INTRODUCTION

Class size reduction (CSR) is a simple, easy to communicate school reform policy that is popular with parents, teachers and principals. A 1999 NPR/Kaiser Family Foundation/Kennedy School of Government\(^1\) poll found that class size reduction was one of the reforms that three-quarters of Americans were willing to raise their taxes by $200 to implement. An earlier statewide survey in California found that among parents of third graders, those with children in smaller classes were more satisfied with nine out of ten different aspects of the education program. Among California elementary superintendents and principals, a majority believed CSR had contributed to other reform efforts by boosting teacher enthusiasm and by bringing in teachers with new ideas that enhanced reform efforts. Teacher unions often support class size reduction. In the years before California’s CSR program, teacher unions were vocal in their support of smaller class sizes (Bohrnstedt & Stecher, 1999).

This broad enthusiasm makes CSR a relatively easy program for state and federal politicians to support. Parents understand what occurs when the reform is enacted and can verify that something has actually changed in their children’s educational process. The Education Commission of the States (ECS) reports CSR efforts in at least 20 states taking a wide variety of forms. Table 1.1 summarizes the reforms by class size goal.

<table>
<thead>
<tr>
<th>Class Size Goal</th>
<th>States</th>
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<tbody>
<tr>
<td>Unspecified</td>
<td>UT, VA, WI, IL</td>
</tr>
<tr>
<td>Greater than 20</td>
<td>NC, SC</td>
</tr>
<tr>
<td>20</td>
<td>CA, FL, IN, LA, OK, TX, MD</td>
</tr>
<tr>
<td>18</td>
<td>AL, ME, IA</td>
</tr>
<tr>
<td>17</td>
<td>TN</td>
</tr>
<tr>
<td>15</td>
<td>SC, NV, RI</td>
</tr>
</tbody>
</table>

Source: ECS (1999)

CSR was rapidly implemented in California during the summer of 1996 with positive results in student performance. In three years the average K–3 class size for students went from over 29 to just under 20. The evaluation of CSR found students in reduced classrooms consistently had higher performance on standardized tests (Bohrnstedt & Stecher 1999, Stecher & Bohrnstedt 2000).

\(^1\) See http://www.npr.org/programs/specials/poll/education/education/front/html
Yet there were also several key problems with how CSR was implemented in California. First, the state reimbursed schools a flat amount per student sitting in a reduced classroom regardless of the actual cost of CSR in that school or district. Districts with an average class size of 20, where the cost of CSR was practically zero, received the same reimbursement as districts where the average class size was 30 and the cost of CSR was very high. The end result was that CSR was a financial boon for some districts and a financial bust for others (Hill, 1997). A second problem regarded the distribution of qualified teachers. As predicted by several analysts (Bohrnstedt & Parrish 1998, Ross 1999), CSR is associated with a significant decline in teacher qualifications and with larger decreases in teachers in schools that serve high proportions of low-income or minority students.

This dissertation provides state-level policymakers with the information to avoid some of the problems seen in California’s CSR implementation. The analysis includes a simulation of CSR in seven Florida school districts and analysis of changes in the teacher workforce during CSR implementation in California. Florida school districts are used for the simulation because of the quality of available data. California data is used to analyze the effects on the teacher workforce because California’s program is currently the largest and most extensive CSR program.

This work begins with two chapters that place CSR policies in a context of a changing system for funding and allocating resources for K–12 education. Chapter 1 reviews existing knowledge on the effects of CSR. This is followed by a discussion of reform implementation in the education system and changes in the way education is financed (Chapter 2).

Chapter 3 uses a simulation of CSR implementation in Florida to provide information on the cost of CSR and how policy decisions affect that cost. This chapter will help policymakers understand how much CSR will cost in relation to three important policy decisions:

- What is the class size goal,
- How class size is measured, and
- How many students are affected by the policy?

The cost of CSR is estimated in Florida, but the relationships between policy, enrollment, existing class size, and cost are applicable to any state. The costs of various policy choices concerning facilities used for and staffing of reduced classrooms are evaluated. Regression analysis is used to produce four simple “rules of thumb” that describe how policy decisions affects costs in schools with different existing class sizes and enrollments.

Chapter 4 examines which strategies work best to reimburse the cost of CSR to either districts or schools using information from the Florida school districts. The chapter provides information to help policymakers decide how to calculate reimbursements to districts or schools for CSR, given the availability and quality of information to make the estimates. The key questions addressed are:

- What price should be used for classrooms, the sample-wide average prices or district average prices, and
• At what level should the additional number of classrooms required for CSR be calculated, the state (sample in this example), district, or school level?

The effectiveness of four strategies is compared in their ability to estimate the total cost of CSR and costs at the district and school level. Information on funding schools directly is provided in anticipation of state funding flowing directly to schools as advocated in several different reform efforts (Fowler, 1998).

Finally, Chapter 5 describes the changes in teacher qualifications that occurred during CSR implementation in California. The analysis in this chapter addresses three questions:
• Did CSR cause a decline in teacher qualifications,
• Was the decline equal across all schools or concentrated in schools with more minority or poor students, and
• What was the movement of teachers that caused the changes in teacher qualifications?

Knowledge of this flow facilitates the crafting of CSR policies to reduce the inequalities seen in California.

The results of the three analysis chapters are discussed in Chapter 6. Armed with the information produced in these three different analyses, policymakers are equipped to avoid the problems seen in California, or at least reduce their severity.