Public Goods and Education

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Education can be a private good or a public good. The fact that one person's education can have spillover effects on other people is often taken to be an argument for government intervention in the market for education. But public *financing* of education can produce negative externalities by creating perverse incentives, and a public monopoly on the *delivery* of education can discourage experimentation and turn schools into an outlet for intellectual fads and political propaganda. I review the arguments for thinking about education as a public good, and the associated arguments for giving the state a role in educating citizens. I conclude with a note of skepticism about the desirability of direct government involvement in education, even if it plays a limited role in financing it through vouchers, grants, or loans that can be redeemed at accredited schools.

1. The Ubiquity of Public Goods

There are at least two common arguments for the state to play a role in education. One is that without public subsidies or mandatory school attendance some parents will fail to adequately educate their children. The other is that without government intervention, people will ignore the positive effects their education has on others, so they will consume less education than is socially optimal. This is the public goods rationale for government intervention in education, and it applies to adults as well as children.

A good is public when it exhibits nonrivalry in consumption and nonexcludability in access. That is, when one person's consumption of a good leaves as much of it available for others to consume it is *non-rival*; and when it is either too expensive or technologically impossible to exclude other people from enjoying a good it is *non-excludable*. An obvious example of a pure public good is a satellite system that helps divert giant asteroids heading toward Earth. If anyone enjoys the good of protection from an asteroid-induced extinction, everyone does, and in equal amounts. Of course, most goods are partly rival, like freeways that get crowded during peak traffic hours. And since excludability is partly a function of cost, most goods don't fit the binary distinction between excludable and non-excludable. For example, a country club might try to exclude people who don't pay fees, but some might sneak into the club with friends, or create a fake identification card that gains them admission without paying costs. In other words, rivalry and excludability exist along a spectrum, and come in degrees that are partly determined by cost and technology.

Why would education be a public good? Most of it is not. Many of the benefits of literacy and numeracy, or exposure to science and literature, are internalized. Elementary education helps people develop their intellectual and creative capacities, and specialized education helps them earn a living by acquiring a specific skill. But apart from any private benefits of education, people share an epistemic environment, as well as the consequences of market exchange and democratic decisions. We have discussions that influence other people's views. We have skills that affect how much value we create for other people in the market. And we vote for policies that profoundly affect other people's lives and liberties.

For these reasons, education can be a public good in the sense that its consequences are widely shared by other members of a political community, and are shared *beyond* a specific political community if the policies we vote for have welfare effects on people in other countries and future generations. This is obvious in the case of voting for mandatory vaccinations against infectious disease, or voting for a politician who delivers on a promise to go to war. But as social creatures we are constantly interacting with others, and to the extent that these interactions are affected by our education in the broadest sense, we can think of education (or the consequences of our education) as a public good.

Much confusion has resulted from the ambiguity of "good" in discussions about public goods. Economists use "good" to refer to anything that can satisfy a desire, or might be subjectively valued, not a thing that is objectively valuable. For example, if an artist extracts the tears of tortured children to use in an exhibit called "crying kids," the exhibit is a good. If nobody wants to buy tickets to see the exhibit, it's still a good, but one that has questionable value.

The contrast class of *public* goods in the technical sense of the word is *private* goods. A private good is one that is excludable and rival, like the car in your garage or the sofa in your living room. Despite this caveat, some economists occasionally contrast the term "public good" with "public bad" (Buchanan, 1975). When academics and journalists use the term "public bad" to refer to things like environmental pollution, they are using the term loosely to mean a non-excludable negative externality. But this can be misleading, given that the origin of the private/public distinction is to pick out goods or states of affairs that are, to some degree, shared by all rather than consumed privately. The "education" curriculum in Saudi Arabia that teaches an extreme form of Islam is a public *good*, even if it is *bad* in the sense that it promotes intolerance and terrorism (Shea, 2017). The consequences are widely shared but only considered beneficial by a small group of radical jihadists. This case vividly shows that education can be a public good even when its consequences are bad (Shaw, 2010).

Of course, we could reserve the phrase "public good" to refer only to those goods that are universally desired, and desired in equal amounts, and "public bad" to outcomes that are universally detested and shared by all. But this would restrict our usage to almost nothing in the universe. Take the paradigm public good of peace achieved through a state-financed military. Some people do not want peace – for example, because their religious beliefs compel them to wage war. Others want peace, but are unwilling to fight for it or pay taxes to finance it because they are pacifists. Still others don't care whether life goes on for another billion years or another few days because they are misanthropes or nihilists. These are unusual preferences, to be sure, but they illustrate how rare it is for an outcome that can be classified as a public good to be universally welcomed or shunned. Once we add the fact that even universally welcomed public goods have a price – that producing them isn't free – people are especially apt to disagree about

which public goods we should produce, *how* they should be produced, and in *what quantity* (Anomaly, 2015).

Nevertheless, in this paper I will mostly talk about public goods for which there is widespread demand. In particular, I will mostly discuss the non-excludable *benefits* that certain forms of education can be expected to produce.

2. The Poverty of Public Goods Arguments

The foregoing discussion of public goods suggests why classifying something as nonrival and nonexcludable doesn't automatically give us a reason to think governments should provide it. Many public goods are not worth their costs, and turning production over to government agents can corrupt the production process and lead to unfair redistributions of resources. Paul Samuelson coined the term "public goods" to indicate those areas where states might improve on the market allocation of ordinary private goods. But he later clarified that he believes the existence of non-excludable externalities gives us, at best, a "*prima facie* case…for social concern and scrutiny of the outcome," not an automatic case for government action (Samuelson, 1972, p. 52). The idea now familiar to economists is that market exchange will tend to produce fewer public goods than would be best from the standpoint of maximizing social welfare, but that governments will tend to produce more public goods than is socially optimal (Schmidtz, 1993), especially through debt spending and the creation of bureaucracies that develop their own interests and lobbying power (Salsman, 2017).

In the first half of the 20th century, welfare economists developed the theory of externalities and public goods to give scope for government action when markets fail to maximize social welfare (Bator, 1958). In the second half of the 20th century, public choice economists challenged the welfare economics paradigm by applying economic tools to political processes and political actors (Buchanan and Tullock, 1962). To get a complete theory of what states should do, in educational policy or otherwise, public choice theorists showed us that we need a theory not only of market failure, but also of government failure (Keech and Munger, 2015). My goal in this article is to take standard concepts from economics and apply them to moral arguments for government provision of education. The reason I take these to be *moral* arguments is that while economists have developed useful ways of thinking about how markets and other institutions work, we cannot move from analysis to policy without making assumptions about what counts as welfare, whether the total welfare benefits of a policy exceed its costs, and whether promoting welfare is the proper role of the state in any particular case. At its core, economics forces us to ask comparative questions and take account of the unintended consequences of policies by thinking through the incentives they create.

Arguments for the state to play a role in providing education because of its beneficial external effects go back to the founding father of economics, Adam Smith. Smith spends the first few chapters of *The Wealth of Nations* explaining how exchange promotes the division of labor, which leads to the creation of new goods and the progression of science. But by the end of the book Smith worries that:

> In the progress of the division of labour, the employment of the far greater part of those who live by labour…comes to be confined to a few very simple operations, frequently to one or two. But the understandings of the greater part of men are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few

> simple operations…has no occasion to exert his understanding or to exercise his invention... He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become…His dexterity at his own particular trade seems, in this manner, to be acquired at the expence of his intellectual, social, and martial virtues. But in every improved and civilized society this is the state into which the labouring poor, that is, the great body of the people, must necessarily fall, unless government takes some pains to prevent it (1776, V.1.178).

We might think that Smith diagnosed a problem that only applies to the early stages of capitalism in which low-skilled workers toil in factories hammering nails or oiling machines. But in the later stages of capitalism so much material progress occurs that people can engage in creative endeavors in their free time, and they can choose professions that are more rewarding than those available to people in subsistence societies, early stage capitalism, or socialist communes (Ridley, 2010).

Still, Smith is right that many jobs are increasingly specialized, and he may be right that people have less incentive to develop parts of their body or mind that aren't required for their jobs (even if they now have more free time to do it). If this is true, there are reasons to worry about the collective upshot of specialization. While Smith also worried about citizens losing the martial virtues, and thus the public good of national defense, we have little reason to worry about this as long as an adequate military can be financed through taxation.[1] What Smith might have argued had he lived in an era in which democratic elections have profound consequences for all is that citizens often lack incentives to adequately gather and process information about public policies before voting or otherwise expressing their political views.

Economists since Hayek (1945) have emphasized the benefits of not needing to understand how the world works, including how most of the goods we consume are created, for us to contribute to social welfare through specialized production and exchange. And economists since Downs (1957) have understood that voters in large democracies are rationally ignorant about most of what goes on in the political sphere because they have little ability to change political outcomes with a single vote. One implication is that many citizens fail to understand enough about the world to participate in political life in ways that benefit others rather than imposing costs on them (Brennan, 2009). Given the far-reaching consequences of democratic elections, it is arguable that all of us benefit when each of us makes a greater effort to process information better (Huemer, 2015).

Education cannot guarantee the outcome of more competent and conscientious citizens, but it might enable it. If so, it is among the most important public goods there are. Still, this says nothing about *how* to provide education beyond what each person (or each person's parents) finds it in their interest to pursue. It is a common but fallacious inference from the fact that certain kinds of education have consequences that can be construed as a public good to the conclusion that it ought to be publicly provided. There are several problems with this inference.

First, as Jane Shaw argues, "The problem with public provision is that the task of ensuring that the government supplies the proper quantity and quality of 'public goods' is itself a public good" (2010, 242). For example, consider primary schooling. Even if policymakers pass reasonable laws mandating schools to teach basic skills that all people would need to develop

[1] Though one could argue that financing a military without participating in it may make us less likely to understand the real consequences of war. It may be cheaper, in other words, to vote for candidates who send other people's kids to war than to fight a war ourselves.

their creative faculties, it is typically up to bureaucrats to decide what kind of curriculum is appropriate, what the hiring and firing practices for teachers look like, etc. In practice, these policies get hammered out by various forces that include teacher unions, city councils, state legislatures, and other agencies whose interests differ and whose goals clash. It is not at all clear that the result of this process will efficiently supply the public good of competent citizens whose actions have positive spillover effects on others. In fact, as I will argue below, the public supply of education often results in bad teaching, political indoctrination, and a system of certification and promotion that deters many smart people from wanting to become teachers.

Second, many public goods are best *financed* publicly but *provided* privately. Military contracting is an obvious case in point. The US military is financed by taxpayers, but contracts with private companies from which it buys food and aircraft. This is vastly more efficient than having the military grow the food it feeds its soldiers or produce the aircraft its pilots fly. Similarly, governments could collect taxes to finance the competitive provision of certain kinds of education without monopolizing its delivery (Friedman, 1955; Tooley, 2014).

Third, some public goods are created as a byproduct of private exchange between people with various motives. For example, some people just enjoy learning and are willing to buy books and subscribe to periodicals that improve their own welfare and make them more competent citizens and fruitful interlocutors in political debates. Their education produces public goods (in the sense of non-excludable benefits) without any need for government subsidies. Some people volunteer their free time to teach literacy to children. Still others set up schools to make a profit or to create an institution that promotes broader goals. Many private schools in the United States, for example, offer a superior education to students than anything the state might provide. Of course, not everyone can afford these schools, but this does show that the kinds of public goods associated with education can be produced in the absence of government action, even if they are produced at a less than socially optimal level.

3. Third Party Payers

The public goods argument does seem to justify some public financing of education, perhaps through a voucher program in which governments establish objectives that eligible schools must meet (Gintis, 1995). Some of the problems that plague education when governments directly produce it are minimized (though still present) when governments merely set standards for schools to be eligible to receive state-financed vouchers or subsidies. But when government intervenes in the educational market – even when the intervention is justified – it creates a "principal-agent problem" in which the agents (teachers, administrators, and government bureaucrats) acting on behalf of the principals (students and other beneficiaries of education) can create unintended negative externalities. These include educational arms races, political propaganda, and incentives for teachers to pay more attention to the desires of administrators than the interests of children and parents.

a. Arms Races and Positional Goods

In a recent article, Daniel Halliday argues that education serves at least two functions – *developing* human capital, and *screening* students according to ability (2016). He worries that private schools will tend to focus on the screening dimension of education at the expense of development. The reason is that students (and parents of students) will want to chase positional

goods like grades and awards, and attendance at elite schools, which make them stand out of the crowd and eventually get high paying jobs and the social status associated with elite schools.

Goods are *positional* when one person's gain entails another's loss. Victory in chess or basketball is a positional good since a person or team can only win a game if others lose. And winning a chess or basketball championship tournament means that more players will lose than win. The pursuit of positional goods can sometimes be a negative sum game, leaving most people worse off and creating an overall loss of social welfare. Consider the case of parents in New York City who want their children to attend elite schools. Some parents pay tutors to coach their kids from the age of 5 so that they will perform well enough on entrance exams to go to elite primary and secondary schools, so they can attend elite universities, and eventually get high status jobs that pay well. If we assume for the sake of argument that the number of admissions slots at elite schools is fixed, and the pursuit of these slots imposes high financial and emotional costs on those pursuing them, then admission to an elite school appears to be a positional good that leads to a net welfare loss, even if a few students gain.

Because markets for education (including tutoring, summer camps, and schools) can help indulge people's desires to set themselves apart from others, which may lead to an unhealthy pursuit of status, Halliday argues that "the state ought, morally, to intervene with markets in education precisely in order to combat or preempt an educational arms race" (2016, 151).

While the logic is compelling, the argument is incomplete, and may yield the opposite conclusion when we fill in some important assumptions. One problem with the argument is that it ignores *positive* externalities that might result from the pursuit of positional goods. For example, even though it is true that most teams will lose a sports tournament, there still may be net gains to players and fans from participating in the endeavor. Similarly, while it is true that rich parents and genetically gifted children have advantages that some egalitarians consider problematic, and that markets in education will allow them to use these advantages to increase their relative social power by pursuing positional goods, the pursuit of these goods may produce compensating benefits for all. For example, if being tutored from an early age and attending elite schools produces better students than would emerge if people were less competitive, or attached less importance to academic achievement, it's likely that chasing positional goods results in better physicians and lawyers and computer programmers. If this is true, discouraging arms races in education might hinder the progress of technology and the development of expertise that benefits all people, including the poor and vulnerable. Even when parents and kids are driven by a concern for status, which can produce psychological and financial harms (Frank, 1987, 2010), the pursuit of status in a commercial society can lead to new ideas and products that benefit everyone (Cowen, 1997, 2000). Moreover, discouraging arms races may harm those who enjoy competition, and discourage people from developing character virtues that allow them to harness their competitive nature and learn to distinguish mutually destructive arms races from collectively beneficial competitions.

There is another problem with the argument that we should discourage the pursuit of positional goods in education. Even in cases in which competition for positional goods produces net harms, the state may very well make the problem worse rather than better. The state cannot wave a magic wand and transform human nature so that competition for status goes away: it can only change the arena in which it takes place by altering the costs and benefits of status competition occurring in a particular domain. For example, dueling after an argument (trying to shoot your opponent before he shoots you) is a destructive norm because the positional good of staying alive comes at the expense of another person being killed. Perhaps by outlawing dueling,

the state can move both players out of a prisoner's dilemma, which is a situation in game theory in which each player acting rationally leaves all players worse off than they might otherwise be. State prohibition of dueling might nudge them toward a less destructive game. Instead of dueling they might find another contest that signals status but doesn't produce so much harm. Similarly, Halliday's argument might suggest a rationale for banning the use of cognitive enhancement drugs at schools in cases where we can show the side effects are dangerous, and that each person has an incentive to use the drugs to achieve a positional good like high grades.

Still, the state can make the pursuit of positional goods in education worse rather than better. For example, in the United States it has become customary for nearly everyone with a pulse to attend university. This is a cultural shift that likely stems from aggressive state subsidies for public universities and state-subsidized loans for students to attend private universities. These subsidies have, paradoxically, increased student debt, in part by nudging people who are otherwise uninterested in acquiring additional education to attend college (Lucca *et al*, 2017). Once college became affordable for everyone, many employers began expecting job applicants to have a college degree. This created a signaling game in which many people began pursuing degrees just to show employers that they had completed a college degree. This has led many Americans who are not intellectually curious to spend years taking classes with questionable value (many of which discourage rather than encourage critical thinking) only to either drop out of school or graduate with significant debt (since subsidies don't cover *all* costs). We can think of this as a credentialing arms race to get generic degrees in order to stand out of the pack of job applicants.

Bryan Caplan argues that a great deal of higher education in the United States has become part of an expensive and counterproductive signaling game, and that much of this has been *created* rather than *solved by* the state (2018). Signaling can be conscious or unconscious, and it can be honest or dishonest.

While many people pay careful attention to the name brand of the school they attend, they do not necessarily pursue educational goals or choose majors to *consciously* broadcast to the world what kind of person they are. Instead, the school we attend and the subject we study sends a signal in the sense that employers and mates can glean information from it. Driving a low emissions car signals to pedestrians that the driver cares about minimizing air pollution, whether or not he *intends* to send that signal. Similarly, majoring in physics at Oxford signals a person's IQ, even if the person chose to attend Oxford simply because he enjoys a good challenge or wants to be around other people like himself.

Just as signals can be unconscious, they can also be dishonest in the sense that they broadcast false information to the audience. Consider the bright blue spots on a bird that indicate its healthy diet and superior genes (a pale blue spot may indicate genetic mutation or a diet low in carotenoids or other essential nutrients). These are typically honest signals about fitness. Now consider honest signals like red spots on fish that serve as warnings to predators that their potential meal contains a deadly toxin. Fish that broadcast their toxicity with a spot are more likely to leave behind more offspring to the extent that predators with the ability to detect signals look for another meal. But if other fish can economize on energy by having a spot but not producing toxin, they will be rewarded with more offspring than fish whose genes make them honest advertisers by actually producing toxin. Once this happens, though, predators with the ability to distinguish honest form dishonest signals gain advantages. This process of adaptation and counter-adaptation keeps signals relatively honest, at least in populations where the same species of predator and prey interact over time (Lehmann *et al*, 2014).

In the case of educational markets, we might think that even if signaling is a big part of why people seek education, the signals will tend to be honest because employers and graduate programs will have reasons to spend significant resources to detect dishonesty. Deciphering signals is a costly process plagued by imperfect information, but when the stakes are high, people will generally find a way of weeding out dishonest signalers. For example, law schools that wish to admit the best students devise an exam that tests the kinds of skills people need to succeed in the study and practice of law, even if they also rely to some extent on grades but fail to weight grades based on the difficulty of the subject applicants studied.

Nevertheless, there is plenty of dishonest signaling in the market for higher education, including signaling which stems from the expectation that simply having a university degree gives us certain advantages in the job market. I've argued that this expectation is created in part by state subsidies for higher education, and that it leads to the proliferation of disciplines with questionable value, high dropout rates, and wasted time and money for those not especially well-suited for taking university classes. If this argument is right, subsidies for higher education are a clear case in which state action *contributes to* rather than *discourages* destructive arms races.

The argument is not that the state always makes problems worse, or always encourages arms races, only that state regulations can make whatever problems we have with markets for education worse by *discouraging* arms races with positive consequences, and by *encouraging* arms races with negative consequences.

b. Biased Curricula and Bad Teaching

John Stuart Mill worried that if states monopolize the delivery of education, rather than merely mandating a certain amount of education for children, political bias would seep into the curriculum. Adam Smith worried that when people pay agents of the state or university bureaucrats rather than directly paying teachers, the quality of teaching would be poor because teachers would owe their allegiance to administrators rather than students. I'll explore each of these worries as part of a more general argument that when states intervene in education, they can produce principal-agent problems that decrease the quality of education. The goal is to show that although state intervention can, in principle, produce the public good of a wise and productive citizenry, it can also produce the opposite effect at high cost to taxpayers.

John Stuart Mill supported mandates for parents to educate their children, as well as state subsidies for poor people to send their children to a school of their choice. But he objected vehemently to state-run schools:

> The objections which are urged with reason against State education, do not apply to the enforcement of education by the State, but to the State's taking upon itself to direct that education… A general State education is a mere contrivance for moulding people to be exactly like one another: and as the mould in which it casts them is that which pleases the predominant power in the government…it establishes a despotism over the mind and body. An education established and controlled by the State, should only exist, if it exist at all, as one among many competing experiments (1859, chapter 5, par. 13).

Implicit in the argument is that when the state is a monopoly provider, schools are less responsive than they would be if parents had the *right* to choose alternatives, and the *ability* to do so. Mill did think the state might run examinations to ensure eligible schools were covering

some basic skills, but otherwise preferred to give parents a choice – not because they always get the answer right about how best to educate their children, but because the alternative of trusting the provision of education to the political process is often worse.

An example of how politicized curricula get when the state controls them occurred in the United States a few years ago. New nationwide standards for examining knowledge of American history were designed that showed a significant left-leaning (or "progressive") bias, emphasizing a narrative of Americans as oppressors and American institutions as deeply flawed. The conservative response was to propose that American history textbooks should promote patriotism, deference to authority, and pride. Neither side argued that we should teach history as a science, and to try to minimize moral and political judgments in the textbooks. Instead, the response perfectly correlated with the kinds of lenses through which progressives and conservatives tend to see the world (Haidt, 2012).

This is not to say that private providers of education will teach history or any other subject in a politically neutral way, but it does cast doubt on the view that because it's so important for students to learn basic social science, we should leave it to a state monopoly whose standards are determined by politicians, bureaucrats, and teachers unions. Unions, in particular, have strong incentives to protect their existing members, even when it comes at the expense of student learning or good hiring and promotion practices for teachers. Unions in many American states have made it difficult to fire teachers, and have lobbied against performance-based pay and in favor of requirements for teachers to go through extensive certifications that deter capable people from entering the profession.

All of this is a predictable response to a system in which third party payers – in this case, government agencies – rather than parents call the shots about who will be hired and what they will teach. A related worry raised by Adam Smith is that a system of third party payment undermines the motivations of teachers to serve their customers: "The endowments of schools and colleges have necessarily diminished more or less the necessity of application in the teachers. Their subsistence, so far as it arises from their salaries, is evidently derived from a fund altogether independent of their success and reputation in their particular professions" (1776, V.1.134).

To the extent that teachers aren't paid directly by parents and students, or paid and promoted on the basis of their performance in the classroom, they seem to pay more attention to their research at universities and to pleasing administrators at primary and secondary schools. If one of the main goals of state action in the education market is to increase the competence of voters or productivity of workers by inducing them to invest more in the development of their intellectual capital than private interest dictates, severing rewards from school performance and pay from teacher performance looks like a serious error. Introducing some degree of market reforms in education could improve this trend, since bureaucrats with monopoly power rarely have the relevant information or motivation to find the best ways to structure schools and reward innovative teachers and teaching methodologies.

Apart from promoting poor teaching generally, third party payment might also explain the increasing politicization of teaching and research. The problem can occur at any level of schooling, but it appears to be most pronounced in contemporary universities where progressive political ideology pervades the humanities and social sciences. Increasing evidence suggests that extreme bias in the academy is undermining the ability of teachers to promote critical reasoning, and infecting research by causing journal referees and colleagues to fail to ask questions about

interpretations of data that conflict with their political ideology (Jussim *et al*, 2014; Duarte *et al*, 2015).

College students in the United States in particular are becoming hostile to ideas that conflict with progressive ideology, even ideas that have relatively strong empirical support, including research suggesting that there are statistically significant differences in the cognitive traits of different groups like men and women, as well as between different ethnic and racial groups (Pinker, 2002). Even proposing hypotheses about group differences virtually disqualifies some from speaking on college campuses, and can lead to violent protests rather than reasoned debate. State subsidies for education often fail to create even the most basic critical thinking skills in the students whose education they finance. Rather than highlighting biases that undermine our ability to reason clearly, many university faculty are indulging them in the name of social justice (Hermanson, 2017).

Education steeped in political correctness creates negative externalities like emotional fragility (Lukianoff and Haidt, 2015) and intellectual conformity (Williams, 2016) rather than producing the public good of competent citizens with sharp critical thinking skills. It fosters an intolerant tunnel vision through which perfectly reasonable hypotheses are either passively ignored or actively denounced. This can create citizens who trust each other less, and discriminate against each other more on the basis of their political beliefs (Iyengar and Westwood, 2015).

State monopolies on secondary schools and state subsidies for higher education are not responsible for all of this, but they seem to play a part. If nothing else, the state has encouraged people with little interest in higher education to seek degrees without much merit. At the level of primary and secondary school, teachers are typically given curricula devised by state bureaucrats rather than encouraged to design methods of teaching that best promote the interests of students. At the university level, direct state funding and indirect subsidies can promote a culture in which departments rarely mention the interests of students in making hiring decisions.

I have argued that third party payment can create unintended arms races in addition to solving them. They do this by distorting incentives in ways that make students less likely to receive the kind of education that the public goods rationale for government action seems to justify.

4. Conclusion

The argument of this paper is that although some kinds of education can be construed as a public good (and specifically a public good from which nearly all people benefit when it emerges), there is no automatic connection between public goods and state action. State subsidies for some purposes, such as vouchers for primary and secondary school, may have real benefits by increasing choice for low-income parents, even if state subsidies also create problems, especially at the university level. Far more serious problems emerge when states directly produce education rather than merely mandate basic learning objectives for children. I have not argued against all government intervention in the market for education. I have only argued that the common refrain that "education is too important to leave to the market" is misguided, even when we take account of the fact that all of us might be better off if each of us were more productive workers, better neighbors, and more competent citizens.

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