to be seen by these elites as an entitlement to be defended with a passion that seems out of proportion to the increased monetary burden to them from eliminating these subsidies. We have little doubt that evading the political conflict that would result from eliminating this perceived entitlement provides no small motivation in the eyes of government for maintaining them.

3   For somewhat different treatments of this topic, see Birdsall (1996) and Task Force on Higher Education (2000).

4   This simple table glosses over some details that would naturally be included in a more comprehensive treatment. For example, the existence of income taxes implies that the private benefit to education is the lifetime of higher wage levels after taxes. In addition, future income tax revenues should be considered part of public benefits. The existence of taxes also implies that the opportunity cost of going to college (the foregone income which one could have earned instead) consists of the *post tax income* the individual could have earned and the tax revenue the state could have collected.

5   Economists should note that these three conditions can be replaced by a modified version of the first two if, in the computation of the net social benefit of a project,

one uses the rate of return of the best alternative project as the shadow cost of funds. These decision rules, more useful in the stated form for lumpy investments, generalize naturally to the case where the scale of a particular investment is variable.

6   If positive externalities exist and are large enough, they could also potentially reverse our initial statements about the regressivity of general subsidies. This might happen if these externalities result in benefits that trickle down to the poor and thereby reduce inequality in the distribution of income.

7   Many economists hold strong views on the matter of elasticities. For example, Schultz (2001) argues that the private returns to higher education are so large that private individuals probably already have sufficient incentives to take the proper investments from society's point of view, implying that demand is probably relatively inelastic. To subsidize private individuals under these conditions is to simply give them money to make decisions they would have made anyway. It is therefore a transfer, rather than an inducement. And if, as we said at the start, most college students come from the elite social classes, this transfer is regressive.

Some additional empirical research might lead us to firmer conclusions concerning this elasticity. For example, it is interesting to note that Schultz's argument is less a direct empirical estimate of demand elasticity than it is an inference made from studies of the returns to education. They are so high that he finds it safe to infer that any reasonable private individual's calculation would point to going to college as the right decision. The net private benefits from doing so are so clearly large that moderate variations in the costs of the investment are unlikely to change this decision. Thus, inelasticity is inferred.

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