

## Mathematics Implementation Study Policy Implications Interview Protocol

### General Background

What is your opinion of the current level of mathematics achievement of California students? On what is your opinion based?

What do you see the two or three most important factors explaining the level of mathematics achievement among CA students?

### Appropriate State Role

What is the appropriate role of state policy makers in improving mathematics instruction in CA? (Be specific about each entity: legislature, Governor/secretary of education, SPI/CDE, State Board of Education)

How should state government's role be related to the roles of local superintendents/school boards, high school mathematics educators, elementary classroom teachers, and teacher training institutions?

### Appropriateness of State Strategy

What is (your understanding) the current (or near term future) state strategy for improving the level of mathematics achievement among CA students?

What is your opinion of the likely outcomes of the current state strategy? Why?

Over the past decade which state interventions have been most helpful in improving mathematics education in CA public schools?

Over the past decade which state interventions have been least helpful in improving mathematics education in CA public schools?

### Specific Findings

#### Standards

Survey respondents support the notion of standards. They also believe standards are important in helping improve mathematics instruction. However, many reported that the new math standards were too ambitious and that there were often competing sets of standards—which generated confusion. Also many respondents reported that too much reform was occurring too fast—that there was insufficient time to assimilate all the changes. What is the appropriate state policy response to these concerns?

Respondents also reported that standards were less powerful in driving the math curriculum than was the SAT9. Several expressed resentment about the powerful impact

of testing on the curriculum. What state policies are appropriate for shifting the emphasis to the standards.

A common finding from survey respondents is that there is a lack of alignment between state standards, frameworks, texts, and the SAT9. How can the state best address this concern?

### **Instructional Materials**

Inadequate or insufficient instructional materials (including textbooks) were identified as biggest hindrance to mathematics instruction by 4<sup>th</sup> grade teachers. Recently, sufficient dollars have been appropriated by the state for the purchase of instructional materials. What, if anything, should the state do to enhance the quality and relevance of these materials?

### **Instructional Practice**

Overall, there appears to be high degree of consensus on objectives for math instruction but little consensus on what constitutes effective math instructional practice. Is there an appropriate state policy role on this issue. If so, what is it?

### **Professional Development**

Survey respondents also reported professional development activities and teacher preparation as important forces but found an inadequate connection between standards and professional development activities. 4<sup>th</sup> grade teachers want more math professional development. 8<sup>th</sup> grade teachers reported that math professional development was very helpful. Is professional development an appropriate state role? If so, how can the state most effectively create professional development opportunities for local teachers?

### **Teacher Involvement**

Many respondents felt they were inadequately involved in the development of standards, tests, and instructional material. A common sentiment across all levels (school, district & state) is that teacher buy-in is necessary for reform to work. How can/should the state go about gaining teacher support for its reforms? Do you perceive this as a problem? If so, how should the state go about resolving it?