

The scenario portion of the CSSE questionnaire was an item type seldom used in survey methodology. Case study researchers at the eleven case study locations had observed and written about a small number of important findings. A major purpose of the questionnaire was to evaluate the generality of these case study findings. A method was sought that would allow the formation of questions with categorized answers while preserving the complexity of the issues involved. The scenario format was utilized as a technique to provide a setting against which relevant survey questions could be posed.

The many issues of science education were reduced and refined to eight fairly specific findings. A scenario was developed for each of the eight. Each scenario consisted of a contrived illustration, designed to establish the issue in proper context, and a number of questions relating to the issue portrayed in the illustration

It would have been impossible to request all respondent groups to react to each scenario; such a procedure would have resulted in a questionnaire of unacceptable length. Accordingly, each scenario was included as a portion of the questionnaire to two, three or four of the twenty-two respondent groups. An attempt was made both to assign scenarios to groups with special interest in the particular issue and to assure that a variety of groups were queried on each issue.

As with all analyses in the present chapter, results are reported by both the actual frequencies of responses and the weighted percentages calculated on the sampling weights provided by the Research Triangle Institute. Standard errors are presented in Tables 18-1 and 18-2. As earlier noted, the weighted percentage responses for counselors, students and parents do not take the entire sampling procedure into consideration and thus must be interpreted with extra caution. Consequently, both weighted and unweighted percentages for these three groups are presented with the unweighted percentages in parentheses following the weighted percentages. Throughout the discussion of results, however, only the weighted percentages will be referred to. Percentages are based upon the number of persons who responded to a given question. Responses to most open-ended questions are reported only by actual frequencies of responses since many of these comments were analyzed manually.

Each scenario is printed in its entirety along with the responses to questions in this section of the survey results. Effort has been made to present the illustration portion exactly as it appeared in the questionnaire; however, the format of the questions has been altered in order to present findings in a tabled fashion.

Scenario S: Budget Cuts. A tightening of funds and the consequent effect on educational programs is a critical issue to educators and parents alike. The Ninth Annual Gallup Poll of the Public's Attitudes Toward the Public School,¹ reports that lack of proper financial support was rated third in the list of top problems with which public schools must deal with 12 percent of the 1506 persons responding indicating this as a problem. As is discussed elsewhere in this chapter, the respondents in this survey indicated that budget problems and priorities is the biggest problem facing public schools when one-third of our sample was queried on this question. Scenario S was developed to assess opinion was on budget cuts and possible ways to deal with decreased financial resources for education.

¹ George H. Gallup, "The Ninth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," Phi Delta Kappan 59 (September 1977): 33-47.

This scenario was administered to superintendents, science supervisors of grades 7 through 12 and one group of parents. Response rates were 74 of 149 (50%), 139 of 200 (70%) and 111 of an estimated 250 (~44 %) respectively.

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Please consider this situation:

School District No. 22 is facing key decisions regarding its programs. Funds are short. Rising energy costs and personnel salaries consume increasing proportions of revenues. Upcoming reassessments of real estate are provoking property owners into further resistance to reliance on the property tax for school funding. They are opposing an upcoming referendum on issuing additional revenue bonds. Financial aid from the state is based on formulas tied to average daily attendance, and for various reasons, attendance has been dropping each year. At least one school may have to be closed.

The staff is aggressive in seeking special state and federal programs that bring extra funds, but these funds only cover a small share of the total burden. A few teachers have been laid off, orders for new books have been cancelled, and laboratory work and field trips have been cut back. Art, music and athletic programs have been trimmed. Still the funds available will not meet the projected expenses.

The economic picture in the community is not particularly bleak. About 5% are unemployed. McDonald's is always trying to hire more teenagers. Filling stations and some shops have closed, but new businesses have been opening too. Sales of machinery, land, recreation vehicles and citizen-band radios have been going strong for quite a while.

A small number of citizens want to raise taxes to pay for a full and undiminished academic program. A clear majority does not. Some opponents claim the schools waste taxpayer money with frill courses, open classrooms, alternative teaching, and electives. Some claim that too much is being spent for administrators, curriculum coordinators, counselors, social workers and various office people.

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Generally speaking and not with regard to particulars, how similar is the District 22 situation to the situation in your own school district?

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
quite similar	25	37	62	26	55	23 (51)
not very similar at all	43	60	51	51	43	65 (40)
other	60	2	23	23	9	13 (8)

This scenario was developed on the basis of economic conditions encountered in the case study sites. There was frequent talk of budget constraints. Only about one-fourth of the survey respondents to this scenario found the collage of conditions descriptive of their

district. They were asked to elaborate on the similarities and/or dissimilarities in the following two questions.

What in this description of District 22 is particularly relevant to the situation in your own district?

What important differences are there between District 22 and your situation?

Parents made very few comments. Science supervisors and superintendents responded frequently with similar trends and proportions among their comments. The most frequently mentioned similarities between their own situations and District 22 were cutbacks in programs, decreases in attendance, teachers laid off or not replaced and shortages of funds. Comments that taxes are wasted by frill courses and too many administrators and concern with rising energy and personnel costs resulted in stated opposition to increasing taxes to support schools.

Major differences mentioned by superintendents included stability in attendance. No program cutbacks and no teachers being let go. Many said they enjoy community support for good school programs and several districts reported growing and expanding programs. Supervisors' comments were quite similar with the additional remark that there is no shortage of funds at the present time. In both respondent groups a few people noted that the economic picture in their districts is bleaker than in District 22. Thus, although a majority responded that the scenario representation is not similar to their own situation, in every detail, it would appear that economic constraints are seen to be serious problems as indicated by our field observers. Thus, there appear to be mixed reactions.

As enrollments drop and fewer courses are offered, teachers in some districts are involuntarily reassigned to other departments or to other schools.

Has this happened in your district?

Teachers reassigned, continued	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Yes	34	54	70	62	29	22 (26)
No	37	45	59	29	36	40 (33)
I don't know	3	1	6	9	45	38 (41)

Involuntary reassignment appeared to be fairly common, although a smaller percentage of parents note this consequence of enrollment drops. If respondents answered yes, they were asked to elaborate further on the issue of reassignment. Following are the number and percent who answered yes to each question.

Affirmative Responses						
	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
<i>Are teachers being given reassignments outside their</i>	5	15	18	45	4	3 (6)

<i>certification?</i>						
<i>Are reassigned teachers finding the new departments or schools hospitable?</i>	27	40	48	32	9	26 (14)
<i>Is it regularly the most recently hired teachers who are reassigned?</i>	24	34	36	49	19	34 (28)
<i>Is reassignment a much larger issue due to your collective bargaining agreement?</i>	16	14	21	16	4	4 (8)

Science supervisors of grades 7 through 12 (45%) stated that teachers are being reassigned outside their certified areas and that it is the most recently hired teachers who tend to be reassigned (49%). Much smaller proportions of superintendents checked these options. Slightly more (40%) superintendents agree that reassigned teachers find new departments or schools hospitable. Reassignment is not a critical issue in collective bargaining, probably because it is viewed as part of the larger issue involving seniority and tenure concerns.

The following items were posed to determine the prevalence of budget cuts and their consequences and the action that would be preferred in the case of drastic cuts.

In what ways have budget cuts in your district seriously affected the science curriculum?

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
We have not had budget cuts recently	34	52	62	32	47	76 (42)
The science curriculum has not been seriously affected in any way	38	48	56	19	35	41 (32)
Classes have been made larger in size	7	4	50	17	17	4 (15)
Needed and highly qualified teachers have been "let go" and not replaced	4	6	10	2	5	3 (5)
We have more teaching from textbooks, less with projects and lab work	7	4	41	17	14	5 (3)
No longer can we provide a textbook for each student individually	0	0	15	4	3	1 (3)
The inservice training program has been cut back substantially	10	16	18	3	6	1 (5)
Other	10	16	18	43	9	3 (8)

A majority of superintendents and parents reported no recent budget cuts and large portions, 48 and 41 percent respectively, indicated no effect on the science curriculum. Supervisors, however, appeared to disagree with only 19 percent reporting that budget cuts

have not affected science curriculum. Other consequences especially noted by supervisors were larger classes and more textbook teaching, both 17 percent. Under other comments, cuts in budgets for equipment and supplies that result in the reduction in purchases of new materials and equipment were noted; money is unavailable for anything other than books. Finally, cutbacks in lab assistants and, consequently, on lab experiences for students were listed as other consequences of budget constraints.

Suppose you live in a district that must make drastic cuts in the school budget. Give a rank of "1" to the action you would consider most acceptable, a "2" to the next, on down to a rank of "8" to the action most unacceptable to you.

Rank first or second						
	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
A 15% reduction in funds for administrative salaries	14	10	55	32	49	39 (62)
Weighted median rank	4.4		3.8		2.2	
A 3% reduction in funds for teacher salaries	16	15	25	11	38	36 (40)
Weighted median rank	4.3		3.4		4.8	
A five year moratorium stopping purchase of new books and materials	13	21	19	17	16	27
Weighted median rank	4.4		6.3		3.4	
Elimination of all extra-curricular activities except sports	34	63	53	59	31	40 (32)
Weighted median rank	2.1		2.3		3.0	
Elimination of the athletic program	32	67	47	19	21	28 (22)
Weighted median rank	2.2		4.6		4.5	
Elimination of the foreign language and bilingual education programs	11	27	23	58	20	20 (21)
Weighted median rank	5.6		1.9		4.8	
Elimination of the locally funded assistance to handicapped children	2	3	15	6	9	5 (10)
Weighted median rank	5.2		6.0		7.0	
Elimination of all physics and chemistry courses	3	9	2	1	4	1 (4)
Weighted median rank	7.0		7.8		7.1	

The most desirable action in parent responses to budget cuts was a 15% reduction in administrative salaries (median rank 2.2). Also considered relatively acceptable by parents were elimination of extra-curricular activities except sports and a five year moratorium on purchase of new textbooks and materials. This last option was ranked much lower by supervisors; perhaps parents tended to see the curriculum as more static. Secondary school supervisors ranked elimination of foreign language and bilingual education programs as the first to be cut. This choice ignores the fact that bilingual programs are primarily funded from funds external to a district. They, along with superintendents, also ranked elimination

of all extra-curricular activities except sports as relatively acceptable. Superintendents also chose elimination of the athletic program, although it is possible that this is a popular "pressure-tactic" choice.

The least acceptable choice to all three groups was elimination of all physics and chemistry courses. It may be speculated that this is because of the importance of these courses, but it may also be that they feel the elimination of these courses would not result in the same amount of savings as would some of the other options. Our respondents also may have been influenced by the sponsor of the survey. Many respondents in all three groups found none of the alternatives acceptable. Several suggested making multiple compromises such as cutting back slightly on all items rather than eliminating any one area.

Finally, these groups were asked to respond to several questions concerning youth unemployment and vocationally oriented coursework.

Here are questions about youth unemployment and school curriculum.

Science courses should be aimed (more-than they are) at vocational goals.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	38	59	69	34	67	64 (60)
Disagree	27	27	52	28	16	14 (14)
Uncertain	7	15	17	38	28	22 (25)

Many youngsters are not ready for work, but the big problem is the scarcity of jobs, not what the schools are doing.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	38	63	59	63	50	49 (45)
Disagree	22	12	52	25	18	24 (16)
Uncertain	13	26	26	11	43	28 (39)

Schools should be teaching youngsters how to get a job and how to keep it.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	55	72	87	34	77	79 (69)
Disagree	10	6	33	16	7	1 (6)
Uncertain	8	23	16	50	27	2 (24)

Most employers do not expect a new worker to be ready for the responsibility of a particular job, no matter how well they have done in high school.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	30	38	48	16	47	30 (43)

Disagree	36	41	78	78	12	31 (11)
Uncertain	7	21	13	6	51	40 (46)

Slow learners should not be required to take a science course in high school.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	4	7	15	7	16	25 (14)
Disagree	66	92	119	93	16	4 (14)
Uncertain	3	1	5	1	79	71 (71)

If there is not enough money for both, high schools should offer good general education rather than good vocational education.

	Superintendents		7-12 Science Supervisors		Parents	
	n	%	n	%	n	%
Agree	42	66	97	79	73	76 (66)
Disagree	18	25	26	14	9	3 (8)
Uncertain	10	9	15	7	28	20 (26)

A majority of superintendents and parents stated science courses should be aimed more at vocational goals. While substantial proportions of all groups said that the big problem is with scarcity of jobs for youth, over 70 percent of superintendents and parents stated that schools should teach youngsters how to get and keep a job. Yet large majorities of all groups would opt for a good general education as opposed to vocational if a choice had to be made. Apparently, the choice between general and vocational education is clear, but there is still a large concern for the latter. Finally, overwhelming proportions of superintendents and supervisors thought that slow learners should not be exempted from high school science courses. Parents were not so sure on this issue with 71 percent indicating that they are uncertain.