PEABODY JOURNAL OF EDUCATION, *78*(4), 120–152

The Political Economy of Education Policy: The Case of Class Size Reduction

Douglas E. Mitchell
Graduate School of Education
University of California, Riverside

Ross E. Mitchell
Gallaudet Research Institute
Gallaudet University

Researchers and policy makers today are too preoccupied with school effectiveness—with finding out what works and how to replicate it. Not enough attention is given to the fact that the schools serve a variety of personal and societal purposes and that these purposes are deeply contested. This article develops a political economy framework for mapping and interpreting the competing purposes of schooling, and then applies this framework to explain 5 basic paradoxes in the national policy debates addressing class size in public elementary schools. The framework presented argues that there are 4 distinct answers to the question, "What kind of an economic good is education?" Education can be seen as a service industry, as a producer of durable goods, as a system of investment in human

Key ideas in this article were originally presented in an article entitled "The Political Economy of Class Size Reduction" presented at the Annual Meeting of the American Educational Research Association in April 2002. We thank Stephen Chaikind for comments on an earlier draft of this article and an anonymous reviewer for directing us to the work of James Coleman and Stephen Heyneman. All errors and omissions remain the sole responsibility of the authors.

Requests for reprints should be sent to Douglas E. Mitchell, Sproul Hall 2211, University of California, Riverside, CA 92521. E-mail: douglas.mitchell@ucr.edu

capital formation, or as the conduit for passing cultural legacies between generations. While business leaders and government officials are trying to secure durable educational achievement, students and their families are often concerned more with the quality of service received at their local school, with rate of return on their financial and effort investments, or with the cultural value of the legacy that participation in the schools is generating for the next generation. Because the major stakeholders in public education hold different views regarding which of these economic goods is of highest priority and which should be vouchsafed by governmental policy, policymakers are tempted to adopt inconsistent and even incoherent policies trying to placate all important constituency groups. Specific contradictions in class size reduction policies can be directly interpreted from the perspective offered herein.

Schooling serves many purposes in modern societies. Some purposes, like creating a safe and nurturing environment for children, can be assessed immediately. Others, like supporting the development of civic cultures and productive economies, can only be assessed by looking at what happens long after the children have completed their schooling and taken up roles in adult society. How we undertake to evaluate school operations and outcomes depends on how we conceptualize the contributions that schooling can or should make to the children who attend them. The adoption and implementation of educational policies are contested as often for their compatibility with socially and politically determined ideals as for whether technical or scientific evidence indicates that they are producing intended outcomes. Indeed, agreement about whether available scientific evidence endorses or challenges a specific policy is generally reached only where there is a broad consensus regarding the social values and purposes the policy is intended to support. By examining competing conceptions of its aims as well as the scientific evidence regarding its effects, this article develops a political economy framework for evaluating the widespread use of class size reduction (CSR) in recent school improvement efforts.

As Cibulka (2001, p. 33) argued cogently, public education policy is currently dominated by a "politics of educational productivity," in which the "schools increasingly are asked to produce students who can perform well on rigorous tests" (also see U.S. Department of Education, 2000). Though this productivity focus has dominated recent discussions of public education policy, we emphasize that a number of other important values have shaped school reform and improvement policies over the years (see, e.g., Cuban & Shipps, 2000). Specifically, we provide a framework for analytically distinguishing four distinct conceptions of education as an economic good (D. Mitchell, 1998), only one of which is the "production"

of enduring and measurable outcomes like student achievement test scores—the primary focus of current policy debates. The scholarly literature on political economy is used to frame a detailed analysis of two basic value polarities underlying public education policy: education as a private versus a public good (e.g., Boadway, 1997; Bozeman, 2002; Elmore, 1984; Guthrie, 1985; Labaree, 1997; Levin, 1987) and education as character development versus training in technical skills and knowledge (e.g., Brown, 2001; Carnoy, 1985; Collins, 1979; Guthrie, 1990; Weber, 1946).

Political economists have been particularly forceful in directing our attention to the ways in which the political and economic values embraced by various education policies are both complex and highly contested. Whereas the most popular policy discussions interpret education as a kind of durable good whose present value can be determined through tests of academic achievement and whose future value is related to its instrumental value in the labor market or in the prevention of such civic catastrophes as illness, crime, broken families, or drug abuse (with reference to class size see, e.g., Ehrenberg, Brewer, Gamoran, & Willms, 2001; Greenwald, Hedges, & Laine, 1994; Hanushek, 2000; Krueger, 2000), political economists underscore the relationship between schooling and such broad social issues as the quality of child rearing, the reproduction of social class structures, or the accumulation of human capital (e.g., Becker, 1964; Bowles & Gintis, 1976; Carnoy, 1985; Grubb & Lazerson, 1982; Katznelson & Weir, 1985; Stone, Henig, Jones, & Pierannunzi, 2001). Our framework captures these varied perspectives by recognizing that education is valued not only for its production of a durable good, but also as a *direct service*, a *human capital investment*, and the means for producing and reproducing a *civic cultural legacy*.

To demonstrate the utility of our analytic framework, we focus on the case of state-level CSR policy. The political controversy surrounding CSR is clearly more dramatic and more important than the scientific evidence regarding its impact on student achievement would be expected to warrant. We propose that the productivity rationale does not adequately serve as a comprehensive framework for interpreting CSR policy.

We note, for example, that CSR policies have been adopted in waves closely linked to business cycles and have been accompanied by a number of funding and regulatory provisions that do not make sense if this policy is seen exclusively as a means of enhancing student achievement. In the application of our framework, we briefly review the extent to which CSR policy debates have been driven by factors substantially unrelated to the prevalent scientific debates regarding teacher practices

and student achievement. We note five specific paradoxes surrounding CSR adoption and implementation, paradoxes that can only be addressed by reconceptualizing the political and social values toward which this policy might be directed. It is paradoxical, for example, that whereas scientific research clearly identifies the importance of lowering class size to around 17 or below, most jurisdictions have adopted policies using 20 or even 25 as the target number (Hertling, Leonard, Lumsden, & Smith, 2000; R. Mitchell, 2000, 2001a; Parrish & Brewer, 2000). It is also curious that several states adopted CSR policies that remain entirely symbolic because they could not or would not fund them (e.g., Louisiana and Texas in 1984, Oklahoma in 1985, and Wyoming in 1991; see R. Mitchell, 2001a).

Another paradox is the willingness of many jurisdictions to use very disruptive implementation strategies (such as using inappropriate instructional spaces, unqualified teachers, and school calendar changes) that sharply undercut the professed goal of improving operational effectiveness. Yet another is to find claims of "proven" student learning outcomes that cannot be reliably reproduced (e.g., California in 1996, Nevada in 1989, and Texas in 1984; see R. Mitchell, 2001a). Finally, it is paradoxical that teachers and parents are enthusiastic about CSR for reasons quite unrelated to achievement production, often to the point of declaring quantitative evidence of its effects irrelevant or even suspect (e.g., Achilles, 1999; Hedges & Stock, 1983; Smith & Glass, 1980). From this perspective, divergent and possibly even contradictory values supporting the adoption and implementation of CSR policies have not been adequately examined in the very large number of social science research studies aimed at evaluating it. Once the core ideas of a political economic view of education policy are developed (in the next section of this article), we will be able to show how these ideas address and resolve the paradoxes found in so many recent CSR policies, and account for why this policy remains at the center of educational reform efforts even though evidence of its impact on measured student academic achievement remains modest and even contested (e.g., Hanushek, 2000; R. Mitchell, 2001b; Stecher, Bohrnstedt, Kirst, McRobbie, & Williams, 2001).

Political Economy Concepts for Analyzing Education Policy

This section is devoted to developing a general framework for analyzing the political economy of public education policy decisions. We begin by noting that a linkage between the politics and the economics of policies

such as CSR is fairly widely recognized in the literature on this topic, even though little has been done to develop a formal analysis of how they are joined into a systematic political economy of policy adoption and implementation. The link is declared explicitly by Hanushek (2000) in his widely cited (and oft-critiqued) summary of the "econometric evidence" regarding the effects of CSR on student achievement. Hanushek concluded that, "Class size reduction is best thought of as a political decision. Past evidence suggests that it is a very effective mechanism for gaining voter support, even if past evidence also suggests that it is a very ineffective educational policy" (p. 43; also see Hanushek, 1997, 1998, and 1999). In asserting the political domination of CSR decisions, Hanushek was not, of course, trying to say that economics is unimportant. He was simply asserting that the logic of CSR policymaking is informed more by the ebb and flow of political power than by a rational allocation of economic resources. To be sure, many economists, most notably Alan Krueger (2000), continue to view CSR policies through the lens of dollar costs and economic returns that can be expected to flow from investing in this structural change in public schools. However, there can be little doubt that political forces are playing a major role in defining both the social purposes to be served and the economic criteria to be used in assessing CSR policies.

The intersection of political and economic theories defines the field of political economy, a social science discipline that addresses questions related to how economic forces create and structure political power on one hand, and how political systems serve to define and redefine economic rationality on the other. Most scholars who consider themselves political economists view their field as concerned primarily with the influence of economic systems on the distribution and exercise of political power. From this perspective, the core concepts of political economy theory involve division of labor, accumulation of capital, and the formation of social class structures that serve to define and limit political and social opportunities for class members. Preeminently, this branch of political economy is concerned with questions originally raised by Karl Marx regarding the alienation of workers from the products of their labor and the subjugation of lower and working classes by elite and owning classes in a society. Much has been said about schools and the role of education in maintaining and reproducing class structures by scholars adopting this framework for analyzing the political economy. Martin Carnoy (1972, 1975, 1985; Carnoy & Levin, 1985), Samuel Bowles, and Herbert Gintis (Bowles & Gintis, 1976, 1986, 2002) are arguably the best-known representatives of this approach to political economic theory as it applies to education. They have argued cogently, and repeatedly, that schools are at least as much responsible for

the allocation of economic opportunities as they are for raising the economic value of the students who pass through them. In this assertion, they share the view of Talcott Parsons (1959) that the primary outcomes of schooling involve socialization of the young into an acceptance of their allocated place in society and the creation of social stability by convincing children that their allocated places are fair, just, and based on their own merit.

Whatever one may believe about the appropriateness of the school's role in creating and reproducing social classes (typically, the scholars who call themselves political economists are critical of it as unfair and unjust), advancing this argument in a reasonably persuasive way ensures that control over school systems and school policies will be politically contested by competing groups seeking to ensure that their children achieve valued social status as well as competent technical knowledge. Thus, the machinery of political power will be used in an effort to control the goals or *purposes* of schooling as well as the *quality* and effectiveness of school programs pursuing these diverse purposes. Moreover, those engaging in these political struggles will find it important to develop competing definitions of the economic character of education. Indeed, for many partisans the rationale for adopting and implementing specific school policies may depend more on a logic that focuses on opportunity and symbolic status than on technical knowledge production as the essential, or even a relevant, criterion of successful schooling.

Competing Definitions of Education as an Economic Good

Establishing a basis for the adoption, implementation, or abandonment of a policy involves attention to the *variety* of outcomes produced as well as to the relative *efficiency* of their production. As important as it may be for schools to efficiently produce standardized academic achievements (the most frequently heard arguments for CSR initiatives), this is not the only basis on which to evaluate school policies. Political economy theories alert us to the possibility that, in addition to enhancing the productivity of individual students, education policies are often evaluated on the basis of how well they encourage:

1. The provision of *immediate experiences* that are valued in their own right (thus making education a *consumption* rather than a production good)
2. The enhancement of the overall system of societal productivity, independent of measurable gains for individuals (thus making education an *investment* good)

3. The reliable reproduction of a stable, orderly, and democratic society (thus making education a *cultural legacy* good)

Thus, our framing of the political economy of education policy adoption and implementation begins by exploring the diverse and distinctive definitions of how schooling creates economic goods—goods that compete for attention and provide sharply divergent criteria for evaluating the economic and political values being produced through implementation of school programs and policies.

Two abiding tensions have shaped and reshaped political debates regarding the proper aims of education since the dawn of public schooling. The first concerns the extent to which education should be valued for its provision of private benefits to the individuals who attend them or as a source of public benefits created for the society as a whole. The second has to do with the extent to which education is to be valued for its production of technical skills and knowledge or for its development of social norms and personal character. As we review these two basic tensions, it will become clear that they can be juxtaposed to define four distinctive definitions of the kind of economic good that is expected to emerge from the education of children.

Education as a public and a private good. Although contemporary policy discussions seem to emphasize the private benefits derived from exposure to public schooling, political economists have always recognized that both public and private benefits are generated. Moreover, they recognize that political decisions play a major role in determining the extent to which adopted policies and programs will be designed to contribute primarily to the realization of an aggregate *public good* or the development and distribution of *private goods.* Hirschman (1970) distinguished these two types of good as follows:

> *Public goods* are defined as goods which are consumed by all those who are members of a given community, country, or geographical area in such a manner that consumption or use by one member does not detract from consumption or use by another. . . . The distinguishing characteristic of these goods is not only that they *can* be consumed by everyone, but that there is *no escape* from consuming them unless one were to leave the community by which they are provided. (p. 101)

Richard Elmore (1984) restated this distinction in relationship to public education in his description of the nature of educational benefits: "Education is a 'mixed good.' . . . The benefits of education accrue partly to individuals, in

the form of enhanced income and self-respect, and partly to society as a whole, in the form of enhanced productivity and total welfare" (p. 133). He pointed out that this is a dimension of the political economy of education: "Education is an extraordinarily versatile political good. It works on private as well as public interests" (p. 139). Many other analysts have either naively assumed or explicitly argued that education is a public good benefiting society as a whole by establishing the social norms and habits necessary for the creation of a stable social order, broad-based support for a rule of law, and, particularly, confidence in a money economy and respect for property rights and the enforcement of private contracts. These benefits, if the school does indeed produce them, are at the very heart of economic productivity, but not the kind of economic productivity that can be measured as a return on investment in the form of wage differentials paid to workers who have acquired higher levels of education. Following Bozeman (2002), these sorts of distributed benefits are not a matter of market success or failure, but a matter of public-value success or failure. In his view, government intervention into the setting of education policy is to be judged not by the standard of contributing to "technical efficiency in pricing structures," but by its impact on providing "an essential public value" (p. 150).

This public good aspect of schooling is not generally the focus of attention when economists are trying to evaluate specific education policies (Hummel-Rossi & Ashdown, 2002). Specific policy evaluations, on the relatively rare occasions when evaluators actually address the question of economic outcomes, are typically viewed from the perspective of their contribution to private goods. That is, they are evaluated in terms of their contributions to some privately received educational benefit, like improved wages or perhaps earlier predictors of future income such as standardized achievement tests, completion of school diplomas, or rates of access to postschooling opportunities like college admission or higher status jobs. When it comes to class size policy, we see some rhetorical interest in its potential for improving national competitiveness in a globalized economy, but virtually all of the data collected or analyzed relate to individual student performance. As Bozeman (2002) noted, however, policymakers "need to consider public values, irrespective of market efficiency. In some instances (the market for tobacco products comes to mind), the market is efficient *because* it fails to ensure public values" (p. 157). Thus, in order to reasonably evaluate CSR or any other *public* policy, a political economic, rather than merely economic, analysis is required.

Education as a cultural and a technical good. A commitment to public education is just as easily sustained by a commitment to developing

students' social character and building a broad cultural legacy for society as a whole as by believing in the importance of building individuals' technical skills and abilities or creating an economic system capable of effective competition in the global economy. Max Weber (1946) recognized this issue nearly a century ago when he pointed out that

> Historically, the two polar opposites in the field of educational ends are: to awaken charisma, that is, heroic qualities or magical gifts; and to impart specialized expert training. The first type corresponds to charismatic structure of domination; the latter type corresponds to the *rational* and bureaucratic (modern) structure of domination. The two types do not stand opposed, with no connections or transitions between them. . . . Between them are found all those types which aim at cultivating the pupil for a *conduct of life*, whether it is of a mundane or of a religious character. . . .
>
> Specialized and expert schooling attempts to *train* the pupil for practical usefulness. . . .
>
> The pedagogy of cultivation, finally, attempts to *educate* a cultivated man, whose nature depends on the decisive stratum's respective ideal of cultivation. And this means to educate a man for a certain internal and external deportment of life. (pp. 426–27)

Guthrie (1985) underscored the dominance of the technical view when he said, "Rightly or wrongly, education is seen as the root cause of America's economic distress and, simultaneously, as a major solution to the problem" (p. 320). A few years later Guthrie (1990) put the issue more globally,

> The dominant justification for schooling is shifting. Many industrialized nations are attempting to enhance their economic position through the development of human capital, and, therefore, policymakers are escalating their expectations for the performance of educational systems. (p. 109)

But he also acknowledged the other side of Weber's dichotomy,

> Putting aside their growing contemporary connection with the economy, schools have traditionally been expected to fulfill a substantial range of additional functions, both for society and for the individuals and households involved. Acculturating new citizens; promoting religious, linguistic, and political indoctrination; inculcating government principles; ensuring social cohesion and civic order; preparing

> a citizenry for military participation; facilitating social mobility; and developing artistic and aesthetic tastes are among the other-than-economic functions variously expected of schools. (p. 113)

Although they are quite similar, we find Weber's development of the distinction between an awakening of character and the training of technical skills to be a stronger foundation for examining contemporary education policy dilemmas than Guthrie's more sociopolitical distinction between economic development and "other-than-economic" functions. Weber's notion of "awakening character" can be easily recognized as a basic building block in the creation and maintenance of culture. Indeed, as we discuss more fully further on, parents and teachers seem to value CSR policies more for their contributions to character development than for their potential for enhanced academic achievement.

The content of the character that is to be awakened through schooling is the place where the tension between the Marxist and neo-Marxist theorists critical of the school as an agency for reproducing class dominance in the society and democratic theorists like Amy Gutmann (1987) is properly explored. Where the Marxists see schools as part of a dominating social structure preserving the privilege of elites while socializing lower class children into an acceptance of their inferior social position (e.g., Bourdieu & Passeron, 1990), Gutmann (1987), like John Dewey before her, sees the schools as engaged in an effort to facilitate "conscious social reproduction"—by empowering citizens to influence their education and, in turn, shape, "the political values, attitudes, and modes of behavior of future citizens" (p. 14).

A Political Economy Framework for Education Policy Analysis

When the two polarities just described are juxtaposed to create the four-cell structure shown in Table 1, they create a framework for describing four competing conceptions of the economic good created through education. The columns display the tension between the technical and cultural aims of education. The second column shows how education is conceptualized when the primary focus is on technical skill and knowledge acquisition; the third column shows the contrasting view that arises when education is valued for its cultural awakening of identity and character development. It may be helpful to note that the technical skill and knowledge portion of the table is seen as most important when economic considerations are seen as more compelling than political values. The cultural development part of the framework dominates when political

Table 1

A Framework for Analyzing the Political Economy of Class Size Reduction

	What Aims for Education?	
Who Benefits?	*Education as Technical: Training in Skills of Practical Value Having Economic Value*	*Education as Cultural: Awakening of Identity and Character Having Political Value*
A private good: Distributed results accruing to individuals as education is being obtained	Durable product: Durable skills and knowledge with workplace value that persists over time (lasting benefits)	Direct service: Safe, nurturing, sensitive, caring child rearing and decent working conditions for teachers
A public good: Cumulative benefits for everyone; expected to accrue interest over time	Human capital investment: System capacity building with some risk of not being realized by enough individuals to be worth cost	Cultural legacy: Establishment of civic value that determines status and may lead or lag society

values are seen as more important than economic ones. That is, culture development dominates when communities want the schools to guide in the development of a stable democratic society; the technical goals govern when schools are seen as operating within an established social order to enhance its economic competitiveness. As indicated by the terminology used in each cell of Table 1, education takes on the attributes of four fundamentally different types of economic good depending on how the two polar tensions are combined.

Education as durable product. For policymakers and consumers who adopt the currently popular emphasis on privately accruing economic values—raising personal worth through academic achievement—education becomes a durable product good (upper left cell of Table 1). It is durable in the sense that the economic benefits to be derived from enhanced technical skill and knowledge are expected to last well beyond a child's immediate exposure to education. In current policy debates, this durable good is conceptualized as one that can be reliably evaluated immediately by measuring the extent to which students are attaining specific targeted knowledge in the form of grade-level achievement or high school exit standards. Indeed, it is assumed that they can be measured repeatedly and that the rate as well as the total level of acquisition can be monitored accurately. In economic parlance, durable goods consist of identifiable products that have both an immediate and a continuing

value. The value of these goods is expected to decay over time. In fact, if their economic value goes up with the passage of time, the goods become investments rather than products and their present value has to be calculated in terms of the *rate of return* accompanying the increasing value. Nevertheless, durable products that decay slowly generally have a greater immediate economic value. Among scholars and policymakers, CSR policies are most often commended for their contributions to education as a durable good.

Education as a direct service. Economically, an emphasis on the private social or cultural value of schooling turns education into a *direct service* good (upper right cell of Table 1). When this happens, education becomes a consumption good rather than a production good and its value, like that of other services, is measured in terms of the amount of pleasure or satisfaction experienced by the consumers, not the extent to which it raises their value in the labor market or in the eyes of public officials. Culturally, service goods are valued for their ability to raise the quality of life and create a sense that service providers have met their clients' preferences and needs (also see House, 1997). Service goods are assessed immediately upon delivery, they do not have a "shelf-life." If they are not valued at the time of delivery, they are very unlikely to be valued later. Nevertheless, providers of service goods do acquire reputations among potential clients for their ability to deliver quality services, and those reputations affect the cultural value of the goods provided. Among parents and teachers, this definition of education dominates their assessment of CSR policies.

Education as human capital investment. Where education is valued for its contributions to public rather than private values (as depicted in the bottom row of Table 1), schooling becomes either a *human capital investment* or a means of creating a *cultural legacy* good. The human capital investment view (lower left cell of Table 1) emerges when a technical orientation toward schooling is combined with a look at its public value. Although achievement testing can tell us immediately whether children have acquired the durable product goods associated with prescribed knowledge and skills, it is not possible to ascertain whether this acquisition has enhanced either their civic or their economic value until they have entered the adult world and demonstrated that school experiences have raised the overall effectiveness of the economy by generating both the technical capacity to work productively and the social habits and dispositions that serviceably fit within constituted workplace norms. A

number of sociologists have stressed a basic distinction between *personally held* knowledge, skills, attitudes, and beliefs, on one hand, and *societally generated* resources made available through network relations within specific cultural groups. Bourdieu (1986) called the former "cultural" and the latter "social" capital. James Coleman (1988) made a similar distinction, but called the personally held elements "human" capital and the societally generated resources "social" capital. Portes (1998) offered the typical formulation when he said, "Social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other activities" (p. 6) We retain Coleman's (1988) use of the term human capital here, and discuss societally generated corporate resources under the heading of "cultural legacy" development. The human capital value of schooling is enhanced when school graduates learn the needed skills, accept the discipline of working within an established economy, and are able to live free of such costly and debilitating problems as violence, crime, drug abuse, family breakup, and homelessness.

It is important to remember that investment goods, whether they are material or human investments, must be evaluated for both the *risk* that they will not deliver benefits broadly and the *rate of return* to the investment made in producing them. Thus, for example, if higher education does not pay off for everyone who attends a college, the investment might still be worth it if the returns to those who do benefit outweigh losses suffered by those who do not benefit by enough to compensate individuals for the risks they have taken in foregoing other opportunities. Similarly, if many (or even most) individuals do not directly benefit from investments in higher levels of education, the investment could still have a positive value as a public good if those who do benefit are able to build a stronger and more stable economy that provides benefits for all members of society. When researchers are trumpeting CSR as especially beneficial to at-risk children, they are moving toward this capital investment idea.

Education as cultural legacy. Cultural legacy goods (shown in the lower right cell of Table 1) represent the long-term sociocultural contributions of education to the intrinsic quality of societies. It has been particularly difficult for political economists to describe these goods very effectively, often because scholars in this field are preoccupied with critiquing established cultural norms and values rather than reproducing or enhancing them.The economic sociologist Alejandro Portes (1998) did provide an insightful analysis of this issue, however, when he argued that the processes of internalizing social norms (what he called "value introjection") and developing social group solidarity (both emphasized in the

school curriculum) create common social expectations and enrich all who are successfully integrated into the social group. Amy Gutmann's (1987) political philosophy embraced this view forthrightly when she argued that democratically chosen and conscious social reproduction is both possible and desirable. From this perspective, we can see that one of the schools' most important products is the identification, preservation, and transmission of cultural legacies that help to create and sustain a democratic polity and egalitarian economy (also see Labaree, 2000). Probably it is this conception of the value of education that makes CSR most attractive to parents.

Externalities Influencing the Economic Value of Schooling

When schooling is viewed from the perspective of its capacity to generate various types of economic goods, two important economic externalities—factors often neglected in economic cost/benefit analyses of school programs and policies—are brought into focus. First, policymakers must view all the benefits derived from increasing school funding in *relative*, rather than *absolute*, terms. Analysts too often look at the benefit value generated by additional expenditures for public schools as if public expenditures could continue to expand until the marginal gain in educational benefits is no longer greater than the added cost required to produce them. In education policy, however, it is the relative, not the absolute marginal rate of return that ultimately governs the economic viability of increasing public expenditure on education. Governments, when they are rationally evaluating the economic returns to policy expenditure, must assess not only the amount of value to be produced by increasing support for a particular program or policy, they must also ask themselves what values are being sacrificed by diverting this money from some other policy domain. As Harris and Plank (2000) put it, "In theory, all programs should be adopted if the benefits exceed costs. In the real world, however, funding levels are fixed. Only some of the beneficial programs can be adopted" (p. 21). State policymakers must judge the value of an investment, particularly one as enormously expensive as class size reduction, not against making no investment in CSR, but against other uses of the required resources. They must decide whether there are greater returns to be had from investing in highways, clean water, prison facilities, or any of thousands of other state purchases that might bring a comparable or higher rate of return than CSR. That is, scarcity imposes the need for relative valuation in decision making even when the rational basis for any given policy may be readily established.

Table 2 suggests the sort of trade-offs that must be considered by policymakers as they try to balance educational goods against other goods that might be produced through alternative public expenditures. In the durable goods quadrant, for example, policymakers often see providing direct subsidies for the development of business capacity (in the form of tax write-offs for machinery or plant construction, for example) as likely to generate as much or more improvement in the economic productivity of the work force as using educational investment to improve the skills and knowledge of individual workers. From a direct service perspective, increased schooling has to be weighed against other child-rearing and family support services such as health and public safety services or parks and recreation facilities. Human capital investment gets balanced against infrastructure investments for transportation, water and sewer, land use, or environmental management expenditures. The development of cultural legacy goods through educational expenditures has to be balanced against direct expenditures for cultural enrichment through museums, athletic facilities, public support of the arts, and other expenditures for the development of civic cultures.

A second externality that plays an important, but often overlooked, role in distinguishing rational from wasteful public expenditures for education goods bears more directly on the current political emphasis on efficient production of a durable good. When test scores or school completion rates are used to estimate the economic value of a particular amount or type of education, it is vitally important that policymakers consider just how confident they can be that the statistical model used to estimate those

Table 2

A Framework for Analyzing the Political Economy Establishing the Relative Value of Education

	What Aims for Public Policy?	
Who Benefits?	*Education as Technical: Training in Skills of Practical Value Having Economic Value*	*Education as Cultural: Awakening of Identity and Character Having Political Value*
A private good: Distributed results accruing to individuals as education is being obtained	Durable product: Skilled work force vs. business subsidies	Direct service: Child rearing vs. public safety
A public good: Cumulative benefits for everyone; expected to accrue interest over time	Capital investment: Human capital vs. infrastructure construction	Cultural legacy: Civic socialization vs. civic culture development

benefits will still apply if they succeed in changing the performance of the school system. That is, if CSR or any other major change in schooling is contemplated on the assumption that it will change the quality or number of school graduates, it is important for governments to assess the likelihood that calculations used to estimate current benefit distributions will accurately estimate the economic benefits accruing to those getting the added education. It must be remembered that a significant part of the value of any economic good is dependent upon its relative scarcity. As Collins (1979) described in detail, when the number of people attaining a given educational level expands, it is quite likely that the marginal value of attaining that level will decrease because it was previously valued more as a way of screening job applicants than as a device for guaranteeing their productivity (also see Brown, 2001; Labaree, 1997).

Kingston (1986) argued this case explicitly when he said, "The 'stagflation' of the seventies seemed to dim the economic prospects of middle class children . . . and with increasing access to schools, education became an investment of declining value" (p. 648). Similarly, both Talcott Parsons and Martin Carnoy insisted that the principal benefit of getting more education rests on its credentialing value. They saw individuals moving up toward the front of the job queue as they get more education, not necessarily because they will be more productive, but because they have become more socially legitimate (also see Thurow, 1977). Carnoy (1985) put the point explicitly when he said,

> Education could be an allocator of the share of output going to labour, assigning more earnings to those with more schooling, and less earnings to those with less, even though the marginal product of both groups could be approximately equal….
>
> The "queue" concept of education in the labor market sees the correlation between schooling and earnings as unrelated to any specific knowledge that schooling imparts to workers which makes them more productive; schooling rather provides a convenient device for employers to identify those workers who can be trained more easily.…
>
> Wages are structured by the nature of jobs and job differentiation, on the type of capital associated with each job, not by the human capital characteristics of workers in the jobs. (pp. 163–64)

If educational attainment is substantially a queuing device, then the kind of economic returns to education estimated by Krueger (2000) will almost certainly not materialize as a result of widespread implementation of CSR. The estimated return rate calculated in economic analyses such as Krueger's assumes that the current level of wage differential between

lower and higher achieving students is exclusively due to increases in the productive capacity of individual workers produced by their increased education. To the extent that their productivity depends on job structures rather than individual capabilities, all CSR can be expected to do is increase competition for available jobs and shuffle who will get to the head of the queue. It is, of course, almost certainly true that the skills acquired through more effective school programs provide some significant contributions to raising real economic productivity. Hence it is reasonable, when resources are abundant, to make greater investments in improved education (but see Meyer, 2000). To the extent that the credentialing and queuing arguments are sound, however, we should not expect anything approaching a linear growth in economic returns to such expenditures.

The Economics of Production Differ From Those of Consumption

The terms in the top row of Tables 1 and 2 make it particularly evident that education should often be interpreted as a consumption rather than a production good. That is, schooling is often sought by families and even by whole communities for what it does to enhance the quality of life and provide immediate satisfaction. Certainly high school band boosters and football fans are not calculating personal or community economic gains generated by the musical and athletic talents of the students in their local high school. Some expenditures, both public and private, are matters of pure consumption—they do not, and are not expected to, provide financial returns of any type. Whenever schools undertake to provide instructional or extracurricular services that are offered solely because students or teachers find them interesting and enjoyable, they are engaged in conspicuous consumption. It would be quite silly to ask whether the returns to the school for offering these services generate a positive marginal economic benefit. Indeed, it is not hard to imagine that a fairly broad range of educational policies and programs might be primarily matters of consumption and not amenable to cost/benefit analysis. Even class size reduction might be purchased entirely because it is something to be enjoyed rather than because it generates some positive marginal economic benefit.

It is quite true that, as Grubb and Lazerson (1982) noted more than 20 years ago, "In the press to find cognitive effects, the possibility that schools might be pleasant and stimulating places for children—including poor children—has been almost uniformly forgotten" (p. 143). This, because "the state tends to look upon all education as an investment that

will pay justifiable dividends" (p. 52). Nevertheless, it is at least theoretically possible for some school policies to be valued as conspicuous consumption goods—goods that simply make life more interesting and enjoyable. Could CSR be such a policy? Certainly not in the eyes of today's policymakers, but how about in the view of students, their families, and their teachers?

Investment Economics Also Differs From Production Economics

Another aspect of the political economy of education policy that is often overlooked by those who seek to evaluate all policy actions from within the durable goods/test score production paradigm is the sharp distinction between the logic of investment and the logic of production economics. In the economics of production, the logic of action revolves around the ratio of costs to benefits. If that ratio were less than 1.0 (or, more importantly, as we noted, less than the ratio for other possible public expenditures), then rational policy making would lead to further expenditures. This is no simple equation, of course. The benefits valued highly by some members of the policymaking community will be viewed as much less valuable by others. Moreover, the costs are never borne equally by all citizens, and the willingness and ability to pay varies dramatically across individuals and groups.

The economic logic of investment in public goods carries an even more complex basis for policy evaluation. When making an investment, rational actors must estimate both the rate of return to the investment and the risk that that rate of return may not actually materialize. As we noted, if credential inflation robs students of the economic advantages accruing to current holders of more or better education, then the investment in producing that education for all students will have a lower than expected rate of return. If greater education is substantially a labor market queuing device, then any student who faces racial or ethnic prejudice in the labor market will find their investment to be substantially riskier than will students whose labor market opportunities are not hampered by these prejudices.

Policy Reform May Undermine as Well as Enhance Economic Values

In concluding our discussion of the political economy framework outlined in Table 1, we want to underscore the fact that each of the four

economic conceptions of public education presents itself in both a positive functional form and a debilitating dysfunctional form. The durable products created when students are schooled in technical skills are functionally positive when the skills involved have both immediate currency in the school setting (by leading to high test scores and good grades) and long-term economic value in the postschooling labor market. These private goods are quite dysfunctional, however, if the skills needed to succeed in school (e.g., test taking) have little or no value when the student enters the economic labor market. Where schools require students to master irrelevant skills or adopt inappropriate work habits, skills that have a positive value in the school setting will actually lower the students' economic value in the marketplace.

Similarly, the direct service goods generated when schooling is devoted to the cultural awakening of individual students are functionally positive and valuable whenever they create hospitable, enriching environments for children and teachers that lead to a stronger sense of dignity, self-worth, and confidence in the future. These services become dysfunctional when they create an environment characterized by frivolous entertainment or alienation of children and teachers from their schoolwork, from each other, and from their sense of a humane future.

The investment in human capital formation found in educational systems that combine a public good orientation with an emphasis on technical training for children is properly judged as being functionally sound if the learning involved does truly enhance students' long-term economic worth sufficiently to assure economic development for the total society. If, as has often happened, public investment in advanced training for students leads only to a "brain drain" because graduates have to leave the communities to find meaningful work, or fails to keep pace with the changes in skill and attitude needed for a globalizing economy, the result (however much it may benefit some individual graduates) is dysfunctional as a public good.

Finally, as Gutmann argued cogently, when schooling aims to create a public good in the form of an enhanced cultural legacy, the results are functionally positive and essential for the survival of meaningful democratic governance if they involve a self-conscious reproduction of social systems characterized by respect, fairness, and liberty. The cultural legacy of schooling deserves the criticism and derision heaped on it by Marxists and other critical theorists, however, when it leads to the reproduction of social class structures that perpetuate the dominance of one social group by another.

With the foregoing political economy framework in mind, we turn to showing how this framework identifies and resolves five otherwise

inexplicable paradoxes of class size reduction policies that have been among the most expensive school reform policies enacted in all but six states in recent years.

The Paradoxes of CSR Policy

Over the last quarter of a century, class size reduction has been a common characteristic of state education policy (Brewer, Krop, Gill, & Reichardt, 1999; Ehrenberg et al., 2001; Hertling et al., 2000; Lutz, 1986; D. Mitchell & Mitchell, 2000; R. Mitchell, 2000, 2001b; Parrish & Brewer, 2000; Ritter & Boruch, 1999; Stecher et al., 2001; Stellar, 1986; Timar & Kirp, 1988).[1] During this period, all but six states have adopted some form of class size reduction covering some or all grade levels. Since 1999, the federal government has provided modest support in all 50 states as well.

Research studies linking class size to changes in student achievement and teacher practices have accumulated substantially over the past century (e.g., Achilles, 1999; Ehrenberg et al., 2001; Folger, 1989; Galton, 1998; Glass, Cahen, Smith, & Filby, 1982; Glass & Smith, 1979; Greenwald, Hedges, & Laine, 1994; Grissmer, 1999; Hanushek, 1998; Hedges & Stock, 1983; D. Mitchell, Carson, & Badarak, 1989; R. Mitchell, 2001b; Robinson & Wittebols, 1986; Smith & Glass, 1980; Stasz & Stecher, 2000). Interpretation of these findings is fraught with controversy, but a broad consensus has been reached that CSR has a statistically significant, small to moderate impact on achievement and a slight, though not necessarily inconsequential, influence on teacher instructional behavior. Achievement studies have routinely compared smaller and larger classes, but studies of teaching in smaller classes have often neglected comparison with teachers in larger classes.[2] Thus, student achievement studies are more reliable than studies of teaching practices.

Since the mid-1990s, there has been a convergence of opinion about how to interpret the relationship between student achievement and class

[1]This discussion takes for granted that smaller classes were already deemed necessary for particular "at-risk" student subpopulations, particularly those served by "special education" programs (Finn, 1998).

[2]Rather than determine if equivalent practices in large and small classes produce equivalent (or differential) achievement gains, most of the work on teacher behavior has inquired as to the different practices associated with different achievement outcomes among the small-class teachers, inferred that superior teaching practices were employed in smaller classes by virtue of identifying more small classes with high achievement gains, or studying too few classes to be able to make fair generalizations beyond the cases themselves (e.g., Bain, Lintz, & Word, 1990; Cahen, Filby, McCutcheon, & Kyle, 1983; Molnar et al., 1999).

size. Quantitative evidence indicates that effective small classes are composed of 17 or fewer students with a single teacher. These small classes are most likely to be effective when implemented during the child's first year of schooling and when maintained for at least 2 years and probably longer. A slight benefit edge accrues to "at-risk" students, but smaller classes do not ameliorate all student risks for school failure.

There is also agreement that effective implementation of a CSR policy requires three resources: money, facilities, and trained personnel (e.g., Achilles, 1999; Brewer et al., 1999; Ehrenberg et al., 2001; Laine & Ward, 2000; R. Mitchell, 2001b). The simple economics of competing public service demands and demographic pressures straining existing resources have always kept class sizes above ideal levels (e.g., Ross & McKenna, 1955). Compelling, comprehensive, and scientific evaluation of the impacts of CSR were not sufficient to bring small classes to the fore while the country was in recession (McDonnell & Fuhrman, 1986). New tax revenues generated by the national economic recovery during the early to mid-1980s were necessary to usher in the first wave of state-level CSR policies (also see Guthrie & Koppich, 1988; Lutz, 1986). A second wave of CSR occurred when another business cycle brought economic expansion in the mid- and late 1990s (R. Mitchell, 2000).

Class-size reduction policies are a diverse lot and sometimes appear quite paradoxical in light of the widely reported scientific knowledge available to guide policymakers. Table 3 identifies 11 key variables on which state CSR policies vary and provides a broad overview of how policies vary among the states. Due to space considerations, however, we do not discuss these variables or the policies from which they were abstracted in any detail. For a state-by-state review of actual policy details, see Hertling et al. (2000), Mitchell and Mitchell (2000), R. Mitchell (2000), and Parrish and Brewer (2000). From these reviews, we have identified several variables associated with five paradoxical aspects of recent CSR policy adoption and implementation among the states.

Paradox 1: Most CSR policies do not even approach the 15:1 or 17:1 ratio needed. Although both the target size for small classes (*class size itself*) and the method of measuring attainment of that target (*measurement of class size*) are well defined in the research literature, less than a dozen states have set their class size targets at or below the 17 students per teacher specified in the research literature, and more than half of the 50 states either set their class size or pupil–teacher ratio limits at greater than 20:1 for some or all of grades K–3 (*grade levels*) or have no policy at

Table 3

Variables Characterizing State-Level Class Size Reduction (CSR) Policies

Variable	*Description of Variability*
Mandates and incentives	Some policies rely on mandates, others on fiscal incentives, and still others simply on official recommendation or encouragement
Level of funding	From unfunded mandates, to incentives that bear only part of the cost, to all (or what the state recognizes as all) costs
Class size itself	At the low end, some jurisdictions adopted enforceable mandates for as few as 15 students, at the high end are nonbinding recommendations for sizes of as much as 25
Measurement of class size	From absolute upper limits for each classroom throughout most of the school year to district averages at the time classes are composed
Grade levels	From early elementary grades only (sometimes only kindergarten) to including upper elementary or even secondary level classes
Kinds of students	From targeting only "at-risk" children, to only children in low-performing schools, to all children in all schools
Curriculum and instruction[a]	From focusing only on reading or mathematics to all instructional activities across the entire curriculum
Primacy of CSR as reform	From CSR as "the" reform to CSR as part of a larger and more comprehensive "package" of reforms
Pace of implementation	From gradually phasing in grade levels and reduction targets to complete and immediate implementation
Extent of coverage	From small, pilot, or experimental initiatives to comprehensive statewide policies
Consistency of commitment	From complete abandonment, to upward creep in class size, sustained and continuous maintenance of levels, to further reductions and/or addition of new grade levels in later policies, which may include strengthened enforcement of implementation

Sources: Ehrenberg et al. 2001; Hertling et al., 2000; Mitchell & Mitchell, 1999, 2000; R. Mitchell, 2000, 2001a; Parrish & Brewer, 2000.

[a]In nearly all cases, large-group experiences, such as choral music, band, and orchestra, were noted exceptions.

all.[3] CSR can only be effective if the targeted level is reached in every classroom, yet many states only specify school- or district-wide averages in their policies. Such averaging allows many children to be assigned to classrooms with enrollments substantially above the targeted level. As an example, Louisiana specifies a 20:1 system-wide average, but caps the

[3]Four states have set their targets (not necessarily a class size maximum) at 18:1 for one or more of grades K–3.

actual maximum per class at 26 students in grades K–3 and 33 in grades 4–12.

Paradox 2: Huge investments are out of proportion to the reliability of the evidence supporting achievement production. Despite the strong claims from the Tennessee Project STAR experiment that major aggregate achievement impacts result from reducing class size, neither earlier nor more recent policy studies have been able to verify the magnitude of the Tennessee CSR effect (for detailed discussion, see R. Mitchell, 2001b). Although relatively small scale CSR policies have yielded substantial achievement gains, no statewide implementation of CSR has been able to document anything close to the magnitude of the Tennessee experiment. Nevertheless, policy makers continue to make huge allocations of fiscal and human resources to CSR. Either they do so because of they earnestly believe the most optimistic projections (probably because they believe in the superior research design used in the Tennessee studies) or because they are responding to policy rationales that are not focused on achievement production.

Paradox 3: Neither parents nor teachers seem to care about achievement production improvements. Enthusiasm for CSR on the part of teachers and parents is based on beliefs that are quite different from those presented in the dominant policy rhetoric touting achievement production. For decades, the National Education Association (NEA) has pursued policy and contract negotiations for smaller classes as an essential element of teacher working conditions (e.g., Achilles, 1999; NEA Research, 1988). Parents also have sought smaller classes for their children in order to modify the learning/working environment—the quality and quantity of interaction between the child and the teacher (e.g., Achilles, 1999; Foshay, 1973; Johnston, 1989; Tobin, Wu, & Davidson, 1987). Care and nurturance, particularly for children at the earliest grade levels, have been important to many parents. Paradoxically, then, the groups most central to school operations—teachers and parents—are enthusiastic about CSR without appearing to take any significant interest in the productivity emphasis that abounds in policy deliberations.

Paradox 4: States adopt CSR policies they cannot or will not pay for. Many states have not provided sufficient resources or chosen an effective mechanism for implementation (*mandates and incentives*) to secure the academic

benefits that policy makers in those states assert that they desire. For example, when Texas first mandated CSR in 1984, fully one third of all districts in the state requested a waiver from the requirement because the mandate was not funded—districts could not afford to begin to meet the requirement. In fact, the state had to pass a school debt relief measure in the 1990s to help get districts back on track financially once their waiver periods had expired, leaving them no choice but to comply. Similarly, Louisiana passed a CSR policy in 1984 that would go into effect only if funding were appropriated. Funding did not follow, and there was no subsequent reduction in class sizes in Louisiana during the 1980s. Paradoxically, we find a substantial number of policymakers adopting CSR policies with no hope of substantial implementation. Either they are cynically manipulating symbols in hopes of garnering popular support from a naive public or they have other reasons for symbolically endorsing CSR policies they cannot afford.

Paradox 5: CSR implementation often stresses schools enough to destroy any expected achievement gains. We found some states where the nature and the *pace of implementation* had a substantial negative impact on the educational environment for a large number of students. The most striking example of this is the California initiative (e.g., R. Mitchell, 2001b; Ogawa, Huston, & Stine, 1999; Stecher et al., 2001). Lack of staff recruitment time and insufficient classroom space caused great disruption to facility and instructional management. A large number of unqualified, underqualified, and inexperienced teachers had to be hired to staff the newly created reduced-size classes. Paradoxically, policymakers who are trumpeting the role of CSR in raising student achievement are often ready to implement the policy in counterproductive ways. What considerations, we might ask, would lead to the adoption of policies in this way?

Political Economy Theory Resolves the CSR Paradoxes

The political economic framework developed in the first section of this article shows how the apparent paradoxes of state-level CSR policy are resolved. With respect to the first paradox—widespread disregard of the 15:1 or 17:1 student–teacher ratio target—we note that this target has always been calculated on the "durable product" model of schooling value. The target is based entirely on calculating what it takes to increase measured student achievement on standardized achievement tests. This kind of achievement target is grounded in a belief that schooling is

intended to produce private and technical outcomes. The elevated class size targets found in most states may well make important contributions to the economic goods defined in the other three quadrants of Table 1. Class size ratios of 20:1 or even 25:1 probably have substantial efficacy in improving direct service, the other private outcome category. The enthusiasm of parents and teachers for CSR makes a strong prima facie case that smaller classes enhance service quality.

However, smaller classes do not appear to be generally perceived as necessary for ensuring education as a public good. There is widespread support for schooling improvements in developing economies without a strong emphasis on controlling class sizes. The contributions to human capital formation (through broader preparation for participation in a money economy and a bureaucratized labor force) are intuitively convincing to the World Bank and other agencies of international economic development (Spring, 1998; World Bank, 1995), but requiring small classes is not. Meanwhile, the literature is devoid of any efforts to assess the impact of the higher class sizes found in most state policies on students' acquisition of important cultural legacy outcomes, such as belief in their own political efficacy, acquisition of vocational commitments, or other elements of a culture of political democracy and personal dignity. Heyneman (2000) found that curriculum and instructional language policies are prominent in the effort to define the cultural legacy foundation upon which newly formed European and Central Asian nations are to be built, leaving class size as an unmentioned afterthought. The implication is that class size reduction is neither necessary nor sufficient for nation building.

The paradoxical investment of huge sums of money in class size when the evidence for substantial achievement production remains controversial can be resolved if two things are true: (a) if the rhetoric of achievement production is so symbolically powerful that political debates do not really challenge its evidentiary basis, and (b) if policymakers supporting any of the other definitions of educational benefit believe that they need to rely on the achievement argument in order to win policy approval. As our review of the literature on CSR has made abundantly clear, the economic security rationale is so dominant in the educational policy-making community that, so long as international economic security and competitiveness act as the fulcrum for policy debate, it is almost impossible to get support for any program not intended to enhance individual technical skills (also see Guthrie, 1985). Yet, as we have noted, class size might play an important role in contributing to the service quality and the cultural legacy outcomes of education, even if these outcomes cannot provide the political leverage necessary to commit needed resources. It is quite possible that policymakers are using opportunistic rhetoric to pursue less than

popular outcomes of school restructuring. Such is exactly what political theorists like Edelman (1985, 1988) or Cobb and Elder (1983; Elder & Cobb, 1983) would predict.

Resolution of the third paradox—parent and teacher support without consideration of achievement evidence—follows directly from the recognition that education provides important goods unrelated to achievement production. Teachers and parents are apparently interested more in service quality than in economic or technical outcomes. This is not because they are not interested in the long-term impacts of schooling on children's cultural legacies. To the contrary, when they have the fiscal resources and political interest to do so, both parents and teachers make substantial investments (in housing costs and commuting times) to bring teachers and students together in schools that are characterized by safety, human respect, social and cultural integration, and optimism regarding the future. These educational outcomes (located in the final column of Table 1) represent the cultural awakening version of the goals of education. They are clearly more important to parents and teachers than to school policymakers and economic community leaders.

The paradox of adopting a CSR policy that they know will not be implemented must mean that policymakers recognize the importance of political symbolism. They must believe that, under some circumstances at least, symbolically embracing a public interest goal is an important part of its realization. Such is probably the case with cultural norms and values. To a significant degree, culture consists of what a society values, even if it does not fully realize those values. If policymakers embrace education as a source of cultural value, endorse policies to strengthen its impact on children, and articulate a goal of enhanced participation in civic and economic opportunities, they probably contribute significantly to realizing these goals, so long as their failure to support that rhetoric with real fiscal and regulatory resources is not interpreted as an indication of cynicism and betrayal. Thus, if states adopt CSR policies that are believed by the body politic to reflect earnest commitment to enhancing schooling experiences, then they are likely to encourage citizens and school staff members alike to put their energies behind the improvement of public education. If the failure to fund or regulate implementation of a policy is seen as a broken promise (rather than an unfortunate downturn in the economy), it will surely undermine the quality of the school experience for everyone. The recent interest in institutional theory among sociologists has sharply underscored the importance of social legitimacy for both organizations and governmental service providers (e.g., Meyer & Rowan, 1977; D. Mitchell, 1996; Powell & DiMaggio, 1991). Institutional theory certainly predicts that states and localities with very limited resources will seek to

endorse and at least partially implement CSR policies once they have been legitimated among the policy leaders in similar jurisdictions. With 44 of the 50 states adopting some form of CSR policy in the last two decades, and with all of the leading jurisdictions putting very substantial fiscal resources into the implementation of those policies, it is not surprising that jurisdictions that cannot really afford to implement them will also adopt the policies in a symbolic way.

Resolving the last paradox associated with the willingness of states to implement CSR policies in ways that are so abrupt and sweeping as to significantly impair the ability of local schools and districts to produce expected achievement gains requires but three assumptions. First, if, as with the adoption of policies that are not funded, symbolic endorsement of the politically "hot" policy strategies helps states maintain their legitimacy in the eyes of other states and the national political culture, then attainment of specific learning goals is not really as important as getting the policy adopted and making demands for its implementation. Second, if class size is seen as enhancing service delivery and improving the prospects for nurturing an enduring cultural legacy, implementation problems may not be nearly as important to policymakers as making an unequivocal declaration of the efficacy of the policy itself. Third, if the target is long-term human capital development rather than immediate improvement in children's test scores, policymakers may be willing to take short-term losses in order to put into place policies that they believe will pay handsome dividends in the future. Together, these interpretations make implementation problems seem small compared to making a clear and unequivocal commitment to permanent class size reductions.

Conclusion

Using CSR policy as a case study, we have endeavored to highlight how the tradition of political economic analysis continues to meaningfully inform the rational interpretation of education policies. Despite the rhetoric of productivity that dominates the current "political spectacle" of education policymaking (Cibulka, 2001; Edelman, 1988), there are multiple bases for adopting, implementing, or abandoning a school policy. The apparent paradoxes of CSR policies are resolved by understanding that there are four basic classifications of education as an economic good: direct services, durable products, cultural legacies, and human capital investments. These four bases rationally serve to justify the wide range of state CSR policies we have seen over the last quarter-century. In addition to being valued for their potential to increase the production of student

achievement, CSR policies provide directly consumable services, and may possibly deliver net benefits to society either through improved general productivity or the ability to consciously reproduce the social, political, and economic order that maintains a stable democratic society.

The political economy framework developed here can, no doubt, be applied to a broad range of education policies. Teacher accountability policies, for example, are contested because they assume a narrow emphasis on the production of durable student achievement, without giving significant weight to judging the service quality or cultural legacy value of their work with families and students (e.g., McNeil, 2000). To take another example, the ongoing "curriculum wars" dividing whole language and phonetic approaches to reading or content versus methodological standards contest in mathematics can be seen as, at bottom, contests over the *character* more than the *amount* of learning expected in the public schools (e.g., Loveless, 2001).

We conclude by acknowledging the obvious: There is much about education policy that is not easily interpreted from this political economy perspective. Although the political economy framework helps to evaluate the aims and the meaning of policies that are proposed or adopted, it does not help much to illuminate the processes of policy enactment (for an excellent discussion of the adoption process see Kingdon, 1995), or the mechanisms of policy control (for an excellent discussion of alternative mechanisms, see McDonnell and Elmore, 1987). Where the political economy perspective is most helpful is in revealing the extent to which seeming contradictions or paradoxes in the formulation and implementation of education policy are grounded in sharply divergent understandings of what schools are expected to produce and how they are expected to produce it. The political economy perspective directs our attention toward the divergent interests and values embodied in competing policy proposals. These divergent interests and values not only lead policymakers, professional educators, parents, and community members to misunderstand each other, but also to find each other's policy proposals to be irrelevant or even repugnant to basic values.

References

Achilles, C. M. (1999). *Let's put kids first, finally: Getting class size right*. Thousand Oaks, CA: Corwin.

Bain, H. P., Lintz, N., & Word, E. (1989). *A study of fifty effective teachers whose class average gain scores ranked in the top 15% of each of four school types in Project STAR*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Becker, G. S. (1964). *Human capital*. New York: Columbia University Press.

Boadway, R. (1997). Public economics and the theory of public policy. *Canadian Journal of Economics, 30*(4a), 753–772.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood.

Bourdieu, P., & Passeron, J.-C. (1990). *Reproduction in education, society and culture* (2nd ed.). London: Sage.

Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. New York: Basic Books.

Bowles, S., & Gintis, H. (1986). *Democracy and capitalism: Property, community, and the contradictions of modern social thought*. New York: Basic Books.

Bowles, S., & Gintis, H. (2002). Schooling in capitalist America revisited. *Sociology of Education, 75*(1), 1–18.

Bozeman, B. (2002). Public-value failure: When efficient markets may not do. *Public Administration Review, 62*(2), 145–161.

Brewer, D. J., Krop, C., Gill, B. P., & Reichardt, R. (1999). Estimating the cost of national class size reductions under different policy alternatives. *Educational Evaluation and Policy Analysis, 21*(2), 179–192.

Brown, D. K. (2001). The social sources of educational credentialism: Status cultures, labor markets, and organizations. *Sociology of Education* (Extra Issue), 2001, 19–34.

Cahen, L. S., Filby, N., McCutcheon, G., & Kyle, D. W. (1983). *Class size and instruction*. New York: Longman.

Carnoy, M. (1972). The political economy of education. In T. LaBelle (Ed.), *Education and development in Latin America and the Caribbean*. Los Angeles: UCLA Latin American Center.

Carnoy, M. (Ed.). (1975). *Schooling in a corporate society*. New York: McKay.

Carnoy, M. (1985). The political economy of education. *International Social Science Journal, 37*(2), 157–173.

Carnoy, M., & Levin, H. M. (1985). *Schooling and work in the democratic state*. Stanford, CA: Stanford University Press.

Cibulka, J. G. (2001). The changing role of interest groups in education: Nationalization and the new politics of education productivity. *Educational Policy, 15*(1), 12–40.

Cobb, R. W., & Elder, C. D. (1983). *Participation in American politics: The dynamics of agenda-building* (2nd ed.). Baltimore, MD: Johns Hopkins University Press.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(Supplement), S95–S120.

Collins, R. (1979). *The credential society: An historical sociology of education and stratification*. San Diego, CA: Academic.

Cuban, L., & Shipps, D. (Eds.). (2000). *Reconstructing the common good in education: Coping with intractable American dilemmas*. Stanford, CA: Stanford University Press.

Edelman, M. J. (1985). *The symbolic uses of politics* (2nd ed.). Urbana-Champaign: University of Illinois Press.

Edelman, M. J. (1988). *Constructing the political spectacle*. Chicago: University of Chicago Press.

Ehrenberg, R. G., Brewer, D. J., Gamoran, A., & Willms, J. D. (2001). Class size and student achievement. *Psychological Science in the Public Interest, 2*(1), 1–30.

Elder, C. D., & Cobb, R. W. (1983). *The political uses of symbols*. New York: Longman.

Elmore, R. F. (1984). The political economy of state influence. *Education and Urban Society, 16*(2), 125–144.

Finn, J. D. (1998). *Class size and students at risk: What is known? What is next?* Paper commissioned by the National Institute on the Education of At-Risk Students, Office of Educational Research and Improvement. U.S. Department of Education, Washington, DC.

Folger, J. (Issue Ed.). (1989). *Peabody Journal of Education, 67*(1), 75–84 (1992).
Foshay, A. W. (1973). Sources of school practice. In J. I. Goodlad & H. G. Shane (Eds.), *The elementary school in the United States: The seventy-second yearbook of the National Society for the Study of Education* (Part II, pp. 173–197). Chicago: University of Chicago Press.
Galton, M. (Guest Ed.). (1998). *International Journal of Educational Research, 29*(8), 689–818.
Glass, G. V., Cahen, L. S., Smith, M. L., & Filby, N. N. (1982). *School class size: Research and policy*. Beverly Hills, CA: Sage.
Glass, G. V., & Smith, M. L. (1979). Meta-analysis of research on class size and achievement. *Educational Evaluation and Policy Analysis, 1*(1), 2–16.
Greenwald, R., Hedges, L. V., & Laine, R. D. (1994). The effect of school resources on student achievement. *Review of Educational Research, 66*(3), 361–396.
Grissmer, D. (Guest Ed.). (1999). *Educational Evaluation and policy Analysis, 21*(2: Special issue—Class size: Issues and new findings), 93–248.
Grubb, W. N., & Lazerson, M. (1982). *Broken promises: How Americans fail their children*. Chicago: University of Chicago Press.
Guthrie, J. W. (1985). The educational policy consequences of economic instability: The emerging political economy of American education. *Educational Evaluation and Policy Analysis, 7*(4), 319–332.
Guthrie, J. W. (1990). The evolving political economy of education and the implications for educational evaluation. *Educational Review, 42*(2), 109–131.
Guthrie, J. W., & Koppich, J. (1988). Exploring the political economy of national education reform. In W. L. Boyd & C. T. Kerchner (Eds.), *The politics of excellence and choice in education: 1987 yearbook of the Politics of Education Association* (pp. 25–47). New York: Falmer.
Gutmann, A. (1987). *Democratic education*. Princeton, NJ: Princeton University Press.
Hanushek, E. A. (1997). Assessing the effects of school resources on student performance: An update. *Educational Evaluation and Policy Analysis, 19*(2), 141–164.
Hanushek, E. A. (1998). The evidence on class size (Occasional Paper No. 98-1). Rochester, NY: University of Rochester, W. Allen Wallis Institute of Political Economy.
Hanushek, E. A. (1999). Some findings from an independent investigation of the Tennessee STAR experiment and from other investigations of class size effects. *Educational Evaluation and Policy Analysis, 21*(2), 143–163.
Hanushek, E. A. (2000). Evidence, politics, and the class size debate. In *The class size policy debate* (Working Paper No. 121) (pp. 27–46). Washington, DC: Economic Policy Institute.
Harris, D., & Plank, D. N. (2000). Making policy choices: Is class-size reduction the best alternative? In S. W. M. Laine & J. G. Ward (Eds.), *Using what we know: A review of the research on implementing class-size reduction initiatives for state and local policymakers* (pp. 21–33). Oak Brook, IL: North Central Regional Educational Laboratory.
Hedges, L. V., & Stock, W. (1983). The effects of class size: An examination of rival hypotheses. *American Educational Research Journal, 20*(1), 63–85.
Hertling, E., Leonard, C., Lumsden, L., & Smith, S. C. (with a contribution by L. O. Picus). (2000, Spring). *Policy report: Class size*. http: //www.eric.uoregon.edu/publications/pub_policy.html
Heyneman, S. P. (2000). From the party/state to multiethnic democracy: Education and social cohesion in Europe and Central Asia. *Educational Evaluation and Policy Analysis, 22*(2), 173–191.
Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge, MA: Harvard University Press.
House, E. R. (1997). *Schools for sale: Why free market policies won't improve America's schools, and what will*. New York: Teachers College Press.

Hummel-Rossi, B., & Ashdown, J. (2002). The state of cost–benefit and cost-effectiveness analyses in education. *Review of Educational Research, 72*(1), 1–30.

Johnston, J. M. (1989). Teacher perceptions of changes in teaching when they have a small class or an aide. *Peabody Journal of Education, 67*(1), 106–122 (published in 1992).

Katznelson, I., & Weir, W. (1985). *Schooling for all: Class, race, and the decline of the democratic ideal*. New York: Basic Books.

Kingdon, J. W. (1995). *Agendas, alternatives, and public policies* (2nd ed.). New York: Longman.

Kingston, P. W. (1986). Theory at risk: Accounting for the excellence movement. *Sociological Forum, 1*(4), 632–656.

Krueger, A. B. (2000). Understanding the magnitude and effect of class size on student achievement. In *The class size policy debate* (Working Paper No. 121) (pp. 5–26). Washington, DC: Economic Policy Institute.

Labaree, D. F. (1997). *How to succeed in school without really learning: The credentials race in American education*. New Haven, CT: Yale University Press.

Labaree, D. F. (2000). No exit: Public education as an inescapably public good. In L. Cuban & D. Shipps (Eds.), *Reconstructing the common good in education: Coping with intractable American dilemmas* (pp. 110–129). Stanford, CA: Stanford University Press.

Laine, S. W. M., & Ward, J. G. (Eds.). (2000). *Using what we know: A review of the research on implementing class-size reduction initiatives for state and local policymakers*. Oak Brook, IL: North Central Regional Educational Laboratory.

Levin, H. M. (1987). Education as a public and private good. *Journal of Policy Analysis and Management, 6*(4), 628–641.

Loveless, T. (Ed.). (2001). *The great curriculum debate: How should we teach reading and math?* Washington, DC: Brookings Institute.

Lutz, F. W. (Issue Ed.). (1986). *Peabody Journal of Education, 63*(4: Reforming education in the 1980s) (Published in 1988).

McDonnell, L. M., & Elmore, R. F. (1987). Getting the job done: Alternative policy instruments. *Educational Evaluation and Policy Analysis, 9*(2), 133–152.

McDonnell, L. M., & Fuhrman, S. (1986). The political context of school reform. In V. D. Mueller & M. P. McKeown (Eds.), *The fiscal, legal, and political aspects of state reform of elementary and secondary education* (pp. 43–64). Cambridge, MA: Ballinger.

McNeil, L. M. (Ed.). (2000). *Contradictions of school reform: Educational costs of standardized testing*. New York: Routledge.

Meyer, J. (2000). Reflections on education as transcendence. In L. Cuban & D. Shipps (Eds.), *Reconstructing the common good in education: Coping with intractable American dilemmas* (pp. 206–222). Stanford, CA: Stanford University Press.

Meyer, J. W. & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*(2), 340–363.

Mitchell, D. E. (1996). Institutional theory and the social structure of education. In R. L. Crowson, W. L. Boyd, & H. M. Mawhinney (Eds.), *Politics of education and the new institutionalism: Reinventing the American school: The 1995 yearbook of the Politics of Education Association* (pp. 167–88). Westport, CT: Greenwood.

Mitchell, D. E. (1998). A policy framework for resource allocation. In W. T. Hartman & W. L. Boyd (Eds.), *Resource allocation and productivity in education: Theory and practice* (pp. 219–238). Westport, CT: Greenwood.

Mitchell, D. E., Carson, C., & Badarak, G. (1989). *How changing class size affects classrooms and students*. Riverside: University of California, Riverside, California Educational Research Cooperative.

Mitchell, D. E., & Mitchell, R. E. (1999). *Class size.* Riverside: University of California, California Educational Research Cooperative.

Mitchell, D. E., & Mitchell, R. E. (2000). *Class size: An amendment reflecting further research on state policies*. Riverside: University of California, California Educational Research Cooperative.

Mitchell, R. E. (2000, August). *Early elementary class-size reduction: A neo-institutional analysis of the social, political, and economic influences on state-level policymaking*. Paper presented at the annual meeting of the American Sociological Association, Washington, DC.

Mitchell, R. E. (2001a, March 1). *Class size reduction policy in the national context*. Unpublished manuscript, Graduate School of Education, University of California, Riverside.

Mitchell, R. E. (2001b, September). Class size reduction policy: Evaluating the impact on student achievement in California (Doctoral dissertation, University of California, Riverside, 2001). *Dissertation Abstracts International, 62*(07), 2305A [UMI No. 3021397].

Molnar, A., Smith, P., Zahorik, J., Palmer, A., Halbach, A., & Ehrle, K. (1999). Evaluating the SAGE program: A pilot program in targeted pupil–teacher reduction in Wisconsin. *Educational Evaluation and Policy Analysis, 21*(2), 165–177.

NEA Research. (1988). *Public opinion on class size: A 27-year review.* Washington, DC: National Education Association.

Ogawa, R. T., Huston, D. & Stine, D. E. (1999). California's class size reduction initiative: Differences in teacher experience and qualifications across districts. *Educational Policy, 13*(5), 659–673.

Parrish, T., & Brewer, D. (with C. Driver, E. Hawkins, L. Kuo, I. Lam, S. Range, C. Krop, B. Gill, R. Reichardt, J. Goodwin, H. Espinosa, T. Kaganoff, & M. W. Kirst). (2000, February 1). *The costs of class size reduction policies in the context of rising enrollments: Final report* (OERI Commissioned Report). Palo Alto, CA: American Institutes for Research.

Parsons, T. (1959). The school class as a social system: Some of its functions in American society. *Harvard Educational Review, 29,* 297–318.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24,* 1–24.

Powell, W. W., & DiMaggio, P. J. (Eds.). (1991). *The new institutionalism in organizational analysis.* Chicago: University of Chicago Press.

Ritter, G. W., & Boruch, R. F. (1999). The political and institutional origins of randomized controlled trial on elementary school class size: Tennessee's Project STAR. *Educational Evaluation and Policy Analysis, 21*(2), 111–125.

Robinson, G. E., & Wittebols, J. H. (1986). *Class size research: A related cluster analysis for decision making*. Arlington, VA: Education Research Services.

Ross, D. H., & McKenna, B. H. (1955). *Class size: The multi-million dollar question* (Study 11). New York: Columbia University, Teachers College, The Institute of Administrative Research.

Smith, M. L., & Glass, G. V. (1980). Meta-analysis of research on class size and its relationship to attitudes and instruction. *American Educational Research Journal, 17*(4), 419–433.

Spring, J. (1998). *Education and the rise of the global economy.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Stasz, C., & Stecher, B. M. (2000). Teaching mathematics and language arts in reduced size and non-reduced size classrooms. *Educational Evaluation and Policy Analysis, 22*(4), 313–329.

Stecher, B., Bohrnstedt, G., Kirst, M., McRobbie, J., & Williams, T. (2001). Class-size reduction in California: A story of hope, promise, and unintended consequences. *Phi Delta Kappan, 82*(9), 670–674.

Stellar, A. W. (1986). Implications for programmatic excellence and equity. In V. D. Mueller & M. P. McKeown (Eds.), *The fiscal, legal, and political aspects of state reform of elementary and secondary education* (pp. 65–118). Cambridge, MA: Ballinger Publishing.

Stone, C. N., Henig, J. R., Jones, B. D., & Pierannunzi, C. (2001). *Building civic capacity: The politics of reforming urban schools*. Lawrence: University Press of Kansas.

Thurow, L. C. (1977). Education and economic equality. In J. Karabel & A. H. Halsey (Eds.), *Power and ideology in education* (pp. 325–335). New York: Oxford University Press.

Timar, T. B., & Kirp, D. L. (1988). *Managing educational excellence.* New York: Falmer.

Tobin, J. J., Wu, D. Y. H., & Davidson, D. H. (1987). Class size and student/teacher ratios in the Japanese preschool. *Comparative Education Review, 31*(4), 533–549.

U.S. Department of Education. (2000, September). *The class-size reduction program: Boosting student achievement in schools across the nation. A first-year report*. Washington, DC: Author.

Weber, M. (1946). *From Max Weber: Essays in sociology.* New York: Oxford University Press.

World Bank. (1995). *Priorities and strategies for education: A World Bank review.* Washington, DC: Author.