

Chapter 4

Methodology

The school district constituted the primary unit of analysis for this evaluation, as suggested by the operative research questions (see Chapter 1). Researchers also focused some attention on the state and school levels, primarily through interviews. A mix of quantitative and qualitative methods were employed. To gather quantitative data, researchers administered an extensive survey about accountability systems to 200 California school districts and analyzed CDE reviews of the accountability plans of these same districts submitted as part of their Consolidated Applications. On the qualitative side, evaluators conducted interviews at state, district, and school levels and reviewed documents such as district accountability plans and content standards for selected districts. Each data source is described in depth below.

The study was designed around a common core of topic areas derived from the project's major evaluation questions and the research-based conceptual framework. Thus, the survey, interview protocols, and accountability plan review instruments were built around the same topics, so that the data they yielded could be triangulated to confirm and enrich the findings. Each of the data sources yielded different information and, of course, were not completely redundant. All, however, addressed the important ideas embodied in the conceptual framework, the research questions, or both.

District Survey

The district survey was the primary source of data for this evaluation. Two hundred California school districts were surveyed about their accountability components and practices. The research staff sent out the questionnaires used in this survey in March of 1999.

Selection of Districts. As Figure 4.1 shows, the sample of 200 districts was stratified by size and included

- the state's 120 largest districts (containing 63.3 percent of students in the state)
- 50 "medium-size" districts, selected randomly from among districts of that size (containing 33.9 percent of students in the state)
- 30 "small" districts, also selected randomly from the pool of similarly-sized districts (containing 2.8 percent of students in the state)

Figure 4.1
Sample for District Survey

Size of District	District Enrollment Range	Total Student Enrollment Within Range	Total Number of Districts	Number of Districts Selected	How Selected
Large	11,648–680,430	3,586,975 (63.3%)	120	120	all
Medium	1,078–11,636	1,919,200 (33.9%)	434	50	random sample
Small	5–1075	157,864 (2.8%)	434	30	random sample
Total	5–680,430	5,664,039 (100%)	988	200	

The group of 200 districts is about 20 percent of the number of school districts in the state. The sample was a probabilistic sample with different probabilities in each of the three strata: the 120 large districts were selected with certainty, the medium-sized districts were selected with a probability of 50/434, and the small district sample was selected with a probability of 30/434. The selection procedure yielded a sample consisting of 115 unified districts, 62 elementary school districts, and 23 high school districts.

Questionnaire Development. The accountability questionnaire was developed in order to answer the research questions posed at the beginning of the study and to investigate local standards-based accountability systems using the parameters of the conceptual framework (see Chapter 3). The questionnaire was composed of mainly discrete-answer questions with a few open-ended response items. It underwent numerous rounds of revision based on feedback from project staff, Advisory Group members, and CDE staff.

Questionnaire Composition. The items on the questionnaire were divided into the following topic areas: local accountability system features, content standards, student assessment measures, analysis and use of data, review of school performance, and helps and hindrances. The complete questionnaire is included in the Appendix.

Who Completed the Questionnaire. For logistical reasons, the questionnaires were sent to the individual in each selected district whose name appeared on the first page of the 1998–99 Consolidated Application for Funding Categorical Aid Programs, rather than the individual who completed the District Assessment and Accountability System Description part of the form (Part II, page 33). In order to maximize the likelihood that the appropriate district staff received the questionnaire, researchers included in the cover letter a request for recipients to forward the questionnaire to the person or people most familiar with accountability in the district or to share the completion of the questionnaire with others. Although there is some evidence that not all recipients did so, most questionnaires appear to have been properly

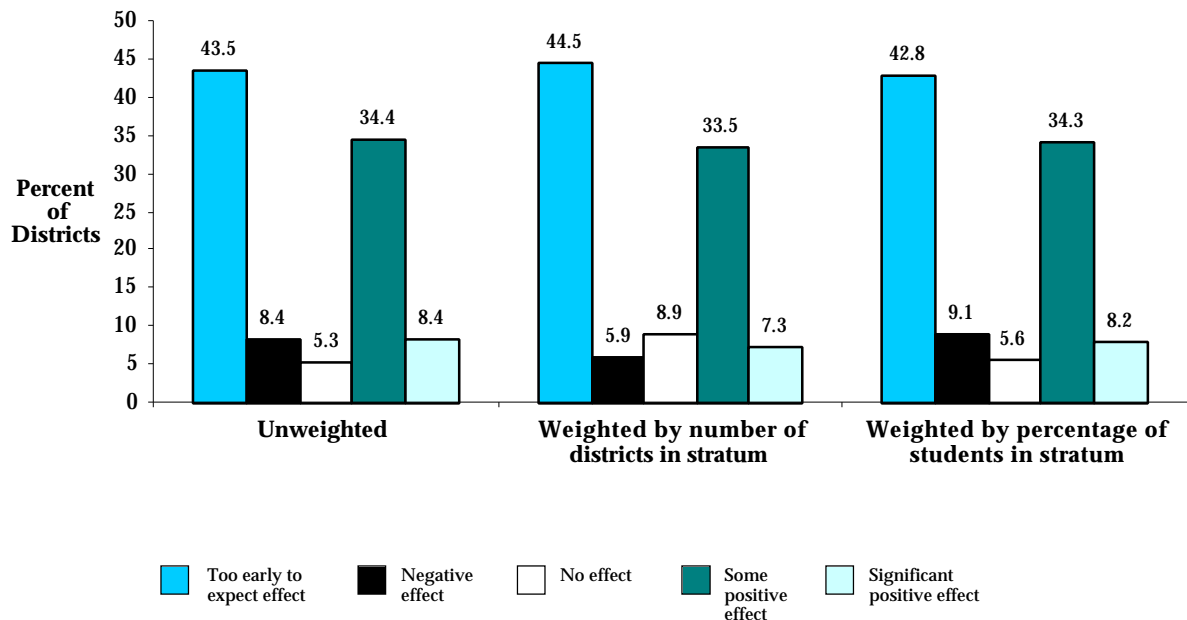
filled out by an appropriate district-level official (that is, by staff having responsibility for district accountability).

Response Rate. Questionnaires were received back from 136 districts. However, 3 of these questionnaires arrived too late to be included in the analysis, translating to a practical response rate of 66.5 percent (133 out of 200). The response rate did vary somewhat by size of district: for the large districts, 85 out of 120 districts returned the questionnaire (71%); 36 out of the 50 medium-sized districts returned the questionnaire (72%); but, in the small district stratum, 12 out of 30 questionnaires were returned, for a response rate of 40 percent.

The high response rate does allow generalizability of the results to districts throughout the state. In addition to the primary analysis using unweighted survey data, analysis was repeated using two different sets of weights. In the first instance, the data were weighted to represent districts in each stratum by dividing the total number of districts by the number of respondents (e.g., 120/85 for large). In the second instance, the data were weighted to represent students by dividing the percent of California students in the stratum by the number of respondents (e.g., 63.3/85 for large). As exemplified by Figure 4.2, all three analyses yielded similar results for most items on the questionnaire. In general, variations were quite minor.

Figure 4.2

**Illustrative Comparison of Three Weighting Schemes
District Opinion About the Effects of Accountability on Standardized Test Scores**



State Interviews

In order to gain an understanding of the state's perspective on school district accountability, interviews were conducted with eight top-level policymakers, including legislators, legislative staff, and officials from the Governor's Office and the State Board of Education. In addition, information was obtained from five high-level "policy implementers" at the California Department of Education (CDE). Interviews took place early in 1999.

Selection of Interviewees. Suggestions about who to interview at the state level were solicited from contacts at the California Department of Education. Members of the research team used their own knowledge and expertise to identify additional potential interviewees.

Subject of the Interviews. Different interview protocols were used for the policymakers and the policy implementers. For the policymakers, questions focused on the overall purposes and drivers for accountability systems, the role of the state, appropriate state interventions, likely impediments, and relationship with other state policies. For the implementers, questions were about interaction between CDE and local districts, the influence of federal and state categorical programs, roles and responsibilities, early impact, best practices, and helps and hindrances. Both protocols are included in the Appendix.

District Interviews

Members of the research team visited seven school districts during the spring of 1999. In each district, one to three district-level personnel were interviewed about their local accountability system. Additional dialogue with personnel from small, rural districts occurred at the annual conference of small districts in March 1999.

Selection of Districts. The seven districts visited were selected based on a variety of criteria including:

- size (five districts were large urban districts; the sixth had an enrollment of between 10,000 and 15,000 students; and the seventh had fewer than 2000 students);
- geographical diversity;
- questionnaire completion (only districts that had returned questionnaires were visited); and
- CDE evaluation of the district accountability plan (see below); one district with strong adherence to CDE guidelines and one district with weak adherence to CDE guidelines were visited.

Selection of Interviewees. For the identification of district interviewees, project staff started with the name provided on the final page of each district's completed accountability questionnaire. In some districts, this was the only person interviewed. In other districts, an additional one or two people were interviewed, either as recommended by the person who completed the questionnaire or based on the personal knowledge of research team members about appropriate people to interview in given districts. The interviewees were district officials such as directors of research and evaluation and assistant superintendents.

Subject of the Interviews. Research team members asked district officials questions about accountability in general, standards, timelines, the roles of various actors in the accountability system, the use of data, challenges faced, successful practices, sources of assistance, and the new state accountability system (then being initiated). The district interview protocol is included in the Appendix.

School-Level Interviews

Research team members were able to leverage their visits to schools for another CDE-sponsored study, the Mathematics Implementation Study, to benefit the accountability evaluation. As part of the math study (scheduled to run through March 2000), trained mathematics observers interviewed and visited the classrooms of more than 50 teachers in eight California school districts throughout the state during the spring of 1999. In each district, researchers visited approximately six to eight teachers; half were fourth-grade teachers and half were eighth-grade teachers. The principals at most of the schools also were interviewed.

Selection of Districts. School visits occurred in eight districts participating in the Mathematics Implementation Study. These districts were not the same as those visited for the Accountability Study, although there was some overlap. Factors of size, geographical diversity, and minimization of travel costs figured heavily into the selection of the districts. Notably, all of the districts were relatively large and urban, due to sampling requirements for the design of the Mathematics Implementation Study.

Selection of Schools/Teachers. For the Mathematics Implementation Study, a questionnaire was administered to 800 mathematics teachers in 11 districts.¹ Visits were made only to schools from which at least two teachers had returned their questionnaires. In districts where multiple schools fit this description, schools were selected at random, provided that the mathematics classes of the teachers who had returned the questionnaire met certain basic

¹ This was a different questionnaire than the one received by districts about their accountability systems. The results of the survey of mathematics teachers are not yet available but for the most part have little direct bearing on accountability.

criteria (e.g., composed of at least 50 percent 4th grade or 8th grade students). The schools that were selected were then contacted with the request for a visit; schools that declined were replaced with other candidates. In most schools that were visited, research staff interviewed two mathematics teachers (both of whom had returned their mathematics questionnaire) and the school principal.

Subject of the Interviews. Although the interviews and classroom observations centered on matters primarily related to mathematics instruction, resources, and professional development, they also touched on accountability, standards, and assessment. Different protocols were used for principals and for teachers. Each protocol included one question explicitly about accountability, and accountability sometimes came up in other contexts as well during interviews. Both protocols are included in the appendix. Relevant findings from the school-level interviews are included throughout this report.

Analysis of Selected Districts' Content Standards

The English/language arts and mathematics standards of five districts were reviewed in comparison to the standards adopted by the California State Board of Education in 1997. This analysis was undertaken in the summer of 1999.

Selection of Districts. Districts whose standards were reviewed included districts visited either for this study or for the Mathematics Implementation Study. Although it would have been preferable to look at more than five sets of standards, several districts reported that their latest standards were “being printed” or were “not yet available” at the time the request was made (summer 1999).

Nature of the Review. Each district's English/language arts and mathematics standards were compared to the State Board Adopted Standards. Grades 3, 4, 7, and 8 were the focuses of the analysis, which consisted of two major components. First, the organization of the standards was considered. Second, the standards were compared according to the state's definition of rigor — breadth, depth, pace of learning, and levels of performance. The results of this review are presented in Chapter 6, “Content Standards.”

CDE Review of 190 District Accountability Plans

Independent of this accountability evaluation, during January of 1999, CDE recruited a cadre of people to review the accountability plans of all districts in the state that submitted them. Nearly 900 districts of the approximately 1000 in the state submitted accountability plans to CDE. CDE created a rubric to be used in the review of the plans.

Selection of Districts. The research team obtained the completed reviews for 190 of the 200 districts in the study’s survey sample. Reviews of the other 10 districts were not available because CDE had not received accountability plans from these districts. 126 of the 190 districts had returned the evaluation study’s questionnaire.

CDE Review Forms. Two forms were used by CDE in their review. The first form, the Local Accountability Plan Comment Summary, was developed by CDE to depict how closely a plan adhered to CDE guidelines. The comment summary was divided into “Recommended Modifications” and “Commendable Elements” for each of the following areas: overview, local standards, assessment, grade-level expectations, and reporting. A second form was developed by CDE to obtain a general, overall rating of how well the plan adhered to CDE guidelines and to list the types of components a plan might include. Each plan was given an overall rating (from 1 “Inadequate” to 4 “Exemplary”), and measures used and methods for combining measures were noted. The forms are included in the Appendix.

Independent Review of 36 District Accountability Plans

The research team independently reviewed the “District Assessment and Accountability System Description” from the Consolidated Applications (1998–99) for 36 districts in early 1999. The purposes for this review were for researchers to familiarize themselves with the accountability systems (as reported on the Consolidated Applications) of a broad range of districts, to inform the development of the district interview protocol, and to validate the conceptual framework.

Selection of Districts. Based on factors such as size and geography, the research team identified 22 districts whose accountability plans would be reviewed; CDE staff identified an additional 23 districts. Some of the selected districts, however, did not submit the Accountability System Description to CDE, so a total of only 36 plans were reviewed. Exactly half of these districts (18) were included in the 200 districts that were surveyed.

Nature of the Review. The plans were reviewed using a rubric that combined the conceptual framework and features of the CDE review instrument. The major categories examined were content standards, assessments, and use of data.

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