INTRODUCTION AND SUMMARY
As discussed in the previous chapter, CSR generally takes the form of a policy made at the state or federal level that is then implemented at the local level (ECS, 1999). Lessons learned from evaluation of education and other reforms shows that policies designed at the higher levels of the system are difficult to implement with fidelity to policy designs.

Despite the difficulty in implementing policies that flow from upper levels of the education system, all levels are under pressure to reform. Policymakers at the state level are taking on, or being assigned, the responsibility for education. For example, Kirp and Driver (1995) report that the California education code has tripled in size. At the same time, the proportion of the state budget that was specially earmarked for education has increased from 12.3% in 1969 to 26.9% in 1992.

Key changes in the school finance system set the context of reform policies, including CSR. First there has been a centralization of sources of school revenue to the state and federal level. At a minimum this centralization lessens local control over the amount of revenues available, but equally important centralization can be seen as an avenue of increased state and federal control over local operations. At the same time many reform movements (school-based management, charter schools and vouchers) involve moving authority over fund allocations and other policy decisions to the school level. These reform movements may decrease the ability of state and federal policymakers to affect what occurs in schools. These two seemingly divergent trends in authority and responsibility cloud the notion of who is responsible for educational outcomes. This section attempts to describe how CSR fits into this changing education system. CSR may represent one of the few education policy levers that state policymakers can use that can be implemented quickly, with fidelity to their designs, and can be expected to produce positive achievement affects. A better understanding of the limitations state (and federal-level) policymakers face in the education arena may encourage movement toward clearly defined roles for each level of the system.

THE EDUCATION SYSTEM
The education system in the United States can be thought of as having four separate levels: federal, state, district (local), and school level. A textbook view of the system focuses on the top three levels that provide funding for the system: federal, state and school districts (Monk, 1990). However, because policy implementation occurs at the school level and is dependent on school-level characteristics (Kirp & Driver, 1995), and because there are several reform movements that seek to increase school autonomy
(Bodilly, 1998, Odden & Picus, 1992, Chubb & Moe, 1990), it seems reasonable to discuss schools as separate actors in the education system.

At each level there are multiple, diverse organizations. In 1996 there were some 14,772 regular school districts including one statewide district in Hawaii. There is wide diversity in the size of the districts with the largest 226 districts enrolling just over 31% of all students and the smallest 21% of districts (3,160) enrolling only 1% of the students. There were just under 86,000 schools in 1996, which are at least as diverse as school districts, ranging in size from under 100 students to over 3000 (U.S. Department of Education, 1999). This wide diversity of schools and school districts is part of the reason formulation of policies for all schools difficult. Even within states there is wide diversity of schools to which policies must apply.

The federal role in education is limited. The main focus of federal regulation and funding is equitable treatment of various populations. The state share of education revenues has generally risen since 1900. State regulation of education is more general than the federal government’s. School districts derive their legal status and authority to operate from states. School districts are responsible for allocating resources to schools. Schools operate under districts but they have some autonomy and many recent reforms work to increase school independence from districts.

It is through this large and diverse system that the United States works to meet its educational goals. There is a multiplicity of goals for the entire education system, and there are multiple definitions of education. Nevertheless, it is reasonably safe to assume that despite variations in definitions, there are general systematic goals of providing this education in an equitable and efficient manner. The exact definitions of an equitable provision of education will be debated for many years to come. For the purposes of this work, equity will be discussed in terms of equal burdens from resource collection and equal benefits from resource distribution. Efficient provision of education relates to use of resources in a cost-effective way.

As policymakers at different levels of the system attempt to formulate policies for implementation at the lower levels of the system, they must be cognizant of the degree of linkage or coupling between the levels. The education system has been described as

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5 This structural approach to the education system can be compared with the functional approach taken by Elmore & McLaughlin (1988). This approach uses three levels: Policy, Administrative, and Practice. They suggest policy is made at the federal, state and district level, administration is done at the district and school level, practice occurs only at the school level.

6 For National Goals see the National Education Goals Panel at http://www.negp.gov/page3.htm. As an example of effort to enumerate a school districts goals, see R. Rothstein’s recommended Accountability Index for the Los Angeles Unified School District located at http://www.epn.org/rothstei/Lausd/LAUSDindex1.html.

7 This definition is the same as technical and allocative efficiency of production economics where given a combination of inputs, the maximum output of produced and all inputs are used. It is not the same as efficiency of exchange, which involves the distribution of goods and services. See Monk, 1990.
loosely coupled in that “decision(s) at one level in the system may not have an impact at other levels of the system” (Berman & McLaughlin, 1978, pp. 6). An indicator of a loosely coupled system is that actors within the system are coupled neither by the technical core of organizations or the authority of office. Technical core coupling refers to the level at which organizations are dependent on each other for participation to complete the tasks central to the organization. Clearly schools can complete their central tasks of educating students without participation from members of other organizations within the system. Except for school-level officials, all members of the system derive their political authority of office independently of other members of the system. Thus the education system is not tightly coupled in either of these key areas. In the current education system, organizations within each level of the system retain their own identity regardless of the actions of organizations on the other levels of the system, and different configurations of organizations within the system result in the same ends (Weick, 1976, Berman & McLaughlin, 1978). For these reasons the education system in the United States can be termed loosely coupled.

This loosely coupled system has advantages. Weick (1976) argues that loosely coupled systems allow a better sense of local environments and are good for localized adaptation. If the education process requires sensitivity and adaptation to the environment and conditions at the school, local and even state level in which it occurs, then a loosely coupled system may be very appropriate. Reducing the autonomy of actors within the system may reduce their ability to adapt and react to local conditions. A downside to loosely coupled systems is that localized adaptations or any adaptations are slow to spread throughout the system. This slow spreading of adaptation is partially a function of the inability of higher levels within the system to direct lower levels to change their behavior.

**Pressure to Reform**

CSR reduction is one of many reform movements within the U.S. education system. The publication of the open letter to the American people titled “A Nation at Risk: The Imperative for Educational Reform” from The National Commission of Excellence in Education in 1983 is seen as beginning a new wave of intensive reform efforts. Citing lower test scores, increased need for remedial training, rising illiteracy, and 17-year-olds with deficits in “higher order” thinking skills, the authors warned of a “rising tide of mediocrity” (National Commission Excellence in Education, 1983, pp. 5). The authors of “Nation at Risk” recommended tougher standards for graduation, college, a curriculum focusing on the basics, improved teaching, and increased funding for education. There has been a steady flow of books and reports since “Nation at Risk” with at least 208 reports published in the following decade, which echoed calls for reform and/or citing various

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8 Political authority is used in this context as opposed to legal authority, which districts derive from the state.
failures of the education system. The end result is that the education system is under “mounting public pressure for significant action” (Boyd & Hartman, 1998 pp. 23).

More recently, calls for education reform have been driven by the perception of a productivity crisis in education (Hanushek & Rivkin, 1997, Odden, 1990). As discussed earlier, the discussion begins with the observation that the resources expended in the United States for education have been continually increasing for the past century. Real expenditures grew at an annual rate of roughly 4% a year with the amount of money spent on education almost doubling between 1966 and 1990. At the same time outputs from the system, measured in terms of test scores, have remained flat (NAEP) or even dropped (SAT).

Of course the perception of a productivity crisis has not gone unchallenged. The focus of most challenges has been on measuring the inputs to the education process, what the money is spent on, the quality of teachers the money hires, and factors at students’ homes that affect what students bring to the education system.

If teacher salaries are related to teacher quality, then there may be reason to believe that teacher quality has declined over this period (Hanushek & Rivkin, 1997). Sedlack and Schlossman (1986) show that compared to average earnings for all members of their sex, female and male teacher salaries fell continuously between 1960 and 1980, despite continuous salary increases in real terms over the same period. So while teacher expenditures have risen, they may not have risen fast enough to recruit college graduates of the same quality. This trend has reversed itself somewhat in the last 15 years, but teachers through the 1980s still earned at least 15% less than those in other careers requiring a college education (Ballou & Podgursky, 1998). There also may be differential effects of salary changes on females. Hanushek and Rivkin (1997) argue that to recruit female teachers of the same quality in 1990 as in 1970, teachers’ salaries would have to rise by 20%, while recruiting male teachers of the same quality as 1970 would not require a salary increase above current levels.

There is also continuing debate on the relationship between the quality of inputs, particularly teachers, and student outcomes (Freidman, 2000, Ingersoll, 1999, Darling-Hammond, 1999). Most of the research available focuses on the relationship between teacher characteristics and student performance at the secondary level (Feltner, 1999, Goldhaber & Brewer, 1999) although some have included measures of student performance at the elementary level (Ehrenberg & Brewer, 1995, Furguson, 1991). A key question is how to measure teacher quality. Little or no research has linked elementary teachers’ credential status with student performance, with some researchers attacking certification as a barrier to entry for quality applicants (Ballou & Podgursky, 1997). Very little research has linked elementary teacher education and test scores with student performance (Furguson, 1991).

There also appear to be changes at home that affect the ability of students from different racial groups to learn. Grissmer et al. (1994) argue that smaller families and better-
educated parents account for a portion of the increased performance (relative to whites) of Hispanics and blacks. He believes the remaining relative increases may be due to school quality. The key point of this work is not the actual effects of different family factors, but that these factors are important and that viewing schools or the school system by test scores alone simply provides an incomplete picture.

The perceived productivity crisis—increased expenditures with decreased or flat performance—has created real pressure on the school system to reform. Unfortunately the pressure to reform has not been meet with agreement as to what is actually the source of the problem, nor on who should be responsible. Instead more detailed examinations of the production process in schools has led to the belief that the issue is much more complex than thought at first blush. With the pressure to reform being felt at all levels of the system, the question is what is the appropriate response at higher (i.e., state and federal) levels.

Policies emanating from higher levels of a federalist system can be rationalized for two general reasons. First they may reflect broader societal norms that may not be present in diverse local jurisdictions. Desegregation of schools is a common example of broader societal norms being imposed on localities against the wishes of, at least some, local policymakers. A second reason for imposing reforms from above is that the reforms will improve the outcomes seen in the system in ways that the localities cannot do themselves. An example of this type of policy is curriculum and textbook standards that reflect the economies of scale when created at the state level instead of on the local level. As will be discussed, the more extreme reforms that move power away from local jurisdictions (Chubb & Moe, 1990, Hill, Pierce & Guthrie, 1997) are rationalized on the theory that the current distribution of authority and power within the system favors the status quo does not allow schools and districts to reform. It is disputable whether the current distribution of power is fluid, so arguing districts’ are unable to act can be seen as justifying reforms that may be inefficient or do not reflect societies values.

REFORM IMPLEMENTATION: A DIFFICULT TASK

"The effort at school reform is complex because of the multiple actors involved, no single one of which controls all the inputs needed to ensure implementation outcomes. The multiplicity of actors in the system targeted for change and their different levels of authority lead to slow progress."

Bodilly, 1998

A significant portion of policy implementation literature is based on lessons learned while implementing the federal war on poverty and other domestic programs in the early 1970s. The difficulty of implementing education reforms has been well-documented (Bodilly, 1998, Elmore, 1996, Berman & McLaughlin, 1978, Weatherly & Lipsky, 1978).
Implementation in this case is defined as “carrying out of a basic policy decision” (Mazmanian & Sabatier 1983, pp. 20). This top-down perspective on implementation focuses on the program outcomes as intended by policymakers, not the outcomes desired by those implementing the program at the local or school level. Most discussions of the difficulties associated with reform implementation focus on two factors, institutional relationships and the incentives faced by teachers to change their behavior. Given these difficulties, this analysis looks at three different models of implementation in terms of strategies or rules of thumb to achieve the goals of the programs.

Pressman and Wildavsky (1983) show in painful detail the problems caused by this complexity in their seminal work *Implementation, How Great Expectations in Washington Are Dashed in Oakland; Or, Why It Is Amazing that Federal Programs Work at All, This Being a Saga of the Economic Development Administration as Told by Two Sympathetic Observers Who Seek to Build Morals on a Foundation of Ruined Hopes*. Citing the complexity of working with multiple agencies, the authors found that implementation of a particular economic development program required 70 different agreements. Using simple probabilities, they argued that even with a 99% chance of agreement at every point, the project still had less than a 50% chance of implementation.

Not all activities carried out by schools and districts require as much inter-governmental coordination as local development programs. But as Bodilly points out in the quotation at the beginning of this section, the multiple actors who participate in education reform significantly complicate implementation. The concept of multiple actors goes beyond the four layers of the educational system and includes union officials, reform advocates and experts, and, of course, teachers. Pressman and Wildavsky (1983) suggest that effective implementation is greatly facilitated by modest goals, adequate resources, and unity among the implementing agencies at the local level. The necessity of adequate resources highlights the need for CSR cost estimates in understanding the upper limit of “adequate” resources for CSR and more importantly how “adequate” varies by school.

Bardach (1977) has a similar view to Pressman and Wildavsky of the problems faced in policy implementation. He defines implementation as controlling and directing activities done by multiple organizations and players to achieve program objectives, at low cost and high speed (pp. 250). And he assumes that the very nature of intergovernmental implementation creates a defensive atmosphere where “A great deal of energy goes into maneuvering to avoid responsibility, scrutiny, and blame” (pp. 37). Bardach describes 16 “games” employed by participants in the implementation process that divert resources, deflect policy goals, resist administrative controls, and dissipate energy in game playing instead of constructive programmatic action (pp. 66). Bardach’s recommendations for policymakers are to make sure the theoretical base behind policies is strong and to use simple implementation strategies that require as little management as possible. The lesson for policymakers taking a top-down approach is that simple programs such as CSR are the ones that are more likely to succeed.
There has been limited success in synthesizing more general theories of implementation (Goggin et al., 1990). Pressman & Wildavsky (1983) and Berman (1978) give some general advice for practitioners based on case studies. The next section discusses three frameworks for policy implementation with insights that can be useful in thinking about the implementation of CSR. The first two comment on the importance of resources in implementation. The third discusses different policy strategies given different policy environments. All three use many of the same variables in discussing the policy environment and thus are not mutually exclusive in any way; instead they can be thought of as complementary.

First Framework. The most complex framework for thinking about policy implementation comes from Mazmanian and Sebatier’s 1989 book *Implementation and Public Policy*. This framework is expansive enough to cover most, if not all, factors that affect implementation. This makes the framework complete, but it also makes it very difficult to identify the key ingredients for successful implementation in any given situation. The framework identifies three general variables involved in the implementation process: the ability of the policy decision to structure the implementation process, the tractability of the problem, and non-statutory variables affecting implementation.

A valid causal theory linking an intervention and attainment of program objectives fit under Mazmanian and Sebatier’s discussion of policy decisions structuring implementation. Their point, that a valid causal theory is crucial, was raised by Bardach, and remains a critical problem with CSR. Here a useful distinction may be made between implementation of policy decisions and the impact of policy decisions (Montjoy & O’Toole, 1979, Mazmanian & Sabatier, 1989). The addition of classrooms and teachers implements CSR, but the link between smaller class sizes and an impact on student performance is not clearly made.

Second Framework. Montjoy and O’Toole (1979) have a much more parsimonious theoretical framework for thinking about policy implementation. Part of this parsimony comes from trying to describe the smaller universe of the behavior of individual agencies to external mandates and do not address intra-government coordination problems. Thus their lessons are most applicable to mandates imposed by states on districts or by districts on schools. They describe policy decisions along two dimensions, (1) the specificity of the policy mandate and (2) the level of resources devoted to the mandate, with support for the mandate within the implementing organization serving as a mediating factor. Mandates that are specific, but with no additional resources, require the support of significant factions within the organization to be implemented. Vague mandates with no resources are not implemented, while agencies facing vague mandates with resources are expected to characterize existing activities as meeting the mandate. Specific mandates with resources are the most likely to be implemented. This fits the California experience with CSR, which had a very specific mandate and resources. It also echoes Bodilly’s finding that resource allocation is an important signal to school-level implementers that a certain reform is important. Thinking in terms of the Mazmanian and Sabatier framework
and the Montjoy and O’Toole theory, a key next question in thinking about CSR is the level of resources necessary to cause implementation of CSR.

**Third Framework.** Many authors characterize the implementation process as an interactive process between participants in a policy system (Mazmanian & Sabatier, 1989, Yanow, 1987, Palumbo, 1986, Pressman & Wildavsky, 1983). This interactive process is often termed “adaptive” implementation. Berman describes two implementation strategies, programmed and adaptive, and which of these strategies should be employed based on the policy implementation environment. Programmed approaches use “specific, detailed, and...consistent objectives” to create a “a top-down order” to break through the complexity of joint action (Berman, 1980, pp. 208). This can be contrasted with adaptive implementation that allows policy to be adapted “according to the unfolding interactions of the policy with its institutional setting” (pp. 211).

Programmed implementation works to surmount the barriers to fidelity to policymakers’ goals through controls to the behavior of those doing the implementation. Adaptive implementation takes a more bottom-up view of program implementation and explicitly argues that the policy goals are to be modified using feedback from those implementing the policy. If policies can continually change based on the views of those implementing the policy, then the goals of a policy are a continually moving target. This means that policies that are implemented adaptively, by definition, will lead to a loss in fidelity to the initially stated intentions of policymakers and be more subject to the “games” described by Bardach. The policymakers' designs can easily be co-opted by those implementing the policies to reflect their interests instead of the interests of the policymakers.

Berman outlines five structural parameters that can be used to determine if programmed or adaptive implementation strategies are called for. He argues that polices with goals that reflect incremental change, with certain technology, with low conflict over goals in a tightly coupled system, in a stable environment, are suited to programmed implementation. Any deviation from these situations, including implementation in a loosely coupled system, suggests the necessity of elements of adaptive implementation for success. Berman found in earlier work that effective education reform strategies promoted “mutual adaptation” (emphasis in original) (Berman & McLaughlin, 1978, pp. viii). But adaptive implementation, by its very nature, leads to policy outcomes not envisioned by policymakers. Thus policy making in the education system, an area that is loosely coupled, has low probability of reflecting the goals of policymakers at the top of the system. Either programmed implementation will be difficult due to the nature of the system, or adaptive implementation is required, which can easily lead to diversion and dilution of the policymakers’ goals.

The implementation of CSR in California sheds some light on these issues. CSR was successfully implemented in a programmatic fashion despite the loose coupling of the system and the current unstable education environment. This does not invalidate Berman’s perspective, but instead shows the importance of the other factors in his
framework. CSR was an incremental change in the process of education, had certain (and relatively simple) technology and low conflict, and it was combined with a large financial incentive, which as discussed by other authors is a crucial factor. Moreover, some of the problems with implementation, including higher costs, are blamed on the lack of flexibility at the local level. The absence of flexibility for adaptation is one of the main criticisms of CSR implementation in California (Bohrnstedt & Stecher 1999).

Several simple lessons for those implementing CSR can be drawn from the implementation literature. First, all reform is difficult and the simplicity of the policy and the uniform support from parents and through all levels of the education system give CSR a distinct advantage. Second, adequate resources are important to implementation. This research will add valuable information on the resources needed for implementation and how the level of resources needed will vary between implementing schools. However, the total cost of implementation is not the amount that states and the federal government need to allocate to induce implementation. Districts could be persuaded to implement CSR using some type of matching grant.

Finally, implementation of education reform that has strong fidelity to the intentions of policymakers at higher levels of the system is rare. California’s CSR implementation is an exception to this lesson in terms of speed and level of implementation. This factor is important when comparing CSR with other reforms. Its simplicity may be an important factor in preventing the co-option of the reform at the local level that is seen with other education reforms.

**EDUCATION FINANCE: A KEY ARENA**

Financial resources are key ingredients in successful reform implementation. Through resource allocation, policymakers facilitate the reforms by allowing the purchase of necessary inputs and by signaling the importance of a reform to school-level implementers (Bodilly, 1998). Each of the three top levels of the system, federal, state and district, contribute resources that are used in lower levels. Policymakers at each level of the system can direct the use of resources through several different mechanisms. First, the agency providing the resources can restrict the use of resources to a particular activity. A categorical grant and contracts are examples of mechanisms that provide resources for limited activities. Second, the agency providing the resources can use them as an incentive to direct resource use by lower agencies, leveraging the control of resources at higher levels (Monk, 1990). CSR policies often take the form of financial resources either limited to CSR use or as incentives for use of additional resources for CSR. The fiscal environment of the education system is the context in which CSR policy making is occurring. Understanding this context is key to understanding how CSR cost estimates are to be used.

The school finance system can be seen as undergoing two divergent trends that fundamentally change the system of elementary and secondary education funding. These
changes are the centralization of sources of funding and the decentralization of authority to make allocation decisions. The centralization represents the movement of funding responsibility from local school districts to the more centralized institutions of state and federal governments. This change in the source of education revenue is captured in Figure 2.1, which shows the sources of K–12 education funding since 1920.

Since the late 1970s, more than half of elementary and secondary education funding has come from the state or federal government. The federal share peaked in the late 1970s and has dropped to a steady 6%–7% of total expenditures for the last 19 years, while the state share has hovered between 47% and 50% over the same period.

The decentralization of allocation decisions can be seen in four systematic reform movements that work to change the relationship between schools and the other components of the system: school-based management (SBM), charter schools, contract schools, and vouchers. Each of these school reform movements seeks to move some of the authority and responsibility for resource allocation decisions from school districts to schools and parents. Each increases the flexibility that school-level managers have in making decisions about what money is spent on at the school level. Each derives at least some of its rationality from the value of shaping schools to meet the needs and desires of
students and parents. By organizing themselves to meet these individual needs and desires, these schools are expected to better fulfill society’s educational needs (Odden & Picus, 1992).

SBM places authority for allocation decisions at the school level; parents may have the opportunity to participate in these decisions through school-level decision-making boards. Charter schools go one step beyond SBM by attempting to reduce the influence of local regulations and increase the influence of parents on schools’ decision making. Contract schools and voucher systems privatize the provision of educational services and give the providers final say over school-level allocation decisions. SBM, charter schools, and contract schools can easily be operated within a choice system where parents are allowed to signal their support for schools through choosing which school their children attend. Choice systems increase the say parents have in school-level decisions by allowing parents to vote their support for allocation decisions seen at schools by sending their children to the schools that make allocation (and other management) decisions they prefer.

Class size reduction can clearly be seen as part of the centralization of education. Funding for class size reduction flows from federal and state governments for school-level CSR implementation. This leaves relatively little room for local-level allocation decisions, since CSR policy decisions are typically made at the state and federal level.

Centralization of Education Funding—At the State Level

“No one ever thought it was the state’s responsibility to educate. We thought it was the parents’ and the local communities. We’re worried about losing local control.”

Donna Styek, New Hampshire House Speaker, 19989

Different forces at the state and federal levels have driven centralization of funding. The two drivers at the state level are tax revolts and demands within the court system for equalization and adequacy in funding across the states. At the federal level, increased educational funding has come in the form of reforms that focus on educational opportunities for disadvantaged populations.

The demands for equalization in funding have been highlighted by court cases that began with the *Serrano v Priest* decision in California in 1972. The U.S. Supreme Court decision in *San Antonio Independent School District v. Rodriguez* (1973) ruled that equality in education funding was not a federal responsibility, which moved the battle over funding equality to state courthouses. By 1998 there had been at least 60 lawsuits in 41 states over education funding equality. These claims moved to state Supreme Courts in 36 states. In 20 out of the 36 cases, the state Supreme Courts ruled against the existing

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state school funding system (Heise, 1998, Reed, 1998). While each state’s reaction to school finance litigation was different, court-driven reforms in state school finance systems generally led to increases in state funding for education and increases in the equality in total per-pupil expenditures. The general method used to increase funding equality was to increase state contributions to low-spending districts while holding constant state contributions to high-spending districts. Some states pursued education finance reform without court pressure. However, Evens et al. (1997) argued that state financing reforms in the absence of court pressure were associated with little decrease in inequality and much of that decrease could have been due to increased local revenue raising in low-spending districts.

More recently, state school finance litigation has switched from calling for increased equity to focusing on adequate funding for all students. Heise (1998) argues that this switch is due to disappointment in the level of centralization and increased equality in funding that was produced by equity-based law suits. This also represents a shift from focusing on inputs to the process of education to a focus on outputs of the education system (Odden, 1998, Guthrie & Rothstein, 1998).

A problem with the adequacy argument is the extreme difficulty in defining “adequate.” Defining adequate first requires defining expected educational outputs and then determining the necessary inputs to reach this outcome. Three methods have surfaced in determining the necessary inputs: (1) statistical analysis using structural equations, (2) inference through empirical observations of adequately performing schools, and (3) professional judgement (Guthrie & Rothstein, 1998). Each methodology has significant flaws, but the real problem is that the link between financial inputs and educational outcomes is very weak and mediated by a multiplicity of variables, such as student backgrounds and community standards, that are beyond the reach of policy tools. This weak link is one source of the continuing debate on why money matters in education at all. The results of this research will provide information on the inputs necessary for smaller classes. It does not address the question of the educational outcomes of smaller classes.

It should be noted that the drive for equalized funding at the state level has not led to equalized funding on the interstate level. In fact, since the 1970s inequality within states has decreased while inequality among states has increased or at least remains high on several different measures (Parrish, 1996, Picus, 1993, Evens, et al. 1997).

Property tax revolts have also been an important factor in the centralization to the state level of educational funding. The tax revolt began in 1978 with the passage of Proposition 13 in California, with its most recent manifestation in Michigan (1993). The California State House responded to Proposition 13 by shifting the responsibility for school funding from the local jurisdictions to the state level. In Michigan, the property tax revolt manifested itself in the passage of a bill at the state level eliminating all property taxes. Early in the following year, Michigan voters chose between two mixes of new taxes to support schools. Voters selected the plan with higher sales taxes and lower income taxes.
Increased centralization of funding reduces local control of revenues and can lead to loss of local policy control. Heise (1998) argued that increased centralization was the goal of litigants because they believed that centralization would reduce inequality. At the state level, school spending is in direct competition with other discretionary programs. Increased centralization may actually lead to decreases in overall state aid to education (Figlio & Rueben, 1998, Figlio, 1996). California voters passed Proposition 98 in an effort to protect education’s share of state discretionary funding. Proposition 98 mandated the funding increases that were used by Governor Wilson to fund CSR in California. CSR was a way for the Republican governor to meet the mandate without allowing for the teacher salary increases that would have been facilitated by a general increase in education funding. Increased centralization may also lead to more volatility in education funding because statewide sources of revenue, sales and income taxes, are generally more volatile than local property taxes (Heise, 1998, Courant & Loeb, 1997, Theobald & Picus, 1991).

The general theory behind loss of local policy control is captured in the phrase “He who pays the piper calls the tune.” Local control manifests itself in control over such items as curriculum, expenditures, personnel practices, and pay. While the theoretical support for loss of local control with state funding has great face validity, early studies found few relationships between state education expenditures and state control (Pincus, 1974). More recently, state-level case studies have been used to show loss of local control. Heise (1998) offers two examples of states that have extreme centralization. Hawaii has always funded education using state revenue. The power of the purse has given the state general assembly “enormous control over education policy and governance matters” (Heise, 1998, pp. 561). Centralization of financial control in California was finalized with the passage of Proposition 13 in 1978 (Kirst, et al., 1995, Picus, 1991). Centralization of policy control has also occurred. A bill passed in 1982–1983, SB 813, was the first instance where increases in state funding were directly tied to reform by districts (Picus, 1991). By 1986 local school boards operated under the supervision of over 3,500 state statutes and 800 State Board of Education regulations (Guthrie & Kirst et al., 1988).

**Education Funding by the Federal Government**

State roles in education derive from their primacy over local jurisdictions; many state constitutions require states to provide education for their citizens. Federal legitimacy is more tenuous in that the 10th amendment appears to relegate responsibility for education to states.

Federal funding and regulation of education have focused on boosting assistance and services offered to populations with special education needs that were likely to receive
insufficient help from the regular school systems. These populations include handicapped students, low-income students, and immigrants’ children. While these programs have clearly highlighted the needs of children in these specific groups, they have been of doubtful efficacy. They can be seen as fragmenting schools and school districts into programs that are delivered to different groups of children. The 1994 ESEA reforms allowing schoolwide projects may be reducing fragmentation (Levitan & Gallo, 1993, Hill, 1999) These federal programs reflect broader societal goals that are not likely to be incorporated in local decision making.

Local control is clearly important if schools and communities need to modify education programs to meet the specific needs of local students. Hill (1999) has also argued that loss of control over local programs reduces the organizational capacity of schools and districts to provide the services students need. The key question is not all or nothing, but rather the correct balance within the educational system of local control and central control. This balance must meet taxpayer demands and societal concerns, and produce an education system that is able to educate students in an equitable and efficient manner.

Because of the centralization of funding for education programs, state and federal policymakers are an important target audience for this research on cost of CSR. This cost information is intended for use in designing implementation plans. Information on district-level characteristics will allow policymakers to craft funding schemes that will limit differences between costs and reimbursements. This will limit the windfalls to districts where reducing classes is relatively easy and increase funding for districts with conditions that make CSR more difficult. The analysis will also allow policymakers to understand the burdens placed on schools and districts if they choose to incompletely fund CSR. With an understanding that more complete levels of funding facilitate implementation, policymakers can then set realistic expectations for implementation.

If states and the federal governments have an increased role over educational programs at the local level, as reflected in the example of CSR, then state and federal policymakers should expect to be held more accountable for educational outcomes. Each programmatic directive from higher levels in the educational system can be seen as reducing the ability that local- and school-level implementers have to control the services they provide. With less control over programs, it is difficult to hold local education officials’ responsible for program outcomes.

DECENTRALIZATION OF POLICY DECISIONS
While sources of funding have been recently centralized to states, there have been multiple reform movements that seek to decentralize allocation decisions to the school level, and to involve not just principals, but teachers and parents in those decisions. These movements are (listed from most district control to the least district control): school-based management, charter schools, contracts, and vouchers.
The early forms of the increasing parental involvement in school-level decisions can be seen in the 1965 ESEA where parent-run councils were given veto power over school-level plans for the use of federal funds (Levitan & Gallo, 1993). The inclusion of teachers in school-level decision making gained support from the effective schools research in the late 1970s and early 1980s. This body of research generally found that teacher participation in school-level decisions was a key ingredient to effective schools (Purkey & Smith, 1983). By the middle of the 1980s, open school decision making, i.e., decision making by groups of stakeholders, had become a conventional way of viewing school management. This open decision making can be part of school-based management (SBM), which was termed the second wave of education reform (Odden & Picus, 1992).

There are three general reasons for increasing control over allocation decisions at the local level. First, it gives schools flexibility to craft their educational program to meet the needs of children in the school (Heise, 1998, Clark & Toenjes, 1996, GAO, 1994, Hill & Bonan, 1991). It is assumed that the flexibility will be used to increase the school-level focus on children and decrease the focus on programs. A second reason is the finding in effective schools literature that teacher participation in school-level decision making and reforms increased their participation in reform and the likelihood of success (Purkey & Smith, 1983). A final reason for increasing the school-level participation in decision making is distrust of the district- and state-level decisions to serve the educational needs of students (Hill, Pierce & Guthrie, 1997, Chubb & Moe, 1990).

Those who support school-level decision making because of distrust are extremely critical of the current education system. Their stated intention is to use school-level decision making to reduce the power over schools and programs that districts, states, and the federal government currently exercise (Hill, Pierce & Guthrie, 1997, Chubb & Moe, 1990). Malen (1994) has an interesting counterpoint to this perspective. She argues that SBM can actually be used to bolster school districts’ legitimacy and ability to manage conflict. SBM does this by diffusing conflict from the district to the school level and by appearing to be responsive, democratic and innovative. From this perspective, efforts to redistribute power from districts’ central offices may actually result in renewed legitimacy for the central office, which is opposite to the goals of those who distrust state and district authorities.

A key element to the success of all of these decentralization efforts is creating a structure that allows the identification of high and low quality in school performance (Hill, Pierce & Guthrie, 1997, Robertson, Morhman & Wohlstetter, 1995, Hill & Bonan, 1991, Chubb & Moe, 1990). Two general mechanisms are used to identify high-quality schools. First, a performance measurement system can be used that specifies a set of performance areas that schools are to be measured on and specifies the measuring tools, i.e., test scores, dropout rates, etc. Second, through choice mechanisms parents are allowed to choose which schools their children attend and in essence vote through attendance. These two methods are not mutually exclusive and can be used together as part of a quality-identification system.
There is little agreement on how high-performing schools should be rewarded and how low-performing schools should be aided or sanctioned. More importantly, school districts and states have a hard time sustaining performance measurement systems or effective choice systems. This calls into doubt the effectiveness of this general line of reform. For example, Herrington (1996) found that over a 20-year period the State of Florida was able to create active testing and management information systems but was unable to complete the research and development necessary to hold schools accountable. The Florida system deregulated schools and districts and mandated school-level decision making, but was unable to do the work necessary to evaluate schools. However, a recent examination of state-level accountability efforts in Texas and North Carolina argued that these systems contributed to improvements in student performance (Grissmer & Flanagan, 1999).

SBM is loosely defined as a system that promotes “greater school-site autonomy over some combination of budget, personnel, and program decisions” (Odden & Picus, 1992). The role of parents and teachers can vary from none to active membership in school-level decision councils.

The literature suggests that schools will be more effective at allocation of resources than districts. Odden (1992) argues that “school-based finance systems” can make better resource allocation decisions than the central office in terms of meeting the schools’ and the students’ needs. Wohlstetter and Buffett (1992) argue that SBM, in theory, should provide “greater efficiency in allocating resources.” Miles and Darling-Hammond (1997) argue that when schools are allowed to rethink their resource allocation they can allocate their resources in more effective ways than the central office. Despite these theoretical arguments, there has been little evidence of the effectiveness of SBM in improving student performance. A limited set of case studies has shown that a SBM district was less effective at providing teacher time for school-based reform (Purnell & Reichardt, 1999). Hanushek et al. (1994) observe that very few SBM implementation plans include improving student performance as a goal, with some instead using the less specific goal of “school improvement.”

Charter schools work to reduce district and state control over school operations and increase school-level control by operating outside of most current regulations and contract rules. These schools are often operated under some sort of performance contract system that specifies the outcomes these schools are to accomplish in exchange for being free of the current regulatory systems. There has been tremendous growth in the number of charter schools, with the number increasing from 700 to over 3000 between 1992 and 1999 (Aug 29, 1991, L.A. Times). There is limited information on the success of charter schools (Rothstein, 1998).

Chubb & Moe (1990), and to a lesser extent Hill, Pierce & Guthrie (1997), argue that the organizational structure of the education system prevents effective management. They take the argument made above that centrally directed reform is difficult one step further. They argue that it is impossible because political support for the status quo is too strong
to overcome. Hill, Pierce & Guthrie (1997) argue for redefining the roles of actors in the current system to create a contract school system. In this system parents would have school choice and the role of the school board is to manage school contracts. This reform moves control over the use of funds from the current institutions into the hands of school contractors. School boards would still have policy control over school operations through the contracting process. Thus school districts would have a modified fiscal management role and would have wide discretion over setting policy.

Chubb & Moe (1990), and Hill, Pierce & Guthrie (1997) express doubts about the ability of the existing system to reform itself. They characterize it as rule bound, bureaucratic and process driven. Instead of working within the existing system, Chubb and Moe argue for a voucher system that moves much of the policy making authority to the school level. Under the system advocated by Chubb & Moe, as well as other voucher supporters, parents with vouchers decide on the amount of funding allocated to a school through enrolling their children in a school. Schools are then given wide discretion over how this funding is spent. The districts’ role is to support school choice and potentially provide services in response to school-level requests. Voucher systems result in decentralizing control over sources and uses of school resources and are a relatively extreme example of school reforms that decentralize school finances.

All of these decentralization reform movements seek to decrease the control districts and states have over school-level operations and increase the role and responsibility of schools in implementing school-level programs. These reform movements may lessen the ability of states and the federal government to impose reforms like CSR. They increase the need for understanding both the pecuniary and non-pecuniary school-level costs of CSR. School-level budgets have less flexibility than district-level budgets simply because they are smaller. When districts are asked to implement reforms across several schools, they are able to balance the demand for resources across schools and lessen the impact of high costs on any single school. If schools are to be the units responsible for implementing reforms, they will have less financial cushion.

Finally, if authority for programs moves to the school level, while responsibility for funding these programs moves to the state level, who is responsible for school-level outcomes?

CONCLUSIONS

“The issue is how the finance system that is focused on inputs can be reconstructed to reinforce and education policy agenda that is focusing on results and outcomes, largely produced at the school.”

Odden & Clune, 1995

The education system in the United States is a complex and dynamic system. There are at least four institutional levels that participate in the formulation and implementation of
educational policy. Each level is relatively independent, so when policies are formulated at the upper levels of the system, it makes implementation at the school level very difficult. The school finance system is changing, moving the responsibility for providing for education to higher levels in the system. At the same time many reform movements are arguing for moving the power over resource allocation to the school level.

In this setting, understanding the costs of CSR is important for several reasons. First, it is an important ingredient in facilitating implementation of the reform. Adequate funding for reforms is vital to successful implementation. States need to understand how costs vary across schools and how to allocate adequate resources to districts to fund the reform. As responsibility for resource use decisions moves to the school level where there are arguably few slack resources, schools must be completely reimbursed for CSR if they are expected to be able to implement the reform. Alternatively, if states are unable to fully fund the program, then they can set realistic implementation expectations based on the incentives provided by their funding level.

Understanding the costs of CSR is also important for the efficient use of resources. Understanding the school-level factors that affect the costs of implementation will allow districts and states to completely fund CSR without creating windfalls.

There is a tension between the centralization of funding sources and the decentralization of allocation power. It raises the age-old question within the federalist system of balancing control to maintain group mores, allow individual preferences, and create an efficient, effective system (Monk, 1990). With these fundamental changes in the education system, one can consider the appropriate role for each player. Rivlin (1992) raised this question in the early 1990s for all the duties currently under state and federal jurisdiction. She argues for a cleaner distinction between state and federal roles. She suggested that the federal government reduce its policy role in most domestic issues, except to provide adequate and steady funding for maintaining the social insurance systems and to address interstate issues such as pollution. She explicitly singles out education as a state role based on the need to adapt education reforms to local conditions. She recommends that the federal policy making bodies turn most of their focus to international issues, which she expected to become more complex. Rivlin believes this distinction between roles will reduce voter confusion about who is responsible for what public functions and energize the economy.

The California LAO addressed the issue of appropriate roles for education in its Education Master Plan (Hill, Elizabeth 1999). Here, as in Rivlin’s recommendations, the higher levels of government were expected to reduce their policy roles, while continuing to provide adequate, steady resources. The LAO also envisioned the policy role for the state as setting expectation parameters for the performance of schools and districts and creating an accountability system for meeting these expectations.

When roles and responsibilities are specified, the responsibilities facing education policymakers at each level change from a general to specific. The functions that
policymakers are responsible for should be directly related to the functions those policymakers can affect. Despite the successes of CSR implementation in California, there is little reason to believe that policymakers at the state and federal level can easily, or quickly, direct change at the school level. Thus the responsibilities for those at the upper levels should not be school-level education program management. Instead the role of upper levels should be used to reflect societal norms and create a structure that clearly outlines performance expectations for the rest of the system.

While trends in education finance appear to be moving in opposite directions, we may actually be moving toward a type of “loose-tight coupling” (Boyd & Hartman, 1998). In this system the upper levels of the education system set expectations for the performance of the lower levels and play a role in the funding of the system. The lower levels are then held accountable for meeting those goals. This is similar to the ideas espoused by Osborne & Gaebler (1992), with the states’ role including standard setting and information gathering. This information is used to measure local performance and hold localities accountable.

The system can be seen as evolving from one that focuses on control to one that sets expectations for and measures outcomes. Schick argues the purposes of budgeting systems are control, management, and planning. Control functions relate to the legal execution of budget allocations and are associated with line item budgets. Management systems focus on the efficient operation of programs and are associated with program budgeting systems. Planning systems focus on the outcomes of policy systems and are associated with the planning programming budget systems (PPS) that were implemented in the early 1970s. While every budgeting system accomplishes elements of control, management, and planning, they can accomplish only one aspect well (Schick, 1980). In our multi-level education system, it is possible that one level should focus on management while another, higher level, focuses on planning. The higher levels direct their resources and structure their internal systems with a focus on program outcomes, while the lower levels focus on program efficiencies.

How does CSR fit into this vision of the education system? CSR policies can be seen as a step in setting expectations for the management of schools and providing some funding for meeting those goals by higher levels in the system. As discussed in the first chapter, class size is not clearly linked to student performance and thus is not the optimal parameter to be specified in a performance management context. But it could be considered an important process variable to measure in discussing equity across schools, and as a process variable is an improvement over simply measuring inputs. Specifying class size could be an intermediate step in an education system that does not currently have many effective systems for measuring outcomes. If those measurement systems come into place, and are effectively used (Herrington, 1996), limits on class size may no longer be important. But until that system comes into place, CSR policies may be one of the more effective tools states have for monitoring and changing school performance in a way that is, at least loosely, linked to student outcomes.