

But I am persuaded that in many cases good reasons might be given, why a nation is more polite and learned than any of its neighbors. At least, this is so curious a subject that it were a pity to abandon it entirely.

—David Hume, “Of the Rise and the Progress of the Arts and Sciences” (1742)

In contemporary societies, the education of the young is overwhelmingly a public responsibility. It is invariably compulsory, fully or heavily subsidized, and either publicly provided by employees of the state or closely regulated with regard to attendance, curriculum, teaching staff, physical facilities, class size, and achievement standards. While private education continues to function and offer alternatives or supplements to public schooling, it generally operates in the shadow of larger public systems. This predominant role of the public sector in education is evident in its large share in the funding of elementary and secondary education, which exceeds 90 percent on average in the industrialized countries that comprise the Organization of Economic Cooperation and Development (OECD). In less developed countries, this share is generally lower but is still very substantial. Among OECD countries, these public investments in education account for 13 percent of total government spending, on average, and 6 percent of gross domestic product (GDP).

This is a recent phenomenon in historical perspective. Public involvement in education in preindustrial societies was rare and where it existed was largely limited in scope and almost always motivated by religion. The transformation began in the eighteenth century in western Europe, impelled by a combination of powerful factors. Reformation and Enlightenment, industrialization and urbanization, and the emergence of secular states and democratic forms of government all

contributed to the notion that universal public education was a worthy cause with strong moral, social, political, and economic justifications. Adam Smith, Thomas Paine, and John Stuart Mill are among the political economists of the time who gave eloquent expression to a widening recognition that the education of the young was a matter of central public concern for society.

The systems of public education that subsequently evolved are inherently political: they depend on political as well as on market mechanisms to mediate diverse individual preferences regarding the level of public spending on education, the structure of the education system, and the goals it is meant to achieve. These mechanisms of communal decision making are many and varied, ranging from direct democracy in the spirit of the Greek polis of antiquity or the modern kibbutz, to authoritarian regimes in which public opinion has only an indirect effect on the decisions that are reached; from the centralized, largely uniform French education system to the decentralized, heterogeneous structure of education in the United States.

This is the context in which the rich public debate on a wide range of education issues takes place. As education systems expand to meet increasing demand for wider schooling and as the goals of education adapt to changing circumstances and changing mores, there repeatedly arises the need for change and reform of these systems, often raising contradictory demands. Calls for improved governance through tighter control and supervision must be squared with conflicting desires for greater independence of schools to meet specific local needs. Initiatives aimed at improving school performance by fostering a more competitive environment for schools, through vouchers and other means, must be reconciled with concerns that public schools should offer equal opportunity for all.

A theoretical understanding of the political economy of education is necessary for disentangling the complex links between education, growth, and income distribution and for formulating effective policies designed to improve the public financing and provision of education.

Economic Models of Education: What Does Education Do?

Economic theories of education see its value as deriving from one (or more) of the following characterizations—each of which informs a different analytical perspective on the impact of education on economic welfare. Education is variously viewed as

- Building human capital by teaching skills that directly enhance productivity,¹
- Providing a screening mechanism that identifies ability,²
- Building social capital by instilling common norms of behavior,³ and
- Providing a consumption good that is valued for its own sake.

While most schools address all of these four dimensions, they do so in varying degrees and with different emphases.

Analyses that focus on the role of education in building human capital view it as an investment that yields a return, much like investments in physical capital. This approach emphasizes the role of education as an engine of growth and underlies much of the recent theoretical and empirical analysis of comparative growth rates. It suggests the possibility of positive spillovers that play a key role in formal treatments of endogenous growth and provide a rationale for publicly subsidizing education.

The view that holds education principally as a screening device—helping employers identify the potential productivity of their prospective employees—suggests that the private returns from education may exceed its social returns. When education is a less than perfect screening mechanism, the decisions of less able individuals to pursue schooling generate negative spillovers for others, making them appear less productive. This calls into question the efficiency of publicly subsidizing education; and where public financing is provided for other objectives, it indicates a reason for screening applicants on the basis of their prior academic indicators.⁴

Analyses that focus on the role of education in building social capital emphasize the social returns from education. This rich perspective, which features prominently in the noneconomic literature on public education, emphasizes its advantages for society at large: instilling patriotic values, developing a sense of community, inhibiting criminal and other antisocial behavior, providing a common language and cultural norms that improve the efficiency of communication and economic transactions, and providing young citizens with the tools to become informed, sensible voters. All of these considerations strongly reinforce the case for public involvement not only in financing elementary and high school education but also in regulating its content.

Most economic growth models that address education issues adopt a human-capital approach, describing education—in elementary and high school, on which we focus here—as an investment that parents

make on behalf of their children, generally from altruistic motives. This is the approach we adopt in most of our formal analysis, with only chapter 8 devoted to an investigation of the role of education in building social capital.

Why Public Education?

The dominant role of government in education stands in contrast to the absence of an obvious rationale that would explain why it is not generally left to the private sector. Education is not a pure public good in the sense that public goods are defined in economic theory: it is easily excludable (there is no difficulty charging tuition fees), and the marginal cost associated with providing education to an additional child approaches its average cost at modest scales of operation. Moreover, as numerous studies have shown (some of which are reviewed in the following chapter), private returns to education are substantial, often exceeding returns to investment in physical capital, so that one could expect the large majority of the population to acquire their education privately if public education were not available.

In this section, we discuss separately why education should be publicly financed and why it should be publicly administered.

Why Public Financing?

Economic models of education that view it as investment in human capital justify public financing of education on efficiency grounds by referring to the externalities it generates. Indeed, much of the theory of endogenous growth rests on the assumption that such spillover effects exist and are important (Lucas, 1988; Romer, 1986). Romer (1986), Rustichini and Schmitz (1991), and Gradstein and Justman (1997), among others, draw policy implications for providing education subsidies, which follow from the existence of direct production spillovers stemming from individual investments in education. Acemoglu (1996) provides microfoundations for spillover effects of education in production, based on a matching model between firms' investment decisions and individuals' education choices.

Empirical support for this assumption has been somewhat elusive. Existing estimates of the social return to education, though positive, typically fall below private returns (see chapter 3). Presumably, direct production spillovers are relatively more important at the elementary school level, where basic skills are taught—skills that facilitate the

communication necessary for all economic activity. However, education also generates other important spillovers that have a less direct effect on growth and may therefore be more difficult to measure. For example, education may decrease the propensity to engage in different kinds of criminal activity. Ehrlich (1975) in an early paper found support for the hypothesis that education and a more equal distribution of income reduce the incidence of crimes against property. More recent evidence to this effect is provided in Lochner and Moretti (2001), who report that social savings associated with crime reduction as a result of high school graduation may amount to as much as one quarter of the private returns to schooling. Additional nonmarket education spillovers are surveyed in Haveman and Wolfe (1984) and Wolfe and Zuvekas (1997). These include the impact of education levels on health-related outcomes such as life expectancy and child mortality, on fertility, on democratization and political rights, on children's education attainment, on environmental quality, and so on.

Historians of education emphasize the role of public schooling in integrating immigrants into the mainstream of society (Good and Teller, 1969). More generally, public schooling can promote social cohesion among disparate social groups and alleviate ethnic tensions by providing a core set of common norms that foster trust and promote interaction among individuals. In the words of Milton Friedman (1962, p. 86),

A stable and democratic society is impossible without a minimum degree of literacy and knowledge on the part of most citizens and without widespread acceptance of some common set of values. Education can contribute to both. In consequence, the gain from education of a child accrues not only to the child or to his parents but also to other members of society. The education of my child contributes to your welfare by promoting a stable and democratic society. It is not feasible to identify the particular individuals (or families) benefited and so to charge for the services rendered.

These social benefits of education and their economic implications are considered more fully in chapter 8.

Preexisting distortions are another possible rationale for public intervention in education. For example, progressive income taxation may cause private returns to schooling to fall below true social returns, implying the need to subsidize schooling as a second-best policy; this perspective is developed in Bovenberg and Jacobs (2001). A related reason is the existence of social "safety nets" that ensure a minimal level of income and public services, irrespective of individual income. These indicate the possibility of moral hazard undermining demand

for education: individuals (or their parents, on their behalf) anticipate receiving a helping hand from society and consequently choose to underinvest in schooling. Setting mandatory schooling requirements is one way of addressing this problem, as Bruce and Waldman (1991) have shown.

Imperfection of credit markets is another potentially important source of market failure that is often cited as implying a need for public financing of education. Credit constraints in financing tertiary education may be partially alleviated by providing publicly guaranteed student loans, as is done in the United States. However, this does not apply to K–12 education. The children that would be the direct beneficiaries of such loans are not of an age that allows them to undertake legal obligations, so it is not practically possible to use their future earnings to secure loans to their parents to finance the education of their children. Consequently, absent public financing, poorer parents are credit-constrained in educating their children—their children’s ability and motivation notwithstanding.⁵

These considerations emerge from a human-capital view of education, which is predominant in the analysis of the economics of education. The alternative view of education as a screening mechanism can lead to different conclusions. In this view, schooling is perceived not as a way of directly enhancing the potential productivity of an individual but as a means of classifying individuals according to their productivity potential. This view lends much less support for public financing of education on efficiency grounds, as it implies that the decisions of less productive individuals to attend school entail *negative* spillovers for other, more productive individuals, who are thus rendered less easily distinguishable. This carries policy implications that can be very different from those of the human-capital approach. Ultimately, policy choices must rely on empirical estimates of private versus social returns to schooling, which we discuss in chapter 3.

Of course, public financing of education is widely justified on grounds other than efficiency. Education is frequently viewed as a merit good, consumption of which is mandated by the state because individuals may lack the good judgment necessary to act in their own best interest. John Stuart Mill (1848, bk. 5, ch. 11, sec. 8) was an early proponent of this view:

But there are other things, of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to

inclinations, nor in serving the daily uses of life, and the want of which is least felt when the need is greatest. . . . It will continually happen, on the voluntary system, that, the end not being desired, the means will not be provided at all. . . . Education, therefore, is one of those things which it is admissible in principle that a government should provide for the people.

With regard to the education of the young, this approach is reinforced because schooling decisions are made by parents on behalf of their children; in making education free and compulsory, the state is acting to safeguard the interests of children whose parents may be unable or unwilling to act in their best interests. If all children are to have the basic opportunities to which they are inherently entitled, government must break the link between the ability to pay and the provision of a basic amount of schooling.⁶ Moreover, public financing of uniform education not only promotes equality of opportunity but also can promote income equality in the next generation by effectively redistributing income from rich families to poor families. This may be desirable in its own right and also because it reduces potential political pressures for further redistribution, which reduces both the tax burden and the propensity to engage in violent means of expropriation.

In the United States, for example, where education is decentralized and traditionally has been financed in large measure from local property taxes, legal challenges to the system have argued that letting the quality of a child's education depend on the wealth of the school district in which the child happens to reside violates the "equal protection" clauses of state constitutions. Following the landmark *Serrano v. Priest* decision in 1971, in which the California Supreme Court held that such "wealth discrimination" is unconstitutional, and similar cases in other states, many states have adopted more egalitarian systems of education financing in which state governments are playing an active role in redistributing income from rich to poor school districts.

Efficiency implications of egalitarian educational policies are a subject of some controversy. Maximization of output is achieved by allocating education spending to equalize the marginal return to schooling across individuals. If parental income is strongly correlated with the productivity of schooling and liquidity constraints are mild, uniform public spending on education is a less efficient means of achieving a more equal income distribution than the direct redistribution of income through taxation. Conversely, if the children of poorer parents have a higher marginal return from education, possibly due to the credit constraints alluded to above,⁷ then allocating relatively more education

resources to the poor than to the rich would promote both equity and efficiency. An important, controversial, empirical issue in this regard is the relative importance of innate abilities in determining economic productivity⁸ and the extent to which formal schooling can compensate for a disadvantaged home.

Why Public Provision?

All of the above arguments militate for public financing of education but not necessarily for public provision. Yet in industrialized countries the vast majority of children in elementary and secondary education attend schools that are not only publicly financed but also publicly administered. Thus, in the United States approximately 90 percent of school-age children attend public schools (National Center for Education Statistics, 2000), and similar percentages are observed in other developed countries (OECD, 2001a). The state typically takes full responsibility for school building and maintenance, staffing of teachers, curriculum design, testing scholastic achievement, and so on and requires attendance from the age of five or six through adolescence. Moreover, these features characterize not only countries where the state has traditionally undertaken an active role in the provision of welfare services, such as the Scandinavian countries, but also in societies that emphasize individualistic values, such as the United States.

The prevalence of publicly provided schooling can be rationalized by several arguments, some of which are interrelated. The principle of specific egalitarianism charges the state with the moral responsibility of providing children with a minimal level of basic education. Arguably, a uniform public school system is more likely to achieve this objective than a publicly funded private education system. Publicly provided education has also been widely viewed as an important component in the process of state building. Historically, the emergence of government intervention in schooling in the eighteenth and nineteenth centuries was closely tied to its socializing role, as we show in the following chapter. More recently, publicly provided education has played an important role in efforts to forge new national identities in the multiethnic developing countries that emerged in the second half of the twentieth century. Students of the historical development of public education in the United States as ideologically diverse as Bowles and Gintis (1976) and Friedman (1962) have emphasized the important socializing role it played, which Friedman (p. 96) recognized in presenting the case for school vouchers:

The major problem in the United States in the nineteenth and early twentieth century was not to promote diversity but to create the core of common values essential to a stable society. . . . Immigrants were flooding the United States . . . speaking different languages and observing diverse customs. . . . The public school had an important function in this task, not least by imposing English as a common language.

This socializing role of education provides a key to understanding the ubiquitous role of the public sector in the provision of primary and high school education: ideological and cultural content are difficult to monitor at arm's length without the direct controls of public administration.⁹ Ironically, this militates against using vouchers to finance private schools from public funds—from Friedman's point of view—as such schools may promote cultural divisions and hinder assimilation.

The Scope of the Book

This volume addresses these central issues in the political economy of education through interconnected theoretical frameworks that allow the systematic analysis of these issues within a macroeconomic context. Its main focus is on primary and secondary education (K–12). Additional important channels through which schooling is acquired—such as preschool education, higher education, and on-the-job training—are sufficiently different in their institutional settings and decision-making processes to warrant separate treatments. And its policy-oriented approach dictates the way the arguments are presented. It relies on formal economic reasoning but keeps mathematical material to a minimum (relegating it to appendices where possible) and emphasizes its application to policy issues.

The book begins, in chapter 2, with an overview of historical evidence on the development of public education over time, which is followed in chapter 3 by a review of current econometric evidence on how public education affects and is affected by income levels, income growth, and the distribution of income. This sets the stage for the main body of analysis, which begins with two chapters that lay the theoretical groundwork: chapter 4 develops a basic static model of how political decisions determine education spending and compares pure public and private education in terms of the outcomes they induce, and chapter 5 extends the model dynamically. This allows us to consider income dynamics and intergenerational mobility under public schooling, to compare private and public education in the long run, to consider the

structure of popular support for public education, and to examine the links between education and redistributive conflict. This framework is then applied in the last three chapters to three large issues that frame many of the current policy debates on public education. Chapter 6 addresses the political economy of education in a federal context in which there are two levels of government, “central” and “local” (corresponding to state and local financing in the United States) and compares education finance under different regimes of fiscal decentralization. Chapter 7 considers individual choice between public and private schooling, its interaction with residential location and religious preferences, and the use of education vouchers as a means of combining public financing of education with private provision. Chapter 8 focuses on the social dimension of education and its important role as a key element of the “melting pot”—building bridges between new immigrants and the mainstream indigenous culture and promoting cohesion in a culturally diverse society. In all these chapters, a closing section briefly summarizes our main conclusions. Chapter 9 indicates directions for future research.