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ABSTRACT

The Texas Examination of Current Administrators and Teachers (TECAT) is a basic literacy test that was administered to 202,000 educators in Texas in March 1986. An in-depth case study was undertaken to examine the effects of the TECAT. The 2-year project involved 10 separate data-collection studies including structured interviews with key legislators and aides; interviews with educators, personnel directors, and Texas citizens; a compilation of legislative and press materials; an analysis of test results; participant observation in test-preparation workshops; a content analysis of relevant newspaper stories; a survey of study materials; and cost analyses. The political climate surrounding the administration of the test was studied. While it had not been expected that more than 5-10% of teachers would fail, Texas teachers spent a great deal of time preparing for the test, including sponsored workshops. The cost to the state was much greater than expected. Many teachers with poor skills did pass the test, but vocational and special education teachers were overrepresented among those who did not pass the test. Many teachers indicated, in response to an interview survey of 96 educators, that having to take the test was demoralizing, and that publicity about failures and the ease of the test had an adverse impact on the public perception of teachers. There are 13 tables of data and six illustrative figures. A nine-item list of references is included. Seven appendices contain supplemental information about the testing process, including the interview protocol and the teacher and personnel director phone surveys. (SLD)

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A CASE STUDY OF THE TEXAS TEACHER TEST: TECHNICAL REPORT

Lorrie A. Shepard
Amelia E. Kreitzer
and
M. Elizabeth Graue

CSE Report No. 276

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THE TEXAS TEACHER TEST:
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CSE Report No. 276

Center for the Study of Evaluation
Graduate School of Education
University of California, Los Angeles

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The project presented, or reported herein, was performed pursuant to a Grant from the Office of Educational Research and Improvement/Department of Education (OERI/ED). However, the opinions expressed herein do not necessarily reflect the position or policy of the OERI/ED and no official endorsement by the OERI/ED should be inferred.

The Texas Teacher Test

Purpose of the Research

The TECAT, the Texas Examination of Current Administrators and Teachers, is a basic literacy test that was administered to 202,000 practicing educators in March 1986. An in-depth case study was undertaken to examine the effects of the Texas test. Was testing teachers an effective educational reform? Can lessons from the Texas experience inform policy decisions in other states?

Research Methods

The two-year-long research project involved 10 separate data-collection studies including: structured interviews with key legislators and aides, interviews with random samples of educators, personnel directors, and Texas citizens, a compilation of Select Committee and legislative records, analyses of test results by categories of teachers, content analysis of newspaper stories, a survey of study materials, participant observation at test-preparation workshops, and cost analyses.

Political Context

A test for practicing teachers was one element in an omnibus educational reform bill passed in Special Session in the summer of 1984. The Texas reform legislation provided for redistribution of resources to poor school districts, higher starting salaries for teachers, a career ladder, statewide textbook adoption, a high school graduation test, the famous "no pass, no play" rule, and a dozen more changes. Originally there were to be two levels of testing for current educators: subject-matter tests and a test of each examinee's ability to read and write. (The Texas legislature subsequently rescinded the requirement for subject-matter tests in April 1987.)

The climate of opinion leading to educational reform in Texas closely paralleled developments in other parts of the country. There was wide-spread concern about *A Nation at Risk*, especially test score declines and the low standing of Texas compared to other states. Economic woes caused by a precipitous drop in oil revenues drew attention to rhetoric about the links between sound education and economic prosperity. Multi-millionaire H. Ross Perot, appointed by the governor

to chair the Select Committee on Public Education, was a driving force for reform. Business leaders heard from one of their own that Texas could not hope to compete for high technology investments if northern executives were unwilling to move their families to Texas schools. Perot also made headlines with the charge that the "Dumbest People in College Study to be Teachers."

During the Special Session teacher testing became a bargaining chip to leverage a tax increase. Legislators wanted something tough to show to their constituencies. "No test, no tax" became the slogan, which resembled very closely the rhetoric leading to the Arkansas teacher test.

The TECAT

Implementing a testing program for 210,000 current teachers was more cumbersome than policy makers had imagined. Numerous validity and legal problems prevented the use of existing tests or previous test scores (such as SAT's). The State Board of Education reported to the legislature that 15 million dollars would be required to implement subject-matter tests and supported the Commissioner's assessment that "a basic skills test alone would weed out 80 or 90% of incompetent teachers."

A new test, the TECAT, was developed to assess the minimum reading and writing skills "that practicing educators need to perform adequately in their jobs." The 55 item, multiple-choice reading test included reading comprehension and job-related vocabulary questions. The writing test included both a short composition (150 words) and a multiple-choice portion. School personnel who failed the reading or writing part of the test in March of 1986 had one chance in June to retake the portion they had failed. Subsequent retakes were permitted but not in time to prevent their being without a certificate in September.

FINDINGS

Massive Preparation

Statewide, enormous effort went into preparing teachers to take the TECAT. Study guides and review materials were developed by the Texas Education Agency, universities, teacher organizations, districts, and regional education centers. Workshops were offered for pay or at district expense. Review videos were available through satellite delivery and constant programming on public access TV stations. On average, educators spent 12 hours preparing for the test. Although one-fourth of teachers spent an hour or less reviewing for the test, other teachers spent as much as 100 hours preparing.

Basic Skills and "Teaching to the Test"

On the first try, 96.7% of educators passed. Based on field test data, passing standards were set where 12% would have failed. Although the Commissioner and his staff had expected a higher passing rate under real testing conditions, the gain was much greater than anticipated.

Some attributed the high passing rate to development of teachers' skills in workshop sessions. Direct observation suggested, however, that there was tremendous teaching to the test. In many cases teachers learned to take advantage of the multiple choice format to improve their scores. Only 3% of teachers interviewed said they learned new skills during their test preparation.

TECAT Passing Rates

- 96.7% passed TECAT on the first try.
- Initial passing rates for Hispanics and black teachers were 94.0% and 81.6%, respectively.
- By the second try 99% passed.
- TECAT removed 1,199 teachers who failed twice and 676 educators who did not sign up to be retested.
- More than half of the educators fired by TECAT were in nonacademic positions. Special education teachers and staff from group homes, P.E. teachers and coaches, and vocational education teachers (who had never been required to have college degrees) were over-represented among the failures.

Teacher Morale

- 90% of teachers reported that the test had had a demoralizing effect on them or their colleagues. Even the 25% of teachers, who did not feel threatened by the test (and did not study), said that it had a negative effect.
- Teachers felt degraded by having to study for such a low-level test.
- An atmosphere of stress and bitterness was created by the high-stakes, of literally losing your job if you failed. Many said the effect would have been different if not passing meant having to take a college refresher course.

Public Confidence

- One-half of the teachers interviewed said that the test accomplished its purpose, "to weed out incompetent teachers and reassure the public."
- The other half said that negative publicity and the high-passing rate made TECAT a joke.

- Actual public opinion data from The Texas Poll showed a greater decline in public support for teacher competency testing, before and after TECAT, than for any other educational reform.

Cost Analysis

- Test development and administration cost over \$5 million.
- Counting a teacher inservice day to take the test and district sponsored workshops, the total public cost was \$35.5 million. (*Alternative uses of these dollars to serve the same end might have been to create a fund to support the legal costs of districts seeking to fire incompetent teachers.*)
- During the Special Session, Comptroller's estimates had shown teacher testing as a cheap reform; real public costs were 10 times greater.
- Private costs in teacher time and preparation expenditures were an additional \$42 million. (*Alternative uses of this resource might have been to require more advanced study by teachers.*)
- If the wages of low-scoring teachers were "wasted" before TECAT, then the 887 academic decertifications that occurred because of TECAT represent an annual savings of \$25 million.

CONCLUSIONS

Research on the Texas teacher test found contradictions:

- The basic literacy test was never expected to fail more than 5-10% of Texas educators, yet 75% of teachers spent considerable amounts of time preparing.
- While many educators with poor reading and writing skills used test taking tricks to pass the test, there were lamentable losses among the failed teachers, especially vocational education and special education teachers.
- The cost was 10 times greater than expected and the failure rate 1/10 of that expected, resulting in a public cost per failed teacher of \$30,000.
- During Perot's Select Committee hearings, a test to eliminate the few incompetent teachers had been intended to raise the status of the teaching profession so that in the future top college graduates would be attracted to teaching. Ironically, many believe that publicity about incompetents, teacher complaints alongside easy test questions, and union insistence on contractual rights, hurt the esteem of the teaching profession.

Although the blame for negative side effects must be widely shared, the realities of teacher testing deny the simplicity of the intended policy—"give a test and eliminate the few teachers with indefensibly weak communication skills."

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Section 1: INTRODUCTION

Purpose of the case study

Texas grabbed the attention of the national news media when in March 1986 202,000 teachers and school administrators were tested to see if they could keep their jobs. They took the TECAT, the Texas Examination of Current Administrators and Teachers; it is a literacy test measuring basic reading and writing skills required of teachers. Texas is one of three states with programs in place to test the competency of practicing teachers but Texas received the most attention—perhaps because it is so big. In Georgia only 15,000 teachers have taken various subject matter tests; in Arkansas the number tested is under 37,000. The Texas teacher test was also especially controversial and newsworthy because educators were literally to be fired if they failed the test twice. Lifetime certificates were not protection against taking the test. In Arkansas teachers who failed the basic skills tests could keep retaking them and continue teaching in the meantime. In Georgia veteran teachers were to have eight chances to retake the test before the first certificate could be denied in August 1987; teachers with lifetime certificates were exempt from taking the tests.

Researchers at the Center for Research on Evaluation, Standards, and Student Testing found the Texas teacher test an unusually visible example of a reform strategy contemplated by many other state governors and legislators. Policy makers who wish to improve public education see several options: increasing high school graduation requirements, lengthening the school day, testing students, testing teacher candidates, redistributing resources to poor schools, revising curriculum or in some way enhancing the professional status of teachers. Testing practicing teachers is an approach that has considerable appeal because it is a concrete and decisive action aimed directly at the quality of education in the classroom. Everyone says that teachers make a great difference. Surely, if incompetent teachers are upgraded or removed, learning and educational opportunity will increase.

The purpose of our research was to examine the Texas experience in testing practicing educators. Are there lessons to be learned from the Texas case that can inform policy decisions in other states? What were the educational problems and political context that gave rise to the reform legislation? How were testing and a particular type of test decided upon? At the time the legislation was enacted, what did advocates and opponents believe the effects of testing would be? Then, after the test was given, what were the effects of testing? Who failed? How did local districts replace the teachers who failed twice? What can be said about the impact

of the teacher test on the quality of education and public confidence in schools? How much did the testing program cost and were the benefits worth the cost?

Organization of the report

The above questions are addressed in subsequent sections of the report following a roughly chronological ordering of topics. Data from multiple sources are brought together as they bear on particular themes, rather than enumerating separately the results of each data gathering activity. For example, some teacher interview questions are combined with workshop observations in the discussion of test preparation. Content analyses of newspaper stories are presented along with other documentary evidence and legislator interviews in the discussion of political context.

Because the technical report is intended to be the repository for research methods, a somewhat lengthy section follows detailing the procedures used in various aspects of the investigation. In the same spirit, illustrative segments of interview and observation transcripts are reproduced in the discussion sections. For less detailed reading, a policy summary is provided in the first pages of this report; in addition, an intermediate length narrative has been prepared for the *Educational Researcher*, 1987, 16, 22-31.

Section 2: RESEARCH PROCEDURES

Newspaper Accounts

Before the first site visit in May of 1986, newspaper stories were used to obtain background information about the TECAT and educational reform in Texas. Two Texas newspapers were examined systematically: the *Austin American Statesman*, an independent daily from the state capital, and the *Amarillo News-Globe*, an independent daily from the Panhandle's largest city. From the *Statesman* files, articles were obtained under the following headings: 1) the TECAT until April 1986; 2) the 1984 special legislative session; and 3) the Select Committee on Public Education. From the archives of the *Amarillo News-Globe*, articles were obtained from three files: "School testing," "1984 special legislative session," and "H. Ross Perot." Using all of the above descriptors, a small set of articles was also obtained from the *New York Times*.

From the news accounts, a chronology of events was constructed so that the researchers could be as well informed as possible when interviewing key participants (See Appendix A). Newspaper stories were also used to identify key informants such as legislators and union spokespersons.

Newspaper clippings were also obtained in a less systematic fashion from several other papers, including the *Dallas Morning News*, the *Dallas Times Herald*, the *Houston Chronicle*, the *San Antonio Express*, the *Texas Observer*, the *Fort Worth Star Telegram*, and the *Houston Post*. In several cases, legislative staff members would pass along clippings from their files at the time of study interviews.

In the fall of 1986, after all site visits and 80% of teacher interviews were completed, a content analysis was undertaken of the two complete newspaper files. The purpose of the analysis was to determine how public school teachers were portrayed by the press.

Interviews with Key Figures

Key political figures and informants were identified from newspaper accounts and by asking each respondent for the names of other central participants. Below are the names and titles of those who were interviewed:

Bill Haley

Chairman of the House Public Education Committee

author of H.B. 72

member of the Select Committee on Public Education

"Gib" Lewis

Speaker of the House of Representatives

member of the Select Committee on Public Education

Carl A. Parker
Chairman of the Senate Education Committee
member of the Select Committee on Public Education

Camilla Bordie
Parliamentarian for the Lt. Governor's office

Nancy Frank
Administrative Assistant for the Senate Education Committee

Dr. Terry Heller
Research Specialist, Senate Education Committee

Margaret LaMontaigne
Chief Clerk, House Public Education Committee

Melinda Terry
Speaker's office

Brian Wilson
Education Specialist, Governor's office

W.N. Kirby
Commissioner of Education

Dr. Marvin Veselka
Assistant Commissioner, Assessment

Dr. Nolan Wood
Director, Teacher Assessment

Charles Beard
President, Texas State Teachers Association and
Ermalee Boyce, Executive Assistant

John Cole
President, Texas Federation of Teachers

Thomasine Sparks
President, Texas Classroom Teachers Association

Mike McLamore
Governmental Relations, Association of Texas Professional Educators

Nae Dorn
Spokesperson for the Black Teachers Caucus
Austin Association of Teachers

Donna New
President, Austin Association of Teachers
interviewed with a group of Austin teachers

Three central figures were not interviewed either because of accessibility or availability during planned trips to Texas:

Governor Mark White

Lieutenant Governor William P. Hobby

H. Ross Perot
Chairman, Select Committee on Public Education

References in this report to the intentions and actions of White and Perot are based on transcripts of political speeches, on newspaper editorials, quotations from newspaper articles, and attributions to them by the participants interviewed. Without personal interviews, however, it is not possible to represent their later reflections on the implementation and impact of TECAT.

The list of important participants and of individuals with valued perspectives was much longer than the set interviewed. The individuals and groups listed below were identified as possible informants but were not contacted because of the limitations of study resources. Note that constraints were caused both by limitations on the researchers' time and by geographic distances. Thus, some less central participants were interviewed because of their availability in Austin at the time of a scheduled visit.

Stan Schleuter

Chair, House Ways and Means Committee and
member of the Select Committee on Public Education

June L. Karp

Assistant to the President, Texas Federation of Teachers
The Mexican American Legal Defense and Education Fund
The League of United Latin American Citizens

Emmett J. Conrad, M.D.

member of the Select Committee on Public Education
member of the newly appointed State Board of Education

Bill Clements

past governor, candidate for governor (and again, governor)

John Sharp

Senator, author of S.B. 103 to reduce testing requirements

Raymon Bynum

Commissioner of Education during Select Committee hearings

James Butler

President of TSTA during Select Committee hearings

Bill Hammond

member of the House Public Education Committee

Rick Salwen

attorney and lobbyist for H. Ross Perot

Frank Madla

House Public Education Committee
member of the Select Committee on Public Education

A structured interview protocol was developed (See Appendix B). The logic of the questions proceeded chronologically, asking respondents first to think back to a period before support for a teacher test had developed. They were asked to describe the political climate and key events that led to the inclusion of a test in

the reform legislation. Each respondent was asked to describe his or her own role in the enactment of the legislation and to characterize the positions of proponents and opponents. They were asked their perceptions about the impact of the TECAT and for advice to legislators in other states. The written protocol went through two stages of revision after review by two colleagues outside the University who are experts at survey instrument construction.

One interview was tailored to 15 minutes by selecting a subset of questions to accommodate the schedule of a key legislator. Complete interviews were from 30 minutes to two hours in length.

All interviews were conducted fact-to-face by the principal investigator or a trained graduate assistant. The sessions were tape recorded with the permission of the respondents. Extensive notes were also taken on the printed schedule of questions. Audio tapes were transcribed; analyses were conducted using the written transcripts.

Interview transcripts were read in several stages for increasingly refined purposes. In the first stage, segments were coded as answers to preordained questions or as emerging themes or issues. Identifying labels were assigned to new issues to link recurring themes across interviews. In subsequent stages, subtypes or competing positions were identified. No attempt was made to quantify the results. Marginal codes were used to collect exemplars of each position and theme.

Documents

The Texas Education Agency provided copies of TECAT descriptive materials and the TEA produced Study Guide. The data presented to the State Board to facilitate standard setting were obtained as well as the data on results. TEA staff provided a transcript from an early meeting of measurement specialists. Documentation and data for the EXCET test were also supplied. We relied on professional papers, written by the test contractors for descriptions of development procedures.

The governor's office granted us access to the documents that had been distributed during the Select Committee hearings. We obtained xerox copies of meeting agendas, data that were presented to the committee such as SAT scores, transcripts of testimony from educator groups, and drafts of findings from various subcommittees.

Many other documents were used in the course of the study but were not gathered systematically. Often informants gave us copies of documents from their files, including transcripts of speeches made to the Special Session of the Legislature. Spokespersons from various teachers organizations gave us copies of their

instructional materials, newsletters, and prepared testimony. If informants referred to data or reports, we used the legislative library, the TEA archives, and the Select Committee records to track down these sources. The Texas Poll, also called the A & M poll or "public opinion" poll, was referred to often. We contacted the Public Policy Resources Laboratory, Texas A & M University, which conducts the Texas Poll, for a complete set of their releases on education issues.

Teacher and Administrator Interviews

Sampling. A representative sample of Texas teachers and administrators was selected using a two-stage sampling strategy. At the first stage, the 1985-86 Texas School Directory (TEA, 1985) was used to stratify all school districts by size. The stratum of largest districts was defined as those with enrollments over 38,000. The nine largest city school systems in Texas are thought of as an identifiable group; thus, the 38,000 cutoff was chosen to distinguish this group from medium-sized districts. Then, a cutoff of 10,000 students was arbitrarily chosen to distinguish medium-size districts (10,000-38,000) from small districts (<10,000).

Using a table of random numbers and district identification numbers, eight districts each were selected from the small and medium strata. The sampled districts and their enrollments are reported in Table 2.1.

In addition, four districts were chosen from the large stratum according to the following procedures. First, Houston ISD was eliminated because it was the only district whose teachers were excused from TECAT; they had taken a similar competency test administered by the school district. Then the remaining eight districts were assigned to geographic clusters: El Paso and Ysleta; San Antonio, Northside and Corpus Christi; Austin; Dallas and Fort Worth. Then, one district was chosen from each cluster; Corpus Christi was purposefully selected because the southernmost region of the state had been missed by the random sample of medium districts; Ysleta and Fort Worth were selected to represent their respective locales by flips of a coin; Austin, as a set of one, was automatically selected to achieve geographic spread.

For each of the 20 districts identified in the first stage, population lists of all teachers and administrators who had registered to take the TECAT were generated by the Texas Education Agency. In the second stage, teachers and administrators were selected at random from their respective stratum lists. To achieve a total sample of 100, 21 were selected from the large stratum, 34 from the medium stratum, and 45 from the small stratum. The sample proportions correspond to the proportions of certificated personnel from all districts statewide of these respective

Table 2.1
Districts, selected in the first stage of sampling by size
 (Teachers and administrators were then selected at
 random from these districts)

Large Districts (over 38,000)

Austin	58,540
Corpus Christi	38,440
Fort Worth	66,085
Ysleta	46,486

Medium Districts (10,000 - 38,000)

Birdville	16,249
Cypress-Fairbanks	30,424
Irving	20,415
Lubbock	28,953
Mesquite	20,327
North East	35,250
Richardson	33,853
Round Rock	14,690

Small Districts (less than 10,000)

Banquete	721
Crystal City	2184
Highland Park	4348
Henderson	3696
Lakeview	120
Perryton	2068
Rocksprings	460
Van Vleck	1160

sizes. (Population proportions were computed from the school directory.) By sampling at random from within each stratum, larger districts of each type naturally contributed more subjects to the sample; the number sampled per district ranged from 4-7 in the large stratum, from 2-6 in the medium stratum, and from 1-12 in the small stratum.

The registration lists provided by the TEA included the following information for each teacher: name, address, home phone number, work phone number, date-of-birth, sex and ethnicity. Blanks occurred if an examinee had declined to provide information on the registration form; however, incomplete information occurred in less than three percent of the cases.

The data in Table 2.2 provide comparisons between the sex, age, and ethnic characteristics of the 100 teacher-administrator sample and the population of 202,084 educators who were tested.

Table 2.2
Population and Sample Characteristics
of Teachers and Administrators Taking TECAT

	Population Tested (n = 202,084)	Original Interview Sample (n = 100)	Nonresponse from Sample (n = 4)
SEX			
Male	50,953 (25.3%)	27	1
Female	150,735 (74.0%)	71	3
Not Given	43 (00.0%)	2	
AGE			
0-29	38,971 (19.3%)	16	
30-39	74,706 (37.0%)	39	3
40-49	52,349 (25.9%)	25	
50-59	29,984 (14.9%)	13	1
60-65	4,615 (02.3%)	1	
>65	721 (00.4%)		
Not Given	384 (00.2%)	6	
ETHNICITY			
Black	15,681 (07.8%)	7	
Hispanic	24,685 (12.2%)	10	2
White/Other	156,505 (77.6%)	80	2
Not Given	4,860 (02.4%)	3	

The difference between the sample and population percentages are illustrative of the magnitude of statistical error expected from simple random fluctuation and the additional error created by two-stage cluster sampling.

Nonresponse bias. The response rate was 96%; i.e., interviews were conducted with all but four of the sample of 100 teachers and administrators. Two of the missing cases had moved from the state and had given no forwarding information to their school. Two refused to be interviewed. The nonrespondents were evenly distributed across the three district-size strata: two from the medium stratum, and one each from the large and small strata.

Age, sex, and ethnic characteristics of the nonrespondents are shown above alongside the population and sample figures. Two of the nonrespondents were Hispanic. One white female, who declined to be interviewed, was in the 50-59 age category. An Hispanic male who had left the state was from a district with an unusually high failure rate. Although no attempt was made to ask school or district personnel about TECAT results for the nonrespondents, it is reasonable to surmise that some number of the four nonrespondents did not pass the test, at least on the first administration.

In a sample of 100, three would be the expected number of failures on the first test; only one person would be expected to fail twice. All of the respondents reported that they passed the TECAT. Although there might be some motivation for the respondents to dissemble even in a telephone interview, it is also quite conceivable that the only failures in the sample were among the nonrespondents. Thus, we believe that two or three of the very most negative opinions regarding the testing program may have been omitted. The small nonresponse rate, therefore, may have created a slight positive bias in the interview results.

Interview procedures. Because of the great geographic extent of Texas, telephone interviews were used with teachers and administrators rather than constrain the representativeness of the sample. A structured protocol was devised as shown in Appendix C. Interviews were conducted by trained graduate assistants and in a few cases by an Hispanic surnamed, Spanish speaking staff member. A standard introduction describing the purpose of the study is shown at the top of the protocol. Age, sex, and ethnic status were known from the population lists and did not have to be asked during the interview.

The interview tapes were transcribed. In addition, verbatim comments were written down as much as possible during the interview. Quantifiable questions, such as the number of hours spent studying for TECAT, were coded and summarized

using simple descriptive statistics. Transcript responses were divided into five qualitative question sets: the respondent's own preparation for the test and attitudes toward TECAT, questions about what the test measures and fairness, what the respondent could tell us about the characteristics of teachers who had failed, policy questions about legislative intent and advice to other states, and questions about the effects of TECAT on teachers and on public opinion. The question sets were read to identify categories or types of perspectives. Then the data were reread to group the responses by type, to identify subcategories, or to reexamine distinctions between categories that had begun to merge. Finally, categories and subcategories were each reread to select illustrative quotations.

Service Centers

There are twenty regional Education Service Centers in Texas. These centers joined school districts and teacher organizations in providing preparation courses before the first administration of TECAT. After the first test, the Service Centers were specifically charged by the Commissioner of Education to provide additional help to the 6,000 teachers who had failed.

Each of the 20 centers were contacted to learn what review or informational services had been provided prior to the March testing as well as what remediation opportunities were being offered prior to the June 28 administration. These phone interviews were conducted informally with whichever professional staff person was designated as the person responsible for TECAT. In cases where instructional materials had been developed, copies of the materials were requested. A standard set of questions was used to inquire about the population of failures in that region: what percentage had failed?, what information did the center have about the number of individuals who needed remediation?, how was information being distributed, given that the names of failed examinees were not known?

The telephone contacts were also used to determine the schedule of specific workshop dates and locations to be held in preparation for the June retesting. We asked for permission to attend these workshops, or how permission to attend might be obtained.

Preparation workshops

The principal investigator and a research assistant attended a total of five days of workshop sessions representing three different service center sites. The sites selected can be described as both a convenience and judgmental sample. We wished to achieve geographic and demographic distribution; we also wanted sites to be accessible to a major airport (which ruled out 10 of the 20 centers). One site

was purposely selected to be in a more rural area; we also elected to attend only one workshop where the University of Texas video tapes were to be the mode of instruction. Three centers that we wished to visit denied us access; two of these were instances where the center had contracted with a university or college for instruction. In these cases, the instructors refused to have us attend because the workshop participants had paid for the sessions and were under considerable stress that would be heightened by the presence of an outside observer.

The researchers introduced themselves to each instructor and confirmed permission to record the session. The audio recordings were transcribed and analyzed to identify categories of evidence using methods described previously.

Two instructors were formally interviewed using the Public Figures Interview Protocol shown in Appendix B. Instructors were also asked about the similarities and differences between the current workshop and previous review sessions they had conducted. All instructional materials made available to the participants were purchased or collected.

Teacher Questionnaires

Because the percentage of educators failing TECAT was so small statewide, it was expected that the probability sample of teachers would produce very few failing candidates. Lists of failing candidates were not available. The remediation workshops conducted to prepare for the June 28 test retake were viewed as an opportunity to learn the opinions of individuals who had failed the test. These workshops were also attended by individuals who had not been employed during the school year and so would be taking the test for the first time on the June date.

Although we wished to learn the opinion of some teachers who had failed, our methods could not be aimed at obtaining a scientific sample of the failing population. At the workshops we attended, we approached individuals before and after sessions and asked if they would be willing to respond to our research questions. The protocol used for teacher telephone interviews (shown in Appendix C) was rewritten to be a self-administered questionnaire. Thirty-nine written responses were obtained; the respondents were about equally divided between those who had failed the test previously and those who were taking the test for the first time. The self-administered questionnaires were also distributed by instructors at three workshop sites where we had not been able to attend. Nine written responses were received from participants at these sites.

Personnel Directors Interviews

A sample of 20 districts was identified. These were the same 20 districts selected by stratified random sampling in the first stage of the teacher sampling procedure. In the fall of 1986, directors of personnel were interviewed in 19 of these districts. One director of personnel, in a district with a high failure rate, refused to be interviewed.

Again telephone interviews were used following a standard protocol shown in Appendix D. Directors were asked about the general impact of TECAT, about procedures in their district to inform teachers, and about specific questions addressed to the personnel office. They were asked about the teaching qualifications of teachers who failed and about the incidence of teachers not taking the test. Other questions pertained to the specific treatment of teachers who failed and to the more general handling of teacher shortages in that district.

Methods of analysis described previously were again applied to written transcripts of the personnel director interviews.

Cost Analysis and Miscellaneous Data Collection

The methods used in the cost analysis are described along with findings in the relevant section of the report. Data used in support of the cost analysis were obtained from public documents, from our own probability sample of teachers and personnel directors, or from numerous miscellaneous phone calls made to acquire necessary facts. For example, a call was made to Dr. Shirley Crooks who had directed development of materials and training sessions at the University of Texas at Austin. We called cable TV stations in several major cities to obtain the schedules of TECAT broadcasts. We contacted the authors of the Texas Poll for additional information. We also contacted the Texas Interactive Instructional Network (TI-IN) which was responsible for delivering video review sessions by satellite. We called various members of TEA staff repeatedly for facts and documents to support our analyses at various stages.

Section 3: POLITICAL CONTEXT

Climate for Reform

The enactment of a law to test practicing teachers and administrators had immediate historical antecedents. Nearly every participant recounted to us these key events: Governor Mark White's promise to obtain a pay raise for teachers, the national reports describing the crisis in education, hearings held by the Select Committee on Public Education, and the political caldron of the legislative Special Session from which an entire package of educational reforms emerged. Thus the short-term history of the teacher test began in the legislative session of 1983 and culminated in a reform bill in the summer of 1984. These major events are used to organize the ensuing analysis of political context.

However, some informants, legislators, aides, and teacher representatives, were able to think back further. They gave accounts spanning more than a ten-year period. They described the economic and social conditions in Texas that precipitated the reforms and gave them their particular flavor.

The perception of poor student performance in the form of low test scores had been around for a long time. Nationally, test scores (SATs) were declining and Texas was at the bottom in the ranking of states. These facts were repeated to us often, usually without reference to specific dates or numbers, sometimes without knowledge of the specific test. The perceived deficiencies in the educational system had become a part of the *Zeitgeist*. Talk decrying incompetent graduates of the public schools was heard in Texas just as it was in every other state. As one analyst described:

You and I know that in education we have had accountability as a movement for some 10 years now. It started with back to basics; part of back to basics was the accountability movement. You have a curriculum and then you want to measure it. I think we were on the tail end of that movement. I think it was a true education movement, as well as the fact that we did have terribly low student achievement scores....

While politicians blamed education, teacher organizations complained that the problems facing public education could not be solved if teachers continued to be paid substandard wages. From a Texas State Teachers Association member:

Well from my perspective it began before the special session of the legislature. There was a long list of things that had taken place be-

fore, that probably go back two or three governors: political activities, teachers working to get salary increases and better working conditions.

Looking back, political rhetoric about correcting the ills of public education. was tied to business interests and accelerated when Texas first felt the effects of economic recession. According to a teacher representative:

They wanted to move towards a high-tech state. And, in order to do this, you have to have an educated populace that can fill those kinds of jobs.

From a legislator:

I remember reading that creating (better) schools would attract high tech firms to Texas. I believe that high tech is an intellectually motivated industry, as opposed to construction work and that sort of thing. It follows good education. Good education doesn't follow it. They go to those states where there are good education systems.

And from a legislative aide:

(Businessmen) would give you the frost-belt sun-belt theory. More people were coming down here; but not so many (people) were being attracted to Texas as to other parts of the sun belt because we had a terrible education system. So business interests drove this whole machine, this whole education reform machine.

Until 1980, oil had held Texas immune from economic troubles felt by the rest of the country. Texas had gone through the 1970's without a state income tax and without raising the sales tax, all on the profits from oil. But when the world-wide energy glut reduced the price of crude oil, the state's dependency on oil revenues turned the boom to bust overnight. Between December 1981 and August 1982, the state's unemployment rate jumped from 4.6% to 7%. In September of 1982, Governor William Clements had to call a special session of the legislature to raise revenue for the bankrupt state unemployment fund. (Reporting on the continued decline in 1986, *Time* (4/14/86) noted that each \$1 per barrel drop in oil prices meant for Texas a loss of 25,000 jobs and \$100 million worth of state revenues. Prices have followed a steady decline from a high in 1980 of \$39 per barrel down to \$13 in 1986.)

One education observer also suggested that at some deeper level, public concern about the quality of education, and specifically about the qualifications of teachers, was linked to the desegregation of schools.

There was always an underlying thing not spoken by anyone that I know of; but, this has its roots deep in Texas history, and indeed in southern history. During the days of segregation, we not only were not properly concerned with educating minorities; we were as a society opposed to it. The government had written laws and the educational system had been structured in such a way as to prevent those people, no matter how hard they tried, from getting an education. A few people (overcame) the system; but by and large, it was a successful system.

In keeping with that system, we did not care who taught in the black schools or the Hispanic schools. Standards for graduation from black colleges, such as Texas Southern and Prairie View A & M, were notoriously low. You did not even have to have a college diploma to teach in black schools. I know in many cases it was not even required that you have a high school diploma.

We integrated schools, ostensibly, in 1969 in Corpus Christi. (But), the alleged integration did not occur until they began bussing students in 1975. Then, two things started to occur. First, the faculty was integrated in 1970 there. Faculties were integrated, so some of these teachers showed up in so called white schools teaching white middle class kids. It was suddenly a concern that no one wanted to talk about. Secondly, when white kids were showing up in the so called minority schools (parents) were suddenly concerned.

To give an example, at the first administration of the Pre-Professional Skills Test (PPST) (a test for college juniors entering teacher training), about 54% of the state's students passed. But in selected locations, for example, Texas Southern, which is primarily black, the figure was (15%) passing.

Earlier Reforms

TECAT was not the first Texas teacher test, nor was its omnibus reform bill the first educational reform legislation. Earlier reform efforts were described to us by some informants who implied that change had not been effective before Ross Perot's special committee, and by others who suggested that the real reforms had come in the 1981 legislative session.

In 1978, State Representative Dan Kubia announced work on a new teacher certification process. He said that tougher screening should put an end to fiascos such as a recent event in Dallas where a large percentage of teachers failed standard

high school exams. "It should also eventually be the basis for getting 'decent wages' for teachers in Texas for the first time." (*American Statesman*, 8/21/78). (Thus, competency requirements and higher salaries were paired in political statements at least six years before the TECAT legislation.)

In 1979 Governor Clements created an Advisory Committee on Education which issued its recommendations in June 1980. Among other things, the report said that the State Board of Education should, "establish a state testing program for persons seeking Texas certification that assesses competency in general academic skills, knowledge of subject matter in the teaching field, and proficiency in the skills of teaching." (Governor's Advisory Committee on Education, 1980, p. 10-11). The Legislature should, "enact, as a first priority, a significant increase in salary and fringe benefits (including legal support as may be necessary) for all instructional personnel to make teaching positions competitive with professional positions in business and industry requiring equivalent preparation and training." (p. 12-13). The largely unremembered select committee also recommended the adoption of a "state basic curriculum," funding for remedial summer schools, testing of student achievement, and state support for handicapped children.

In October of 1980, a subcommittee of the House Committee on Higher Education released a report recommending two levels of teacher testing. One test, measuring competency in reading, writing and arithmetic, would be given before a student entered an education degree program. A second test would be given at the conclusion of the program in the area of professional certification. The report also cited a decline in teacher education degrees and said: "Students who normally would have enrolled in teacher education programs are not doing so because of the sacrifice financially, because of negative public perception of education at all levels, or possibly because of the fact that women, long the bulwark of the teaching profession, are increasingly entering other professions." (*American Statesman*, 10/6/80). The morning edition of the *Statesman* ran the headline, "Exams proposed for teachers;" and the subtitle read, "Pay raises to be sought." (*American Statesman*, 10/7/80).

In 1981, the legislature passed Senate Bill 50 mandating the two levels of teacher certification tests that had been recommended by the Commission on Standards for the Teaching Profession and by the House Committee on Higher Education, and endorsed by the State Board of Education. In 1982, the State Board adopted the Pre-Professional Skills Test (PPST) published by Educational Testing Service as the basic skills screening measure for admission into teacher education programs. The PPST was pilot tested in Texas in the Spring of 1983. The results

were reported to the State Board on July 8, 1983. By the tentatively set standards, one-third of would-be teachers failed; 80% of black college juniors failed; 60% of Hispanics failed; and 15% of Anglos failed.

The test intended to coincide with completion of teacher preparation eventually became the EXCET test, the Examination for the Certification of Educators in Texas, through State Board rulings. This testing program required the development of new tests corresponding to areas of specialization. After February 1, 1986, all candidates for initial teacher certification would have to pass both a professional development (elementary, secondary, or all-level) and a content specialization test (in areas such as art, biology, English, vocational home economics, or elementary comprehensive).

The 67th Texas Legislature also passed House Bill 246 to reform the school curriculum. It was the state's back-to-basics mandate. Ad hoc curricular requirements were rescinded and the State Board was empowered to upgrade and standardize a core curriculum statewide.

Mark White

Governor Mark White won election in the Fall of 1982 against incumbent Republican William Clements. Although the beginnings of the oil recession may have contributed to Clements's defeat, many say that educators campaigning for White had been a significant factor in the election. White had promised to seek a pay raise for teachers. At the time, beginning teachers were earning \$1110 a month. Many key participants, especially teacher representatives, began their recollections of the political events leading to TECAT with Mark White's promise to teachers. "When Governor White was running for governor, he never did tell us that he could give us a 24% pay increase. But he said that he would push for it and he did."

In his first address to the joint session of the Legislature, January 27, 1983, White called for at least a 24 percent "emergency" increase in teacher salaries. In a retrospective on educational reform, the *Dallas Morning News* (7/8/84) recounted the following steps in White's efforts to obtain the necessary tax increase. In his first budget message, in March 1983, he suggested that tax increases might be necessary and proposed that they be levied on "luxuries which people choose to consume and not on necessities which people need to survive." In May, with the session rapidly drawing to a close, White specifically proposed that taxes on beer, liquor, and video games be doubled and that taxes on cigarettes and gasoline be increased a nickel-a-pack and a nickel-a-gallon. Two weeks later, because of severe opposition in the Legislature, White withdrew his proposals for direct tax increases

and suggested, instead, that some sales tax exemptions be eliminated and other taxes be "reformed."

On May 30, 1983, the Legislature adjourned without action on White's proposals but with agreement to appoint a blue-ribbon study panel. In the last three days of the session, H.C.R. 275 by Representative Haley was adopted. It established the Select Committee on Public Education to study "issues and continuing concerns relating to public education in Texas, particularly school finance and each of its components--personnel support, operating costs, transportation, equalization, minimum aid, and the categorical-aid programs--as well as the source of funding and structure of the system."

On June 16, 1983, Governor White appointed Dallas business magnate, H. Ross Perot, to chair the Select Committee.

National Reports on Education

A month before the close of the 1983 legislative session in Texas, the National Commission on Excellence in Education released its report, *A Nation at Risk*, warning of the "rising tide of mediocrity" afflicting the nation's schools. Many participants in Texas reforms recalled this particular report by name; many more remembered national findings that heightened public concern over the deplorable state of education. We will quote several of the "Indicators of Risk" from the report which best correspond to the recollections of study participants; their accounts, however, were much less specific than this. What they remembered was that scores were going down dramatically throughout the nation, that the problems were serious and pervasive. Facts cited in *A Nation at Risk* included the following:

Some 29 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension.

The College Board's Scholastic Aptitude Tests (SAT) demonstrate a virtually unbroken decline from 1969 to 1980. Average verbal scores fell over 50 points and average mathematics scores dropped nearly 40 points.

Both the number and proportion of students demonstrating superior achievement on the SATs (i.e., those with scores of 650 or higher) have also dramatically declined.

Business and military leaders complain that they are required to spend millions of dollars on costly remedial education and training programs

in such basic skills as reading, writing, spelling, and computation. (U.S. Department of Education, 1983, pp. 8-9).

As seen by Texas political and educational leaders, the national reports were a call to action:

(It) came at the same time that all the national reports began to come out. There was a great hew and cry here in Texas to change the system. So, they set up a study group under Ross Perot.

There were a number of studies underway. All of them came pretty much to the same conclusion; that is, we had some serious problems and something needed to be done about it.

They came out with that report called, A Nation At Risk. That report, you know, that everybody quoted and nobody read. It blamed all of the problems of the nation on the education situation. It was a very popular thing to do. Suddenly, all of those people out there who had it in for teachers, who had it in for principals, who were sick of property taxes to support their local schools, agreed.... We were caught up in that (but) it did afford us the opportunity to do some serious things that needed to be done.

I would say it probably was an awakening. We in Texas...have a tendency to say we're a great state and (to) hide our head in the sand when we have a problem. I think a Nation at Risk, and several other publications that came out about that time, really (hit home). Drop out reports particularly (about) Hispanics and blacks became very public. It was a series of those kinds of things that caused us to wake up and say, "Hey, we are really in trouble."

Recollections of the national reports also emphasized the connection between education and economic competition, especially U.S. shortcomings in comparison to the Japanese. This theme was then taken up by the Select Committee on Public Education. *A Nation at Risk* begins with these words: "Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world." (p.5)

The economic analysis conveyed by the Commission's report is best represented by this quotation:

The risk is not only that the Japanese make automobiles more efficiently than Americans and have government subsidies for develop-

ment and export. It is not just that the South Koreans recently built the world's most efficient steel mill, or that American machine tools, once the pride of the world, are being displaced by German products. It is also that these developments signify a redistribution of trained capability throughout the globe. Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we must dedicate ourselves to the reform of our education system for the benefit of all—old and young alike, affluent and poor, majority and minority. Learning is the indispensable investment required for success in the "information age" we are entering. (U.S. Department of Education, 1989, pp. 6-7).

The report went on to describe the demand for highly skilled workers created by technological transformations such as computers, computer-controlled equipment, lasers and robotics.

An observer from a different time or different place might have found it strange that educational reforms were repeatedly linked with the manufacturing of automobiles. But this was the tenor of the perceived crisis in education that was recounted to us:

I read a lot of articles praising the schools in Japan. The Japanese were taking over our economy with their marvelous products, like cars. They can build them cheaper because they have more efficient operations.

I think the national report, A Nation at Risk, certainly moved our state into this educational reform mode. It compared our schools with Japan and said that a great travesty was being done to our students. They were not accomplishing what they should (furthermore) Texas had traditionally been behind in SAT scores.

Several informants who were a part of the reform process also cited other external events that contributed to the growing momentum in Texas. Interest in testing was a part of the agenda of the Southern Regional Education Board, the organization of southern governors. Politicians in Texas were keenly aware that the neighboring state of Arkansas was ahead of them in mandating a test for teachers. Finally, evidence about the poor quality of students going into teacher education

come to the fore again and again. The qualifications of teacher candidates had been a concern for years, leading to S.B. 50 in 1981. It continued as a subtheme whenever declining scores were mentioned. We will consider this recurring theme again, when we look at the work of the Select Committee on Public Education.

H. Ross Perot

A substantive account of Perot's and the Select Committee's recommendations for reforming education will be given in the subsequent section. Some separate consideration should be given, however, to the personality, reputation, influence, and color of the man who dominated public attention. Perot was the one who raised this particular select committee from obscurity. Many said that it was the force of his tenacious insistence on the reforms that compelled lawmakers to reach agreement over enormous differences. According to one legislative analyst:

(The test) was a fait accompli because Mr. Perot put up a couple of million dollars of his own money to make it a fait accompli. It was a miracle that at the time we had all of the leadership saying all of the same things, speaking with one voice. The lieutenant governor and the speaker actually sat down at the same table and had the same things to say. You don't accomplish that unless you have a very powerful voice behind it. Much of that driving force is attributed to Mr. Perot.

Perot is referred to as a Dallas multimillionaire. He is an electronics magnate with a penchant for politics. In 1970, Perot spoke to a joint session of the Texas Legislature. He convinced them to organize delegations of Texans to visit North Vietnamese embassies and plead for humane treatment of American prisoners of war. When he addressed the Special Session of the Legislature in June of 1984, he began by introducing Sam Houston, newly elected to the House of Representatives, who had survived forty-two months of solitary confinement in Vietnam before Perot's efforts to improve the lot of prisoners. According to a story in the *American Statesman* (4/11/84), Perot spent large sums of his own money to help pass the War on Drugs legislation in 1981. He reportedly spent one-half million dollars to effect the work of the Select Committee. Then, he hired his own lobbyists to work through the Special Session to see that his goals were not eroded by political compromises.

The Select Committee was Perot's Committee. His name appeared in headlines associated with radical reformation of schooling. For example, in the *Amarillo Daily News*: "Perot Unveils Education Ideas" (8/3/83), "Perot Wants to Fine Parents of Students Who Don't Measure Up" (2/24/84), "Latest Perot proposal elitist,

undemocratic"(3/14/84), "Perot panel scales down reform plans"(4/20/84), "Perot Urges Special Session for Reforms"(5/4/84). The committee's business made the news at least weekly in papers throughout the state from August of 1983 until the Special Session in June 1984. The visibility of these committee hearings was in sharp contrast to the media attention given to Governor Clement's earlier committee chaired by Willis M. Tate. In the files of the *American Statesman*, on the topic of teacher certification dating back to 1978, we found no story on the report of the Governor's Advisory Committee in June 1980, despite its recommendation for teacher certification testing, consonant with the recommendation of the House Committee on Higher Education.

If Perot's reputation had not commanded media attention, then certainly the punch of his one liners would have made school reform newsworthy. "We won't compromise on anything," said Perot (*Amarillo Daily News*, 5/23/84). His hard-charging straight-talking style was ideally suited for press releases. "Scheduling academic subjects around band and sports is a joke," said Perot. He had similar disdain for vocational education programs: "We've got children leaving school in the middle of the day just to work to pay for a car."(*American Statesman*, 9/11/83). Perot also had a larger vision of what was wrong with Texas education and what had to be done to fix it. His analysis, especially the arguments relating educational health to economic vigor, closely paralleled *A Nation at Risk*. Although we cannot adequately represent Perot's views, as distinct from the reforms recommended by the committee, we have included an essay written by Perot as Appendix E.

To say that Perot was powerful and that he lead the charge for reform, does not imply that his views were universally shared. He had opponents, many of whom were educators whom he portrayed as self-interested protectors of the status quo. He feuded with the Chairman of the State Board of Education and then fought hard to eliminate the elected board. As the programs of various specialized groups came under attack, they countered that Perot had painted an unfairly negative picture. Often he saw simple solutions to complex problems. Perot's radical views, which garnered media attention, did not guarantee equal time to both sides. His single mindedness, which got the job done, did not necessarily invite compromise nor make educators equal partners in the envisioned changes.

Select Committee on Public Education

The Select Committee took seriously its charge to review, from top to bottom, the structure of public education. Public hearings were conducted throughout the state. Nationally famous educational reformers were invited to present their

ideas, e.g., Mortimer Adler, John Goodlad, and Admiral Rickover. The committee also heard testimony from numerous groups including the following:

- Texas Federation of Teachers
- Association of Texas Professional Educators
- Texas Classroom Teachers Association
- Texas Elementary Principals & Supervisors Association
- Texas Association of Secondary School Principals
- Texas State Teachers Association
- Interfaith Network
- Intercultural Development Research Association
- Mexican American Legal Defense & Education Fund
- Texans for Equitable Taxation
- Blacks for Affirmative Action
- Texas Congress of Parents & Teachers

In examining the records of the Select Committee and media coverage of the hearings, our focus was primarily on discussions of teacher qualifications and the origins of discussions of teacher testing. However, these issues were part of a much larger picture. To convey the broader agenda, we will briefly describe the committee structure and the corresponding sets of recommendations in the final report. There were five subcommittees. The subcommittee on Organization and Management considered every level of school governance; in the final report, an appointed State Board was suggested to replace the elected board, the powers and responsibilities of the Texas Education Agency were to be increased, school principals were to function as instructional leaders, and local boards were to make regular reports to the public. The subcommittee on Finance considered the mechanisms for equalization of funding. Many considered the redistribution of state funds mandated by subsequent legislation to be the most significant component of the educational reforms. The purview of the subcommittee on State and Federal Relations included discipline management programs, alternative schools (for incorrigible youth), and protection for educators against frivolous lawsuits. The subcommittee for Educating the Child was concerned with lengthening the school day, lengthening the school year, reducing class size, and adding thinking skills and technological literacy to the three Rs. Their recommendations were numerous and highly specific, including the requirement that students not be exempt from taking final examinations.

The subcommittee on the Teaching Profession was the locus of TECAT history. They considered testimony about the pool of candidates preparing to be teachers and about salaries for teachers in Texas and in the nation. They heard proposals for career ladders and for competency testing. Each of these items will be elaborated further.

First, however, a markedly different overview of the Select Committee's business is offered from the perspective of newspaper accounts. The Select Committee's report is dull reading compared to the media stories that trailed the committee hearings. Even radical suggestions, such as extending the school day until 6:00 p.m. for some children, were presented in staid and neutral language in the report. In the press, the talk was much more flamboyant, from Ross Perot and many others. Furthermore, the most controversial topics received the greatest coverage. We make this observation because the Select Committee recommendations would not automatically lead to draft legislation; it is conceivable that the images which appeared in the press were as important in shaping legislative action as was the formal report from the committee.

Take as an example, the committee's concern with extracurricular activities. The headline of a *Statesman* article read, "Perot questions emphasis on school sports." "The extracurricular system is gutting the school day, disturbing middle schools and invading the elementary schools," said Perot. "Texans must decide whether they want 'Friday night entertainment' or education." (*American Statesman*, 9/15/83) At issue was both the cost of these activities compared to academics and the time stolen from the school day. In the same article, Senator Carl Parker was quoted as saying that he didn't see why it takes 9 to 12 adults "in matching shirts" to field a football team every Friday night "when we are scratching to keep the educational system from being held unconstitutional." Joining in on the spirit of the committee's concerns, the director of the University Interscholastic League agreed to push for rules that would require: higher scholastic requirements, cutbacks in elementary school athletics, reduction of coaching staffs, reduction of interference with school time, and elimination of "redshirting" by seventh grade athletes (*American Statesman*, 9/29/83). Many coaches and parents complained bitterly about the attack on athletics; "why not raise academic standards without cutting back on sports." (*American Statesman*, 9/30/83). In October, the Board of Education passed a rule that students could not participate in interscholastic sports if they were not receiving passing grades in at least four courses.

Other issues debated in the media are characterized by these headlines from the *American Statesman*:

"Full-day school at age 4 suggested by teacher group." (1/14/84).

"Longer school days urged by public education panel." (1/17/84).

"School finance plan fights rich-poor gap" (1/19/83).

"Teachers hail salaries keyed to competence." (2/5/84).

- "\$15,200 base on teacher pay under review." (2/19/84).
- "Longer school year endorsed by panel." (2/21/84).
- "Teacher organization calls testing proposal 'absurd'" (2/22/84).
- "Charge to parents urged for failures by students." (2/24/84).
- "Full-day kindergarten urged by Perot panel." (3/6/84).
- "Perot attacks school board, urges ouster." (3/8/84).

Our more intensive look at the origins of teacher competency testing was guided by the recollections of many key participants, legislators on the committee, staff assistants, and individuals who gave testimony. These individuals gave us detailed accounts of how, from their perspective, this idea had taken shape in the Select Committee. These accounts were augmented by relevant documents from the committee archives. An integrated story of events has these key elements: 1. The committee was concerned by evidence that teachers in training were being drawn from the bottom of the college class. 2. The unattractiveness of a career in teaching was caused in part by low pay. 3. Based on test results and many anecdotes, the committee concluded that some significant fraction of practicing teachers were incompetent. 4. The committee had evidence that current procedures were not adequate to eliminate incompetents. 5. A pay raise for teachers, which had all along been a part of the committee's agenda, could not be justified for the incompetent ones. 6. Competency testing could do what lame administrators had failed to do; testing was legally defensible and had public support. We will elaborate on these points in the following discussion.

A background memo to the committee, entitled "Statistics Concerning the Decline of Students Entering the Teaching Profession," contained the following information:

Statistics gathered from the College Board illustrates that there is a rapid decline in the number of students entering the education field. The statistics were taken from responses given by students on the S.A.T.... The statistics also show that the S.A.T. scores for those entering the teaching profession have been consistently lower than the mean scores of all students taking the test.

Table 3.1, reproduced from Weaver (1981), is a summary of College Board data from 1972-1979. As interpreted by Weaver, education majors maintained their same relative position through the SAT score decline, i.e., they continued to be at about the 37th or 34th percentile compared to other SAT takers. Weaver further noted that 1980 scores of education majors would have ranked them "just above the

bottom quartile in both verbal and math” had they been compared to 1972 norms. Although none of our respondents made specific reference to Weaver’s article in the *Journal of Teacher Education*, this particular reference might explain why we heard that “education majors are in the bottom quartile of their college class.” At the end of the committee’s work, Perot made headlines with his charge that the “Dumbest People in College Study to Be Teachers.” The relevant *Amarillo Globe* article (5/17/84) is reproduced as Figure 3.1; it recapitulates many of the themes of the Select Committee hearings.

Table 3.1
SAT Math and SAT Verbal Means For College-Bound Seniors
Selecting Education and Arts/Sciences Areas as
First Choice College Majors, 1972-1979

	1972- 1973	1973- 1974	1974- 1975	1975- 1976	1976- 1977	1977- 1978	1978- 1979	1979- 1980
SATV								
Business	409	406	406	413	402	401	400	399
Art	440	432	435	438	412	408	404	402
Bio. Sci.	493	488	481	483	475	475	472	469
English	500	496	488	489	504	504	505	507
For. Lang.	491	483	481	485	481	476	475	472
Math	481	479	463	472	464	464	458	455
Music	465	462	448	452	445	439	437	436
Phil.	479	476	469	478	467	466	465	460
Physic Sci.	505	503	501	508	500	499	498	495
Soc. Sci.	476	463	465	464	456	457	455	456
Engineering	468	465	450	452	448	448	445	444
Education	418	417	405	405	400	396	392	389
National	445	444	434	431	429	429	427	424
SATM								
Business	463	457	461	471	453	447	447	446
Art	451	441	445	443	425	422	421	419
Bio. Sci.	533	528	525	530	515	511	507	506
English	481	473	465	469	478	476	478	481
For. Lang.	498	494	488	487	483	477	476	475
Math	595	584	580	584	588	585	580	577
Music	487	479	464	468	463	456	456	455
Phil.	500	489	484	495	487	481	482	477
Physic Sci.	570	568	565	572	572	566	561	560
Soc. Sci.	490	477	476	475	474	472	472	473
Engineering	548	554	541	550	546	540	536	535
Education	449	448	434	431	426	422	420	418
National	481	480	472	472	470	468	467	466

Source: College Entrance Examination Board.
 National College Bound Seniors.
 Sub-Career Fields, Intended Areas of Study, First Choice.
 1972-1979.

Select Committee staff also conducted their own telephone survey of “1983 high school honor graduates” from 17 high schools selected to represent each region of Texas. These results were reported in a memo to the committee:

PEROT CHARGES:...

GLOBE MAY 17 1984

'Dumbest People In College Study To Be Teachers'

A School Teacher Dis
a School Education Dis W

HOUSTON (AP) — Someone on the elected state school board probably still thinks the world is flat, says the head of the state Select Committee on Education, which has called for an appointed board.

Continuing his campaign for an for an appointed "high-talent" nine-member school board, school reformer H. Ross Perot attacked the current elected 27-member board in a speech to the Houston Chamber of Commerce on Wednesday.

"This is the group that gave us textbooks that look like People magazine," Perot told about 380 members of the Houston Chamber of Commerce. "This is the group that allows teachers that are illiterate to get teaching certificates. And I'm sure that somewhere on that board there's someone who thinks the world is flat."

The Dallas computer magnate said the state school system needs a board that will be held more accountable.

"Just think for a minute what happens to a losing coach," he said. "We don't tolerate that. We do one of two things — we fire him or make him a principal."

Perot also called for an improved teacher certification system, saying one-fourth of college students scoring lowest on the Scholastic Aptitude Test are in teacher education programs.

"Bluntly put, the dumbest people in college today are studying to be teachers," he said.

The state sends teachers to Stanford and Harvard universities and the Massachusetts Institute of Technology, Perot said, but they can't receive certification to teach in Texas public schools because they never enrolled in college education programs.

Perot said school officials should select teachers on the basis of competency tests and academic performance and personal qualities needed for teaching. He also called for better communication between educators and state officials.

"We do not listen to the teacher in the state of Texas," Perot said. "We tell teachers what to do."

The \$8.3 billion appropriated for the state school system makes education "the largest business in Texas," Perot said. He said it should be run like a business.

Perot said 30 percent of state taxes are earmarked for education and said taxpayers aren't getting their money's worth.

"Folks, you bought the ticket, you just never got to see the show," he said.

Perot said the state must "compete internationally" with other school systems.

"Our international competitors are dead serious about education," Perot said. "While the Russians are busy pushing their children into mathematics, have have math for the nonmathematician."

"Texas is in the 40s among the 50 states in education," Perot said. "We're at the bottom of the bottom, and there's no place to go but up."

"We've got a population in Texas that doesn't necessarily look like you'd like them to look," he said, referring to handicapped and disadvantaged children. He said the state must "take children from all backgrounds and teach them."

Perot attacked vocational and distributive education programs, which he called "dumping grounds for children who need more and more literacy."

"We train children for jobs that don't exist on obsolete equipment," he said. "Spend the time on learning. Spend the time on things that allow children to win throughout their lives."

Recommendations of the select committee will be considered by the state legislature, which is expected to convene in June for a special session.

Figure 3.1

99% of the honor graduates will be attending some form of higher education.

Of those entering higher education institutions, only 10% reported that their course of study would be education. Business, engineering/sciences, and the medical field constituted 70% of the chosen areas of study.

Asked if in the future they would consider teaching in public education, only 12% responded yes, 57% said no, and 25% said they would possibly consider it.

57% of the students surveyed stated that they have at least one family member presently in the teaching profession.

The most common responses given as the reasons for entering the teaching profession was the sense of reward and their overall love of children.

The most common responses given as the reasons for not entering the teaching profession were its low pay and general lack of interest.

Data provided by the Texas State Teachers Association are presented in Appendix F. Texas had been in the lower ranks of states in its average compensation to teachers, although in 1982 it had climbed to the 25th position. Far worse, Texas was ranked 43rd in its per-pupil expenditure for education. Salaries for beginning teachers were believed to be more discrepant than were salaries at the median. Spokespersons for many educator groups reminded the Select Committee that neither teacher shortages nor the teacher quality problem could be solved without more pay. A typical example is the following quotation from testimony by the Association of Texas Professional Educators:

While raising teacher salaries to acceptable levels is no panacea, it is an essential first step. No other reforms in our educational system will have any impact if we do not have qualified, dedicated professionals in the classroom. Competency testing, more stringent certification standards, revision of the curriculum and improved discipline procedures will have nebulous impact on the system if the level of salaries one can expect upon becoming a teacher continues to be so low that fewer than 4% of our college freshmen will even seriously consider a teaching career.

More than two-thirds of Texas' school districts predict serious

teacher shortages in the next five years. That is a serious problem which must be addressed. Money alone will not do it, but when college graduates can make 10 to 15 thousand dollars more their first year out, they are going to select private industry careers long before they will go into teaching.

Concern about the quality of teacher candidates was naturally associated with concern about the qualifications of current teachers. Most observers felt that heightened suspicions about wide-spread teacher incompetence was closely tied to the SAT score decline (among students). In 1978, Dallas Independent School District had given the Wersman Personnel Classification Test of basic skills to 535 first-year teachers and to a volunteer group of juniors and seniors from a private high school. The students outperformed the teachers; in addition, more than half of the new teachers fell below the standard set by the district. A lengthy article by Linda Austin in the *Dallas Times Herald* (12/13/83) included a long list of facts that were remembered by many of our informants.

38% of of Texas juniors failed the PPST (at its pilot administration).

The PPST was also given to 3,300 new teachers in Houston ISD but only 2,400 scores were reported because of cheating and other irregularities. 62% failed the exam. The Houston school board later lowered the passing score so that only 44% of the teachers failed.

Bright teachers bail out first. The higher a teacher's score on the National Teacher Exam, the less likely the teacher is to be teaching seven years after starting.

According to an ETS spokesman, "As retirement reduces the current teaching force by one-fourth to one-half during the next decade, those filling the void will be people with SATs in the 300s—a generation of the most ignorant students who have (ever) gone into teaching."

Until a decade ago, public schools could count on bright women to enter teaching because of the discrimination they faced in other professions. But with other careers now open to them, women are avoiding teaching, just as men always have, because of its low pay, poor working conditions, limited prestige and lack of upward mobility.

In 1980-81, Texas issued 5,698 emergency permits for under-qualified people to staff classrooms because of teacher shortages.

On the same date, Austin also reported that Dallas was hiring unqualified minority teachers because of a desegregation order.

The Dallas Independent School District hires low-scoring applicants as teachers, a disproportionate number of whom are blacks and Hispanics, because the district is under federal court order to increase the percentage of minorities on its faculty by 1986, Supt. Linus Wright said.

More than half of the 1,182 new teachers hired in the past two years scored below 67 percent, the minimum "acceptable score," on a high-school-level test of academic knowledge given as a pre-employment exam. And the majority of the low-achieving new teachers were minorities.

Passing over higher-scoring whites, the district also hired a number of low-scoring whites to protect itself from charges of reverse discrimination, Wright said.

Data about poor teacher test scores were augmented with personal stories. "The committee kept hearing that there were those teachers, however small the percentage may be, that should not be in the classroom. We heard all these horror stories of misspelled words on the bulletin boards." In the *Dallas Times Herald* (12/12/83), a teacher organization leader told about a Dallas high school teacher who made good grades in high school and college but could not speak in complete sentences. "She couldn't write anything and couldn't do the simplest math. He went on to say that this same teacher did not know who Teddy Roosevelt was; she said he must have been an author of popular novels. Another story was retold by committee members all over the state. It had to do with a teacher in a second or third grade class who was trying to explain why the weather is so different in Alaska and Hawaii. "She couldn't explain it because Alaska and Hawaii are so close together; (you know how they pull Alaska and Hawaii out from the continental states and put them in a corner). They're so close together, how could the weather be so different?"

Statistics and stories about teacher incompetence were amplified by surveys of educators, who admitted that some among their ranks were unfit. In addition, these surveys conveyed the added problem that current procedures were inadequate for removing incompetent teachers. The *Dallas Times Herald* sent questionnaires to 7,000 Dallas teachers. The majority of teachers responding answered that "at least one-fourth of their colleagues in the classroom are incompetent." (12/12/83). The firm of Sirota and Alper (1984) conducted interviews with a random sample of superintendents, principals, and teachers. Although more than one hundred

questions were asked, the following two questions were among the most salient to committee deliberations:

Q. 118 There has been a lot of discussion in the media about teacher competence. Some feel this is a serious problem, while others feel it has been greatly exaggerated. What is your feeling? About what percentage of teachers at your campus would you personally rate as unsatisfactory? (Superintendents respond in terms of your district as a whole.)

	0%	1-5%	6-10%	11-15%	16-20%	21-25%	>25%
Superintendents	7	62	19	6	4	2	1
Principals	27	51	15	4	2	0	0
Teachers	20	52	15	6	3	2	2

Q. 55 At my campus, it is difficult to get fired for poor performance.

	Disagree	Neutral	Agree
Superintendents	51	12	36
Principals	54	18	29
Teachers	33	27	41

The results were summarized in the *American Statesman*, "Most teachers and administrators estimated that only 10 percent of their colleagues are incompetent. But both groups agreed it is hard to get fired for poor performance on the job."(2/16/84)

Several key participants recalled that it was educators themselves (through these surveys) who had convinced the Select Committee that outside intervention was necessary to remove bad teachers.

One of the things that survey found was that invariably almost every teacher that responded said they knew a few people in the profession that simply didn't have the skills to do the job. There were people out there that were semi-literate and should not be in the profession. But the profession was not purging itself for whatever reason. Teachers then, with that kind of response, directly impacted the Select Committee's decision to have a teacher test. I don't think that teachers realize that the teacher test came from teachers themselves.

We have roughly 200,000 professionals employed in this state. I'm sure there are a few that probably shouldn't be there. (The Committee) would get on to the issue of why we are not doing a good job of removing them from our ranks. The discussion would focus on the adequacy or inadequacy of the teacher evaluations, and politics, and the difficult legal issues of removing someone that was not fully competent. It was very difficult to remove someone; it was either very difficult or distasteful.

Although there was a procedure for firing teachers, for some reason they weren't being too effective in some of the school districts. It was really hard to get rid of some of the teachers after all the red tape. Some of the Select Committee members certainly didn't think that it was a good thing that these types of teachers were out there. I want to stress that by all means they were not the majority of the people teaching. But there were some teachers in the classroom that didn't have adequate communication skills.

Very early on, the question of competence and salary increases were linked. On the one hand, committee members accepted the logic that current problems of incompetence would only worsen unless, in the future, higher salaries existed to attract more academically prepared students into teaching. But, given the horror stories, the committee was unwilling to recommend a pay raise that would benefit both competent and incompetent practicing teachers. As some form of testing became a more common expectation among committee members, it was reported that, "requiring competency tests for teachers would rid the public schools of 20,000 incompetent instructors." (*American Statesman*, 3/15/87). Although estimates of the numbers of incompetents ranged from 5% to 30%, the most common magnitude used by Ross Perot and others was the 10% figure, derived from the Sirota and Alper report. For example, in the *Amarillo Globe Times*, Perot was quoted as saying that "Any level of incompetence in the classroom is unacceptable because of the number of children harmed. If 10 percent of the teachers in the state are incompetent, 300,000 children are affected." (4/24/84).

An analysis of "The Constitutionality of Teacher Competency Testing" was obtained from a Dallas attorney, David Bryant. Based on legal precedent he concluded that practicing teachers could be subjected to a test so long as the following conditions were met:

1. the tests must be non-discriminatory on their face and in purpose.

2. the tests must be properly validated, with reasonable passing scores.
3. the tests must be fairly administered and scored.
4. fair advance notice of the tests and fair opportunity for retaking and remediation should be provided.
5. those whose certificates or jobs are to be affected should be afforded the basics of procedural due process, including notice and an opportunity for a hearing before such effects occur.
6. the sanctions for failure of the tests should be uniformly, and not selectively imposed.

Bryant did not believe that these conditions would prevent legal challenge, but that "a testing system meeting these requirements would ultimately be upheld."

In February 1984, two months before the Select Committee produced its final report, the results of a Texas public opinion survey were released. The Texas Poll is funded by Harte-Hanks Communications and conducted by the Public Policy Resources Laboratory at Texas A & M University. The majority(72%) of Texans were in favor of increasing the tax on alcohol and tobacco to "make more money available for public schools." The vote was split 45%-55% as to whether the general sales tax should be raised for the same purpose; and the great majority were against raising property taxes or the gasoline tax. In the same survey, Texans were asked about testing as well as other school issues.

By a 9-to-1 margin, Texans want teachers to pass competency tests before they are allowed in the classrooms. They also say by the same lop-sided tally that high school seniors should pass competency tests before they can get diplomas.

Q. Do you think that teachers in Texas should have to pass a competency test before being certified to teach in public schools?

Yes.....90% No.....10%

Q. Should high school seniors be required to pass a competency test before they are given their graduation diplomas?

Yes.....87% No.....13%

Although the particular question about teacher testing referred to a test prior to certification, we believe that publicity surrounding the survey results contributed to the impression that the general public was strongly in favor of a test for *practicing* teachers. Participants recalled to us that the public was very supportive of TECAT.

The Select Committee released its report on April 19, 1984. Recommendations to increase the base pay for teachers and to institute teacher testing appeared

on the same page (among 44 pages of recommendations). The committee's proposal included both subject matter tests and a basic skills test. These tests were to be a one-time requirement for teachers and administrators in the public schools. Fairness measures such as equal opportunity, preparation and remediation, and multiple retakes, were to be provided.

Special Session of the Legislature

On May 25, 1984, Governor White called a special session of the Legislature for June 4, for the purpose of enacting a "comprehensive reform of primary and secondary public education, including revision of school finance structure, and increased compensation and career inducements for public school teachers." Several competing drafts of legislation had already been circulated; the special session would permit 30 days for differences to be resolved. The early version of Representative Haley's H.B. 72 did not include either establishment of a new appointed state board of education (a reform considered essential by Perot) or testing for current teachers. The Governor had, however, included teacher competency testing in his announced plan for reform. Two other bills introduced at the same time reflected the major points of disagreement among key legislators. Senate Bill 1 by Parker did not include the most controversial provisions; S B. 4, was called the SCOPE bill because it carried the full recommendations of the Select Committee. These differences were the focus of debate during the special session*:

(S.B. 4) Minimum salaries for teachers tied to career ladder levels
vs. (S.B. 1) Single-line minimum salary schedule

(S.B. 4 only) Limits on class sizes in primary grades

(S.B. 4) Basic skills and subject area exams for teachers and administrators
vs. (S.B. 1) Minimum skills assessment for those personnel

(S.B. 4 only) Full-day kindergarten, student tutorials, parenthood education classes, and child-care education curriculum

(S.B. 4) Student passing grade (70) in all courses in order to participate in extracurricular activities
vs. (S.B. 1) Less restrictive measures for limiting extracurriculars to the academic school day

(S.B. 4) The appointment of a 9-member state board

* This analysis is taken from notes on the history of H.B. 72 provided to us by Dr. Terry Heller, Research Specialist for the Senate Education Committee

vs. maintaining the elected board

Teacher testing, then, was one of the hotly contested items in the special session. Before elaborating on the substance of that debate, we will mention several other important provisions of the final H.B. 72, especially the winners and losers on other controversial points. Haley's second draft of H.B. 72 already reflected some compromises; other compromises were hammered out by a conference committee and a midnight session of the leadership. In the final legislation, teacher starting salaries were raised to \$15,200 and additional salary supplements were tied to a career ladder. Class size was to be limited to 22 in the early grades. Current teachers and administrators were to take both subject matter tests and a basic communications test. The state would fund half-day kindergarten. The more stringent control over athletics, the famous "no pass, no play", requirement was included. And, Perot's *sine qua non*, an appointed state board to take control away from the education establishment, was enacted. Other less controversial aspects of the legislation included a 175-day school year, seven-hour school days with fewer interruptions, a high school graduation test, and an end to social promotion. State funding of schools was to be computed using a formula based on average-daily attendance; more importantly, districts which fell below 110% of the state average wealth would receive enrichment equalization funds.

Stories about some incompetent teachers continued to circulate during the special session, as they had during the Select Committee hearings. Especially, there were stories about letters from teachers urging legislators to pass a pay raise that were illogical and illiterate. Legislative aides also told us that the lack of professionalism on the part of some teacher representatives (the way they spoke or what they argued for) caused legislators to think less well of teachers. Those who argued for a teacher test, wanted a one-time screening to get rid of these incompetents.

Bill Haley, a teacher himself, had not wanted a test. *"I never supported the test. The test was in the bill because I was carrying a compromise, alternative piece of legislation." "I knew, when I started, that I was going to lose (on) the test. Everyone knew that. It was a foregone conclusion." "My attitude was that there are teachers who may not get past the test, but I would want my children in their class. I know others who could knock the top off the thing, but I wouldn't have my kid in their class. I know some teachers who had lots of difficulty with it, but I want my kid in their class. The point is, it turned out to be a measure of literacy, not competency."*

In the Senate, Carl Parker had prevailed in keeping a teacher test out of the draft legislation. He called it the full employment bill for lawyers. The following quotations are excerpts from Parker's address to the Senate Committee of the Whole on June 21, 1984:

We're talking about whether or not we're going to use teacher testing as a punitive tool or we're going to use it as a management tool to try to make education better. (Parker thought that a test could be available to local districts to be used with teachers whom supervisors felt were in need of remediation.)

Now, I personally believe from my personal observation and talking to teachers and seeing schools, that the vast majority of the people who are teaching our children are teaching them just about as well as we will let them and equip them and want them to. Some people would put all of the blame for whatever shortcomings public education has on teachers. And yet, there is plenty of blame to share between a tight-fisted legislator, a near-sighted administrator, doting parents, parents that don't care.... We all share in the blame.

Somebody tell me how you can draft a test to tell you how to be a good Senator. You can't do it. Somebody tell me how you can devise a test to tell you whether or not someone is an able kindergarten teacher. It can't be done. Now, you can test specific abilities but you're going to have to draft a multitude of tests. The test to test the skill required to teach fourth grade arithmetic certainly is not the same as the skill required to teach seventh grade arithmetic.

....We're going to give a test to see if they can add two and two and four and four and, if you can do that well, then you can go back to teaching Calculus. We will have insulted every math teacher in the state and we will not have improved the quality one iota.

Senator Farabee's response expressed the sentiment which ultimately more legislators shared. First, the test was a safeguard against local administrators who had thus far failed to remove incompetents. Second, Parker's concern about the level of the test applied to the subject matter tests, but not to a basic communications test.

I very much feel that it would be better to have one test because--here's the problem. I think that if it's left to the option of the Board or

the option of others, then there's always a tendency to say, "I don't want to make him or her mad. I've known them all my life, they're good friends. Let's just wait another three years and they'll retire or maybe they'll be moved to some other school....The good thing about a test, one time given and with an additional opportunity to take it, is that it is done without invading the classroom. It is done without the brother-in-law element.

There are two areas. One is just communication. Basically, even if you teach Algebra, you do have to be able to communicate in writing and to have basic spelling and literacy and to be able to read, even if you teach Algebra. Then, there's your subject area which might be Algebra, which might be Calculus or it might be first grade and learning the ABC's.

Eventually, debate about the feasibility and desirability of testing teachers took a back seat to political realities. At least 20 of our interviews with key participants included the bargain that was made to leverage a tax increase. The slogan became, "no test, no tax." We have noted, in earlier stages of the reform, that implicitly talk about salary increases was paired persistently with the need to demonstrate competence*. During the special session the *quid pro quo* was made explicit. The "no test, no tax" rallying cry was attributed first to Stan Schlueter, Chairman of the House Ways and Means Committee. Some suggested that his motive was to forestall both; i.e., given that the test was so aversive a measure, neither the test nor the tax increase would survive. The slogan was taken up by others, however, who wished to see both succeed. As the Commissioner recalled:

Education got more than a billion dollars out of the tax bill (annually). For them to sell the people of Texas on a tax bill, they had to (convince) the people that they were going to get something in return. So they had to sell them on improved education; one piece of that improved education was that they were going to test every teacher. They were going to get rid of the teachers that didn't have the skills to do the

* We noted this association, however, after having been sensitized to it by our first interviews with key participants, who were recalling events in the last days of the special session. Many made it seem as if the no test-no tax ultimatum was delivered for the first time in the special session. But once alerted to the theme, we found it in political rhetoric dating back several years

job. So, the teacher test was in fact a price paid by teachers. That was the price the legislature decided teachers would pay for higher salaries and for a lot more money to be spent in public school education.

And as remembered by a legislative aide:

The "no test, no tax" came to be and Mark White got stuck with it. He had to deliver the pay raise and he couldn't deliver the pay raise without the tax bill and he couldn't deliver the tax bill without the test.

In the words of a teacher organization representative:

It was almost that the competency test was the price that teachers had to pay to get a pay raise.

Although Senator Parker had resisted large-scale testing of teachers, he characterized the momentum for the test similarly:

A lot of politicians were caught in a bind of promising the teachers better salaries and having to face a constituency that was enamored with the Proposition 13 syndrome--no new taxes or reduced taxes, even though Texas ranks near the bottom in per capita taxes of all the states. It takes a rather courageous candidate to lecture his constituents and try to educate them. I think that they caught on to a way to deal with that. (They said,) "I'm for doing whatever is necessary to reward teachers but I don't want to reward those that aren't competent. We're going to put some tough measures in place to make sure that we only reward those who are really superb teachers".... I just think they were putting a face on the request to extract more funds from folks by saying, "we've gotten our pound of flesh from the teachers in return."

During the 30 days of the special legislative session, complicated political forces produced a complex, omnibus reform bill and a \$4.6 billion tax package. Our analysis cannot adequately portray the process by which the final character of the reforms was determined. The process cannot be reduced to a series of single-issue votes; nor were compromises or trade-offs always explicit. Although various analysts said that the prognosis for major reform had been bleak at the start of the session (Burka, 1984; *Texas Observer*, 7/13/84), in fact, there was tremendous pressure to produce something after all of the attendant publicity. Haley's bill had momentum; great political pressure was exerted by the Speaker in the House and by Parker and Hobby in the Senate to keep any differences of opinion from derailing it. As for the matter of teacher testing, although it was hotly debated and educators

lobbied strongly against it, support coalesced for a final reform package with tests for current teachers in it.

Teacher Organizations

Teacher organizations in Texas had a different view of "competency testing" than that held by legislators or the general public. Beginning with the Select Committee hearings, they voiced their objections. Although the the four major teacher groups at sometimes disagreed with each other, generally they were supportive of testing teacher candidates but were not in favor of tests for practicing teachers. We will use several lengthy quotations to represent the organization positions. Primarily, testing of current teachers was unacceptable because competency could not be measured with paper and pencil tests. Secondly, some groups argued that teachers should not be fired for the inadequacies of teacher education programs or feckless administrators. Instead, teacher groups were in favor of evaluations conducted through classroom observation, and of assessments that resulted in remediation rather than being fired. The excerpts below are taken from testimony presented to the Select Committee. Note that in the course of presenting their positions, organization spokesperson's explicitly agreed that some practicing teachers were incompetent to do their jobs.

The following portion, most relevant to competency testing, was taken from the statement of the Association of Texas Professional Educators, made to the committee on September 14, 1983:

Those of you in industry recognize the need to reward employees for the quality of their job performance, and for the level of expertise they can demonstrate in the execution of their duties. Teachers should be no different. If you pay teachers higher salaries, it is not unreasonable that you would expect a satisfactory level of qualifications and skills. Those of us who take the profession very seriously do not quake at the thought of having to pass a competency test or being required to study harder in our preparation programs. But we do have specific recommendations about how those two considerations should be implemented.

First, competency testing. You cannot honestly expect a teacher who has been inadequately trained and educated to pass such a test. At the same time, you place yourselves on the horns of a dilemma. Those teachers who make the headlines today because they cannot read or write, or because they know precious little about their subject area,

did not become functional illiterates overnight. Somewhere along the line a state accredited institution of higher education told them that they had successfully passed all the requirements necessary to become certified teachers in Texas. Somewhere along the line, university professors in those accredited colleges and universities gave them passing grades for successful completion of the work required. And, at some point, the State of Texas concurred by issuing a certificate.

Every teacher who graduates from one of these colleges of education, and who receives state certification, should rightly feel that they have what it takes to be a teacher – because the colleges and universities told them that they did. Even more so, school districts have hired them – consistently – and have never terminated them for ineptness. With such positive reinforcement, it is only logical for them to conclude that they were ready, and prepared, and knowledgeable enough to teach our future generations.

....

Competency testing is a fine measure to ascertain whether teachers have kept up with the progress in their chosen fields. It should not, however, be used solely to eliminate incompetent teachers. We acknowledge that there are some incompetent teachers in the classroom. A competency test would certainly help pinpoint those deficient teachers. But rather than use it to oust them, in effect telling them that they have been lied to all these years, the test should be used to point out deficiencies so that programs for correction can be set up. If these deficiencies should have been remedied before a particular person had received a diploma and/or certification, then perhaps it should be the responsibility of the college and/or university from which that person received a degree to correct the problem.

On the same date, the following statement was made by Susan Crocker, Legislative Committee Chairperson of the Texas Classroom Teachers Association.

As is evidenced by the massive revamping of the certification system and the rewriting of certification requirements, our present method of screening and ascertaining that individuals are ready to enter the classroom is not uniformly successful in sifting out bad risks and placing those best suited to teaching in classrooms across our state. Fur-

ther, there is little guarantee in the proposed changes that the situation will improve with regard to such determinations.

As a profession, we agree that certain minimum competencies are necessary for all candidates interested in entering the teaching profession and that a competency test is one measure to assure that such minimum competencies have been attained. However, unless and until more training time is spent in actual school and classroom settings, after sufficient subject matter preparation is acquired, beginning teachers will continue to enter a profession ill prepared for what actually lies ahead of them and is expected of them. Internship programs should be a part of preparation with an up or out provision available at the completion of each stage of development.

The next stage of the development of teachers should begin only after careful evaluation of competencies exhibited and progress made. Unsuccessful candidates should have counseling services available to them with avenues open for redirection or remediation and retesting if desired. Such evaluations and determination should be made by qualified teachers as well as university and regulatory agency staff. Reliance on any form of a standardized test as the major or primary component for making these career determinations is unsatisfactory, because the skill of individuals to convey their subject matter knowledge to others, the essence of teaching, can best be judged by consistent and regular observation of the practice.

Later, in February of 1984, when a competency test was specifically recommended by the Teaching Profession subcommittee, Dale Young, president of the Texas State Teachers Association, made the following remarks, reported in the *American Statesman*:

One proposal we've heard advocates testing literally all Texas teachers by use of some as yet unspecified standardized test. The Educational Testing Service, originators of the SATs and the nation's largest test-maker, has said it does not have a test its experts deem suitable for measuring the skills of practicing teachers. In fact, ETS refuses to allow its tests to be used for that purpose.

Young said the association realized that many teacher evaluations presently are not performed on a routine basis or are performed im-

properly *"but to compensate for that by trying to decide whether or not teachers can teach from the results of a quickie exam is absurd.*

It is equally absurd to suggest that principals can't simply tell us who is literate and who isn't by just looking at the blizzard of paperwork teachers submit every day."

In their public statements, organization officials implicitly or explicitly agreed to the bargain that made testing a condition of a pay raise. In his introductory remarks to the Select Committee, Dale Young said, *"We also know that many of you seek to tie those admittedly needed salary increases to proof of good performance. We are willing to deal with that need, too."* Although, in this context he was agreeing to evaluation rather than a test. The ATPE testimony quoted above, linked higher salaries with expectations for satisfactory performance. After testing was adopted by the Select Committee, John Cole, president of the Texas Federation of Teachers, was quoted in the *American Statesman*: *"As a condition for a pay raise, there apparently will be a test imposed."*(3/15/84).

During the special session, lobbyists for teacher groups continued to protest teacher testing but eventually agreed to it because of the "no test, no tax" ultimatum and other provisions of the legislation. On June 21, 1984 the four teacher organizations signed a letter urging House members to vote for H.B. 72:

Although there are elements of the bill with which we strongly disagree and we will continue to work to change H.B. 72 as it continues through the legislation process, the legislation taken as whole is beneficial to education.

This was an agreement to live with the test. As reported in the *American Statesman* (6/24/84:

The teacher groups were told that the train was on the track and traveling at 100 mph. (Speaker) Lewis told them he would put in the bill the career ladder and minimum salaries teachers sought if they would agree to endorse the bill, even though it contained tests for teachers and other things they didn't like. Otherwise, merit pay would be rammed down their throats.

In another *Statesman* article, headlined *"Teacher tests accepted grudgingly,"* Dale Young was quoted as saying that accepting teacher testing was part of a compromise. *"We had to weigh bad things (testing) against worse things (merit pay)."*

The accord between teacher groups and lawmakers was shortlived. On June 21 the House passed its version of the reforms, on June 23 the Senate version was approved; differences were to be resolved by a conference committee. New changes in the career ladder and salary provisions were great enough to cause three of the teacher groups to withdraw their support of the legislation. Late in the evening of June 27, Lt. Governor Hobby "banned the Texas State Teachers Association from his office after the group refused to retract a press release that denounces the education reform package." (*American Statesman*, 6/28/84) The leaders of the House and Senate believed that these three organizations had reneged on a promise, causing disrespect for the union leaders that was still heard in interviews two years later. Some suggested that TSTA leaders were looking for an excuse to withdraw in a huff, that it was a ploy to attract new members to the organization. Conversely organization representatives told us that the benefits of the bill had been so watered down, that they were no longer worth the negative conditions they had been forced to accept. The following are recollections from two different teacher representatives:

We had tentatively agreed that if certain things came out of the bill a certain way, we would be for it. And when they didn't come out that way we withdrew our support. They took away the grievance procedure.... They wrote a new bill in three or four hours over there. They took out a lot of the good things.

What was needed was an across the board raise for every teacher in this state and it certainly didn't happen under House Bill 72. They put \$4,000 increase on the front end for the beginning teacher but that \$4,000 didn't carry throughout the system. There are many teachers in this state that didn't get any raise. There are a lot of them that got very small raises and these are experienced teachers you're talking about, the ones that you've got to keep in the profession, the ones that are leaving now in droves.

* * *

I think when they first started talking about (pay raises) it was going to affect all teachers. It was going to be an across the board blanket pay raise. Then when the bill went to a conference committee and compromises were made and deals were struck, it came out that the

veteran teachers could (only) get a raise if they were put up for merit pay.

The only teacher organization which remained committed to the reform was the Texas Federation of Teachers. President John Cole recalled to us his own version of the test-tax bargain:

We had an opportunity to do something because of some extremely quirky situations, like Ross Perot getting involved. We could get that legislative body to vote a tax increase in an off legislative year and a very progressive funding mechanism for schools, where previously we had a very regressive funding mechanism. In addition, we had an opportunity to get something in our pockets before the great crash occurred. We could see, some of us, that the oil industry was already sick. I don't think any of us would claim to have seen the days of \$8.00 a barrel oil; but we were noticing that times were getting tough for us and some of us thought that it was time to do what is necessary to get what we could for education while the getting was good. It sounds awfully crass but this is the way these things are done sometimes. If going along with a test meant getting that, maybe that's what we ought to do. That was the decision we made. As a result some \$3 billion extra dollars was put into the public schools; more importantly, it was reallocated in places (where there was the greatest need).

His recollection of the TFT's split from the other organizations continued in the same vein.

We kept consistently feeling that, if we didn't get what we could, our chance was not apt to come around again. With the economic situation looking the way it was, and with a unique set of circumstances in place, we felt that this was the time we had better get this bill passed. So we chose not to drop out of support for the reforms.

The day after the brouhaha in the Senate offices, John Cole supported the reform legislation at the Governor's press conference.

Our study of political events did not focus on the period between the enactment of the law and the implementation of TECAT. However, union activities were intense during this time, involving three major foci: attempts to revise or rescind the testing provision during the regular session of the legislature in 1985, lawsuits challenging the test or its implementation, and efforts to prepare teachers for the

test. Teacher review and preparation workshops will be treated in depth in a later section of the report. We will discuss the other two organization activities here briefly.

In January of 1985, Senator John Sharp held a joint press conference with The Association of Texas Professional Educators to announce the filing of Senate Bill 103. Had it been adopted, basic literacy testing would have been removed except for those teachers who were identified as deficient through the appraisal process (a separate evaluation provision of H.B. 72). In testimony to the Senate Education Committee, February 27, 1985, Sharp argued that every piece of legislation should be viewed through "*the lens of available revenue.*" Using Perot's figure that approximately 10% of teachers were the object of the testing, he felt it was wasteful to give the test to everyone:

We know for a fact that 90% of the administration costs which we, as legislators, must approve, will be spent giving tests to people whom we know don't need to take them.... We can save about \$11 million in administration costs through the enactment of S.B. 103--and that can buy a lot of things besides an unnecessary test.

Also speaking in favor of the bill, Mike Hardin, President of the Association of Texas Professional Educators, said that two-member appraisal teams would stop the problem of local districts renewing the contracts of illiterate teachers. "*The bill allows two-member appraisal teams to determine whether there is probable cause to doubt the basic skills of a practicing educator. It then permits the person in question to receive remediation and test preparation.*"

In August of 1985, The Texas State Teachers Association filed a suit to prevent the testing of practicing teachers and administrators on the grounds that the test violates lifetime teaching certificates and the prohibition in the state constitution against retroactive laws. On March 3, 1986, one week before the administration of TECAT, Judge Harley Clark ruled that the test was constitutional and that the administration could proceed. In February of 1986, the ATPE initiated a suit to prevent school districts from firing teachers on the basis of their first test scores without benefit of the June retake. (The Texas Education Agency sent test results to individual teachers rather than to employers as a protection of privacy. Some organization leaders encouraged their membership to withhold passing results until after the retesting date so that second-time passers would be indistinguishable from other teachers.) In local actions, individual teachers sometimes won injunctions against taking the test. Thirty-nine teachers were granted a permanent injunction

in Laredo; a 30-year special-education supervisor was exempted in Jourdanton, as was a auto mechanics teacher in Dallas.

Media Portrayal of Teachers

Many of our interviews with public figures and legislative aides included disparaging characterizations of how teacher leaders had acted during the special session. Senator Parker, who had vigorously opposed teacher testing, said, "*I have told teachers since then that the legislature's folly has been exceeded only by the teachers' folly and their reaction to this.*" We mentioned this conflict in the preceding discussion, but worked actively to remove the negative coloration from the description of union activities. Subsequently, however, a major theme emerged from our interviews with a representative sample of Texas teachers. Many, many teachers lamented how embarrassed they had been by the portrayal of teachers in the media. These teacher perceptions are summarized in a later section. Alerted to this issue, we also went back and conducted a content analysis of the newspaper documents we had collected. How were teachers represented in news stories leading up to TECAT?

We have already belabored one dominant theme, i.e., that some significant number of teachers and administrators in Texas schools were said to be incompetent. Some good things were said about teachers but these statements were rare and never made the headlines. For example, in an *Amarillo News-Globe* editorial ((5/21/84) supportive of "*rattling a few cages of schools of education*", Perot was quoted to say that he distinguished between currently employed hard-working educators and the unintelligent students now preparing to be teachers. Perot also acknowledged that the level of incompetence in teaching was probably no greater than in any other field, but that in teaching, any level of incompetence was intolerable, because it affected so many school children (*News-Globe*, 4/24/84). Figure 3.2 is an example of an editorial cartoon published during the Special Session.

A second theme in newspaper stories had to do with the unprofessionalism of teachers. They were portrayed as self interested and anti-reform. Often rhetoric supporting the test-tax trade off, suggested that teachers had to be forced to agree to improvements along with salary increases. An *American Statesman* article reported that Perot vowed to "*spend as much as it takes to battle an emerging alliance of educators who want a teacher pay raise and little else.*"(4/11/84) Perot characterized education associations as either "*interested only in getting a pay raise*" or, at best supportive of change but "*reluctant to challenge the board (of education) and be left in an awkward position if they lose.*" Twice later, the Austin

Figure 3.2
Editorial Cartoon Published During the Special Session



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Thanks to Ben Sargent, *The Austin American Statesman*, United Features Syndicate.

paper reported that Perot alleged that "some Texas teachers are giving grades in exchange for letter opposing education reforms." (4/17/84)(5/9/84) Perot called education lobbyists "pickpockets' who want taxpayers to 'send more money but skip reform'." (American Statesman, 4/17/84) As an American Statesman reporter summarized, "Perot, with few exceptions, paints the education establishment as the main opposition to change. You basically have 200,000 educators saying, 'send more money'." (5/9/84) On the second day of the special session, the American Statesman reported on a rally at the Texas State Teachers Association, where teachers "cheered when Parker said teacher pay is the top priority of the special legislative session." The article also included a warning from Representative Bill Haley urging teachers to "work for the whole education package and not just their pocketbook issues" (6/5/84). This view of the Texas teacher as interested only in money is, in our opinion, an especially damaging portrait of educators. Teachers, of all professions, are expected to work out of a strong sense of service and to be deeply concerned with the educational welfare of children.

Later in the special session, teachers groups were again cast as mercenaries when they lobbied against equalization. As the American Statesman explained, "Because at least 75 percent of all state aid is for teacher salaries, the finance issue divides teacher groups and equalization forces. The state money can either be spread equally among all the teachers of the state or be shifted toward poorer schools." (6/19/84) Often the tone of articles featured teachers in a pitched, defensive battle, trying to prevent the reforms that would be done to them. They had to work constantly to "blunt" compromises regarding their pay raise (American Statesman, 6/20/84). They were against equalization, against merit pay, and against competency tests. They appeared uncooperative, becoming "reluctant allies" in support of the House Speaker's bill only under "threat of a merit pay amendment" (American Statesman, 6/19/84). Articles which mentioned the unions' anti-merit pay stance did not always mention what unions favored—a pay schedule based on longevity.

Another unflattering characterization of the four major teacher organizations emerged in the special session coverage: they were neither unified nor consistent. For example, the Amarillo paper, which made only slight mention of unions in their coverage of the session, referred to them as "groups that frequently disagree" (6/22/84). When the four organizations managed to agree, it made the news in Austin in an article entitled "Teacher unity" and subtitled "Four rival groups join forces behind education bill." The American Statesman reporter hailed the agreement as "a show

of unanimity that was once rare for organizations that often squabble among themselves." Even then, only the "threat posed by H. Ross Perot" and the "stubborn insistence by Lewis" motivated the pact among the groups, who in Bill Haley's words, "compete over control of issues" (6/24/84). Only four days after the rare show of unity, three of the four groups withdrew their support from the education bill. The next day, another article reinforced the image of teacher groups as not unified. "While the Texas State Teachers Association leaders at the state level rejected the education package...the votes to increase funding to Austin schools made the reform bill reluctantly acceptable to the local branch of the group" (American Statesman, 6/29/84).

Teacher organization actions could possibly have been interpreted throughout the TECAT coverage as capricious. One month a headline ran "Teacher organization calls testing proposal absurd" (American Statesman, 2/22/84), the next month, "Teachers claim pay raise plan is too general" (American Statesman, 3/3/84), and the next month, "Teachers back Perot plan" (American Statesman, 4/17/84). These three separate articles considered the views of three different unions. To a reader who only skims headlines, teachers would seem to flip-flop on issues. Similarly, on August 17, 1985, "Chief of union urges hard test in teacher quiz" titled an article about the Texas Federation of Teachers (American Statesman). Less than two weeks later, another article stated, "Teacher group files challenge to testing," this time concerning the Texas State Teachers Association (American Statesman, 8/30/85).

The seemingly mercurial withdrawal of support for the reform bill was undoubtedly the single most harmful blow to the image of teachers. It carried with it the connotation of unethical as well as capricious behavior. One senator who had fought for the teacher raise, felt as if he had been "stabbed in the back" (American Statesman, 6/29/84). Another senator told reporters that the union action was "shortsighted, selfish, and insulting" (American Statesman, 6/29/84). In our interviews two years later, the most cited symbolic event was that of the mild-mannered Lt. Governor physically shoving the TSTA representative out of his office.

Becky Brooks, President of the TSTA, said that her group had withdrawn its support for the bill because "we were forced into competency testing and merit pay" (American Statesman, 6/28/84); yet only four days earlier, the same group had acknowledged that "accepting teacher testing was part of a compromise" (American Statesman, 6/24/84). Not only did the Texas State Teachers Association back out, but they backed out ungracefully. Becky Brooks' comment, "Even a dog knows

the difference between being stumbled over and being kicked" (*American Statesman*, 6/28/84), evoked an ugly image, base and snarling. The phrase was remembered often in retrospective interviews. It expressed a venomous anger that was undoubtedly at odds with the public's view of how teachers should behave.

Between the special session and the test administration, the press frequently reported on the teacher test. The *American Statesman* file contained 22 articles about the test in 1985, and another 30 in the first four months of 1986. For example, progress in test development, or debates about cut-scores were covered. Occasional articles, such as "*Half flunk entry tests for teachers*" (*News-Globe*, 11/11/84) and "*Mock competency test flunked by half*" (*American Statesman*, 1/20/85) explicitly repeated the teacher incompetence theme, but no voice as salient as H. Ross Perot's regularly questioned teacher ability. In fact, the chairman of the State Board of Education, Jon Brumley, and State Education Commissioner William Kirby were repeatedly on record with the opposite message. For example, Brumley expressed confidence that the test would "*catch*" most of the "*few teachers out there who are incompetent from a literacy sense*" (*American Statesman*, 2/10/85), and Kirby asserted that "*the vast majority of our teachers will have no trouble demonstrating their reading and writing skills*" (*American Statesman*, 9/19/85).

Teacher union activities before the test were extensively covered in the Austin newspaper and covered only somewhat less so in the Amarillo newspaper. More than the words or actions of any other group or individual, the teacher organization actions, at least in the files to which we had access, most strongly shaped the representation of teachers in the press for that period. The two newspapers reported on the following "*teacher*" activities:

- November 1984: -The Texas State Teachers Association (TSTA) vows to battle the teacher testing law (*News-Globe*, 11/6/84).
- January 1985: -The Association of Texas Professional Educators (ATPE) and the TSTA push in the legislature for the repeal of the competency test (*American Statesman* 1/31/85, *News-Globe*, 1/7/85).
- June-July 1985: -The TSTA says it will go to court to fight the test (*American Statesman*, 6/18/85, *News-Globe*, 7/24/85)
- June-July 1985: -The Texas Federation of Teachers (TFT) says it supports the test and thinks a lawsuit would be "*devastating to the image of teachers*" (*American Statesman*, 6/30/85, *News-Globe* 7/24/85)

- July 1985: -The ATPE says it will not challenge the test in court (*News-Globe, 7/24/85*)
- August 1985: -The TFT's John Coles tells reporters that the teacher test should be as difficult as a bar exam for lawyers (*American Statesman, 8/71/85*).
- August 1985: -The TSTA files its legal challenge to the test and complains, "*We're fed up with the lack of support of other so-called professional organizations and unions who quit or sold out....*" (*American Statesman, 8/30/85*).
- Sept.-Oct. 1985: -The Texas Classroom Teachers Association (TCTA) mobilizes to provide test preparation courses for teachers across the state (*American Statesman, 9/13/85, 10/6/85, News-Globe, 9/13/85, 10/13/85*)
- January 1986: -The TCTA complains about the published want-ad for TECAT test administrators: the qualifications were only that they be well-dressed and have a car (*News-Globe, 1/12/86*).
- January 1986: -The TFT pushes for a lower cut-off score on the TECAT (*News-Globe, 1/13/86*).
- February 1986: -The ATPE goes to court to prevent school districts from firing teachers who will fail the TECAT on the first trial, before the teachers get a chance to take the make-up exam (*American Statesman, 2/7/86*).
- March 5, 1986: -A TSTA representative complains about the proposed procedure of sticking gummed labels on teaching certificates to indicate that the TECAT was passed. The TFT calls it a "*good procedure*" (*American Statesman, 3/5/86*).
- March 10, 1986: -Teachers take the TECAT
- March 11, 1986: -Teachers, not identified with a teacher organization, tell reporters that the test was "*insultingly easy*" (*American Statesman, 3/11/86*).
- March 14, 1986: -The ATPE complains about Mark White's statement on television, "*There will be subject matter testing at a later date.*" The union says his statement constitutes "*harassment of Texas teachers*" (*American Statesman,*

- 3/14/86).
- March 15, 1986: -The TSTA lodges an official protest with the Texas Education Agency about unsatisfactory test-taking conditions (*American Statesman*, 3/15/86).
 - May 1986: -The ATPE says of the high passing rates, "We knew all along Texas teachers were competent" (*News-Globe*, 5/9/86)
 - May 1986: -The TSTA plans to file a suit alleging racial discrimination in the TECAT (*News-Globe*, 5/15/86).

What kind of conclusion did readers draw from such coverage? Our impression is that they would have found teacher groups unorganized and fractious. Some groups were fighting the test; other were supporting it. They called each other names and were always threatening litigation. They said the test was ridiculous, yet they went to great lengths to prepare for it. They were constantly complaining about insignificant issues like gummed labels and test proctor qualification. They complained about indignities, but acted undignified. They complained that they were not being treated like professionals, but as the story was told in the press, they did not appear to act like professionals. Although many of the facts had another side or a different interpretation that might have been further explained, the facts and events in these stories were largely correct. Although many individual members of the public might have been persuaded by the teachers' point of view had they sat down to discuss their concerns in detail, there is no question but that the general public saw a very negative and unflattering picture of Texas teachers for a period of over three years.

Section 4: THE TECAT

When basic skills testing of practicing teachers was first envisioned in Texas, it was commonly understood that many teachers had already taken nationally standardized examinations that would signify their competence. Discussions about testing for teacher competence did not necessarily imply that Texas would develop its own test, nor that every teacher and administrator would take it. These decisions came later. In the original recommendations of the Subcommittee on the Teaching Profession to the Select Committee, teachers would have been allowed to *"otherwise demonstrate competency by means of an acceptable score on the Graduate Record Exam, National Teachers Exam, Miller Test of Analogies, General Management Aptitude Test, Law School Aptitude Test, Medical School Aptitude Test, Scholastic Aptitude Test, American College Test or other accepted graduate school entrance examination."* These specific substitute tests were eliminated in the final recommendations of the Select Committee but the idea of submitting *"an acceptable score on alternative tests approved by the Board"* was carried forward. The language of H.B. 72 was not specific about the nature of the *one time test* but many still believed that other prior tests might count. June Carp said that the TFT would lobby for using the National Teacher Examination or the Graduate Record Examination as evidence of competence.

The State Board of Education was empowered to implement the teacher testing mandate. Mack Prescott, chairman of the Committee on Personnel for the State Board of Education and Commissioner Kirby convened a panel of testing experts to advise them; the measurement and evaluation specialists were from various institutions in Texas with the exception of Dr. Gregory Anrig, President of the Educational Testing Service, and Dr. James Popham, UCLA Professor and author of the Arkansas teacher test. At a February 1, 1985, meeting, intended to determine the feasibility of "equating" various tests, the two external experts were instrumental in convincing TEA that existing test scores could not be used. Anrig first gave a speech objecting to the testing legislation, arguing that it was unfair to teachers who had passed a number of previous evaluative hurdles; it would put all teachers through a punitive exercise for the misbehavior of a few; and it would make a test the sole criterion for continued employment. He specifically withdrew the use of ETS tests, the PPST, the NTE, the SAT and the GRE, because they had not been validated for the use now being contemplated.

Commissioner Kirby alerted me in advance that the question will be asked--Can certain other tests be used as you just described? That is,

to give the teacher the benefit of the doubt and not have them jump through hoops unnecessarily....I talked with President Hackford of the College Board and Dean Verstige of the Graduate Examination Board, in all three cases, their position is that the use of their tests, even from the past, in this manner for this purpose, would be in conflict with the guidelines for proper test use for their programs.... While we understand and applaud your trying to find some avenue of recourse here, that particular avenue is not available.

Dr. Popham disagreed with Anrig's disapproval of the testing mandate. *There are in fact all of the checks that you isolate. And yet despite all those checks, there are some teachers in our states, who cannot read and write at a level such that I feel it appropriate to let them loose on children. I am concerned about the children in the classes of those teachers and I believe it perfectly reasonable for a state legislature to adopt the stance that in order to protect those children, we will install an assessment procedure.*

However, Popham also argued against the use of prior tests to exempt some teachers saying that it would make the state liable for lawsuits even if new validity studies were carried out.

Having done the content validity on the existing test, you still find yourself, I would argue, in a position of legal vulnerability. Remember the atmosphere. (Suppose) I am a teacher who has been denied a diploma because I have taken the state ordered test. I didn't happen to take the Graduate Record Examination or any of these other exams, so I take the state ordered test and I flop; I don't pass, I don't get my credentials; I've taken it three times and I don't get my credentials. Am I not in a marvelous position to assail in the courtroom and say had I only had the opportunity that perhaps other more fortunate individuals had, to take these other tests, would I not now have my credential and have not my constitutional rights been violated?

The Commissioner and TEA staff came away from the meeting of experts with a clear understanding that they would have to give a test to all teachers and administrators in Texas. The meeting also confirmed TEA expectations that developing subject matter tests would be excessively costly (estimated at \$17 million) and would be impossible within the mandated time period. It was anticipated that as many as 150 tests would be required to match individual teaching assignments.

"An eighth grade math teacher could not be given the same test as a teacher of Calculus." Although TEA was in the process of developing more than 30 subject matter tests to be administered to teachers entering the profession, they were advised that these tests would not be defensible for practicing teachers unless they started from scratch with new validity studies. Quoted in the *Statesman* the day after the meeting with measurement specialists, Commissioner Kirby said that he expected that a basic skills test alone would weed out 80 or 90 percent of incompetent teachers.

Two weeks later, the State Board adopted a recommendation to the legislature that all teachers take a basic literacy test but that subject matter examinations be postponed. Again, the chairman of the Board, Jon Brumley, explained that the basic skills test alone "*will catch 85-90 percent of the few teachers out there who are incompetent from a literacy sense.*" TEA staff and teacher lobbyists recalled that the proposal to delay subject matter testing won approval in the legislature because of the very high price tag and because, by the time of the 1985 regular session, some of the ardor for testing had waned. The majority of legislators were not willing to give up entirely on the idea of testing as evidenced by the defeat of S.B. 103. The State Board proposed and the legislature accepted a basic communications test as a good faith implementation of the testing requirement; 6.5 million dollars were appropriated to develop this test as well as appraisal procedures in support of the new career ladder.

The Texas Examination of Current Administrators and Teachers, the TECAT, was developed to assess the minimum reading and writing skills "that practicing educators need to perform adequately in their jobs." The procedures used to determine what the test content would be and to review individual test items are described in a paper by Yalow (1986). Extensive efforts were made to ensure that the test "would be able to withstand intensive legal and technical scrutiny." (p. 1) First, a 30-member Advisory Committee of teachers, administrators, university faculty, and other citizens generated a list of possible reading and writing skills to be measured by the TECAT. Then, these skills were rated for job relevance by a representative sample of 4,000 Texas educators.* Table 4.1, reproduced from State Board handouts shows the appropriateness ratings for TECAT skills from various respondent groups.

The same sample also rated the potential bias of each proposed skill. The results, reported as the percentage who said a skill area was not biased, closely

* Judging from handouts summarizing results for the State Board, the response rate for this survey was 50%.

Table 4.1

MEANS (M) AND STANDARD DEVIATIONS (SD) OF APPROPRIATENESS RATINGS
FOR TECAT SKILLS*

Skill	Total (n=2,002)		Hispanic (n=263)		Black (n=203)		Other (n=1,526)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Reading</u>								
Main Idea	4.42	.83	4.37	.86	4.34	.95	4.44	.80
Detail:								
Specifics	4.30	.85	4.23	.91	4.13	.95	4.33	.82
Sequence	4.34	.85	4.27	.95	4.21	.94	4.37	.82
Fact & Opinion:								
Facts	4.28	.90	4.19	.95	4.21	.95	4.30	.89
Opinions	4.12	.96	4.04	1.01	4.10	.99	4.13	.95
Inference	3.97	1.00	3.93	1.08	3.86	1.05	3.99	.98
Refer. Sources:								
Using	4.35	.89	4.32	.86	4.21	1.03	4.37	.87
Selecting	4.17	.94	4.06	.95	4.17	.95	4.19	.93
Profes. Vocab.	4.02	1.10	4.02	1.13	4.13	1.06	4.00	1.10
<u>Writing</u>								
Composition	4.16	.99	4.04	1.07	4.06	1.12	4.19	.96
Mechanics	4.41	.85	4.33	.93	4.25	1.01	4.45	.81
Sen. Form.	4.44	.84	4.38	.90	4.37	.99	4.46	.81
Eng. Usage	4.54	.79	4.48	.83	4.44	.89	4.56	.77

*Responses to the question "Is this skill needed for successful performance as an educator in Texas public schools?" (Response scale: 1 = Definitely No, 2 = Probably No, 3 = Maybe, 4 = Probably Yes, 5 = Definitely Yes)

paralleled the appropriateness ratings in Table 4.1. For example, 96.7% of the respondent group said that the main idea reading skill was free from bias. Eighty-six percent said that the professional vocabulary skill was free from bias, with slightly less support from black respondents (83%).

On the basis of the above data, the State Board adopted the content outline from which the TECAT would be developed. The reading test was to be comprised of 55 multiple-choice items. Ten items each would be used to measure recognition of details and comprehension of the main ideas from reading passages, job-related vocabulary, distinguishing fact and opinion, and reference usage. Only five items would be included to measure inference, the most controversial skill area. The writing test would include both a short composition (150 words) and a multiple

choice portion. If examinees unambiguously passed or failed on the composition, their multiple choice answers would not be considered. Examinees who turned in a marginal essay, however, would have to pass the 30-item multiple choice portion covering mechanics, sentence formation and English usage in order to pass the writing test. School personnel who failed the reading or writing part of the test in March of 1986 would have one chance in June to retake the portion they had failed. Additional opportunities to retake the test would be provided but not in time to save being uncertified for September of 1986.

To illustrate the types of skills measured by the TECAT a sample "main idea" question is shown in Figure 4.1 along with the test specifications published in the TEA Study Guide. Similarly, the guidelines for punctuation items are shown in Figure 4.2. Lastly, to convey the scoring levels for the written composition, a marginal essay and a failing essay are reproduced as Figures 4.3 and 4.4 (Texas Education Agency, 1986a).

Figure 4.1
A Sample Reading Skill from the TEA Study Guide

MAIN IDEA

Test items for this skill will require examinees to select the best statement of the main idea of a reading selection.

Sample Item

Adapted from an education journal:

One way to make learning meaningful, enjoyable, and accessible to a greater number of students is team teaching. Many approaches to team teaching have been used. Perhaps the most successful approach has been to have teachers from different disciplines work together as a team. Units or entire courses could be team-taught, showing the relationships between, for example, art and geometry, mathematics and music, or foreign language and history. There are many possible combinations. Such a program could provide support and enrichment for students and teachers alike, creating a fertile, stimulating learning environment.

Which of the following is the best statement of the main idea of this selection?

- A History and foreign language can be effectively taught together.
- B Students and teachers can benefit from team-taught courses that combine subjects.
- C It is impossible to teach two different subjects in one course, even with two teachers in the classroom.
- D Team teaching is being used increasingly in public schools throughout the United States.

Figure 4.1 Continued

Test Questions

Main idea items will consist of a reading selection that communicates a single, central idea that is explicitly stated in one sentence or is implied by the selection as a whole. Each selection will be followed by the question, "Which of the following is the best statement of the main idea of this selection?"

Answer Choices

The correct answer choice will be an accurate statement of the selection's main idea. It may be paraphrased or clearly implied by the selection.

The incorrect answer choices will be one of the following types:

— **Inappropriate in scope:**

- (1) **Too narrow:** A statement that does not account for all the important information in the reading selection.
- (2) **Too broad:** A statement that overgeneralizes beyond the information contained in the reading selection.

— **Inaccurate:** A statement that contradicts information in the reading selection.

— **Irrelevant:** A statement that introduces information not included in the reading selection.

Explanation of Correct Answer to Sample Item

Choice B: Every sentence in the item's reading selection relates to the concept of team teaching as a potentially useful teaching tool. The first sentence introduces the idea of the benefits of team teaching. The passage then describes what may be the most successful approach to team teaching, that is, combining the efforts of teachers from different disciplines in a single course. The reading selection closes with a sentence that indicates that both teachers and students can profit from team teaching. Therefore, choice B is the best statement of the main idea of the selection.

Explanation of Incorrect Answers to Sample Item

Choice A: This statement is **inappropriate in scope** because it is **too narrow**. Although the reading selection suggests that history and foreign language may be effectively combined, other combinations of courses are described as well. Moreover, this answer choice does not mention team teaching, the selection's central topic. Thus, this answer choice is merely a detail from the reading selection, not its main idea.

Choice C: This **inaccurate** statement contradicts information in the reading selection. The reading selection argues that teaching two different subjects in one course is extremely worthwhile—just the opposite of what is stated in the answer choice.

Choice D: This statement is **irrelevant** because the reading selection does not indicate whether there is an increase in the use of team teaching. Thus, this statement, although plausible, is not the selection's main idea.

A Sample Writing Skill from the TEA Study Guide

PUNCTUATION

Test items for this skill will require examinees to determine whether there is an error in punctuation in a brief communication.

Sample Item

Adapted from a letter to parents:

[1] Dear Parents:

[2] Our first-grade students, are setting up a classroom supermarket to be used as a learning center for various activities. [3] Would you be willing to help us? [4] Please send clean, empty containers from familiar supermarket items. [5] Other props, such as play money or a toy cash register, would also be appreciated.

[6] Sincerely yours,

[7] Mr. Johnson

[8] Teacher

[9] Costa Mesa Elementary School

In which part of this communication, if any, is there an error in punctuation?

- A Part [2]
- B Part [3]
- C Part [4]
- D None of the above

Test Questions

Punctuation items will consist of an excerpt from a written communication followed by the question, "In which part of this communication, if any, is there an error in punctuation?"

Each communication will contain either one error in punctuation or no errors in punctuation. Punctuation errors will be based on the punctuation rules that accompany the description of this skill.

Answer Choices

The first three answer choices will correspond to numbered parts of the written communication that may contain an error. The fourth answer choice will be "None of the above." "None of the above" will refer to the parts specified in the first three answer choices.

If the communication contains an error in the parts identified by the answer choices:

— The correct answer choice will be:

- (1) the part of the communication in which required punctuation is omitted or
- (2) the part of the communication in which an extraneous or misused punctuation mark is present.

— The incorrect answer choices will be one of the following types:

- (1) Proper Punctuation: A part of the communication where no punctuation error is present.
- (2) Unidentified Error: The "None of the above" answer choice.

Figure 4.2 Continued

If the communication does not contain an error in the parts identified by the answer choices:

- The correct answer choice will be "None of the above."
- The incorrect answer choices will be:

Proper Punctuation: A part of the communication where no punctuation error is present.

Explanation of Correct Answer to Sample Item

Choice A: There should not be a comma in part [2]. The subject and verb of a sentence should never be separated by a comma when they are next to each other.

Explanation of Incorrect Answers to Sample Item

Choice B: Part [3] contains no error and demonstrates proper punctuation. The question mark is used correctly as the final punctuation for a sentence that is a direct question. (See punctuation rule 2.)

Choice C: Part [4] contains no error and demonstrates proper punctuation. The comma between "clean" and "empty" is correct because adjectives in a list must be separated by commas. (See punctuation rule 3.c.) The period is the proper punctuation for the end of a statement. (See punctuation rule 1.a.)

Choice D: This answer choice represents an unidentified error because there is a punctuation error in part [2] of the communication.

Punctuation Rules Eligible for Testing

1. **Periods** are required:
 - a. at the end of all declarative sentences, including indirect questions
 - b. after abbreviations
2. **Question marks** are required at the end of a direct question
3. **Commas** are required:
 - a. in a series of three or more words or phrases (Educators will not be tested on the use of the comma before "and" or "or" in a series)
 - b. between two independent clauses joined by a coordinating conjunction
 - c. to separate coordinate adjectives that modify the same noun
 - d. to set off nonessential clauses and nonessential participial phrases
 - e. to set off expressions, such as appositives, that interrupt the sentence
 - f. after the salutation in a friendly letter
 - g. after the complimentary close in a letter
 - h. between the independent parts of a date (except when only one part of the date, such as the month, is used, in which case no punctuation is needed)
 - i. between the independent parts of an address or geographic location
 - j. before a direct quotation
4. **Semicolons** are required between independent clauses not joined by coordinating conjunctions
5. **Apostrophes** are required:
 - a. to form possessive nouns
 - b. to form contractions
6. **Colons** are required:
 - a. to separate hours and minutes in time
 - b. after the salutation in a business letter

Figure 4.3

A Sample Marginal Essay from the TEA Passing Standards

Dear Mrs. Allen,

1. The purpose of this letter is to
2. inform you that Alicia has been
3. receiving outstanding grades during
4. the past month. Her grade in the
5. course at this point, the second 6-weeks
6. is an A.

7. Since we had our conference last
8. month on Alicia's attitude and study skills
9. she has constantly been receiving high
10. daily grades and test scores.

11. Her academic achievement in math and her
12. now sincere personality has made her a
13. better student. Sometimes, Alicia helps me
14. with some of my slower students.

15. I am so proud of Alicia's progress,
16. I decided to write you this letter informing
17. you of Alicia's progress. Please continue to
18. ~~help~~ encourage Alicia. Her attitude has
19. greatly improve. She is one of the best
20. student in the class.

21. Yours
22.

Figure 4.4

A Sample Failing Essay from the TEA Passing Standards

DEAR PARENT,

1. THIS LETTER IS TO INFORM YOU OF YOUR SON'S
2. PROGRESS IN MY CLASS. HE HAS ALWAYS BEEN A
3. ROLE MODEL BUT IN THE PAST FEW WEEKS HIS
4. PERFORMANCE HAS BEEN TERMENDOUS.

5. HIS ATTITUDE BEHAVIOR AND COMMUNICATION
6. SKILLS HAVE HELPED ENCOURAGE THE OTHER
7. STUDENTS AT ROSEMONT HIGH SCHOOL TO TRY A
8. LITTLE HARDER. AND DO THE BEST THEY CAN.

9. HIS WORK ASSIGNMENTS INDICATE THAT HE SPENDS
10. ALOT OF TIME ON SCIENCE AND MATHEMATICS.

11. IN CLASSROOM DISCUSSION, HE IS ALMOST ALWAYS
12. THE FIRST STUDENT TO RESPOND THE QUESTIONS.

13. PARENTS SUCH AS YOURSELF; WHO HELP AND
14. ENCOURAGE THEIR CHILDREN ACHIEVE GOALS
15. ARE A FINE EXAMPLE TO OUR SCHOOL AND TO OUR
16. COMMUNITY.

17. YOUR SON'S GOALS WILL BE ACHIEVED THROUGH
18. YOUR FINE EFFORTS. CONGRATULATIONS AND
19. KEEP UP THE EXCELLENT WORK YOU ARE DOING.
20.
21.
22.

The test content was agreed to in June of 1985. In the Fall, preliminary versions of the test were pilot tested. Items were also rated for content validity by the Advisory Committee and by another statewide survey of 1,000 teachers, administrators, college faculty, and school board members. Table 4.2 is an example of the type of summary data presented to the State Board. Items were reviewed for bias by a special review committee set up to represent (1) organizations concerned with equitable treatment of minorities, (2) professional educator organizations, and (3) individuals knowledgeable about minority concerns in Texas (Yalow, 1986). An absence-of-bias index was reported which was the percentage of committee members endorsing an item as unbiased. A criterion of .95 was required to retain items in the test. Thus all items eventually used in the test were judged to be unbiased by 95% of reviewers.

Table 4.2

JUDGED CONTENT VALIDITY RATINGS OF TECAT READING AND WRITING SECTIONS BY ADVISORY COMMITTEE AND STATEWIDE SURVEY RESPONDENTS*

Group	Reading		Writing	
	Mean	Standard Deviation	Mean	Standard Deviation
Advisory Committee	3.6	1.0	3.8	1.0
Statewide Survey Respondents				
Teacher	3.5	.87	3.5	.95
Administrator	3.7	.84	3.5	.92
School Board	3.6	.83	3.6	.78
College/Univ.	3.5	.75	3.7	.92
Total	3.5	.85	3.5	.92

*Respondents were asked the following questions:

Reading: Assume that the reading section of the TECAT is composed of 55 items (similar to those you just reviewed) containing 5 inference items and 10 items for each of the other five skills. On the five-point scale below, please indicate the degree to which you believe such a test would constitute a representative sample of important reading skills needed by Texas public school educators in their jobs.

Writing: Assume that the writing section of the TECAT is composed of two subsections. The multiple-choice subsection would consist of 30 multiple-choice items (similar to those you just reviewed) containing 10 items for each of the three skills. The composition subsection would contain two composition assignments (similar to those you just reviewed) from which the examinee would select one. On the five-point scale below, please indicate the degree to which you believe such a test would constitute a representative sample of important writing skills needed by Texas public school educators in their jobs.

Scale: 1 = minimally representative, 2 = somewhat representative, 3 = moderately representative, 4 = very representative, 5 = extremely representative.

As a last step before the administration of TECAT, the State Board was charged with setting passing scores on the two parts of the test. In January of 1986, just two months before the test was to be administered, TEA staff and the test developers assembled for the Board the various Tables summarizing the endorsements of TECAT skills and items. In addition, the Board was given data on recommended standards obtained from the Advisory Committee and several survey groups. Table 4.3 is again an example of one of several tables provided to the Board. Data were also summarized from the field testing, indicating what the expected failure rate would be for every possible passing score. Most importantly, Commissioner Kirby and his staff had already reviewed all of the above data and proposed to the Board that passing standards of 75% be adopted. Thus, examinees would have to get 41 out of 55 items correct on the reading test to pass and, should it be necessary to score an individual's multiple-choice writing test, the passing standard would be 23 out of 30 items. The Commissioner's letter is provided in Appendix G. The proposed standards were more stringent than had been endorsed on average by teachers and administrators but were close to what was suggested by school board members and college and university respondents. On the basis of field test data, the proposed standards would fail 12% of the teacher and administrator population. However, the Commissioner estimated that fewer than half this number would actually fail since teachers could be expected to study for the real test. The Board set the passing standards as proposed by the Commissioner.

Table 4.3

PERFORMANCE STANDARDS RECOMMENDATIONS
BY STATEWIDE SURVEY RESPONDENTS
FOR THE READING SECTION*

Position	Before seeing field-test data		After seeing field-test data	
	Mean Number (%)	Standard Deviation	Mean Number (%)	Standard Deviation
Teacher	35.7 (64.9)	8.1	36.9 (67.1)	7.8
Administrator	37.0 (67.3)	5.7	38.3 (69.6)	5.6
School Board	39.1 (71.1)	7.6	40.3 (73.3)	5.7
College/Univ.	40.0 (72.7)	6.2	40.5 (73.6)	4.8
Total	36.4 (66.2)	7.8	37.5 (68.2)	7.5

*Respondents were asked the following question:

"Assume that the reading section of the TECAT is composed of 55 items similar to those you just reviewed, with 5 inference items and 10 items from each of the other five skills. What is the minimum number of the 55 items that an educator in Texas public schools should be required to answer correctly in order to pass the reading section of the TECAT?" They were then given a table showing the cumulative proportion of field-test examinees who would have achieved each score point on the reading section of the TECAT had these examinees been administered a representative 55-item test. Respondents were asked the same question again after reviewing the table.

Section 5: MASSIVE REVIEW AND PREPARATION

One of the most unexpected findings from our research was the monumental effort that went into preparing for the TECAT. As soon as the test specifications were available, the Continuing Education Division of the University of Texas at Austin, in cooperation with the Texas Classroom Teachers Association, developed a review course and a 300 page self-study book. They trained 130 presenters who in turn instructed 89,000 teachers in one and two-day workshops. According to Dr. Shirley H. Crook, project director, "it was a major undertaking, logistically." There were some weekends when 50 workshops were going on concurrently, with 20-400 teachers in attendance at each.

In addition, the University of Texas, in conjunction with the Austin Independent School District, developed 12 video tapes covering TECAT skills. These were distributed throughout the state. Most of the 20 regional service centers and many school districts purchased the University of Texas tapes and checked them out to teachers or used them as the basis for group review sessions. One superintendent kept the VCR in his home set up for teachers "night and day" while his wife served popcorn. The videos were acquired by public access TV stations in major cities and shown repeatedly before both the first and second TECAT administrations. For example, on Channel 28 in Austin the tapes covering different skills were shown every half hour for 12 hours a day for 30 days preceding each testing date; in Corpus Christi the tapes were run in six hour blocks every day for a month.

Teacher organizations developed materials and conducted workshops to ensure the success of their members. (One union forbade the use of its materials by nonmembers; others were more generous.) Four major organizations in Texas participated. The largest, the Texas State Teachers Association, estimated that 65,000 teachers attended their workshops. The Association of Texas Professional Educators trained another 23,000.

Nearly every school district in the state provided test preparation opportunities for their teachers. In some cases they used the Study Guide developed by the Texas Education Agency and hired English teachers to conduct inservice sessions. Some districts made arrangements with local colleges and universities for review classes. Many districts including large districts such as Houston, Corpus Christi, and San Antonio paid the workshop fees for their teachers to attend programs run by a union, a local college, or the University of Texas. The 20 regional service centers likewise committed themselves heavily to preparing educators for the TECAT. Several developed their own materials and practice tests; some arranged traveling

workshops to reach remote areas. The staff at several regional centers worked individually with teachers who failed the first time and needed practice to improve their writing skills. Many regional centers also hosted six hour video programs delivered by satellite through the Texas Interactive Instructional Network (TI-IN). In the course of our survey we found that most regional centers did a number of these activities; e.g., one center might hold workshops in four corners of the region and host a TI-IN session at the center office and check out tapes individually. For the second testing in June, a scaled down version of these same activities was provided. One director commented that there could not have been a single teacher in the state who wanted formal review but could not find it.

Distributions of teacher time spent in preparing for TECAT are displayed in Table 5.1. In telephone interviews with a representative sample of teachers and administrators, respondents were asked to estimate how many hours they had spent attending formal review sessions or workshops. Then they were asked how many hours they spent studying on their own or watching TV review broadcasts? Only 13% of educators reported that they did not prepare for the test. An additional 14% spent only one hour looking over the format of the test and reviewing terminology. On average, counting both those who studied and those who did not, educators spent 12 hours preparing using a combination of both formal review and self-study. The substance of their preparation will be discussed in the next section. The average amount of time spent in formal workshops was $4\frac{1}{2}$ hours. Typically workshops were day-long sessions, reported most frequently as 6 or 8 hour blocks; the $4\frac{1}{2}$ hour average reflects the inclusion of the approximately one-third of educators who did not participate in formal review. The data are also characterized by extreme heterogeneity. In contrast to the teachers who studied hardly at all, one-quarter of the sample spent 20 hours or more, with some teachers estimating that they had devoted 50-100 hours to test preparation.

Table 5.1
Frequency Distributions of Teacher Time
Spent Preparing for TECAT
(n = 93, 3 missing item data)

Hours of Study:	In Workshops	Self Study	Total
0	34	20	12
1	3	15	13
2	3	8	2
3	6	6	2
4	6	10	8
5	5	4	4
6	14	5	5
7	2	2	5
8	8	2	3
9	1		3
10	2	4	7
11			
12	3	2	4
13			1
14			1
15	3	2	1
16	2	1	1
17		1	
18			1
19			
20		3	3
21			2
22			1
23			
24	1		1
25			
26			
27		1	
28			3
29			
30		3	2

Table 5.1 Continued

⋮			
36			3
⋮			
42			1
⋮			
45		1	
⋮			
50		1	1
⋮			
54			1
56			1
⋮			
68		1	
⋮			
73			1
⋮			
84		1	
⋮			
100			1
	$\bar{X} = 4.34$	$\bar{X} = 7.74$	$\bar{X} = 12.09$

Section 6: BASIC SKILLS AND "TEACHING TO THE TEST"

On the day the first TECAT results were announced, and an impressive 96.7% of the teachers passed, the test author, Dr. James Popham of IOX Assessment Associates, congratulated Shirley Crook for the incredible impact of the University of Texas' instructional program. Sharing in the euphoric mood that followed the announcement, the Commissioner of Education expressed his delight, "The best news of all is that the TECAT scores are in and teachers did fantastic. Their performance on this basic skills test actually surpassed our expectations." Indeed, teachers had done better than would have been predicted from the field test data, where as many as 12% would have failed. Staff at the Texas Education Agency believed that all the training had had an impact, accounting for the very high passing rate on the real test. Many educators and politicians whom we interviewed about the TECAT believed that it forced teachers to learn basic skills essential for proper functioning in the classroom.

Having studied TECAT workshops at first hand, we were not entirely convinced that all of the gains on the test reflected real increases in teachers' skills. We had observed teachers and administrators practicing punctuation and capitalization rules. But we also saw that considerable time was devoted to test-taking strategies, even sometimes to techniques that would help get the right answer without mastering the skill being measured.

An analysis was conducted of transcripts from our recordings of preparation sessions. To convey the sense of that analysis, several examples are offered from what we called content teaching, as distinct from teaching test strategies. The following are quotations from instructors where a rule or explanation is being given.

Use semicolons as a conjunction. Look at the first sentence: "He loves faculty meetings; I hate them." You could just as easily say that as two simple sentences. When you have a sentence fragment you almost want to go, "yes, what's next?" You anticipate there's something else. If there's nothing else and you keep thinking, "what's going on here?" It's not a complete thought. There are key words: "because," "although," "if," "when," "therefore," "however."

The next thing that we want to consider is development. This is what zeros in the context of the middle of your writing sample, whether it's a letter, whether it's a report, whether it's a memorandum, the pattern remains the same.... We develop an idea when we downshift in

generality. This is something that we mentioned in our last session. To downshift we simply become more specific in what we're talking about. So if we made a general statement, "education should be a primary goal of a healthy community," now we drop down a level and give some reasons why this is true.

We classified almost all practice time, whether on sample sentences or test items, as content teaching. Exceptions occurred only when a test strategy was being emphasized rather than a substantive rule.

In our analysis we further distinguished between legitimate and questionable instances of "teaching to the test." According to the psychometric and measurement literature, test-taking strategies are considered legitimate if they helped an examinee "show what he knows." The Test Standards of the American Psychological Association, in fact, urge that test takers be informed of any strategies that are "unrelated to the construct" but that "influence test performance" (APA, 1985, p.27). Many of the topics covered in the University of Texas course and materials fall into this category, e.g., familiarization with test format, scoring rules, advice about guessing strategies, and anxiety reduction techniques. Examples of this type of teaching to the test are given by these excerpts from workshop presentations.

In all of your testing on the TECAT, it's best that you look at the question first, so that you know what you're looking for.

If you reach a question that you're unfamiliar with..., all you do is frustrate yourself if you continue to pore over that question. So, my suggestion to you is, go through, read the questions. And then if an answer is just not readily apparent and you've given it the amount of consideration it deserves, skip it....

You don't want to leave any empty spaces. There are no penalties for guessing on this test.

The TECAT will cover only two uses of the semicolon, both of which involve compound sentences.

While this type of preparation should not be considered unfair or inappropriate, it would be hard to argue that the substantial amount of time spent in these activities was really teaching teachers essential basic skills.

When asked to say what they had learned from studying, the great majority of teachers interviewed in the probability sample indicated that workshops and study guides had helped by making old knowledge fresh and by familiarizing them

with test format rather than by teaching them skills. Many educators gave answers about studying that were puzzling initially. Upon examination, their responses revealed that teachers did not regard their test preparation time as study. In answer to the direct question, "Did you study for TECAT?" only 66% of educators said yes. Yet, in Table 6.1, we have reported that 87% said they spent time "studying." When teachers answered "no" to the study question, we probed, "not even a review sheet or study guide?" Whereupon, many respondents would say, "Well, I attended a review session but I would not say I studied." Some of these same respondents went on to say that they had spent up to 15 hours preparing for the test. Repeatedly, elaborated answers indicated that to them studying meant learning subject matter material which they clearly distinguished from their test-preparation activities. Accordingly, the teacher time data in Section 5 were labeled as test-preparation efforts.

Table 6.1 provides a summary of what educators said they learned from workshops and self study. Percentages were calculated based on the leading answer given by each respondent. Many cited multiple benefits from formal review, corresponding to the three highest frequency categories. For example:

It just renewed my confidence and some things I had forgotten in the past. And, certain things popped up that helped me on the TECAT.

It helped, just memorizing the definitions and terms and practicing how to eliminate the wrong answers and practicing the essays with 200 words or less.

It helped, definitely, psychologically because it answered questions as far as what was going to be asked. It relieved anxiety, but as far as learning anything... I missed maybe two during the review session so it just pointed out things I needed to be careful of.

Only three teachers said they had learned rules which they had not known previously. For example:

I graduated from college over 30 years ago. I had not had a test or anything like that since 1954 and I just returned to teaching. That's why I had to study so hard. So many rules had changed. They don't punctuate like they did when I went to school.

Table 6.1
Interview Questions about the Substance of Test Preparation
 (n = 93, 3 missing item data)

Did you study* for the TECAT?

Yes	87%
No	13%

*Note: The authors used “studying” to mean all test-preparation activities; but many respondents said they prepared but did not study; percentages reflect the more inclusive use of the term.

Did studying help or was it a waste of time?

(Did not study)	13%
It helped	77%
It was a waste of time, or did not make a difference	10%

What do you think you learned, or what skills did you improve, as a result of studying?

(Did not study, or derived no benefit from preparation)	20%
---	-----

Became acquainted with test format	34%
---	------------

I studied format not subject matter, what the test was going to ask and the types of questions that would be asked.

I thought it was quite worth while, because it made you aware of the tricks that were used.

It helped me to prepare for the kinds of questions that would be asked.

The format they presented at the workshop was exactly what we had on the formal test.

She would present a sample of what was going to be on the TECAT and she would explain how you had to eliminate incorrect answers and thus come up with the correct answer.

Brushed up skills and reviewed terminology	33%
---	------------

Since I teach math, it helped to bring back English rules, punctuation, capitalization, spelling and that type of thing. It was just kind of a brief review.

Table 6.1 Continued

I wouldn't say I improved any skills. I just went over terminology. Some of the terms are more familiar to administrators than to classroom teachers.

It helped by reviewing grammar rules.

I think it refreshed my memory in some things, yes.

Oh, "lie" and "lay." I don't feel I improved anything.

The night before I went over the professional terms.

It reviewed a lot of rules for me and I needed to be refreshed on that.

It probably refreshed my mind on grammatical rules.

Increased confidence and relieved anxiety

10%

It helped me. I feel sure I could have passed the test without studying but it decreased my anxiety.

(Studying) made me more self confident taking the test

In that respect I think it helped me more than anything.

I think it built confidence, in getting back to doing some individual writing and thinking about that. As much as I hated the thing, I still felt like it made me more aware and more careful about writing and responses to the questions.

Learned new skills

3%

I had a little trouble with my punctuation and my capitalization because I speak many languages. I speak six languages and each has their own rules and I did get mixed up before. Now I've straightened that out.

I think I learned some things, like when you need who and when you need whom, things like that that you don't really pick up.

At some point legitimate teaching to the test crossed over an ill-defined line and became inappropriate. For example, after explaining that the writing samples would each be graded in one or two minutes, one workshop instructor explained that "it's better to paragraph in the wrong place than not to paragraph at all" (because at least it would look right to the grader).

The examples of teaching to the test of questionable legitimacy were instances where the strategies went beyond helping the examinee "show what he knows." Instead the strategies had the effect of helping the examinee "hide his ignorance" or using the multiple-choice format to "pretend to know." Although these strategies are not illegal (since they are permitted by the test), their use clearly distorts what the test can claim to have measured.

Over and over again, the most widespread example of this second type of teaching to the test involved exploitation of the test specifications, published by the Texas Education Agency, to "psych out" the multiple-choice test questions. The TEA study Guide explained how the wrong alternatives would be constructed for every type of question. For example, for inference questions on the reading test incorrect answers would be of the following types:

Inaccurate: A statement that is contradicted by information in the reading section.

Unsupported: A statement that may sound reasonable, but does not necessarily follow from information in the reading section.

Irrelevant: A statement that is in no way logically true based on information in the reading selection. This inference often introduces information not included in the section.

In some sessions we attended, teachers were encouraged to rule out "irrelevant" and "specifically stated" answers so as to arrive at a correct choice among alternatives by a process of elimination. We came away thinking that teachers who were really struggling with inference would now be able to pass the items but would be unable still to recognize two valid inferences from the passage.

Similar strategies for ruling out "way out" wrong answers were encouraged for main idea, detail, fact and opinion, and even vocabulary items. The University of Texas tapes included the following information from the test author:

...something very special will occur in the answer options for the FACTS and OPINIONS questions. Review course workshop personnel at the University of Texas at Austin has confirmed that this pattern

will appear on the test. So, you'll want to listen carefully to the following information because it virtually insures success on this TECAT section. Of the four answer options, two will be fact and two will be opinion always. Of the two fact statements, one will appear in the passage and one will not appear in the passage. Of the two opinion statements, one will appear in the passage and one will not appear in the passage. This information has some very important implications for us. Let's consider these implications. First of all, if you are asked to identify a fact, the first thing you can do is simply ignore the two opinion statements. With the two remaining facts you merely have to determine which one of those two happen to appear in the passage. The same would work for the opinion statement...

Of course the examinee still has to do the basic sorting, still has to recognize fact and opinion. But if a teacher were having trouble making the necessary distinction, wouldn't it make it easier to know that there are always two of each?

The extent of teaching to the test varied greatly from one workshop to the next. In our sample, the video-taped presentation had the greatest proportion of content teaching; in the worst case, teaching of content represented less than half of the workshop day. While content received emphasis in most of the workshops most of the time, the widespread availability of "test-taking tricks" has to be considered as a partial explanation for the extremely high passing rates.

Section 7: TECAT PASSING RATES

The data from the first administration of the TECAT are presented in Table 7.1. The passing rate was 96.7% statewide but with a disproportionately higher failure rate among minorities, especially black teachers and administrators. There was also a pronounced age trend in the data indicating that older teachers were much more likely to fail the test than were younger teachers.

Data reported by institutions granting college degrees showed considerable variability. For example, graduates from the University of Texas at Austin, at San Antonio, and at Arlington passed the TECAT at rates exceeding 99%. Whereas, there were numerous colleges in Texas (mostly small private institutions) where the passing rate was as low as 55%. Out-of-state candidates had a 97.9% passing rate. Early in our study, one union spokesman suggested that it was this extreme variability in the quality of graduates from different institutions that had been the real impetus for the TECAT. If some schools do not have entrance requirements and do not assure some level of academic accomplishment before graduation, then teachers from these institutions will not have the basic skills implied by a college degree. It was in response to this concern that Texas had already established both the Preprofessional Skills Test (PPST) and the exit (EXCET) test for teacher training programs. Interestingly, the institutional data from the first administration of the EXCET correlate very highly with the institutional pattern in the TECAT data.

The second administration of the TECAT raised the final passing rate to 99%. Of the 6,579 teachers who failed the test in March, 4,704 retook an equivalent version of the test in June and passed; only 1,199 teachers failed a second time; 676 teachers did not sign up to be retested. One must also consider an additional group of about 4000 teachers who originally registered for the TECAT but never took it. Reasons for not taking the test include illness, retirement, leaving Texas, and leaving the profession. We heard vague talk about teachers who decided to retire early rather than face the pressure of the test. Personnel directors had heard these stories as well. About half of the directors said they knew personally of a few teachers who said that the TECAT was a major factor in their decision to retire.

In an effort to understand what kinds of teachers had been "weeded out" by the test we examined district level data. We also relied heavily on the accounts of personnel directors and a representative sample of teachers. On the positive side (i.e., the test was good for Texas education) we can offer these points: 1) nearly all teachers indicated that the TECAT was a fair test of literacy skills essential for

Table 7.1
Performance on the TECAT: March 1986 Administration

By ethnic group:

	Hispanics	Blacks	White/Other	Total
Number tested	24,685	15,681	156,505	202,084
Number passing (Percent)	23,195 (94.0%)	12,802 (81.6%)	154,838 (98.9%)	195,505 (96.7%)

Note: Individuals who did not report their ethnic group are counted in the total but are not included in the separate categories.

By age group:

Age	Number Tested	Percent Passing
0-29	38,971	97.8%
30-39	74,706	97.6%
40-49	52,349	97.2%
50-59	29,985	94.0%
60-65	4,615	90.5%
Over 65	721	87.7%
Not Given	384	87.2%

good communication in the classroom, 2) teachers "admitted" that the one or two failures they knew personally used poor grammar in their day-to-day conversation, 3) personnel directors classified the teachers, who had been fired by failing twice, as "average" teachers; they were neither exemplary nor very bad, 4) rarely, we did hear a story about a woefully incompetent teacher who should have been fired years ago; "the test finally got him."

The negative side involves those instances where a teacher was fired because of the test who should not have been. We examined data for districts where the passing rate was 85% or less on the first testing. All of these districts with high failure rates fell into one of three categories: districts comprised of group homes for the mentally retarded or emotionally disturbed, heavily impacted minority districts (3 districts), or small rural districts with fewer than 30 teachers all together. Teachers

of mentally retarded children were also identified by several personnel directors as the type of teacher they had lost because of TECAT.

As a group, vocational education teachers had a disproportionately high failure rate. Several personnel directors noted that the loss of these individuals seemed particularly unfair since they had never been required to be college graduates to be certified. Often teachers who were interviewed expressed regret over a shop teacher who had been fired, "I know he doesn't speak proper English but he really knows machinery; and he's so good with the kids." Similar ambivalence regarding the legitimacy of the test versus the value of a colleague was expressed about many P.E. teachers and coaches, about bilingual education teachers, and a few kindergarten teachers.

Table 7.2 provides a summary of teacher interview data about the characteristics of colleagues who failed TECAT. The majority of teachers interviewed in the representative sample did not know anyone who had not passed. Many specifically stated that their district had essentially a 100% pass rate. Others did not know who might have failed because of local adherence to union guidelines for solidarity, whereby results were not discussed and were not reported to district administrators until after the second testing to protect the identity of those who did not pass until the second try. Of those who knew enough to describe the teaching abilities of someone who failed, the great majority expressed regret that a good colleague might be fired. Only 4% of the responses could be categorized as "bad teacher" descriptions, where the test might help to fire someone whose inadequacies were recognized.

Additional data about the job assignments of teachers who were eliminated by the test are treated with the cost analysis in Section 9.

The poignant stories about valued teachers lost because of the test were especially troublesome given what we know about test unreliability. The TECAT was a well developed test with presumably adequate reliability; nevertheless all tests have measurement error. Using both retest data and standard setting data to approximate the number of marginally proficient examinees, we can estimate that from 4000 to 5000 of the teachers who passed have literacy skills no different from the ones who failed.

Table 7.2
Teacher Interviews about Colleagues Who Failed

Do you know any teachers who did not pass TECAT?

Yes		45%
No	(Everyone around here passed; we followed union guidelines to keep failures anonymous; I've heard rumors but I don't know them personally.)	55%

Can you tell me in a general way what kind of teachers failed the test? Did their difficulty with reading or writing skills ever show up in their teaching duties?

Do they have outstanding strengths in other areas that compensate for limited reading and writing skills?

"Good teacher" responses **51%**

His speech is very country, you know the way football coaches sometimes talk, very west Texas type. I don't think he had limited reading.

Writing was his biggest problem, not getting it all down on paper properly. He's very bright in other ways and he's a very good football coach. He is an excellent role model. He expects his kids to be good and tow the line. He didn't do a lot of writing as a P.E. teacher.

He was hired for his auto mechanics skills and did not have a college degree. Probably teaching a mechanical course like that, grammar skills weren't really stressed.

She's the only black teacher on this campus. She's done a beautiful job. She didn't pass the essay part, but as a P.E. teacher she's not going to write or grade an essay. She got a 'B' in our graduate course and she's an important role model for the few black kids in our district.

He was a biology teacher and a very good one, I understand. More recently he was a football coach. He's been teaching close to 35 years. He has sort of an innate ability to encourage young people to do their best.

He didn't pass the writing test. He's done a tremendous job with the band. The response he gets from the kids was great.

This person probably didn't have a very good background in language arts in school and probably hadn't had to write and remember correct usage for a long time. He's a physical education teacher. I've always heard that he does an excellent job with the kids.

Table 7.2 Continued

This particular individual was a P.E. teacher and he was black. He's a real disciplinarian and had the respect of every child in the school. The school was largely black and Hispanic, so a lot of the children didn't relate to the white women teachers. But once they got in his class it was a whole 'nother' ballgame. If he fails again, it will be a real loss.

The one that I know had had a great deal of difficulty with English skills in college and had had tutoring, not so much because of intellect but because of background and having heard incorrect English usage all their lives. I believe this person was a very good teacher in other respects.

"Bad teacher" responses

4%

If the administrators had been doing their job, they would have gotten rid of this guy a long time ago. Just talking to him, being around him, it's obvious this man doesn't know which end is up. He doesn't spend much time on his own preparation.

Well, it was the obvious ones. The ones that their grammar was incorrect and their written communication was not acceptable, which was already known among their peers and colleagues. They had never done anything about their teaching. Probably their strengths were patience and their ability to work with children. They were elementary teachers, two black elementary teachers. They had been teaching for many years and their incompetency had already been known but nothing had ever been done about it.

Section 8: TEACHER MORALE AND PUBLIC CONFIDENCE

Before our first visit to Texas, we had read newspaper accounts of teacher protests and about how insulted teachers felt at having to take a literacy test. Early on, leaders of teachers' organizations told us extensive stories about the anxiety and disruption the test had caused. But we had also been told by TEA staff and legislative aides that these stories were mostly union "hype." Legislators who had sponsored the reform legislation believed that militant union leaders did not speak for the majority of teachers. They knew teachers personally back home who were quite willing to take the test if it would get rid of the few incompetents who were giving the profession a bad name.

Interviews with scientific samples of teachers and personnel directors were intended to give a more representative picture. But even without the filter of politics or media sensationalism, we were told consistently that the test had created tremendous stress and bitterness. Most compellingly, the 20-25% of teachers who did not themselves feel threatened by the test nonetheless described its negative impact on the majority of their colleagues. Simultaneously, the majority of personnel directors said that the TECAT had had no real effect in their district because virtually everyone passed; but it had generated negative attitudes and made teachers feel degraded. "We had a very bad year."

Teacher interviews resulted in more than 1000 pages of transcripts; more than 100 pages were in response to these questions:

Did preparing for the TECAT make you a better teacher? Did preparing for the TECAT have any negative effects on your teaching during the past year? (And later in the interview:) What has been the effect of the testing program on teachers?

Only 5% of educators said that preparing for the TECAT had made them better teachers or administrators. Half said that studying or worrying about the TECAT had hurt their teaching either because of the time it took, because of the stress they were under, or because they were less willing to give time to extracurricular activities.

The following verbatim quotations typify the reported effect of the testing program.

I think mostly what I found negative was the way I saw some of my peers and also some of my superiors, those who I looked up to and respect, older people, become concerned and a little bit worried about the

thought of having to take a test to enable you to secure your position.

Well, now that it's over, I think everybody thought it was pretty simple. But in advance it sort of created some ill will.

...some of my fellow teachers just went into orbit about the test, they were so anxious about it. I think for no reason, in some cases. Then it had a negative effect on their teaching and as a result I watched their frustration build and I began to wonder what the test was about.

The morale really dropped. I have never heard so many teachers say, "If I could find another job." "It's about time for me to retire." Things like that. It's really hurt.

To me it was just a very negative feeling that the teachers got, throughout the whole test, of their profession. And I feel that a lot of us are in there because it's something that we're wanting to do and we're sticking with it because we believe in it. But they did give us that negative attitude about the whole teaching profession.

I don't know how else to say it except it was just a humiliating experience. One of the worst experiences I may have ever been through as a teacher...I begrudge the time that I had to take to study for it, to worry about it.

We usually get really enthusiastic about different units that we're teaching, things we're going to study and things like that, and we just couldn't get ourselves up for it. We felt, you know, that people thought we were incompetent and the kids, even in first grade, they would comment.

Everybody felt like (we) were incompetent—from the kids to the governor. It was deflating to us. And everybody just felt really, really down. I think the governor's idea was that he was going to prove us competent and so teachers would go for him. Well, it backfired on him.

I think it has given kind of a bitter attitude. And, I think it's been kind of just an embarrassment. You know, they've had sample questions on the t.v. and they're so simplistic that it's almost a joke.

Low morale. It just really socked them in the stomach. Many people were very nervous, uptight, concerned about it. Especially the ones who had taught for over 20 years. "What will happen if all of a sudden I'm found unsuited, unfit, without credibility?..."

The above responses represent over 90% of the teachers interviewed. Others said there was no effect on teachers or gave a positive reply such as the following:

I think that there definitely were some people, I include myself, who were pressed to learn a little bit more about the language; and that's a good thing. There were a lot of bad things, especially for those who probably knew just about everything they had to know about the language. I'm pretty sure that everybody went through a very stressful time.

To gain some perspective on the negative feelings expressed, we should note that nearly 70% of teachers said that the reading and writing skills measured by the TECAT were prerequisite to being a good teacher. "If you can't do these things you shouldn't be in the classroom." Thus, there was a large discrepancy between feelings about the principle underlying the test, that all teachers should be literate, and the test itself. To be asked to take a reading and writing test when they already held college degrees made teachers feel less like professionals, not more professional. To make matters worse, students and letters to the editor persisted in calling the TECAT a competency test when even the governor admitted it was only a literacy test. The editorial cartoon in Figure 8.1, for example, lampoons teacher complaints and implicitly equates the literacy test with Medical Board examinations. Humiliation and embarrassment occurred because media publicity invariably portrayed teacher protests alongside examples that made the test seem laughably easy. High anxiety was created because so much was at stake; many, many teachers said that feelings would have been different if failing the test meant taking a college refresher course rather than losing your job. The pervasiveness of these themes in the two representative samples led us to conclude that TECAT consumed the attention of educators in Texas for the 1985-1986 school year and that it had a devastating effect on teacher morale.

Perhaps the most negative effect of the TECAT has been the potential harm done to public opinion. Many teachers felt that the test and accompanying publicity actually worsened public confidence in education. In fact, teachers were about equally divided on this issue. Approximately half of the teachers interviewed said that the test had done what legislators had intended, i.e., it had gotten rid of the bad

Figure 8.1
March 1986 Editorial Cartoon Lampeoning Teacher Complaints



Thanks to Ben Sargent, *The Austin American Statesman*, Universal Press
Syndicate.

teachers and proven that the majority are competent. The other 50% of teachers felt that all teachers had been made to seem less competent and that the 99% pass rate made the whole thing a joke.

The following sets of quotations were selected to characterize the two conflicting positions:

Teacher Position One: The TECAT proved to the public that teachers are competent:

Now that's where I think something good has happened. I think the public realized maybe a little bit more how hard teachers work and really that they're bright people.

I hope that it would show the public that we, the majority of teachers in Texas, are not illiterate.

Well, it may have been a star in our crown. Teachers probably take the brunt of society's ills. And the fact that 98% did pass may have impressed some people who are always complaining that their kid's teacher's probably the stupidest person on the face of the earth.

I think that the public was surprised to find so many teachers could pass the test. Perhaps they think a little higher of teachers.

In the school district that I'm teaching in, most of the parents and the public had confidence in us to begin with.

I think it's important that we let the public know that we are good teachers and that we are teaching them something. If the children are dropping out or they're not learning anything, it's not our fault, it's their fault.

It may have gotten the public off the school district's back a little bit.

Teacher Position Two: The TECAT was a joke. Now the public has a lower opinion of teachers than before:

It was ridiculous. They think this was all a farce.

I think they were hopeful that this was going to weed out incompetents. Every student, including myself, has had a bad teacher. And I think they were hoping in one broad sweep they could eliminate those who were not as professional as they should be. And I think they were

disillusioned because of the publicity afterwards - the way the press chose to characterize the type of test it was and how easy the test was.

I think it's negative. The teachers were behind the 8-ball. If they didn't do well on the test, then obviously they weren't good teachers. And if they did well on the test then the legislature--the first thing they said was, "Whoa! This test was too easy; we passed too many." And, therefore, you were dead if you did and dead if you didn't.

The public does not like the classroom teacher. People feel that we were mealy-mouthed, that it was wrong for us to be angry over a test. They feel we always whine, wanting more money.

Some of the jokes circulating now consisted of several pages of ridiculous, very ridiculous things. Say, for instance, "find your way through a maze and the way is outlined very dark." It was trying to emphasize how dumb the questions were, but I don't think they were that dumb. ... You know, it was funny for a joke but it's not funny for teachers, it really demeans the teachers.

I don't think it's had any effect whatsoever on the general public. I mean, half of them are saying, "Gee, that was ridiculous. It was a waste of money. I knew they'd do good." The other half is saying, "Gee, that was a waste of money, the test was too easy so I knew they'd all pass."

Representative Data on Public Opinion

Trying to assess what "the public" really thinks is difficult. Even with representative survey data, results are sometimes internally inconsistent in that the majority of respondents strongly endorse both their schools and reform measures. In 1986 for example, 54% of Texans gave their schools a grade of A or B, a much higher percentage than occurred in the Gallup poll nationally. However, in the same survey 79% said they were in favor of competency testing for teachers (The Texas Poll, 1986), seeming to imply a need for improvement and quality control. The following data, in response to The Texas Poll's most global education question, indicates very little perturbation in public opinion across time, although some might see a slight positive trend associated with educational reforms. The 1983 data were collected before the enactment of reforms, while the Select Committee deliberations were in the news. The 1985 data were collected just after the passage of the reform

ill but before implementation of most of the provisions. The 1986 survey was made after many of the reforms had been implemented but still before the administration of TECAT. The 1987 data were collected a year and a half after TECAT, so that failed teachers had been out of the system for the entire preceding school year.

Q. Students are often given the grades A,B,C,D, and FAIL to denote the quality of their work. Suppose the public schools themselves, in your community, were graded in the same way. What grade would you give the public schools there – A,B,C,D, or FAIL?

	1983	1985	1986	1987
A	12%	15%	18%	20%
B	37%	36%	36%	34%
C	29%	24%	24%	25%
D	8%	6%	8%	6%
Fail	3%	5%	4%	4%
Don't Know	11%	14%	10%	11%

Prompted by the teacher concern that TECAT may actually have worsened public respect for education, an effort was made to obtain relevant data on public opinion. We contracted with the Public Policy Resources Laboratory, Texas A & M University, which conducts the Texas Poll, to add questions about specific educational reforms to their summer 1987 survey. The poll was based on 20-minute telephone interviews with a representative sample of 1,000 adults from randomly selected telephone households. Sampling methods and administrative procedures are described in Appendix H. The questions were drafted by the authors in cooperation with the Director, Dr. James Dyer, to parallel as much as possible questions that had been asked in 1986 about educational reform measures (The Texas Poll, 3(1), 1986). In Table 8.1 the results of the 1986 and 1987 interviews are presented side by side. The 1986 data were collected in late 1985, four to five months before TECAT was given for the first time. Approximately 18 months elapsed between the two polls. By the time of the 1987 survey, TECAT had been out of the news for a year and the 1986-87 school year had been completed with twice failed teachers removed or reinstated after a third try in October 1986.

By the summer of 1987, the public seemed less enamored with each of the educational reform measures. However, the endorsement for some reforms had fallen off only slightly while others had lost ground substantially. For example, the "no

Table 8.1

“Before and After” Texas Opinions on Educational Reform Measures

1986

Q. I am going to list some specific changes that were made and I would like you to tell me whether you generally favor or oppose the change.

Do you agree with...

Restricting participation in sports and other extracurricular activities to only those with passing grades?

Agree.....77%
Disagree.....19%
Don't know/Refused..... 4%

Raising teacher's pay?

Agree.....81%
Disagree.....12%
Don't know/Refused..... 7%

Increasing standards to pass courses and graduate?

Agree.....84%
Disagree.....10%
Don't know/Refused..... 6%

1987

In 1984, the Texas legislature passed a major reform bill. I will name several of the major reform measures and ask you to say whether the measure significantly improved public education, slightly improved education, had no effect, had a slight negative effect or a significantly negative effect on public education.

Restricting participation in sports and other extracurricular activities to only those with passing grades.

Significantly improved.....32%
Slightly improved.....41%
No effect..... 7%
Slight negative effect.....10%
Significant negative effect..... 3%
Don't know/Refused..... 7%

Raising teacher's pay.

Significantly improved.....25%
Slightly improved.....38%
No effect.....22%
Slight negative effect..... 4%
Significant negative effect..... 1%
Don't know/Refused.....10%

Increasing standards to graduate.

Significantly improved.....34%
Slightly improved.....42%
No effect.....10%
Slight negative effect..... 4%
Significant negative effect..... 1%
Don't know/Refused..... 9%

Table 8.1 Continued

1986	1987
Requiring students to pass statewide standardized tests?	Requiring students to pass statewide standardized tests.
Agree.....72%	Significantly improved.....29%
Disagree.....21%	Slightly improved.....39%
Don't know/Refused..... 7%	No effect.....12%
	Slight negative effect..... 6%
	Significant negative effect..... 2%
	Don't know/Refused.....12%
 Increasing sales tax to provide greater state funding for schools	 Increasing sales tax to provide greater state funding of school districts.
Agree.....69%	Significantly improved.....17%
Disagree.....26%	Slightly improved.....33%
Don't know/Refused..... 5%	No effect.....24%
	Slight negative effect..... 8%
	Significant negative effect..... 2%
	Don't know/Refused.....16%
 Competency testing for teachers	 Competency testing for teachers already in the classroom
Agree.....79%	Significantly improved.....26%
Disagree.....17%	Slightly improved.....30%
Don't know/Refused..... 4%	No effect.....15%
	Slight negative effect.....13%
	Significant negative effect..... 6%
	Don't know/Refused.....10%

pass, no play" reform withstood the test of time. In 1986, 77% of Texas citizens said that they agreed with the "no pass, no play" restriction and, in 1987, 73% of Texans said this measure had worked to improve education. Placing grade restrictions on extracurricular activities had always been one of the most popular but controversial reforms. Although it had very high endorsements in positive surveys ("Do you favor no pass, no play?"), it also elicited the the strongest negative response when a random sample of citizens had been asked to name any educational reform to which they were strongly opposed. In 1985, seven percent said they strongly opposed grade restrictions on extracurricular activities while only 2% objected to competency testing for teachers (The Texas Poll, 2(1), 1985). The other reform which appeared to maintain its same level of public support over time was competency testing for students, dropping only four percentage points. Increasing standards to graduate had the highest level of support in 1986 and, despite losing eight percentage points, continued to be seen in 1987 as the most effective of all the reform measures named. A pervasive but subtle indicator of the public's disenchantment with all reforms was the consistent increase in don't know responses from 1986 to 1987. It was apparently more difficult to say whether a measure had been effective than to support the intention of a reform.

In 1986 the least popular reform by a slight margin was increasing the sales tax to redistribute state funds to poor school districts. In 1987 it was again the least popular but had also lost substantially in its absolute level of support. In 1986, 69% had agreed with the sales tax increase but in 1987 only 50% believed the increase had improved public education. Similarly, raising teacher's pay dropped from 81% support to 63%.

The reform measure that sustained the very largest drop in public endorsement was competency testing for teachers. Questioned before the testing took place, 79% of Texas citizens favored testing teachers. Asked in the summer of 1987, only 56% of Texans said that competency testing for teachers had improved education, reflecting a decline of 23 percentage points. Some of the loss of support over this period might be attributed to a change in the understanding of what competency testing would be. When the 1986 data were collected in late 1985, teacher testing was still intended to be both TECAT and subsequent subject matter examinations. Although TECAT was omnipresent in the news at the time of the earlier survey (see Section 3), some well-informed respondents could have had the more extended conception of competency testing in mind when they answered the question. The 1987 questions asked respondents to judge the efficacy of reforms as implemented.

Thus, whether or not the Texas legislature had subsequently rescinded subject-matter testing, judged effects on public education would have to be based on the implementation of TECAT. To a certain extent, all of the question comparisons reflect a difference between the rhetoric of intentions and the realities of actual implementation. One way to interpret the large drop in public support for teacher testing is that it was the reform that least lived up to expectations.

Follow-up questions were used to probe respondents' reasons for thinking that teacher testing had improved education, had had no effect, or had had a negative effect on education. Positive and negative answers tended to parallel very closely the two categories of teacher responses described earlier. Supporters reiterated the original intention of the measure: "it weeded out bad teachers" (20%), "it made teachers keep up to date" (11%), and, more generally, "it improved the quality of education" (12%). Those who said the measure had no effect or a negative effect explained that, "it had insulted and angered teachers" (16%), "it was not a fair measure and not a test of ability to teach" (7%), and that "there were problems with the test format" (4%). Twelve percent of respondents gave individual explanations that did not fit these global categories; in addition to the 10% who answered "don't know" to the teacher testing question, 8% more did not have an answer to the open-ended question, resulting in a total nonresponse rate of 18%.

Clearly, a large segment of Texas citizens lost faith in teacher testing after the implementation of TECAT. Although all of the reforms lost a little from promises to implementation, competency testing for teachers lost the most, falling to the same low level of endorsement as redistribution taxes. Because the public continued to endorse some reforms at a high level, including pupil testing, respondents were clearly differentiating between reforms they believe to be effective and ineffective rather than reflexively responding negatively after the initial enthusiasm had worn off. Teacher concerns that TECAT may have harmed public opinion have some support from the representative survey. Although about half of the teachers and half of the citizens said that TECAT was effective, the numbers expected for a ringing endorsement would be much higher. By convincing only half of Texas citizens, the TECAT failed at one of its major purposes, to reassure the public about the quality of education.

Section 9: COST ANALYSIS

How much did it cost to test every current teacher and administrator in Texas? The contracted cost was \$4,833,000 in special funds to develop the TECAT, administer it and score it. In addition, the Texas Education Agency subsidized the appropriation by assigning regular assessment staff to the project for an estimated cost of \$232,500.

The largest cost of the test administration was in teacher time. School was cancelled on TECAT Monday so that teachers could take the test. Schools absorbed this cost by using one of the teachers' regular inservice days. Based on average salary figures, teachers cost \$131 per day. Counting only the number who actually took the test, the cost of teacher test-taking time to local school districts was over \$26 million. Local districts also provided test sites for each of the test dates. For most districts this meant providing a janitor and utilities from early in the morning to late at night. A few urban districts also had to maintain security staff during testing hours. Based on estimates, the total cost of providing local test sites was \$138,500.

In Table 9.1 we have also approximated, in very rough terms, the publicly sponsored costs of providing inservice preparation for the test. The activities involved are based on our interviews with personnel directors, staff of the Education Service Centers, union leaders, and teachers. Estimates used to determine the number of teachers taking formal review courses were derived from the teacher interviews. Roughly, the number of teachers who had no formal preparation was offset by the number who participated in two, three, or more days of review. Thus, approximately 200,000 "teacher equivalents" attended workshops at an average cost of \$30 per session; the cost for review has been divided, however, between public and private expenses because of differences in district policies about who paid. In addition, even if they did not pay for workshops directly, all districts spent staff time in keeping teachers informed about study opportunities or in arranging workshops for which fees were collected; to these efforts we added the extensive staff investments from the 20 Service Centers to arrive at a baseline administrative cost for the review function of \$5 per teacher. Thus a district with only 100 teachers was assumed to have devoted at least 20 hours of administrative time to support services for the TECAT. Lastly, we added the cost of providing sites for review workshops since most districts either conducted their own workshops or at least provided the facilities for contracted workshops.

When the cost of publicly supported review sessions is included, the total tax-supported cost of TECAT was 35.5 million dollars. The analysis summarized in

Table 9.1
Summary of TECAT Cost Analysis

PUBLIC COST

Test development and administration:

Nominal cost	\$ 4,833,000
TEA Staff	232,500
Teachers' inservice day to take the test (202,000 teachers × \$ 130/day)	26,260,000

Preparation workshops and review: Costs to districts and Education Service Centers

Inservice development or district paid-for workshops. (100,000 teachers × \$30)	3,000,000
Information services and staff time (210,000 teachers × \$5)	1,050,000
Sites for workshops (800 site days × \$125/site)	100,000

Total Public Cost **\$ 35,614,000**

PRIVATE TEACHER COST

Workshops paid for by teachers (100,000 teachers × \$30)	\$ 3,000,000
Materials purchased by teachers (20,000 teachers × \$15)	300,000
Teacher study time (206,000 teachers × 12 hrs × \$16/hr)	39,552,000
Teacher-paid-for score reports (20,000 teachers × \$15)	300,000

Total Private Cost **\$ 43,152,000**

TOTAL PUBLIC & PRIVATE COSTS **\$ 78,766,000**

Table 9.1 should be considered conservative in that costs were only included if there were data to support the estimate. Additional costs very likely occurred without our being able to represent them in the analysis.

Realistic cost data are important, however crudely estimated, because actual costs were an order of magnitude greater than the anticipated cost of testing. TECAT was expected to cost about \$3 million. This was the number found in the cost estimates of the Select Committee and was still the figure used when the State Board discussed the feasibility of implementing the legislation by testing every teacher with a Texas-developed test. In most cases SCOPE staff and staff of the Comptroller who computed cost estimates for proposed reforms included increases for both state and local jurisdictions. This was not done, however, in the case of teacher testing. A one-time test for practicing teachers was considered to be one of the cheapest of all the likely reforms. We have included as Table 9.2 a portion of the cost analysis which accompanied the Select Committee recommendations. Data on the real public cost of TECAT indicate that it was an expense more on the order of a programmatic intervention such as pre-kindergarten for disadvantaged four year olds, rather than an inexpensive item fitting within the error of the estimates for major reforms.

Table 9.1 also includes an estimate of the private costs to teachers and administrators taking the test. Here we include the half of workshop costs that were not covered by public monies. We have also included lower-bound estimates of both teacher purchased study materials and score reports. (Teachers who failed a part of the TECAT were given diagnostic score reports free by the test contractor; but, if teachers who passed wanted to know the details of how they did, they had to pay.)

In the analysis of private costs, again the single largest item is teacher time. On average, teachers and administrators spent about 12 hours studying for the TECAT (with a range of 0 to 100 hours). At an average hourly rate of \$16, we can assign a dollar figure of \$39,552,000 to the time contribution. Some policy makers might argue that this dollar amount is misleading since it did not involve an outlay of cash as did the other private costs. However, it is conventional in cost analyses of this type to try and compute a dollar cost to represent the opportunity cost implicit in a policy choice. In other words, when legislators mandated a test that could cause teachers to lose their jobs, they set in motion a series of consequences including the intense effort to prepare for the test. Another way to try to represent the opportunity cost would be to imagine what would have happened if, instead, the legislature had required that each teacher in the state spend 14 hours tutoring

an individual pupil. Thus 210,000 pupils would each receive 14 hours of individual tutoring. (We arrived at 14 hours as the sum of average study and test taking times.) From meta-analyses of the research literature on tutoring (Hartly, 1977) we can conclude that the average benefit from 36 hour tutoring programs is .54 standard deviations; therefore, 14 hours of tutoring might produce a .21 standard deviation effect. Although 210,000 pupils are a small number in a state of over three million pupils, the personal contact and achievement gains for these students could be considered a significant educational effect. The administration of the TECAT in Texas was a phenomenal educational intervention. It is appropriate to interpret results in terms of costs and to ask what might have happened if the same investment of resources and energy had been spent in another way. Taken together the public cost of the TECAT (\$35,614,000) and the private cost to individual teachers and administrators (\$43,152,000) amounted to more than 78 million dollars.

When TEA assessment staff were invited to review our preliminary findings they noted that our estimates of the public cost of TECAT were credible. The Commissioner and TEA staff did not believe, however, that our analysis had given sufficient credit to the benefits of the testing program. Especially where we had emphasized the public and private costs of TECAT, it would be worthwhile to assign a dollar value to the public funds saved by firing incompetent teachers.

To accomplish this analysis, TEA provided detailed information about the job assignments of the 1,950 educators who were removed from the system by TECAT; these individuals either failed twice or left education after failing once. Following arguments made earlier, we were unwilling to count as successes of the program removal of vocational educators, special education teachers, staff at group homes, p.e. teachers, or kindergarten teachers. The data confirmed that these groups were over represented among the failures. But TEA staff argued compellingly that many of the failures held mainline teaching jobs and were directly responsible for the academic preparation of students. Given the low level of their own skills, it is hard to believe that they could do a good job in teaching basic skills to students. For example, 383 of the failures were regular elementary school teachers; 22 failures were even secondary school English teachers.

In Table 9.3 the teaching assignments of eliminated personnel are classified as academic or nonacademic. Math and science teachers were counted as academic assignments, so were history, government, and foreign language teachers; some of these individuals might also have been coaches but we were interested in their qualifications to teach the academic classes they had been assigned. In addition

to physical education and industrial arts, we classified music, art, ESL, and health as nonacademic assignments. Some categorizations were more difficult to make and were somewhat arbitrary. We counted failed principals and superintendents (administrators $n = 66$) as academic assignments and hence "successes" for the program; certificated personnel at TEA, at regional service centers, and at state homes were counted as nonacademic since they do not have academic responsibilities with children. The 18 librarians who failed were counted as academic but the 22 counselors who failed were counted as nonacademic.

The individuals who had been removed by TECAT were divided thusly into a total of 887 academic jobs versus 1063 nonacademic jobs. The 887 firings represent the intent of the testing program, i.e., to remove incompetent teachers from the classroom. The average salary paid to all certificated personnel in Texas in 1985-86 was \$23,765. If this amount is incremented by 20% to allow for benefits, then it could be said that the annual cost of these 887 incompetent teachers is over \$25 million. As a result of TECAT, this amount of taxpayer dollars will no longer be wasted, and hence is a savings which compensates for the public expenditure on the test. Furthermore, to program advocates, the firings represent recurring savings (less so as retirements and normal attrition would occur); but TECAT was a one-time expense.

Table 9.3
Academic and Non-Academic Teaching Assignments
of Teachers who Failed TECAT Twice
(or Who Failed Once and Did Not Retake)
(n = 1950)

Assignment	Academic	Non-Academic
KINDERGARTEN		107
ELEMENTARY		
Generic	383	
Physical & Life Science	2	
Mathematics	10	
Music & Art		15
ESL		12
Reading	31	
English	1	
Geography & History	8	
Spanish	1	
Health		10
Physical Education		66
Other and Missing data proportionally assigned	53	36
SECONDARY		
Generic	12	
Biology & Life Science	19	
Chemistry, Physical & Earth Sci.	39	
Mathematics	71	
Music & Art		17
ROTC		5
ESL		5
English	22	
Speech and Reading	15	
Econ., Geog., Government & History	64	
French & Spanish	8	
Computer Science	5	
Industrial Arts, Trades & Homemaking		31
Business Education		10

Health		19
Physical Education		88
Other and		
Missing data proportionally assigned	30	57
ALL LEVEL	10	
ITINERANT	1	
PREKINDERGARTEN		14
AIDE		2
VOCATIONAL EDUCATION		308
SPECIAL EDUCATION		191
SUPERVISOR	2	
ADMINISTRATORS	66	
COUNSELOR		22
VISITING TEACHER	7	
SCHOOL NURSE		6
LIBRARIAN	18	
Other and		
Missing data proportionally assigned	8	21
NON PUBLIC SCHOOLS		22
Includes TEA, University and Service Center Staff, and Staff of State Schools and Groups Homes		
TOTAL	887	1063

Section 10: COMMENTARY

The Texas Examination of Current Administrators and Teachers, the TECAT, was one of a long list of educational reforms designed to improve education. Specifically, it was intended to weed out the few incompetent teachers in Texas, thus assuring the public that the remaining cadre of teachers was worthy of higher pay.

To understand the particular nature of the Texas situation one should realize that the TECAT was a basic literacy test with harsh consequences. Although frequently called a competency test, the TECAT was more accurately a measure of pre-college reading and writing skills. Every current teacher and administrator would have two chances to pass the test in the Spring of 1986; if they failed they would be out of a job in September.

When we tried to evaluate the effects of the teacher test we were confronted by contradictions. For example, the TECAT consumed the attention of educators for a year, yet in the end had little impact on staffing. Half of the teachers in the state experienced enough anxiety or devoted so much time to studying for the TECAT that they believed their teaching was adversely affected; many more teachers felt that the test had had a demoralizing effect on themselves and their colleagues. Ultimately, 99% of the teachers passed. Thus, when interviewed in the Fall of 1986, most personnel directors had not experienced much disruption. Many had had no teachers fail or had dealt with the handful of teachers who had to be replaced. Even in the very largest districts where a tiny percent was still over one hundred teachers, normal recruitment and alternative certification programs filled the vacancies. The Commissioner of Education had made it clear that requests for waivers would be severely scrutinized; therefore the majority of districts did not apply for waivers on behalf of their teachers who failed. Some found non-instructional posts for those they wanted to keep; others adopted temporary measures and waited for the third retesting in October.

A second conundrum or irony was created by two competing conclusions: 1. Many teachers who passed the TECAT continued to exhibit the kinds of language errors that originally incensed legislators, and 2. Many of those who failed and were not rehired were regrettable losses to the system. All tests are fallible and will produce some classification errors. Of course, those who passed TECAT because of measurement error, perhaps 4,000-5,000, were not identifiable and did not have to retake the test. In addition, in review sessions all over the state, many teachers learned the tricks of the multiple-choice questions, especially in TECAT where a pattern of "wrong" alternatives would occur for every type of question. Thus many

teachers raised their scores on the test without mastering the skills the test was intended to measure. In written responses to our questionnaires we saw some of the same bad English that had appalled legislators. For example, more than a half-dozen teachers said that TECAT lowered teacher "moral." One teacher wrote that the reason for the test was to "help the public except a pay raise." Another said he would go into "bussiness" if he failed. However, we are reasonably certain that all of these teachers passed TECAT because they made only one or two errors of this type on a two-page questionnaire. By the scoring rules for the TECAT these isolated errors would not be sufficient to fail the paper. And, we concur that these papers(questionnaires) were quite literate in other respects. Thus, policy makers need to accept the basic premise of a minimalist test. If you are going to deny a person their livelihood on the basis of a test, errors have to be fairly egregious before they merit flunking. Large numbers of individuals with marginal literacy skills will pass.

At the same time that some illiterate teachers sneak past the test, some teachers with badly needed skills fall by the way. Disproportionately high failure rates were reported for minorities especially blacks, for special education teachers and the staffs of group homes, for p.e. teachers and coaches, and for vocational education teachers (who did not have to have college degrees in the first place). It is important for policy makers to realize that TECAT did not single out the unprepared, indifferent, inexperienced teachers they had in mind when they envisioned the test. (TECAT did not measure these things.) Instead it "got" 20% of the staffs who worked with the institutionalized mentally retarded and emotionally disturbed. It "got" shop teachers who have been teaching for 20 years and use grammar such as "he don't." The test also eliminated minority teachers, especially in areas with high concentrations of minority students. Surely, in some of these cases TECAT eliminated minority teachers who were better at teaching than at reading and writing standard English.

A third "contradiction" observed in our study was the discrepancy between the cost and benefit of the testing program. Primarily TECAT eliminated 1,199 teachers with some of the worst grammar skills. It may also have forced out another 1,000-2,000 teachers who considered themselves at risk on the test. (Some teachers who left rather than take the test would have had no difficulty passing.) TECAT also had the effect of drawing approximately 180,000 teachers into review of rules of grammar. Only a small fraction of the teachers felt they had learned new skills from the review courses; but one-third thought their scores had been improved by

brushing up on things like punctuation and capitalization rules. (An even greater proportion felt their scores had been improved by learning the format of the test.) At least, a year of publicity surrounding the TECAT probably sensitized teachers to use dictionaries when writing letters home to parents.

The benefits of TECAT were achieved at enormous cost. The public costs of TECAT were conservatively estimated at \$35,614,000. This translates into \$29,703 per failed teacher. Policy makers should also consider the opportunity cost of both the public and private investments in the testing program. The private cost, in terms of workshops paid for by teachers and teacher study time, was even greater than the public cost. What might have happened if this intensity had been focussed on some other educational problem? For example, in our cost analysis, we suggested that substantial achievement test gains would have been realized if each teacher in Texas had devoted just 14 hours to tutoring an individual pupil.

Program advocates believe that the public costs of TECAT were offset by the benefit of having eliminated incompetent teachers from the system. For the failed teachers with academic jobs, we computed a savings of over \$25 million. Furthermore, avoiding the waste of these dollars on incompetent teachers is an annual savings that will repeat (until normal retirements or resignations would have occurred). We did not attempt to ascribe a monetary cost, either public or personal, to the losses incurred by the disproportionate firings of minority teachers and nonacademic personnel. Some would argue that these were not losses at all; some would say that the few losses were worth the gains already mentioned. Disagreements about the meaning of these firings involve fundamentally different value perspectives that are not illuminated by cost analysis. In addition, one's willingness to risk firing nonacademic personnel in the course of removing low skilled academic teachers is further confounded by varying degrees of confidence in what the test measures. In any case, these choices pose a dilemma.

A final contradiction involves the harm done to public opinion about education and the esteem of the teaching profession. In Select Committee hearings, long before the first legislation was drafted, key policy makers lamented that education was not drawing would-be teachers from the top ranks of college graduates. In fact, the test was designed to get rid of teachers who were among the least qualified of college graduates. Now, the great majority of teachers in Texas believe that the TECAT acted to demean the teaching profession because it was a basic skills test rather than a measure of their professional competence. Half of the teachers interviewed said that the test actually worsened public opinion about the competence of

teachers because of derogatory publicity, especially media presentations of very easy test questions. "Why are teachers making such a fuss? Anyone could do that." Before the test, publicity increased public awareness of incompetent teachers that had managed to survive in the system. After the test, the 99% passing rate did little to assure the public that incompetent teachers had been eliminated. Half of the teachers interviewed believed that the public had been disillusioned. They felt personally embarrassed by the portrayal of their profession and they feared that teaching was now even less desirable a career choice for a young college student. Indeed, public opinion data compared over time showed greater disenchantment with teacher competency testing than with any other educational reform measure. Ironically, then, the TECAT may have had an influence exactly opposite that intended. Negative images associated with the test may discourage the brightest college students from aspiring to become public school teachers.

The TECAT seemed so simple at first; give a test and eliminate the few teachers with indefensibly weak communication skills. The negative side to what happened involves unforeseen consequences: enormous cost, frenetic preparation and worrying about the test, demoralized teachers, and a public unimpressed by the extremely high pass rate. Although these outcomes were not intended, they may be inevitable features of a reform that hangs so much importance on a test pitched to the lowest level of performance on the lowest of teaching skills.

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Appendix A
CHRONOLOGY OF EDUCATIONAL REFORM IN TEXAS
(Extracted from newspapers and documents
as background to interviews.)

- 1981: The legislature passed S. B. 50 requiring that persons seeking educator certification in Texas pass comprehensive examinations. The State Board mandated the development of the EXCET tests, Examination for the Certification of Educators in Texas. After February 1, 1986, all candidates for initial teacher certification must pass both a professional development test and a content specialization test. S. B. 50 also required that a basic skills test be given to screen students entering teacher preparation programs.
- 1981: H. B. 246 authorized curriculum reform.
- 1982: The State Board of Education adopted the Pre-Professional Skills Test (PPST) published by Educational Testing Service as the basic skills screening measure for admission into teacher education programs. (Implementation of S.B. 50.)
- January 27, 1983: In his first address to a joint session of the Legislature, Governor Mark White called for at least a 24 percent "emergency" pay raise for teachers.
- April 26, 1983: *A Nation at Risk: The Imperative for Educational Reform* was released by the National Commission on Excellence in Education.
- May 30, 1983: The Legislature adjourned without action on White's tax proposals but with agreement to appoint a blue-ribbon study panel.
- June 16, 1983: Governor White named Dallas businessman, H. Ross Perot, to chair the Select Committee on Public Education.
- July 8, 1983: Results of PPST pilot test released. One-third of Texas college student prospective teachers failed; 80% of blacks failed, 60% of Hispanics failed, and 15% of Anglos failed.
- April 19, 1984: Perot's committee released its final report calling for sweeping changes in public education.
- June 4, 1984: Legislature convened a special 30-day session to consider White's program for school reforms and highway improvements and the tax increase needed to finance them.
- June 30, 1984: Legislature passed education reform package including

- competency testing for practicing teachers.
- July 3, 1984:** Legislature passed \$4.6 billion tax package.
- January 9, 1985:** John Sharp introduced S. B. 103 to exempt teachers who had passed some other standardized test. His bill received little support.
- February 1, 1985:** Special advisory committee made up of testing experts recommended to TEA that all teachers without exception take a basic competency test. Commissioner Kirby estimated that it would cost \$3 million.
- February 1985:** State Board of Education announces recommendation to postpone subject specific exams. Basic literacy test is expected to catch 85-90% of incompetents and will save the state \$17 million.
- June 7, 1985:** State Board of Education completes arrangements for teacher test in March of 1986.
- August 29, 1985:** Texas State Teachers Association filed suit claiming that the testing of practicing teachers violates lifetime teaching certificates and the prohibition in the state constitution against retroactive laws.
- December 7, 1985:** The State Board of Education exempted Houston teachers from TECAT because they take F.A.S.T.
- January 10, 1986:** The State Board of Education set the test cutoff score at 75%.
- February 7, 1986:** The Association of Texas Professional Educators filed suit to bar districts from firing based on first exam. Forth Worth and other districts had stated that they would fire teachers who failed the first time.
- March 3, 1986:** Judge Harley Clark upheld the constitutionality of the test.
- March 10, 1986:** The TECAT was administered to 202,084 practicing teachers and administrators.
- May 10, 1986:** The results of the first TECAT administration were released to the State Board of Education.
- June 26, 1986:** The second major administration of the TECAT was given, the last chance for those who wished to teach in the Fall of 1986.

Appendix B

TEXAS TEACHER TEST INTERVIEW PROTOCOL:
Public Figures Form

Identification information, to be filled out in advance of
interview:

Name _____ Role _____
Address _____

phone _____

I am a member of a research team from the federally-funded Center for Student Testing, Evaluation, and Standards. Our particular project is focused on state testing programs that have been implemented as an educational reform.

I would like to ask you questions about the history and purpose of the Texas Teacher Test (the TECAT). Think back to a time before much support for such a test had developed. What conditions in Texas made the desire for such a test arise?

Were there important educational issues?
(public/media perception of quality of educ.)
(actual data on quality of education)

...economic issues?
(attracting high tech to Texas)

Were there national trends or policies that
contributed to the desire for the test in Texas?

At the time were you aware of national
reports on the status of education? Can
you name them or their principal points?

What were the political issues that provided a basis of support for the Teacher Test?

Can you recall key events leading specifically to the development of the testing legislation?

(We have developed a chronology of events from official documents but are more interested in people's perceptions of key steps.)

What were your reactions to the Teacher Test prior to the enactment of the legislation?

What part did you play (if any) in the creation of (or opposition to) the legislation?

Now I'd like to step back for a moment from our exclusive focus on the TECAT. Can you help me understand how the TECAT fit into the bigger picture? What other legislative changes were being made for education?

Was a test deemed essential from the start?

What other alternatives were considered? Who offered the alternatives?

What were the competing viewpoints regarding the Teacher Test? (Characterize your view and that of the opposing side(s). Who were the principal spokespersons for each side?)

After the idea of a test for practicing teachers emerged, how was this particular type of test decided upon? (Basic literacy vs. teaching skills or subject matter expertise) (What reasons or arguments were used in support of this type of test?)

What was the primary purpose of the test as it was finally formulated?

We wish to describe public reaction to the legislation. What would you say was the reaction of various groups such as educators...

the media...

general citizenry...

minority groups...

teachers' associations...

Has the reaction of these groups changed as the test has been implemented? educators...

the media...

general citizenry...

minority groups...

teachers' associations...

What is your assessment of the effect of the testing program, so far?

Has the effect thus far been what you expected it to be?

(Yes...)

(Surprises...)

Have there been any actions that you would do differently if you had it to do over again?

If you were to advise public officials in another state contemplating such a test, what would you tell them to do and not to do?

(re: reform package, form of test, test development, implementation or administration, publicity...)

Have my questions covered the important issues regarding the Texas Teacher Test?

Who are the key figures that we should try to contact during the course of our study?

Are there any observations you wish to add?

Appendix C

Precoded information

OBS# _____ Name _____ Address _____

H Phone _____ W Phone _____ Age _____ Sex _____ Ethnic _____

TEACHER PHONE SURVEY

My name is _____. I am part of a research team from the University of Colorado. We have a federal grant to study testing programs around the country, where a test was instituted as part of educational reform. The Texas TECAT is one of the programs we are studying.

Your phone number was selected as part of a representative sample of certificated personnel. We are very anxious to collect teacher opinions. These opinions will be summarized in our report to legislators in other states about the pros and cons of teacher testing.

Is this a good time for me to ask you about 10 minutes of questions regarding the TECAT? Your responses will be confidential. Of course, you may decline to answer any of the questions. May I record your answers to my questions?

1. What grade do you teach? _____
2. What subject do you teach? _____
3. How many years have you taught? _____
4. Did you take the TECAT on March 10? _____
5. Did you study for the TECAT? _____ Can you estimate how much time you spent attending formal review sessions or workshops? _____ (hrs.) And how much time did you spend studying on your own (including watching TV broadcasts at home)? _____ (hrs.)
6. Did studying for the TECAT help or was studying a waste of time?

7. What do you think you learned, or what skills did you improve, as a result of your studying?

8. Did preparing for the TECAT make you a better teacher? (Follow up for explanation.)

9. Did preparing for the TECAT have any negative effects on your teaching during the past year?_____If yes, please explain.

10. Tell me which of the following statements are true for you:

___The test measured skills I was taught in school and that I use in teaching.

___The test measured skills I was taught in school but don't need to use in teaching.

___The test measured skills I was never taught in school.

11. How important to teaching are the skills measured by the TECAT?

12. Were you nervous about taking the TECAT?_____If so, do you think your anxiety affected your performance on the test? (Explain.)

13. Is the TECAT a fair test? (Follow up for specific examples.)

14. Do you know any teachers who

-decided not to take the TECAT at all?_____ How many?_____

-did not pass the first time they took the test?_____How
many?_____

-did not pass and decided not to try again?_____How
many?_____

15. Can you tell me in a general way what kinds of teachers failed the test? (One particular subject, particular age, sex, or ethnic group, good or bad teachers?)

Did their difficulty with reading or writing skills ever show up in their teaching duties?

Do they have outstanding strengths in other areas that compensate for limited reading and writing skills?

16. What will teachers you know do if they do not pass the test the second time?

17. What do you believe was the legislature's purpose in mandating a teacher test?

18. If you were talking to legislators in other states, what would you say are the good things and bad things about having a teacher test?

(+)

(-)

19. Are your opinions specifically about the TECAT or any kind of test for practicing teachers?

20. Would you be in favor of a test for people just leaving college and starting to teach?

21. What has been the effect of the testing program on teachers?

22. What has been the effect of the testing program on public opinion about education?

23. Would you be willing to tell me ... did you pass all parts of the TECAT?

Appendix D

PERSONNEL DIRECTORS TELEPHONE SURVEY(3)

District _____ Phone _____
Stratum _____
Respondent _____ Title _____

(Permission to record _____)

Number of teachers _____
Number of administrators _____
Median or Mean teacher salary _____ No. of days/year _____

1. Can you tell me in general terms what has been the impact of the TECAT on your district?
2. Prior to the administration of the first TECAT, what did the district do to tell teachers about the test?
3. Do you know what percent of your certificated personnel took the the TECAT the first time it was administered?
4. Are you aware of any teachers choosing to retire early rather than take the TECAT?

How did you come to know of these cases?

5. What other reasons might account for practicing teachers who did not sign up to take the TECAT?
6. What was the initial pass rate for your district?
7. Did you or your office interact with any failing candidates between the two testing dates?
8. What was the final pass rate for your district?

Were there differential passing rates

By subject matter? _____

By racial/ethnic group? _____

By years of experience? _____

9. Did the test help you fire any individuals that the district had previously desired to remove? (Explain)
10. Did anyone who is regarded as a very good teacher fail the test? (Explain)
11. Did you seek waivers for any teachers who failed? _____
How many? _____

(type of teacher in general terms:)

subject matter _____

of years teaching _____

sex _____

ethnic group _____

12. If a waiver was sought, what evidence did you provide of teacher shortage?

13. In general are you experiencing teacher shortages? For how long? How severe? In what categories of certification?

14. How do you cope with shortages?

Hire provisional?

(Are these individuals more or less qualified? In what respects?)

Have larger classes?

Move teachers around?

15. Has the TECAT had an effect on teacher shortages?

16. Were you granted the waivers you sought from the TEA?

by type:

Yes

No

17. If you were to address yourself to legislators in other states, what would you say are the pros and cons of teacher testing?

Viewpoints

The Dallas Morning News Sunday, September 11, 1983

3 G

Changing Texas education system to be difficult

By H. ROSS PEROT

I HAVE been traveling across Texas for several weeks, visiting school boards, superintendents, principals, teachers and parents. Patterns and impressions have emerged that I would like to share with you. These views are not findings or recommendations of our committee.



By any measure, Texas' educational achievement is below average in the United States.

Yet the children entering our public school system today will grow up in a complex, rapidly changing world. They will live in the age of information, the age of technology, and the age of the computer. Today's students will change work fields several times during their business careers and will require frequent retraining because of rapid change.

EDUCATION HAS long lead times. If the Texas school system is completely restructured by September 1984, it will produce the first college graduate in the year 2000. The goal of Texas' public schools should be to teach our children to think, and to adapt to rapid change. We should provide our children with a classic education.

While a classic education should include generous doses of math and science, we must avoid developing technological robots. Our young people must not confuse data with wisdom. They will need to learn both multi-level and abstract thinking.

They must learn history and literature. As adults, our children will assume the leadership of the free world. They will be engaged in intense international economic competition. They will bear the responsibility for our large national debt.

Failure to return the public schools to high standards of learning and achievement will result in the cruelest form of segregation for our disadvantaged and minority children. They cannot afford private schools. Their only chance for successful competition as adults in a complex, rapidly changing world will be to have a first-rate education in the public schools.

Today the United States ranks at the bottom of the industrialized world in terms of education achievement. By any measure, Texas' performance is below average in the United States.

Too little attention is given to the average and above-average student. Too little attention is paid to gifted and talented students across the state. They are our future taxpayers. It is important they be extremely productive. They will bear the responsibility for caring for those in our society who cannot support themselves.

Discipline must be restored to the classroom. Learning cannot occur without order.

Educators across Texas are nearly unanimous in their view that a child either learns how to learn or fails in the early primary grades. Remedial work at the junior high and senior high level has a low probability of success.

INTERESTINGLY enough, we spend more money per student in the senior high level. All the evidence indicates we should surround the small child with whatever resources are necessary so he can "learn to learn."

We should eliminate high school programs whose real purpose is to allow students to leave school part-time to earn money to pay for cars.

We should have vocational educational courses that train students on modern equipment for jobs that exist.

Extra-curricular activities should be put into perspective. They can no longer be the forces that disrupt our classes and dominate our schools.

We should consider eliminating organized sports at the junior high and elementary school levels and substitute physical fitness and intramurals in their place. (Many of our junior high students lose a day and a half a week from learning as a result of organized sports).

IN SOME PRIMARY schools, sports have become highly organized, with games and other activities played at night. Children arrive at school the next day too tired to learn. Believe it or not, in some places, we have elementary drill teams, cheerleaders and baton twirlers.

I am told by educators that many of these activities reflect the interests of the parents more than the children.

Competent, dedicated teachers are vital to the success of a public school system. After meeting with educators from all areas of Texas, I am pleased to report the quality of the administrators and teachers in our Texas public school system compares favorably with the people I deal with on a day-to-day basis in the business world.

The range and scope of problems faced by parents and school administrators are far greater than those faced by a typical businessman. A really bad day in the business world does not compare to a typical day in the public school system.

The teachers and administrators I have met have many reasons to be negative, and yet I found them to be positive, constructive and dedicated to teaching our children. They know what is wrong with public education. They know what must be done. They will be the architects and engineers of our new Texas school system.

Teaching is in transition. It is becoming a profession. Under our new system of education, teachers will be held accountable to high professional standards. The teachers of Texas welcome this challenge. At this moment they are underpaid. They are not properly recognized by the parents and community.

This a difficult time for teachers. A person with sensitive traits of a successful teacher finds it particularly offensive to be forced to campaign publicly for proper compensation. Teachers should not have to make demands on their own behalf. Texas' new educational system should properly compensate teachers on a continuing basis. It should be supported by a tax structure that does not create periodic crises in Austin.

AT THE SAME time, teachers found to be marginal or unqualified should be removed from the profession. The schools of education that prepare future teachers are, with a few notable exceptions, doing a poor job.

In one major school district, four out of five newly graduated teachers are found to be incompetent, and yet a Texas college of education has given them a certificate to teach. That's part of the reason why Texas ranks 44th in the quality of teachers coming out of its colleges of education.

Correcting this problem carries the highest priority.

We must turn our schools into places of learning. There is only one real issue -- will the public support these changes?

Public schools reflect society. At a time when pleasure-seeking and instant gratification are in vogue with both adults and children, and strong parental involvement with children is missing with roughly half of the 3 million children in our public

schools, are we going to ask our children to cut back on video games, television, video music and cease leaving school early to make money to pay for cars?

Will we ask them to work, toil and persevere -- to take the difficult courses, not the soft electives -- to learn? This will be a big change from the world of play our public schools have become in many places across the state.

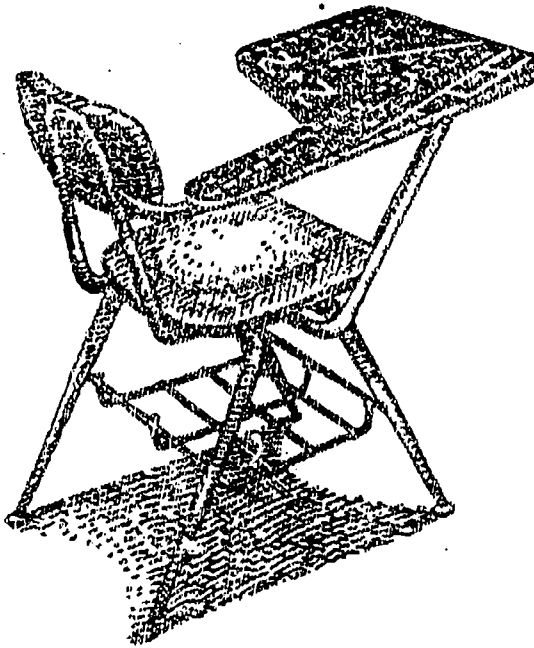
SCHOOLS REFLECT the public's interest. Across Texas, particularly in smaller communities, the tax-paying public has a keen interest in the band, drill team and athletic

While a classic education should include generous doses of math and science, we must avoid developing technological robots.

ics. These activities provide much of the local pride and entertainment.

There is little stated interest in academic achievement. As I talk with people in such communities, they are aware of the need to change emphasis, but are concerned about public reaction. To quote one school board member, "One thousand people show up for the Booster Club meeting. Three show up at the PTA. All seven members of the school board are elected by the Booster Club."

At another school district, I asked the school superintendent, a former coach, about the balance between extra-curricular and academic activities. I asked, "Is the tail



The Dallas Morning News: Paul Kelsel

-wagging the dog?" He replied, "Ross, there is no dog left, but that is what the people want."

For example, one school district gave a winning coach a salary greater than the superintendent. The superintendent and principal then received salary increases to correct this problem. At this point, the district had exceeded its budget and teachers' salaries were cut to resolve the problem.

In some school districts drill team members and band members must maintain a "B" average to participate. Athletes must make only three "D's" and are allowed to fail all other courses, a policy set by the University Interscholastic League. Literally, the only defense on this policy for athletes has been -- "If we didn't let these boys play ball, they would be out on the streets committing crimes." One wonders what happens to the girls on the drill team and students in the band who don't maintain a "B" average. Such policies clearly define the priorities of adults to students.

Courses are scheduled around extracurricular activities in some schools. Golf is practiced during the school day. Basketball and baseball, because of the number of games played, take more time from class than football. Four-H members are allowed

by state law to miss class. Children from remote rural areas are out of school for several days at a time.

EXTRA-CURRICULAR activities are important. In fact, in many schools across Texas we demand excellence only in the band, drill team and on the athletic field. No one recommends eliminating these activities -- just putting them back into perspective.

Non-academic activities and electives that have little learning value have taken over classroom hours. It is estimated that in the six hours our children are in class each

day, less than 25 per cent of the time is spent learning.

Education is expensive. Texas is now spending more than \$8 billion a year on its public schools. Each year an additional \$500 million is required just to maintain the status quo. Education is the largest user of taxes in the state. Fifty cents out of every Texas tax dollar goes to education. Thirty cents goes to public education and 20 cents to colleges and universities.

Texas has the largest school debt of any state. With our school population growing from 3 million students today to 4.5 million by the year 2000, we will incur additional debt for facilities. We must be more cautious about building costs in the future than we have in the past.

Historically, our state income from all sources increased at about 15 per cent. (This year tax income is flat because of the reduction of oil and gas revenues in our state). Education expenditures in our state are increasing at a rate of 25 percent. We cannot continue to support our education system as it is structured today.

For years Texas has had so much wealth we could afford to buy virtually anything we wanted. Much of our wealth has come from oil and gas. In the next 20-30 years, we will see declines in tax revenues from these resources.

Texas has had a relatively small population supported by a large land mass. We now have 15 million people and will grow to 22 million by the year 2000. Our minerals are being depleted. The balance between land and people is shifting. We are going to have to make hard decisions about our public schools for the first time. Our children will not be able to live off an abundance of mineral resources. They will have to live by their creativity, brains and wits as we develop a diversified industrial base to provide jobs for our people.

In a world where our children must live by their brains and wits, what is our record of educational achievement?

Today, the United States ranks at the bottom of the industrialized world in educational achievement. Texas students compared to other states are in the bottom half. For example, in the 20 states having meaningful SAT scores, Texas ranks "somewhere between 15 and 20." Our international competitors are preparing their children for the future, while we have allowed our schools to become places dedicated to play with soft elective courses that contribute little to learning or success in life.

THE WORLD IS a tiny place. Our children will have to compete internationally. When we fail to compete and win, we lose jobs and reduce the tax base that allows us to fund education, the roads and other things our country and state need. We do not have a choice. We must learn to compete and win in international competition. At this point, we are losing. We have watched steel, television, parts of the electronics industry, automobiles and other industries decline or disappear to interna-

tional competition. Hundreds of thousands of jobs formerly held by U.S. workers have been lost overseas. If we had kept our position in these industries, we would not be incurring the huge deficits we now have at the national level. The tax base from the

jobs would have been more than adequate to cover these deficits.

Russia, as we enter the age of information, has 5,000,000 students studying calculus. The United States has only 500,000. Academic achievement is stressed. Russian children go to school 240 days a year, six days a week, eight hours a day. (Our children go to school approximately 180 days a year, five days a week, six hours per day).

Japan, with no natural resources, a small land area and large population has become the most productive nation on earth. A school system stressing learning and academic achievement was imposed by the United States on Japan at the end of World War II. This education system is credited with much of Japan's current success.

Japan, Western Europe and Russia are different from the United States. Even so, we must win in economic competition with these countries. Russia is a closed society. If we wish to keep our open, free society, we

We should eliminate high school programs whose real purpose is to allow students to leave school part-time to earn money to pay for cars.

must make the necessary, hard decisions, recognizing we are no longer wealthy enough to buy everything we want and we must turn our schools into places of learning and achievement.

THE TEXAS TAXPAYER is asking, "Where is all this money going and why aren't we getting better results?" Our committee is pursuing these questions. We will find the answers.

There is no question about the love and devotion Texans have for the children of our state. Perhaps the only real legacy we can leave our children is to develop each child's mind to its full potential.

Free people tend to ignore problems until a crisis materializes. This crisis is here. We must act now for the benefit of our children.

The people of Texas need to consider these issues thoughtfully and determine whether learning should be the dominant force in our school system.

There is only one real question — What are our priorities?

(If your reading skills allow you to finish this article, please pause to reflect that many of our Texas high school graduates do not have the vocabulary, reading skills or motivation to read such material).



The Dallas Morning News: Paul Kolsti

These are excerpts from an article written for Viewpoints by H. Ross Perot, who is chairman of the board of Electronic Data Systems and chairman of the state's select committee on public education.

Viewpoints

Editor Rena Pederson

Viewpoints is a daily forum for a wide variety of views and opinions and does not necessarily reflect the editorial opinion of The Dallas Morning News. Phone: 745-8259

Appendix F

AVERAGE CLASSROOM TEACHER
SALARIES FOR TEXAS

<u>School Year</u>	<u>Estimated Average Salary</u>		<u>Texas' Rank *</u>	<u>Difference</u>
	<u>National</u>	<u>Texas</u>		
1982-83	\$20,531	\$19,549**	25	- \$ 982
1981-82	\$19,142	\$17,582	28	- \$1,560
1980-81	\$17,602	\$15,728	31	- \$1,874
1979-80	\$15,966	\$14,132	30	- \$1,834
1978-79	\$15,057	\$13,042	31	- \$2,015
1977-78	\$14,247	\$12,534	31	- \$1,713
1976-77	\$13,357	\$11,564	30	- \$1,793
1975-76	\$12,600	\$11,342	25	- \$1,258
1974-75	\$11,647	\$ 9,807	35	- \$1,840
1973-74	\$10,778	\$ 8,920	39	- \$1,858
1972-73	\$10,164	\$ 8,686	36	- \$1,478
1971-72	\$ 9,705	\$ 8,462	32	- \$1,243
1970-71	\$ 9,269	\$ 8,147	32	- \$1,122
1969-70	\$ 8,635	\$ 7,277	39	- \$1,358
1968-69	\$ 7,952	\$ 6,625	38	- \$1,327
1967-68	\$ 7,423	\$ 6,576	33	- \$ 847

* Rank among 50 states. District of Columbia not included.

** Texas Education Agency's estimate. NEA reported a weighted estimate of \$19,500.

SOURCE: Estimates of School Statistics, NEA
and Rankings of the States, NEA

TSTA Research
April 29, 1983

Appendix G
COMMISSIONER KIRBY'S LETTER TO THE STATE BOARD ON TECAT STANDARDS

January 10, 1986

State Board of Education
Austin, Texas

Members of the Board:

You are charged by statute with requiring satisfactory performance on an examination prescribed by you as a condition for continued certification for each teacher and administrator who has not taken both the examination of basic skills and the comprehensive examination of subject matter and pedagogy required by TEC 13.032(e). But even more important, you are required by statute to "determine the level of performance that is satisfactory."

As Dr. Conrad and Mr. Duncan can affirm, the Select Committee on Public Education received a significant amount of input which indicated that part of the problem with the lack of quality in education and most of the problem with the lack of public confidence in education could be traced to the fact that there are some incompetent teachers and administrators currently in the profession. Much of the input received by SCOPE citing this problem came from educators themselves. While no one thought there were numerous incompetent educators in any one school, everyone individually could think of a few. So while the percentage of incompetent educators is predicted to be small, the number is significant statewide because of the 200,000 members of the profession as a group.

The legislature came to the conclusion that the current system was not doing its job in purging from the profession those with inadequate skills to teach children appropriately. Consequently, the legislature charged this board with doing what the profession had failed to do for itself. That in fact is today's decision--to set a performance standard on a test that will identify those individuals with insufficient skills to teach children appropriately.

In developing the test, we asked our contractors to provide an instrument that would distinguish between those who could read adequately and those who could not. The readability level was twelfth grade or less, and the skills to be tested were basic or minimal. The purpose of the test was to group people into those who had sufficient skills and those who did not.

Your attention is directed to the test itself and to some of the specific types of skills: placement of words in a dictionary; extracting facts from charts and lists; and determination of the main idea in a paragraph. Certainly these are minimum skills as opposed to complex ones and this minimum level must be considered as you set the ultimate passing standard.

In view of all the foregoing, I am recommending that the board set the passing standard on reading at 41 items right out of 55. I realize that this standard is above 70%, but surely college graduates charged with teaching children can correctly answer 41 items out of 55 on a minimum skills reading test.

I also believe that the written composition ought to be scored by the alternative more stringent criteria and that the passing standard on the multiple choice writing section also be set at 75%. My recommendations are based upon my personal convictions that these standards are minimal. If in fact we are to make educational progress in this state, we simply cannot continue to let our children be subjected to instruction by people who do not have the necessary basic skills.

I would respectfully remind the board that the legislature not only required that we test educators' abilities to read and write with sufficient skill to perform their jobs, but also that they be tested in their subject fields and administrative fields. The subject area testing was deferred based upon a specific recommendation from this very board. The board told the legislature that the board believed the basic skills test would identify and remove the vast majority of those individuals incapable of doing their jobs. Based upon that advice, the legislature did agree to postpone the subject area testing to see if in fact the basic skills testing and implementation of the appraisal process would eliminate the majority of incompetent educators from the profession. While we are all aware that this test is not a true measure of competence, it is difficult to understand how anyone could be a competent educator if that person cannot demonstrate reading and writing ability at a reasonable level of performance.

My recommendation on the passing standard is based upon my personal opinion. However, it was arrived at after extensive discussions with staff members and with our contractors. We all agree that a 75% standard is appropriate and not overly rigorous.

The board must make the final decision. In order to be aware of the likely consequences of this standard as well as other standards which the board may want to consider, the following chart is provided:

Estimated Failure Rates from 1986 TECAT
Field Test Data for Selected Combinations

Option	Cut Score Reading & Writing	Writing Standard	Failure Rate	
			Field Test Data Basis	Anticipated*
1	65%	Current	5%	2%
		Alternate	8%	3%
2	70%	Current	6%	2%
		Alternate	9%	4%
3	75%	Current	10%	4%
		Alternate	12%	5%
4	80%	Current	12%	5%
		Alternate	15%	6%
5	85%	Current	20%	8%
		Alternate	22%	9%

* This is the estimated percentage that would ultimately fail the test. The estimate assumes that 40 percent of the field test projection would fail the test both in March and June. The difference in anticipated failure rates from the field test projection is based upon the expected impact of intense remediation efforts.

State Board of Education
January 10, 1986

In addition to the overall impact, the board must also consider the impact upon various ethnic groups. Comparable data to the composite data listed above is not available by ethnicity. However, a review of the field test data on the reading test at various cut off standards will give an indication of the potential impact:

Projected Failure Rates for Ethnic Groups
Reading Section - Field Test Data Only

Option	Cut Score	Failure Rate			
		Black	Hispanic	Other	Total
1	65%	10%	4%	1%	2%
2	70%	18%	6%	2%	4%
3	75%	25%	10%	4%	7%
4	80%	38%	19%	7%	12%
5	85%	56%	36%	16%	22%

Staff, contractor personnel, and I are available to assist the board as it ponders this most important decision. Please let me reiterate that I am confident that your decision will be the right decision because it will be based upon your collective wisdom.

Respectfully submitted,



W. N. Kirby
Commissioner of Education

I. HOW THE TEXAS POLL WAS CONDUCTED

The Texas Poll is based on 20 minute telephone interviews with approximately 1,000 adults around the state. The sample is a random sample of telephone households in the state.

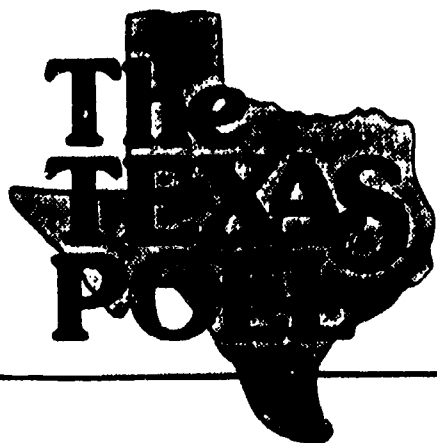
The sample of telephone numbers called was selected from a complete list of telephone exchanges in Texas. The exchanges were chosen by computer to ensure that each region of the state was represented in proportion to its population. Within each exchange the sample telephone numbers were formed by random digits, thus permitting access to both listed and unlisted residential telephone numbers. The sampling methodology is described in detail in the section 'Description of Sampling Procedures'.

In each telephone household contacted, one resident was selected randomly for an interview. Several attempts were made to reach each telephone number and respondent. Interviews were conducted in English or Spanish, depending on respondent preference, by closely supervised professional interviewers.

In 19 cases out of 20, the results based on such samples will differ no more than 3 percentage points in either direction from what would have been obtained by interviewing all adult Texans. The error for smaller groups, e.g., Democrats or college-educated persons, is larger. The sampling errors associated with different size subgroups are listed in the section 'Approximate Confidence Intervals for the 95% Confidence Level'.

Readers should also be aware that the practical difficulties of conducting any survey of public opinion may introduce other sources of error for which precise estimates cannot be calculated. For example, different results might have been obtained from different question wording, and undetected flaws in the way the interviewing procedures were carried out could have a significant effect on the findings. Good polling practices diminish the likelihood of such errors, but they can never be entirely ruled out. It is also possible that events occurring since the time the interviews were conducted could have changed the opinions reported here.

The Texas Poll is sponsored by Harte-Hankes Communications Inc. and conducted by the Public Policy Resources Laboratory at Texas A&M University. The poll is directed by Dr. James A. Dyer, senior study director of the Public Policy Resources Laboratory at Texas A&M. Assisting Dyer in conducting and reporting the poll are Dave Mayes and Kathy Casteel at the Bryan-College Station Eagle, a newspaper owned by Harte-Hanks Communications.



A quarterly, non-partisan survey of public opinion

Conducted by Public Policy Resources Laboratory, Texas A&M University

Sponsored by Harte-Hankes Communications Inc.

II. DATES OF POLL AND DISPOSITION OF THE SAMPLE

Summer 1987

The poll was conducted July 25 through August 9.

Completed interviews.....	1,000
Refusals/Terminated interviews.....	253
Total numbers reached.....	1,253
Cooperation rate: 1,000/1,313.....	80%
Final disposition of other calls:*	
Disconnected numbers/continuous busy signal.....	617
No answer**.....	225
Respondent to be called back/Respondent not available....	20
Business/Government/Children's Phone.....	145
Deaf/Foreign language other than Spanish.....	16
Total sample.....	2,322

* At least four attempts were made to reach each telephone number or respondent.

** Some of the numbers classified as 'no answer' actually are disconnected numbers without a recorded announcement to that effect.

III. DESCRIPTION OF SAMPLING PROCEDURES

The sample of telephone numbers is drawn by Survey Sampling Inc., Westport, Connecticut, and the following description of number selection is provided by them.

STRATIFICATION TO COUNTIES

To equalize the probability of telephone household selection from anywhere in the area sampled, samples are first systematically stratified to all counties in proportion to each county's share of telephone households in the survey area. To obtain reasonable estimates of telephone households by county, Survey Sampling developed a special data base, beginning with 1980 census data for residential telephone incidence. These counts, updated yearly with data on new telephone installations provided at the state level, are then applied to current projections of household by county, published annually by Sales & Marketing Management magazine.

After a geographic area has been defined as a combination of counties, the sum of estimated telephone households is calculated and divided by the desired sample size to produce a sampling interval.

Example:

$$\frac{\text{(total estimated telephone households)} \quad 750,000}{\text{(desired sample size)} \quad 6,000} = 250 \text{ (interval)}$$

A random number is drawn between 0 and the interval (125) to establish a starting point. Assuming the starting point is 86, then the 86th, 211th, 336th, 461st, etc. records would be selected for the sample, each time stepping through the data base by a factor of 125. This is a systematic random sample — as the sample is selected in a systematic 'nth' fashion from a random starting point. Any county whose population of estimated telephone households equals or exceeds the sampling interval is automatically included in the sample, while smaller counties are included with a probability proportionate to their size.

Using our example, where the sample size is 6,000, let us also assume that the geographic area selected covers three counties.

Example:

The sampling interval allows the proportionate distribution of the sample over three counties as follows:

	Total Households	% With Phone	Estimated Phone Households	% of Sample
County A	223,404	94	210,000	28.0
County B	393,258	89	350,000	46.7
County C	204,301	93	190,000	25.3
	<hr/> 820,963		<hr/> 750,000	<hr/> 100.0

SELECTION OF NUMBERS WITHIN COUNTIES

For each county included in the sample, one or more unique telephone numbers is selected by systematic sampling from among all working blocks of numbers in all telephone exchanges assigned to the county. A working block is defined as 100 contiguous numbers containing three or more residential telephone listings.

Example:

the phone number 226-7558
 — — — — —
 exchange block

And in this example, for the exchange 226, the entire block comprises the numbers 7500-7599. Exchanges are assigned to a single county on the basis of where listed residents live. Nationally, about 80 percent of all exchanges appear to fall totally within county boundaries. For those overlapping county lines, the exchanges are assigned to the county with the highest number of listed residents.

SELECTION AMONG EXCHANGES

Once the sample has been allocated, a second sampling interval is calculated for each county by dividing the number of listed telephone households for the county by the portion of the sample allocated to that county. In our earlier example, it was determined that 28 percent of the sample (1,680 numbers) would be drawn from County A. Each exchange and working block within an exchange are weighted by their share of listed telephone households. If the total number of listed telephone households in the data base for this county is 159,600, then that number divided by 1,680 gives us an interval of 95.

Next, from a random start between 1 and 95, those exchanges and working blocks falling within the interval are sampled on a systematic basis. If a random digit sample is required, two more digits randomly chosen from the range 00-99 would then be added to each of the blocks selected. The result is a complete number made up of the exchange, the block, and the two random digits (e.g., 226 + 75 + 58). In the case of a listed sample, only listed households are selected.

SELECTION WITHIN HOUSEHOLDS

When a household is contacted, the interviewer asks to speak to the person 18 years or older who had the last birthday. The exact wording of the selection question is:

"In order to determine who to interview, could you tell me, of the people who currently live in your household who are 18 or older—including yourself—who had the most recent birthday?" Ask to speak to that person.

If the person with the last birthday is not available, further calls will be made later to reach that person. Another person is not substituted. This results in a random selection of respondents in the household.

IV. APPROXIMATE CONFIDENCE INTERVALS FOR THE 95% CONFIDENCE LEVEL

There are many possible sources of error in survey sampling, including measurement error, refusals, lack of ability to contact some individuals, error due to sampling from a larger population and so on. Error due to sampling from a larger population can be computed. The table below shows the sampling error associated with different size groups. The 'percent error' indicates the range around a value found in a sample within which the population value is likely to be found. For example, if we found that 30% of a sample of 400 was Republican, the error is $\pm 5\%$, which means that, 95 times out of 100, samples drawn the population would have between 25% and 35% Republicans.

Size of group	Percent Error
50	± 14
100	± 10
150	± 8
200	± 7
250	± 7
300	± 6
350	± 6
400	± 5
500	± 5
600	± 4
800	± 4
1000	± 3