This evaluation of the quarter system in Austin, Texas, public schools was designed to assess the impact of changes of calendar, curriculum, and other aspects of high school education. The initial first-year evaluation was intended to gather data that could serve as a baseline for examining the long-term effects of these changes. Data were collected on student achievement, teacher and administrator attitudes, and parent opinion. The quarter system evaluation found that the majority of students, teachers, and parents are satisfied with education in Austin. However, several areas of concern were revealed, including student academic achievement, graduation requirements and preparation of students for post-high school plans, student advising and scheduling, curriculum, communication with parents, and opinion about the year-round school. Graphs and data tables are included. (Author/DS)
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Dr. Freda M. Holley
FINAL EVALUATION REPORT
1975-1976
Quarter System Evaluation
June 30, 1976

Paula A. Matuszek
Project Evaluator

Cathy Martin
Process Evaluator

Harvey Mayton
Process Evaluator

Tom Roudebush
Data Specialist

Rose Mary Murillo
Secretary

Approved:

Freda M. Holley Ph.D.
Coordinator of Research and Evaluation

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A Technical Report which presents more detailed data collected during the evaluation of this project is on file in the Office of Research and Evaluation and a copy has also been placed in the AISD Professional Library.
ABSTRACT

QUARTER SYSTEM EVALUATION, 1975-76

Description of Program

In 1971 the 62nd Texas legislature passed a bill calling for the implementation of a quarter system in all Texas schools. This system was implemented in the Austin Independent School District beginning in the 1975-1976 school year. The school year was broken down into three quarters instead of two semesters. In addition, a fourth quarter was offered in the secondary schools during the summer; however, tuition is required and the curriculum is not comparable to the other three in variety of courses available. The primary impact of the change to a quarter system has been at the senior high level, where the change was accompanied by a major revision of the curriculum. The number of courses offered by the high schools was approximately doubled; in many areas the variety was increased greatly and sequence requirements and other prerequisites removed. This change was also accompanied by many changes in the way registration takes place, the way teachers are assigned courses, and other administrative matters.

Evaluation Purposes

The quarter system evaluation was designed to assess the impact of these changes of calendar, curriculum and other aspects of the senior highs on students and others. One primary purpose for the first year was to collect data which could serve as a baseline for examining the long-term effects these changes have; another was to pinpoint implementation problems which may call for special efforts from the district to resolve. It was not the purpose of the evaluation during the first year to assess the effect of the quarter system or the curriculum in depth; it was felt that this could more appropriately be done after the changes had been in effect for a time.

Evaluation Activities

The quarter system evaluation gathered data from a variety of sources. Fall and spring opinion data were collected from students, teachers, parents, and administrators. Achievement and attitude toward school data were collected from students. A variety of different data concerning enrollment, attendance, and other student information were also gathered. These data were analysed to provide fall to spring comparisons where relevant, and in some cases to compare to previous years.
Evaluation Findings

On the whole the quarter system evaluation found, as ORE has in the past, that the majority of students, teachers and parents are satisfied with education in Austin. However, there are some specific areas where there were many concerns, and other areas where although the majority felt satisfied, a considerable minority of persons questioned felt dissatisfied with one or more things. These are discussed below.

Concerning the student data, the evaluation also found several areas which may be cause for concern. For most of these, the results cannot be attributed to the quarter system alone, which has been in effect only a year, and it is too soon to see what effect the quarter system, new curriculum, etc., may have on these areas; nonetheless, they need to be watched. Data in some of these areas are also summarized below.

Achievement

The average scores for AISD students on the Sequential Tests of Educational Progress (STEP) ranged from approximately average in the twelfth grade to below average in the ninth grade. For the writing subtests the scores were below the national average at all grades. In all areas, however, there was an increase from ninth to twelfth grade. The top 25% of AISD students do about as well as the top 25% nationwide, but the bottom 25% tend to perform lower than the bottom 25% nationwide, suggesting that the lower average scores are due primarily to a larger number of students of low achievement.

One other indication of the academic level of AISD students preparing to go to college can be found in the Scholastic Aptitude Test (SAT) scores of students from AISD. Austin students have consistently scored between twenty and thirty points higher than the national norms on both the verbal and the math SAT tests. The scores have declined slightly over the last three years, paralleling a similar decline in national scores. The scores for 1975-1976 are not yet available; they will be reported later.

Preparation of Students for Post-High School Plans

There was general agreement that AISD is doing a fairly good job of preparing its students who are going on to college, but also agreement that it is doing less well in preparing students who plan to work. Course enrollments and credits earned suggest that most students take a fairly similar pattern of courses, primarily in required areas, regardless of their post-graduation plans. For college-bound students some areas are rather lower in credits earned by the end of twelfth grade than might be expected—about 2 quarter credits in foreign languages and about six in college-preparatory math and science, for instance. These are areas which would normally be of value to students in college.
Advising and scheduling

This is an area in which a great deal of concern was expressed by all groups. During the fall quarter the schools spent a considerable part of the first quarter simply trying to get students into the proper courses. Data suggest that the best source of advice for students is subject-area teachers; however, some concern was indicated also that there be someone responsible for keeping track of a student's entire program and making sure it meets his needs. During the spring much less concern was expressed about the scheduling and advising processes; familiarity which the mechanics and courses, a new course guide with renumbered courses, and a reduced survey of course interest form all probably contributed to this.

Curriculum

The new curriculum is probably one of the areas where feelings are most divided. Many students and teachers are enthusiastic about the new courses and the flexibility of the new curriculum. However, the variety and flexibility are obtained at the cost of considerably more work on the part of teachers and considerably more responsibility in course choice on the part of students, as well as at the cost of many more incorrect decisions being made. The curriculum is already decreasing in effective size somewhat—by eliminating some courses from the course survey form, the senior highs have reduced the number of courses available to students from about 700 to between 400 and 600, depending on the school. About 30% of the courses in the curriculum are offered at fewer than 5 high schools.

An examination of enrollment patterns by sex and ethnicity indicates that there are some definite differences in the kinds of courses taken by students of different ethnic background, as well as definite discrepancies by sex.

Communication with parents

This is an area where dissatisfaction came through very clearly in some instances, although the majority of parents were satisfied with their communication from the school on various topics. However, a substantial minority felt that they did not know what was going on, whether in the schools or with their children, and were concerned about it.

Year-round school

Teachers and others expressed an interest in year round schools; however, most parents and students and nearly half the teachers would still want summer off, suggesting that it might be difficult to run a four-quarter system on a voluntary basis.
II
DECISION QUESTIONS ADDRESSED

INTRODUCTION

In proper context, the decision questions for an evaluation are formulated by the decision makers involved, with technical assistance from the evaluation staff, during the design phase of an evaluation. When the questions are formulated, evaluation then serves the decision-making process by providing information relevant to those questions and assisting the appropriate administrators to arrive at a recommendation concerning the decision. Ultimate responsibility for the decisions always rests with the particular decision-makers charged with that responsibility.

For the quarter system evaluation the decision questions were formulated initially by the senior high principals and the secondary coordinators. They were then extensively reviewed by the Director of Secondary Education, the Assistant Directors of Secondary Education, and others, then reviewed again by the persons who initially formulated them. The final design included 19 decision questions on which a variety of information was gathered.

For the 1975-1976 school year, a different procedure from the past has been adopted regarding the recommendations. Formerly, the ORE staff made recommendations based on their perceptions of the evaluation findings. This year the policy adopted in AISD is for ORE to provide the relevant administrators and decision-makers with a copy of the decision questions and evaluation findings. These administrators will have the responsibility for making recommendations which will be forwarded to the Board of Trustees along with the final report.

It should be noted that, while the information provided here is relevant and useful in making the decisions, other factors also must influence these decisions; some of these cannot be measured in any objective sense; others could be measured by ORE, but can much more easily be assessed directly by the decision-makers involved. Thus, while it is hoped that the decisions made will take into account the evaluation findings presented here, they will inevitably reflect other information which is not documented here as well. This information is indicated in the recommendations forwarded to the Board under "OTHER CONSIDERATIONS."

A. SYSTEM-LEVEL QUESTIONS

1. Should the Austin Independent School District work to have the state mandate for the quarter system rescinded?
RELEVANT FINDINGS:

The information relevant to this decision will continue to be collected for several years. During the 1975-1976 school year the evaluation collected baseline data which will be used to examine the results of the quarter system as it becomes established. At present there are many problems associated with the implementation of the quarter system, but many of these are decreasing with experience. Data gathered over the next several years will give a clearer picture of what problems are permanent and what the long-term effects of the change are.

Among the kinds of information gathered as baseline data are achievement scores, study habits scores, graduation and drop-out rates, attitude toward school, attendance rates and others.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 1, 2, 3, 4, 5, 7, 8. Miscellaneous findings.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.

2. Should Austin move toward some form of year-round schooling?

RELEVANT FINDINGS:

Most parents would prefer that their children have summer terms off. The majority of teachers favor year-round schooling; however, 40 to 50% would prefer to have summer off. The majority of students would also want summer off. However, nearly a fifth would be interested in attending all four quarters.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 5, 29.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
3. Should the Austin Independent School District continue the revised curriculum, including the expanded number of electives and the larger number of courses?

RELEVANT INFORMATION:

The number of courses in the semester curriculum was approximately 350. The nine high schools made available on the course surveys for the coming year between 412 and 588 of the 700 courses in the new curriculum.

During 1975-1976 the average number of different courses in a quarter taught at the high schools ranged from 159 to 279.

Approximately 70% of courses taken by students in AISD are in required areas.

College-bound twelfth graders have an average of about 15 credits in non-academic areas other than PE by the end of winter quarter.

Students feel very strongly that the variety and choice of courses are desirable. They also feel that they are learning at least as much as under the semester system.

The majority of parents feel that there are not too many electives; the percent has increased slightly since fall. However, about one-quarter do feel that there are too many electives. The majority also feel that the number of courses offered is satisfactory, and that their children can obtain the basic skills he needs as well as under the semester system.

Teachers are enthusiastic about the new curriculum; in spite of problems such as large numbers of course preparations, they feel on the whole that the number and variety of courses is an advantage of the quarter system.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 5, 6, 9, 10, 29.
Miscellaneous findings.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
4. Should graduation requirements be changed?

RELEVANT FINDINGS:

About 70% of all courses taken are taken in required areas.

The average college-bound student by the end of winter quarter of his senior year has approximately 6 credits in science, 6 in college-prep math, 2 in foreign languages, and 10 in social studies and language arts.

Most former students responding to a questionnaire said they were admitted to the college of their choice or were working at satisfactory jobs.

Most former students in college feel that they were adequately prepared. Just over half the former students working said that their courses had prepared them for their jobs.

About half the former students responding felt that graduation requirements should remain unchanged. Most of the rest thought they should be made harder.

About two thirds of AISD's students report wanting to attend some kind of college when they graduate. About 75% of the former students responding were in a college of some kind.

The average Scholastic Aptitude Test (SAT) scores for the district are roughly 30 points above the national average. The scores have declined slightly over the past three years, paralleling the national decline.

By the end of twelfth grade, students are near the national average in all areas of achievement except writing that are measured by the standardized test administered by the district. There is a gradual rise in average score compared to nationwide norms from ninth through twelfth grade. In social studies there is a dramatic rise between tenth and eleventh grades.

The majority of teachers and other secondary faculty feel that AISD is doing an adequate job of preparing college-bound students. There is a lot more question about the preparation of non-college bound students.

Approximately one fifth of the total number of students in high school graduate each year.
Slightly under one tenth of the high school students in the district drop out each year.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 1, 2, 3, 6, 11, 16. Miscellaneous findings.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
5. What level of financial support is needed for materials, inservice, course outlines, etc.?

RELEVANT FINDINGS:

Course outlines are generally seen as useful and relevant, needing few changes, although some cover an inappropriate amount of material and need revisions.

Teachers, principals, other school faculty and secondary coordinators all indicate materials as their highest priority for additional funding.

The lack of texts and materials for new courses is mentioned as a problem by principals, teachers and coordinators; parents also mentioned a lack of appropriate materials as a problem.

Course outlines were seen by teachers and principals as very valuable, but little priority was given to additional financial support. Few changes were seen as needed in the outlines for the coming year, and only a few new ones are in preparation.

Two principals indicated a need for inservice for their faculty in data processing, registration mechanics, or curriculum; however, four indicated that no additional inservice was needed and three indicated that they did not want any inservice for their staffs or that it was a distraction, especially when it pulled teachers from classes.

Most groups rank inservice below such things as materials and additional personnel in priority.

Other areas indicated as possibly needing additional financial support were additional personnel (especially data processing clerks and departmental aides); time off for department chairpersons, and support for registration procedures and data processing.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 24, 25.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
6a. Does the quarter system require changes in minimum and maximum class size?

RELEVANT FINDINGS:

During the spring over half of the teachers interviewed said they would be willing to teach larger sections in some courses in exchange for smaller sections in others. This was a substantial increase from those willing to do so in the fall.

About one fifth of the courses listed in the master schedule had enrollments under 20 students. (For some of these, one teacher was teaching several courses during the same period). Very few courses with an enrollment above 35 were listed.

EVALUATION FINDINGS REFERENCED:

Evaluation question 19.

RECOMMENDATIONS:

This year recommendation will be made by the appropriate administrative staff.

6b. Does the quarter system require changes in the role of the department chairpersons?

RELEVANT FINDINGS:

Since the implementation of the quarter system, the department chairperson role has involved more responsibility for advising, scheduling, course assignment, coordination of materials and equipment, coordination of various department activities and increasing responsibility as a link between administration and the teachers.

Both teachers and principals favor strongly the present method of assigning classes, which involves the department chairperson very heavily.

Most principals and coordinators indicate an off period as the most valuable assistance for the department chairpersons.

Many department chairpersons indicated that some of their responsibilities, such as accounting for and distributing books and materials, could be assigned to someone else.
EVALUATION FINDINGS REFERENCED:

evaluation question 20.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
7. Should the district provide transportation from school to school to back up the expanded curriculum?

RELEVANT FINDINGS:

Seven percent (7%) of parents in the fall and 5% of parents in the spring said that their children could not take a course because it was offered only at another school and transportation was not available.

About two-thirds of students reported getting all the courses they wanted to take. The rest failed to get at least one course for a variety of different reasons.

Of the courses listed in the course guide, approximately one-third were listed on the survey forms of fewer than 5 high schools for the 1976-1977 school year.

EVALUATION FINDINGS REFERENCED:

Evaluation question 27.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
B. PROGRAM-LEVEL QUESTIONS

1. What changes should be made in course offerings in each department?

RELEVANT FINDINGS:

AISD students are below the national norms in all subjects at the ninth grade. By twelfth grade they are nearly at the national norms in most subjects, but still well below them in writing.

Generally the opinion is that course offerings are adequate for preparing college-bound students and somewhat less adequate for preparing non-college-bound students.

The majority of students feel that the number of courses is just right in math, English, social studies, science and P.E. However, about a quarter feel that there are too few in social studies, science and P.E.; while about a quarter feel there are too many in English.

The majority of teachers in social studies and science felt that there should be more sequencing of their courses; the majority of teachers in other areas did not.

EVALUATION FINDINGS REFERENCED:

Evaluation question 1, 6.
Miscellaneous findings.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
2. What changes should be made in the format of course outlines?

RELEVANT FINDINGS:

Most teachers felt that the course outlines were satisfactory and useful without needing changes. The area most often mentioned as needing to be changed from some outlines was the amount of material covered. The section used least was the suggested equipment and materials, but the majority of teachers reported using this section also.

EVALUATION FINDINGS REFERENCED:

Evaluation question 24.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.

3. What changes need to be made in instructional methodology in each department?

RELEVANT FINDINGS:

Achievement scores for the district are below the national norms in all areas; they increase to near the national norms in all areas except writing. The weakest area in writing is capitalization and punctuation. In math computation is lower than basic concepts.

Students feel that the quality of teaching under the quarter system is about the same as it was under the semester system.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 1, 12.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
4. Does the pattern of prerequisites need to be modified in some areas to facilitate scheduling?

RELEVANT FINDINGS:

Teachers in social studies and science indicated that more sequencing was needed for courses in their areas, even if this meant that students had less choice about courses.

Some principals continue to list scheduling single sections and trailer courses (courses offered each quarter for those who failed the previous quarter) as a problem.

Principals and teachers listed scheduling as being less of a problem in the spring than in the fall.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 10, 29.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
5. Does the advising procedure need modifications? How?

RELEVANT FINDINGS:

Over a third of students indicated that they did not have enough information for choosing courses.

About half the teachers interviewed in the fall cited advising as a major problem of the quarter system; this had fallen to about one quarter in the spring.

Other faculty felt that changes in the advising procedure were definitely needed. Among changes mentioned were providing more training for advisors, coordinating more between counselors and advisors, and giving more of the responsibility for advising to teachers.

Principals indicated that the new course guide and new numbering system for courses were very helpful this spring.

Parents feel on the whole that their students are allowed to take the courses they want or need.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 13, 14, 15.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
6. Should course fairs be continued?

RELEVANT FINDINGS:

Most students and parents who have attended a course fair found them useful.

Principals reported mixed success with course fairs held in junior highs by senior high personnel.

Most secondary coordinators thought course fairs should be continued.

The majority of non-teaching secondary faculty thought course fairs were useful and should be continued, but the percent saying they should not be continued rose from fall to spring. Modifications suggested included getting course fairs better organized, involving teachers more, and stressing their importance to students more.

EVALUATION FINDINGS REFERENCED:

Evaluation question 16.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
7. Who should bear the primary responsibility for advising students? Homeroom teachers? Subject area teachers? Counselors? Parents?

RELEVANT FINDINGS:

Students felt that subject area teachers were the best sources of information.

Teachers felt that subject area teachers in fact provided the most information to students; they also felt that this was appropriate.

Other secondary faculty indicated subject area teachers as the most appropriate advisors by a majority in the spring, though not in the fall.

Counselors were the advisor choice of the largest number of parents in both fall and spring; however, the percent of parents choosing counselors in the spring declined, largely in favor of subject area teachers.

Nearly half the students questioned indicated that they did not have enough information for choosing courses.

EVALUATION FINDINGS REFERENCED:

Evaluation question 13.

RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
8. Should there be revisions in the placement tests?

RELEVANT FINDINGS:

Both the Orientation to Language Arts (OLA) test and the Science Proficiency Test (SPT) were found to give reasonably consistent scores.

A number of problems in the relative difficulty of subtests and in the comparability of the subtests were identified for the OLA test.

A few items on the SPT do not seem to relate very well to score on the whole test, but in general the items seem to be of reasonable difficulty and the test seems to be reasonably cohesive.

Students who passed the SPT in 1975 and the teachers both report that the students have done well in more advanced courses without the introductory course. The students make largely As and Bs.

Approximately 5% of the students taking the SPT reached the passing criterion.

The OLA test was replaced for the spring, 1976 administration.

EVALUATION FINDINGS REFERENCED:


RECOMMENDATIONS:

This year recommendations will be made by the appropriate administrative staff.
9. Should changes be made in the way teachers are assigned courses? If so, what changes?

**RELEVANT FINDINGS:**

Teachers reported being satisfied with the way courses are assigned.

Principals reported that the procedure for assigning courses worked well; the only problems indicated were the large number of different courses some teachers had to prepare for and the need to change some classes just before the quarter started because of changes in staffing or enrollments.

**EVALUATION FINDINGS REFERENCED:**

Miscellaneous findings.

**RECOMMENDATIONS:**

This year recommendations will be made by the appropriate administrative staff.

10. Should teachers be provided more training to handle added advising responsibility and revised and expanded courses?

**RELEVANT FINDINGS:**

The majority of teachers and principals did not feel that teachers needed additional training, although some teachers felt that additional training for teaching specific courses would be useful.

Non-teaching faculty in the high schools felt that teachers carrying out advising needed training in graduation requirements, vocational and college guidance, and course content.

Students felt that teachers were their best source of information regarding courses to take.

Coordinators saw a need for instruction of teachers in new course content as the primary priority for training.

**EVALUATION FINDINGS REFERENCED:**

Evaluation questions 21, 22.

**RECOMMENDATIONS:**

This year recommendations will be made by the appropriate administrative staff.
11. In what other ways should staff development programs be modified?

RELEVANT FINDINGS:

Several principals expressed concern about teachers and other school personnel being pulled from the schools on regular work days for training and other activities.

Teachers expressed a desire to share ideas with other teachers of the same courses, and to be exposed to new teaching techniques and materials.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 21, 22.

RECOMMENDATIONS:

This year recommendations will be provided by the appropriate administrative staff.
12a. Should the schools improve communication with parents regarding the purpose of the quarter system and the progress of its implementation?

RELEVANT FINDINGS:

In the fall less than half the parents questioned said they had enough information about the quarter system, and only a fourth said they had received most of their information from the schools. In the spring the number saying they had enough information was up to 66%, but fewer than one in five said they had received most of their information from the schools.

EVALUATION FINDINGS REFERENCED:

Evaluation questions 30, 31.

RECOMMENDATIONS:

This year recommendations will be provided by the appropriate administrative staff.

12b. Should the schools improve communication with parents regarding their own children's progress?

RELEVANT FINDINGS:

The majority of parents said they were not told enough about their child's progress.

When asked if their child's skills in math and English were adequate, during the fall a third of parents said they did not know for math skills; a fourth did not know for English skills. During the spring, about a fifth of parents said they did not know for both areas. (This was prior to the achievement testing in the spring).

EVALUATION FINDINGS REFERENCED:

Evaluation questions 30, 31.

RECOMMENDATIONS:

This year recommendations will be provided by the appropriate administrative staff.
A. PROGRAM DESCRIPTION

The 1975-76 school year heralded a new approach to secondary education in the Austin Independent School District. A new quarter system was planned and implemented by the District to replace the traditional semester system plan. The quarter system was implemented in all secondary schools, both junior and senior high. The major focus of this discussion will be on high schools since the quarter system implementation at the junior high level mostly involved calendar changes while at the senior high level quarter system implementation has been much more extensive and innovative. Although this was the first year for the quarter system in Austin, the concept of quarter system plans is not new.

Frequently Used Quarter System Designs

The initial move away from the traditional school calendar began when educators became concerned about overcrowded school buildings not being utilized during the entire calendar year. Plans for quarter systems began with the idea that by utilizing school buildings on a twelve-month schedule, student vacations could be staggered throughout the year, preventing the need for construction of additional building facilities to handle larger enrollments. There are three basic extended year models which have been adopted or considered for adoption by various school districts throughout the country: the 45-15 plan, the four-quarter plan and the quinmester plan. Both the 45-15 plan and the four-quarter plan utilize school facilities year-round (240 class days); the student body is divided into four groups with only three groups utilizing the school building at any one time. In the 45-15 plan each group attends class for four nine-week sessions with each session followed by a 15-school-day vacation. In the four-quarter plan, 240 school days are divided into four quarters with each student group attending three of the four quarters. In the quinmester plan, 225 class days are divided into 45-day sessions; each of five groups of students attend classes for four of the five sessions. Vacations are staggered so that the school building is utilized by only four groups of students during any one 45-day session. These quarter system plans are illustrated in Figure III-1.

There are numerous variations on the three basic plans including one in which the school operates all year and students may enroll at any time as long as length of attendance conforms to state requirements. As of the 1973-74 school year, 124 schools in 24 states were operating on some form of quarter system and many other districts were piloting quarter system programs during the 1974-75 school year. Various school districts throughout the country have performed feasibility studies. These studies reveal that year-round operation offers a variety of educational objectives such as alleviation of overcrowded conditions, shorter terms to provide both variety of subject matter and more in-depth coverage of various subjects. A school district may choose from among a number of objectives and tailor its
THE MOST PROMINENT QUARTER SYSTEM PLANS

KEY:

- 15 Days in School
- 15 Days on Vacation

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<th>45-15 Plan (240-day school year, 180 days per pupil)</th>
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Figure III-1: THE MOST PROMINENT QUARTER SYSTEM PLANS.
school calendar to complement its objectives. For example, if alleviation of crowded conditions is a prime objective, a district might choose a year-round school calendar.

Although initial adoptions of quarter system or extended year programs began with economic motivations and the desire to more fully utilize existing facilities, many educators have begun to stress the educational benefits to students of extended year programs. Some of the potential benefits that have been put forth are indicated in the following quote:

"School districts that switch to an extended year often redesign their curriculum to fit the new schedule. This usually means developing more and shorter courses than are called for by the traditional school calendar. Students are thus presented with a greater variety of courses from which to choose. One high school that helped pioneer the extended school year nearly tripled the number of courses it offered after making the switch.

Students are better able to grasp the goals of shorter courses, thus teachers find it easier to maintain their interest.

Students can't fall as far behind in a short course as they do under the semester system. If a student does flunk, he's set back only a few weeks instead of half a year or more...

Teachers have an opportunity to make more money. Under many plans they have the choice of a standard nine-month contract or an extended contract with a one-third increase in pay. There is a potential for saving money in the long run..."

(The Kiplinger Magazine, 1974)

The Quarter System in Texas

The school calendar in Texas, as in other states, was originally established to conform to the needs of an agrarian economy (Blanton, 1971). School children were needed at home during the summer months to help with crops. With the changing needs of society, the increased enrollment in schools and the cost of providing new school buildings, alternative school calendars have been proposed for adoption in Texas. A special legislative committee of the Texas Legislature studied the advantages and disadvantages of adopting an extended school year plan in Texas. It was decided that the major disadvantages could be solved by allowing flexibility for each school district in the state to adopt quarter system plans consistent with district needs. The committee also found that extended year programs offered the possibility of saving tax dollars while offering students more educational advantages and more part-time job opportunities. It was found that many businesses and industries need part-time help throughout the year but can find help only during summer months when the job market is flooded with students who must compete for employment. The Committee conducted hearings in various cities across the state and in 1971 the 62nd session of the Texas Legislature passed legislation calling for implementation of the quarter system in Texas.
schools. This legislation does not require school districts to operate on a year-round basis but does require that a school must operate at least three quarters and provide 180 days of instruction for all students. Four quarters or year-round operation is optional according to the individual needs of each school district. A copy of House Bill number 1078 relating to operation of the quarter system in Texas schools may be seen in A BRIEF REVIEW OF THE LITERATURE ON QUARTER SYSTEM PLANS, 1975-76 (Matuszek, et al., 1975).

Reasons for adoption of the quarter system in Texas appear in a Texas Education Agency (TEA) publication (1972) which states that the quarter system and year-round school plans provide "...a means to incorporate new and viable alternatives in schooling. An increasing involvement of students in developing their plan of study is possible because of the flexibility and broadened opportunities. The particular quarter system plan chosen by a local district will depend greatly on the needs of the community. By incorporating the advantages and working out the specific problems, a school system can grow and expand to include all educational aspects of its community and increase mutually beneficial relationships."

In addition, the legislated change to a quarter system in Texas schools was initiated to (1) allow "...more efficient and economical use of school facilities and staff..." and/or (2) promote "...improvement of educational programs for students..." Various guidelines for use of the quarter system in Texas have been dispensed by TEA. One such publication, "Guides for Curriculum Planning for the Quarter System," (1973), presents a rationale for use of the quarter system. According to this document, the main advantages to be gained from change to a quarter system are presentation of greater variety of instruction with more experimental, remedial, advanced and intensive course offerings. In addition, the new curriculum gives to each school district the flexibility to tailor its educational program to its students and community. Some examples of how various school districts in Texas have interpreted the mandated implementation of a quarter system follow.

The Quarter System and the Secondary Program in AISD

The AISD secondary program contains 11 junior high schools (grades 7 and 8) and nine high schools (grades 9-12). The evaluation of AISD's quarter system has been conducted primarily at the high school level. Therefore only brief mention of junior high characteristics will be made.

Differences in School Characteristics: There is a wide range in size of AISD's secondary schools. At the junior high level there are approximately 10,500 students. The largest junior high has approximately 1300 students; the smallest, approximately 700. The others are fairly evenly distributed between these two. At the high school level the largest school has approximately 3100 students; the smallest, approximately 1350. Other schools have enrollments of approximately 2450, 2250, 1925, 1800, 1725, 1650 and 1400.

Physical facilities of Austin's high schools also vary somewhat. In addition to self-contained facilities, four of the high schools have large open-class areas where the concepts of open-class teaching are practiced in varying degrees. Physical sizes of high schools also vary with some schools...
suffering from overcrowding and some having enrollments too small to offer as extensive a curriculum as the larger schools.

Another area of variance is in the industrial arts program at the different schools. In fact, one high school, of the nine Austin schools, is considered "the" industrial arts center and many students commute to this school for training in various industrial arts.

There is a limited amount of busing, but the ethnic make-up of the high schools varies from almost total minority enrollment to almost total Anglo enrollment. To a large extent, school populations are uniform in socio-economic status and ethnicity because high schools are located within neighborhoods whose populations are relatively homogeneous.

Pupil/teacher ratio varies very little from school to school. The number of teachers at each school varies from 150 at the largest school to 80 at the smallest. However, the average pupil/teacher ratio for Austin's high school is approximately 19 to 1. The smallest pupil/teacher ratio found for an individual school was 16 to 1; the largest was 22 to 1. This average does not indicate actual class size because the number of teachers counted for averaging at each school included librarians, resource teachers and others who do not have regular classes. Class size is also affected by the fact that most teachers teach only five periods a day, while many students take classes for six.

Due to the rapid growth in recent years of Austin's population, there are a number of new high schools. There are no very old high school buildings in use in Austin; the oldest were built in the early 1950's, and three of the nine high schools were built and opened since 1970. Building and educational concepts, however, have changed considerably since the older buildings of the 1950's were constructed. Therefore, there are some very real differences in physical facilities such as open-classrooms, more extensive facilities for fine arts programs and industrial arts programs (larger band halls, little theatres, well-equipped art rooms, etc.). In addition, one of Austin's newest schools was built with a totally new architectural concept which is designed to facilitate recent innovative educational concepts for large urban schools.

Budget for All Secondary Schools in Austin: During the first year of quarter system operation (1975-76) the total district budget was approximately $66 million, a per pupil expenditure of approximately $1250. Approximately half of this money came from state funds; the rest was local—primarily from property taxes. The tax rate for 1975-76 was $1.72/$100 assessed valuation. Of this amount, approximately $22 million was budgeted for the secondary schools: approximately $20 million for school personnel, including teachers and principals; approximately $1.5 million for funds spent through the central administration (including $500,000 available for materials, etc), and approximately $500,000 for career education, which is focused largely at the secondary level.
The Quarter System in Austin

The quarter system, as it has been implemented in Austin, is more a trimester plan than a "true" quarter or extended year plan. Three full terms of instruction are provided with an optional summer quarter for which tuition must be paid. At the secondary level, the new quarter system plan includes more modifications at the high school level than at the junior high level. The major change at the junior high level has been in the school year calendar with the new quarter calendar based on a trimester plan. The school year for junior high has simply been divided into three 12-week quarter terms rather than two 18-week semester terms. This trimester calendar has also been adopted at the high school level; however, the entire high school curriculum has undergone extensive renovation. Thus, having an extended or year-round program was not the prime objective of Austin's secondary schools. Nevertheless, numerous educational advantages are expected to accrue to students such as:

1. a more flexible curriculum with a greater range of choice for students;
2. more individualized plans of study;
3. a revised and updated curriculum which can present more experimental, remedial, advanced and intensive course offerings;
4. increased involvement of students in developing their own plan of study;
5. concentration of courses into shorter terms lessening time required for remedial or make-up work;
6. more frequent student evaluations (e.g., grade reports each 6 or 12 weeks rather than 9 or 18);
7. shorter courses to maintain student interest at a high level; and
8. decreased emphasis on grade levels since many courses can be taken regardless of age or grade level.

Implementation of the quarter system in the Austin Independent School District actually began in November 1972. A Secondary Study Committee was appointed by the District to explore the quarter system for its usefulness in individualizing education in Austin's schools. The study continued into 1973 with a proposed implementation target date of Fall 1973. It was found that four requirements had to be satisfied before implementation of the quarter system could occur. These requirements were:

1. curriculum revision;
2. a scheduling system;
3. data processing support; and
4. materials/equipment for new courses.

Mandatory implementation of the quarter system was extended by the Texas Legislature to the 1975-76 school year. According to the requirements of the legislation, the Austin Independent School District is implementing the quarter system during 1975-76 by dividing the school calendar into
three periods of three months each with an optional fourth period in the summer. Students may attend the fourth or summer quarter if desired. This "extra" term offers students an opportunity for remediation, enrichment or acceleration toward early graduation (a four year high school program could be completed in less than four years by attending all four quarter periods for three years). However, funds are not supplied by the state for attendance during four quarters in one year. These funds must come from either tuition or district funding. The Austin quarter system plan is illustrated in Figure III-2.

Additional impetus for the revitalization of the semester system curricula stems from the "back to basics" approach to education. In major academic areas such as math, language arts, social studies and science, curricula have undergone extensive planning and redesign to include numerous basic skills course offerings such as: fundamentals of math; orientation to language arts; more numerous courses designed to improve reading skills, including courses in speed reading; and courses designed to improve student knowledge of the sciences such as introduction to science and cell biology.

References


AUSTIN INDEPENDENT SCHOOL DISTRICT
FOUR-QUARTER PLAN

First Quarter
Aug. 25 - Nov. 19

Second Quarter
Nov. 20 - Feb. 27

Third Quarter
March 1 - May 28

All Students

Days in School

All Students

Days in School

All Students

Days in School

Optional
(Tuition)

Days on Vacation

KEY:

= Days in School

= Days on Vacation
B. CONTEXT DESCRIPTION

This final report presents a review of an objective evaluation of Austin's quarter system implementation. As with any objective evaluation, the goals and philosophy of the new program have necessarily been reduced to strictly measurable and quantifiable objectives, such as student achievement test scores, etc. In so doing, many environmental factors which constitute the "context" into which the program has been placed cannot be systematically evaluated. A representation of a typical environment which affects school programs may be seen in Figure III-3. It seems appropriate to consider some environmental factors which may have affected the quarter system during its first year of implementation. Among these have been resistance to change, and the political, social, economic, administrative and communication environments of the community.

These are limited mechanisms for internal change, renewal or innovation within the American educational system (Tanni and McNeill, 1968). This is perhaps a factor which has affected implementation of the quarter system. With any new innovation there are many complex issues involved in the transfer of an educational concept to actual practice. In a discussion of technological forecasting, Bright (1972) states that the process of translating technological innovation into physical reality includes "...the act of invention...initiation of the...idea, acquisition of necessary knowledge, its transfer into usable hardware or procedures, its introduction into society, and its diffusion and adoption to the point where its impact is significant." These aspects of adopting new innovations are certainly present in the implementation of an educational program. In addition, the environment into which an educational innovation is placed is often itself one which is very complex. Implementation of the quarter system program might be referred to as "a complex educational innovation" (Hall, 1974) which has been placed into an already complex environment. This environment is illustrated in Figure III-3.

In addition, implementation of a new school program involves many demands on those persons responsible for the program such as teachers, administrators, principals, students and others. Full implementation can occur only after all persons involved have proceeded through various levels of awareness, acceptance and competence. Charters and Jones (1973) have outlined four stages through which an innovation progresses.

. Level 1 - Institutional Commitment
. Level 2 - Structural Context (changes in formal and physical conditions)
. Level 3 - Role Performance (staff perspective-changes in actual teaching performance)
. Level 4 - Learning Activities (student perspective)

Further levels of implementation have been amplified in work done at
RESISTANCE TO CHANGE
(Mechanics of implementation
and development of competence)

POLITICAL ENVIRONMENT
(School Board, Legislature,
special interest groups)

SOCIAL ENVIRONMENT
(Austin community)

THE SCHOOL
(New school program)

MANAGEMENT
(School administrators)

INTERNAL RESOURCES
AND FACILITIES
(Teachers, architecture,
materials, equipment, etc.)

COMMUNICATION ENVIRONMENT
(News media)

ECONOMIC ENVIRONMENT
(AISD budget, federal
funding)

ADMINISTRATIVE ENVIRONMENT
(AISD, TEA, Southern
Association of Schools,
Federal Court Restrictions)

Figure III-3: TYPICAL ENVIRONMENT AFFECTING SCHOOL PROGRAMS.
The University of Texas by the Research and Development Center for Teacher Education. This work relates to the theory that different types of concerns are expressed by people involved in innovation which are related directly to the stages through which the innovation must progress (see Figure III-4). Progression through these levels involves time and the acquisition of knowledge and experience in the use of new methods and materials.

For the quarter system program, progression through levels of acceptance is particularly complex in view of the fact that schools are attempting implementation of more than one innovation. Austin's quarter system contains both a new calendar and a new curriculum. In concept, a new curriculum and a new school calendar seem to be only two separate innovations. However, each involves many facets, such as modifications in teaching strategies and acquainting members of the school district with numerous new policies of implementation. Each facet of the new system constitutes an innovation and each must proceed separately through levels of innovation such as those shown in Figure III-4). For example, with introduction of the new calendar, teachers must adjust the amount of material to be covered in each new quarter course. New inservice sessions must be planned to acquaint members of the school district with policies and changes in regular routines such as scheduling and registration procedures. Adjustments are also needed in budgeting, and since Austin's new curriculum is much more comprehensive than it has been in the past, provisions must be made for the acquisition of new materials complementary to the program.

Schools adopting new programs must cope with other elements existing within an already structured environment (see Figure III-3). The political environment has certainly had an effect upon implementation of Austin's quarter system. First, change to the quarter system was mandated by the state legislature. Thus, while it may or may not have desired a quarter system plan, AISD was not given this choice. Second, time lines for quarter system implementation were set by the legislature. The planning of a new program as extensive as Austin's could have been affected by such time constraints.

The political environment of AISD also includes a school board which may impose constraints on implementation because of its need to comply with federal and state legislation. The administrators of new school programs must also work closely with the school board in order to reconcile the needs of various groups within the community.

Community needs are of prime importance to the implementation of Austin's quarter system. Austin, the site of the state capital and the state's largest university, has a particularly complex social environment. The very heterogeneity of Austin's social environment places a responsibility on schools to reconcile differing community needs and desires. The ethnic makeup of Austin also contributes to the need for very comprehensive educational programs; implementation of the quarter system required cognizance of this fact.

One requirement of public education which seems to be echoing from increasing large segments of the Austin community is for more emphasis on
<table>
<thead>
<tr>
<th>Stage of Concern</th>
<th>Expressions of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaware</td>
<td>I don't know anything about it (the innovation).</td>
</tr>
<tr>
<td>Awareness</td>
<td>I have heard about the innovation, but I don't know much about it.</td>
</tr>
<tr>
<td>Exploration</td>
<td>How much of my time would use of this innovation take?</td>
</tr>
<tr>
<td>Early Trial</td>
<td>I seem to be spending all my time in getting material ready for students.</td>
</tr>
<tr>
<td>Limited Impact</td>
<td>I can now see how this innovation relates to other things I am doing.</td>
</tr>
<tr>
<td>Maximum Benefit</td>
<td>I am concerned about relating the effects of this innovation with what other instructors are doing.</td>
</tr>
<tr>
<td>Renewal</td>
<td>I am trying a variation in my use of the innovation that looks like it is going to result in even greater effects.</td>
</tr>
</tbody>
</table>

This table has been taken from the following paper with the author's permission. Gene Hall. The concerns-based adoption model: A developmental conceptualization of the adoption process within educational institutions. Paper presented at the American Educational Research Association, Annual Meeting (Chicago: April, 1974).

**Figure III-4: STAGES OF CONCERN AND TYPICAL EXPRESSIONS OF CONCERN ABOUT AN INNOVATION.**
basic skills for students. Regardless of community diversity, there is apparently a gap between public expectations and realization of these expectations by public school students (Graham, 1974). As a corollary, one request issuing from the Austin community is a plea for a "back-to basics" curriculum. This plea has had a very definite effect on Austin's quarter system evolution, as the developers of the new curriculum would be likely to attest.

The public has also made known to the AISD the feeling that many students are not being reached by the system on an individual level. Because of this public sentiment, the desire to make the system more responsive to individuals was a guiding influence when designing the new calendar and the new curriculum. The variety of new courses, including many which provide intensive training in basic skills, should theoretically satisfy individual needs. The paradox here is that offering students more individualized courses requires the students themselves to exercise much more responsibility in choosing courses complementary to specific educational needs than was exercised under the semester system. Thus, Austin's schools, in adopting a more flexible curriculum, must wrestle with locus of responsibility. Opinions are divided on whether this responsibility should rest with parents, schools or students.

One portion of the communication environment is the Austin news media which may exert either a positive or a negative effect. This was vividly illustrated in the attitudinal information collected for the quarter system evaluation. Parents of AISD students were given questionnaires asking for their opinions of Austin's new quarter system. Answers to these questionnaires varied considerably according to the proximity of their return to press coverage of Austin's schools. Those questionnaires returned after a series of articles about the schools published during the fall tended to be more negative than those returned when there was little press coverage.

Very definite constraints are placed on new program implementation by the economic environment. Obviously, the developers of Austin's quarter system were compelled to consider the AISD, individual taxpayers, and federal budgets when implementing the new quarter system. Funds for the acquisition of new materials and support personnel needed to supplement the new program could not exceed available resources.

Finally, the administrative environment requires the implementation of a curriculum and calendar which satisfies the educational requirements of the Texas Education Agency, the federal courts, and the Southern Association of Schools. All curriculum changes must be approved by TEA and major interschool shifts of students of differing SES must be cleared with the federal courts.

In summary, there are many factors which affect implementation of new programs. Some are amenable to measurement and these have been the main subject of this final report. It is hoped that awareness of the environmental factors not amenable to measurement can, however, prove useful in providing insight for interpreting the results of this year's quarter system evaluation.
References


C. EVALUATION DESCRIPTION

Introduction

The possibility of evaluating the quarter system first came to the attention of the Office of Research and Evaluation during 1973-74 as a result of feedback from various district administrators regarding programs they felt most needed evaluation. The quarter system was high on the list of programs which were indicated as requiring assessment. Thus it seemed likely that the Office of Research and Evaluation would indeed be asked to conduct an evaluation of the quarter system.

Having decided that an evaluation of the quarter system would have high priority for the following year, the Office of Research and Evaluation began activities to design such an evaluation. During the spring, relatively little time was available to spend on this task; however, several steps were carried out. A review of other district evaluations was undertaken in order to gain insight into the problems likely to occur in implementing our quarter system. In addition, meetings were held with the senior high principals and secondary coordinators to elicit possible decisions which would need to be made regarding the quarter system. These decisions were summarized and preliminary decision questions were prepared. Finally, an estimated budget for carrying out a major evaluation of the quarter system was prepared and submitted to the district as part of the complete budget for the Office of Research and Evaluation.

The next step taken was to review the decision questions formulated during the spring and prepare a list of possible data sources which might be of assistance in making the decisions. This involved investigating what data were already available in the school system and considering what other kinds of useful data could be collected. When the tentative list of decision questions and possible sources of data had been prepared, a series of interviews was held with available secondary personnel. This included the Director and Assistant Directors of Secondary Education and several of the secondary coordinators. Since it was summer principals were not included at that time. The purpose of these meetings was to expand and clarify the decision questions, and discuss which data sources might be most useful to the secondary staff in reaching conclusions regarding each question.

Through the cooperation of two secondary coordinators, a questionnaire was also administered to a group of teachers to establish both their priorities for the evaluation questions and to ascertain which data they thought most relevant to each question. At the end of these reviews a preliminary design, consisting of tentative evaluation questions and methods for collecting data on these questions, was prepared. The preliminary design was reviewed with the AISD Board of Trustees and with several secondary administrators. At this stage the quarter system evaluation budget was approved, and the scope of the evaluation was established. A complete draft design was then produced, which included decision questions, evaluation
questions, overview of data collection and analysis, and a list of instruments with collection times. This draft was reviewed by the secondary central office administrators, the senior high school principals, the secondary coordinators, the Evaluation Advisory Committee and various other persons.

Finally, based on the input from various groups and the results of preliminary cost investigations, a final design was produced. This design reflected the same basic structure as the original design; it had, however, been modified in a number of ways. For instance, a review of past studies of students who had graduated suggested that a great deal of effort was involved in collecting relatively little information. Thus, it was decided to conduct only a pilot study of former graduates this year, while making contacts to prepare current students to respond to questionnaires after graduation. On the other hand, the perceived importance of teacher input was so great that a questionnaire to be given to all teachers during staff development time was added to the sample of teacher interviews originally planned.

The final design was again reviewed by the Director and Assistant Directors of Secondary Education and by the senior high principals. It was then prepared for final distribution and reviewed by the Cabinet.

The final design which grew out of this process was really far more than an evaluation of "the quarter system" alone. Although some evaluation questions do deal with the shorter terms and other aspects of the new calendar, many more focus on the new curriculum implemented at the same time. Furthermore, it proved to be impossible to separate these two aspects of the senior highs from all of the other facets of education in AISD. Thus the final design reflects information about many different aspects of the secondary schools; it might better be called an evaluation of the secondary curriculum, calendar and other characteristics.

Quarter System Evaluation Staff and Budget

The final budget approved for the quarter system evaluation was approximately $70,000. This included salaries for a senior evaluator, two process evaluators, a data specialist and a secretary. It also included money for data processing, reproduction, and other costs. In addition, the evaluation received substantial support from the systemwide evaluation component and from data services.
Narrative Summary of the Evaluation

The quarter system evaluation had two primary foci for the first year. Information was gathered on how well the implementation of the quarter system has proceeded and on where problems have occurred or changes are needed. In addition, data were gathered which will provide a baseline for future examination of the effects of the quarter system.

Information regarding the quarter system was gathered in seven general areas:

Curriculum: Included which courses need modifications, how the course guides can be improved, the attitudes of various groups toward the new curriculum, etc.

The advising process: Included who carries out the advising, whether students are adequately advised, what changes are needed in placement tests, whether the course fairs should be continued, etc.

Graduation requirements: Included how many students are meeting Austin Independent School District requirements but are not prepared for their future plans and how former students, teachers and others feel about student preparation.

Organization patterns etc.: Included how courses are assigned, and whether the quarter system is putting too heavy a burden on some staff members.

Staff development: Included an examination of what competencies are required by the quarter system changes, what inservice has been offered, and what inservice might be needed in the future.

Communications and relations with parents: Included parent perception of the quarter system and its effect, how much information about the quarter system parents feel they have and what areas parents feel they would like more information about.

Year-round school: Included how feasible it would be in Austin, how various groups feel about it, and what changes would be needed to implement it.

Summary of Data Gathered for the Evaluation

Students:
1. Survey of Study Habits and Attitudes: Administered to sample of all high school students in March.
2. Student Questionnaire: Administered to a random sample of 5% of students. October and March.
3. Student Achievement Tests: Administered to all high school students in the areas of science, social studies, language arts, and math. April.

Teachers:
1. Interviews administered to a random sample of 10% of teachers. Teachers were interviewed during conference periods in October and April.
2. Teacher ratings: Administered to those teachers whose students are involved in validations of the placement and achievement tests. Teachers were asked to rate appropriateness of class placement of students. Administered by mail in winter quarter.

Principals:
1. Interviews administered by the senior evaluator in fall and spring.

Department Chairpersons:
1. Questionnaire mailed to the schools to be completed and returned through school mail in January.

Other Secondary Faculty:
1. Questionnaire administered to all assistant principals, deans, counselors, registrars, librarians, etc. In meetings and through mailings to their school in fall and spring.

Other School Records:
1. Data from several kinds of records was gathered, including graduation records, credits earned, student grades, course request data and addresses of former students. Gathered by staff of ORE.

Former Students:
1. Questionnaire sent to a sample of 5% of students from the previous year and returned by mail in February.

Parents:
1. Questionnaire administered to a 5% sample of parents with students in AISD high schools. Sent and returned through the mail in October and March.
2. Interviews administered to their parents by students in participating psychology and sociology classes in winter quarter.

Coordinators:
1. Interviews administered to all secondary coordinators in their offices in October and May.

Other Records:
1. Data were obtained from a number of other sources who collect it. These include: attendance data, enrollment data; discipline data; dropout data; College Board scores.

These data were analysed to provide baseline data and in many cases fall to spring comparisons for the quarter system evaluation.
IV
EVALUATION FINDINGS

A. EVALUATION QUESTIONS

1. What is the level of student competency in math, reading, writing, science and social studies?

ANSWER: Average to below average in reading, science, social studies and math. Below average in writing.

SUPPORTIVE DATA:

Sequential Tests of Educational Progress

As can be seen in Figure IV-1 below, the average score in all areas for ninth grade is below the national average. For most areas the district average improves relative to the national average from ninth grade to twelfth grade. Since each grade is being compared to typical students from that grade across the nation, this increase is not necessarily to be expected. In other words, in many areas our students are behind when they begin high school, but by the end of twelfth grade they are approaching the national norms. This is especially true in social studies and math, but to some extent it is true in all areas.

There are wide discrepancies by area on the test, as can be seen in Figure IV-2. On the whole, the district is strongest in math; in math basic concepts AISD’s average is close to the national average. The weakest areas are in writing, especially in capitalization and punctuation and in English expression. Even though students show improvement from ninth through twelfth grades in these areas, they remain more than ten percentile points below the national average at twelfth grade. This may be due at least in part to the relatively large bilingual population in Austin—the ethnic breakdown of the STEP norms is not available, so this cannot be verified. It does suggest that AISD has more problems in some areas than in others compared to schools across the nation.

In contrast to the average for the district, the third quartile scores are fairly close to the national average in all areas except English. These are the percentiles reached by the top 25% of the students in the district. In other words, the best quarter of the students in the district do about as well as the best quarter of students nationwide. The discrepancies by grade and area are also noted here; in ninth grade all scores are below the national level, whereas by twelfth grade all except English are approximately at the national level.
Figure IV-1: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, DISTRICT MEDIANS BY GRADE. Medians for all subtests of the STEP, graphed by grade. The national average is at the 50th percentile. These scores are for students in regular classes only; they are in some cases higher than the district-wide profiles, which also include students in special education classes.
The discrepancies by grade and area are also still visible. In English even our best quarter of student are well below the best quarter of the nation's students, whereas in math they are equal or above. The third quartiles are illustrated in Figure IV-3.

The first quartile scores for the district are illustrated in Figure IV-4. These scores are well below the national levels for all areas except math basic concepts. This suggests that, while the top 25% of AISD's students are comparable to national norms in most areas, the lowest 25% are lower in all areas except some math. This is consistent with previous ORE findings in achievement, which suggest that we have a larger number of students at low levels of achievement than the norm group.

The district average and quartiles for all areas are summarized in Table IV-1.

![Graphs of district medians by area and grade levels.](Image)

Figure IV-2: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, DISTRICT MEDIANS BY AREA. Medians for all grades taking the STEP, graphed by subtest. The national average is at the 50th percentile. These scores are for students in regular classes only; they are in some cases higher than the district-wide profiles, which also include students in special education classes.
Figure IV-3: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, DISTRICT THIRD QUARTILES BY GRADE. Third quartile scores for all subtests of the STEP, graphed by grade. The national third quartile is at the 75th percentile. These scores are for students in regular classes only; they may be in some cases higher than the district-wide profiles, which also include students in special education classes.
Figure IV-4: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, DISTRICT FIRST QUARTILES BY GRADE. First quartile scores for all subtests of the STEP, graphed by grade. The national first quartile is at the 25th percentile. These scores are for students in regular classes only; they are in some cases higher than the district-wide profiles, which also include students in special education classes.
Table IV-1: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, DISTRICT SUMMARY.
Summary of medians, first quartiles and third quartiles in all subtests of the STEP for each grade taking the tests. These scores are based on students in regular classes only; they may be in some cases higher than the district-wide profiles, which also include students in special education classes.

<table>
<thead>
<tr>
<th>SUBJECT CLASSIFICATION</th>
<th>District Wide Totals</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
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</thead>
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<tr>
<td>Reading</td>
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<tr>
<td>Computation</td>
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<td>14</td>
<td>12</td>
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<td>Capitalization &amp; Punctuation</td>
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</tr>
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<td>Science</td>
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<td>8</td>
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</tr>
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<td>Math Computation</td>
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<td>8</td>
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</tr>
<tr>
<td>Math Concepts</td>
<td>13</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Math</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>103</td>
<td>95</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

Scores given are percentiles.
2a. How many students graduate from high school?

ANSWER: Approximately 20% of the student body graduates each year.

SUPPORTIVE DATA:

Graduation Rates

As a percent of 9th through 12th grade ADM, graduates vary from 20.3% to 17.8% over the past 6 years.

Dropout Data

The dropout rate has remained approximately constant for the past 3 years, 1972-75.

Figure IV-5: GRADUATION RATES FOR A SIX YEAR PERIOD. Percent of total membership in ninth through twelfth grades to graduate each year of a six year period. Percent is based on ninth through twelfth because some students graduate without ever being formally classified as a twelfth grader.
2b. How many students are admitted to colleges of their choice?

ANSWER: A large majority of those applying.

SUPPORTIVE DATA:

Former Student Questionnaire

Ninety-four percent (94%) of those responding to the former student questionnaire said that they were admitted to the college of their choice.

![Circle diagram showing 94% Yes and 6% No](image)

**Figure IV-6:** PERCENT OF FORMER STUDENTS APPLYING TO COLLEGE WHO WERE ADMITTED TO A COLLEGE OF THEIR CHOICE. Based on responses of students graduating in May, 1975. Return rate of questionnaire was about 40%, which may have biased responses.
2c. How many students find a job satisfactory to them after high school graduation?

ANSWER: A large majority of those employed.

SUPPORTIVE DATA:

Former Student Questionnaire

Ninety-six percent of students working fulltime that responded to the former student questionnaire said that their post-graduation jobs were either satisfactory or completely satisfactory. 

Figure IV-7: PERCENT OF FORMER STUDENTS WORKING WHO ARE SATISFIED WITH THEIR JOBS. Based on students graduating in May, 1975, and working full time in early 1976. Return rate of questionnaire was about 40%, which may have biased results.
3. What percentage of AISD graduates go into college? Which colleges?

**ANSWER:** Data suggest that a majority of students attend college; the largest group going to 4-year colleges such as UT (by far the largest group), SWTSU, Texas Tech and Texas A&M. Much smaller groups attend other 4-year schools, 2-year schools and trade or technical schools.

**SUPPORTIVE DATA:**

***Former Student Questionnaire***

Seventy-five percent (75%) of respondents were attending college, with 59% of these in 4-year colleges. Eight percent attend 2-year colleges and another 8% were in trade or technical schools. The return rate on this questionnaire was only 40%; this may have biased the answer to this question.

***College Board Data***

The student requests for CEEB to send SAT scores to various colleges show a great preponderance for UT (80% of those requesting scores to be sent), with the next largest group requesting SWTSU (32%). Smaller groups requested scores sent to Texas Tech (14%) and Texas A&M (13%).
4. What kinds of jobs are AISD graduates filling one year after graduation?

ANSWER: Majority clerical. Others were sales, educational aide, military, beautician, housewife.

SUPPORTIVE DATA:

Former Student Questionnaire

Responses to a question on the questionnaire about current position if working yielded these categories. The return rate was low and of those only 24% were in the non-college category. Since the questionnaire was sent to last year's graduates, these are not necessarily the kinds of jobs students who have been finished for some time are filling.
5a. How do students feel about high school in AISD?

**ANSWER:** Favorably to very favorably

**SUPPORTIVE DATA:**

**Student Questionnaire**

Students responded that they liked school either very much or a little during the 1975 school year by 78% in fall administration and 74% in spring. They also responded favorably to school this year by 71% in the fall and 72% in the spring. (The figures for the two years are not strictly comparable because one was asked after the end of the school year, the other during it).

5b. How do students feel about the quarter system?

**ANSWER:** Generally favorably

**SUPPORTIVE DATA:**

**Student Questionnaire**

Although students expressed a slight preference for school last year under the semester system, they also expressed a 56% in fall and 61% in spring favorable attitude toward the quarter system itself. They also were greatly in favor of the greater course variety and felt that their classes were either being taught better this year or at least as well as last year. Fifty percent in fall and 62% in spring said quarter courses were of more interest than the semester curriculum. This 12% rise may be reflective of greater familiarity and exposure to the new courses.

5c. How do students feel about the shorter courses?

**ANSWER:** More interesting; covering same amount of material as previously with less wasted time.

**SUPPORTIVE DATA:**

**Student Questionnaire**

One-half of students in the fall and 62% in spring found the shorter courses more interesting, while only 8% found them of less interest. Almost one-half said the 12-week courses cover
STUDENTS RESPONDING FAVORABLY TO:

<table>
<thead>
<tr>
<th>Item</th>
<th>Fall 1975</th>
<th>Spring 1976</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75 school year in AISD high school</td>
<td>74%</td>
<td>72%</td>
</tr>
<tr>
<td>1975-76 school year in AISD high school</td>
<td>71%</td>
<td>72%</td>
</tr>
<tr>
<td>The quarter system</td>
<td>56%</td>
<td>51%</td>
</tr>
<tr>
<td>Shorter courses</td>
<td>50%</td>
<td>52%</td>
</tr>
<tr>
<td>Greater selection of courses</td>
<td>90%</td>
<td>91%</td>
</tr>
<tr>
<td>Usefulness of material compared to semester</td>
<td>93%</td>
<td>94%</td>
</tr>
<tr>
<td>Learning at least as much in quarter courses</td>
<td>83%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Figure IV-8: STUDENT ATTITUDES. Percent of students responding favorably during Fall, 1975 and Spring, 1976 to various questions regarding the AISD.
about the same amount of material as the 18-week semester courses and also one-half indicated less wasted time in the shorter courses. These two factors together could well explain why as much material can be covered in 6 weeks less. This also pleased students for 71% said they did not favor covering less material in a course.

5d. How do students feel about the greater selection of courses?

ANSWER: Very favorably

SUPPORTIVE DATA:

Student Questionnaire

Nine out of ten students see more course choice and variety as a good thing. A majority of 70% also feel the variety offered this year is about right.

5e. How do students feel about the new curriculum in general?

ANSWER: Favorably

SUPPORTIVE DATA:

Student Questionnaire

Over 90% said the material this year was as useful as or more useful than in the past and over one-half said they were required to study more this year. A large majority were learning as much as or more than in the semester courses and felt the number of courses offered in the major subject areas was appropriate. Quarter courses were seen as more interesting, and at the correct difficulty level; also, they did not suffer from lack of rigid sequencing.

5f. How do students feel about year-round schooling?

ANSWER: Most students would still choose to attend 3 quarters with summer off, but 17% would go all 4 quarters in order to graduate early.
SUPPORTIVE DATA:

Student Questionnaire:

The chance for obtaining full quarter credit during the summer was attractive to 33% in the fall and 28% in the spring; these students chose to attend either all 4 quarters or 3 quarters including the summer quarter. The other students all expressed a preference for going fall, winter and spring quarters.

Figure IV-9: STUDENT PREFERENCE FOR QUARTER OFF. Percent of students responding to the question "Which tree quarters would you choose to attend school if the summer quarter offered the same curriculum as the other quarters and was tuition free?"

5g. How do students feel about the preparation they are getting for later life?

ANSWER: Favorably

SUPPORTIVE DATA:

Student Questionnaire

Almost one-half felt they are learning more under the quarter system and only 16% felt they were learning less. Almost half plan to attend a four-year college upon graduation.
6. Are students getting the courses they need to fulfill their own post-graduation plans?

ANSWER: Largely, yes, but some problem areas may exist, especially for non-college bound students.

SUPPORTIVE DATA:

**Former Student Questionnaire**

Eight-five percent (85%) of former students in college responding said that high school has prepared them at least fairly adequately for entrance into the college of their choice. Forty-seven percent (47%), however, also maintained that graduation requirements should be made harder. Fifty-eight percent (58%) of students working said that their high school courses had prepared them for their employment, with 42% saying that they had not.

![Figure IV-10: FORMER STUDENT PERCEPTIONS OF THEIR HIGH SCHOOL PREPARATION.](image)

Responses of students graduating in May, 1975 to a question about the quality of their high school preparation for their present activities. Return rate of questionnaire was about 40%, which may have biased results.

**Student Questionnaire**

Sixty-eight percent of students were planning on attending some type of college upon graduation.

**Parent Questionnaire**

Eighty-three percent of parents responded that the education offered their children in high school was average or above.
Earned Credit Survey

No large differences in credits earned were found in many areas between students based upon their post-graduation plans. Requirements tended to dictate courses taken more than post-graduation plans; at least 70% of credits earned are taken in required subjects. College-bound twelfth graders were found to be low in foreign language credits (1.7 credits average), science (5.9 credits average) and in some cases math (6.1 credits average). These appear to be inadequate for students going into certain areas of study.

The table below presents the average number of credits earned in various areas for twelfth grade students at the end of winter quarter. The results are presented for students planning to enter four-year colleges and for students planning to enter technical or trade training or to work.

<table>
<thead>
<tr>
<th>Curriculum area</th>
<th>Four-year College Bound</th>
<th>Non-College Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language arts</td>
<td>10.2</td>
<td>10.3</td>
</tr>
<tr>
<td>College prep math</td>
<td>6.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Non-college-prep math</td>
<td>2.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Foreign languages</td>
<td>1.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Science</td>
<td>5.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Social Studies</td>
<td>10.1</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Teacher Interviews

The responses on the teacher interview show a significant shift in opinion regarding the relative merits of the quarter versus semester systems. In fall, only 5% said that the old semester system was better; by spring this had risen to 27%. The numbers saying the two systems were of equal value did not change greatly, but those saying the quarter system was better fell by 16%. Not only was there less optimism about the quarter system, but a large number of teachers had altered their opinions from fall to spring in favor of the old semester system.
Senior High Teacher Questionnaire

Sixty percent of teachers feel that college-bound students are receiving appropriate courses, but only 41% say that those students not going to college do. For this latter group of students, 18% of teachers say that it is seldom the case that they get the appropriate courses.

Figure IV-11: TEACHER PERCEPTIONS OF QUARTER SYSTEM PREPARATION OF STUDENTS COMPARED TO SEMESTER SYSTEM. Teacher responses to the question "Is the quarter system better than the semester system in preparing students for post-high school endeavors?". Fall and spring responses given for college-bound and non-college bound students. Responses from teacher interviews.

Figure IV-12: TEACHER PERCEPTIONS OF APPROPRIATENESS OF STUDENTS' COURSES. Teacher responses on a questionnaire to a question about whether college bound and non-college bound students are getting enough appropriate courses.
7. Has the quarter system had any effect on discipline in the high schools?

ANSWER: Uncertain, but shift since fall in a negative direction.

SUPPORTIVE DATA:

Parent Questionnaire

Although 49% of parents in the spring said that discipline was handled well or fairly well, this was down from 67% in the fall; the accompanying increase occurred in those saying that discipline was handled badly which increased from 22% in fall to 42% in spring.

Figure IV-13 PARENT OPINIONS ON HOW AISD DISCIPLINE IS HANDLED. Fall, 1975 to Spring, 1976 comparison of parent responses on a questionnaire to a question regarding how they would rate how discipline is handled in AISD.

Teacher Interview

The majority of teachers (54%) in spring still felt that the quarter system had had no effect upon school discipline; this was, however, down from 66% in the fall. Most of the concomitant increase came in those who said discipline was worse; this percent rose from 6% in the fall to 17% in the spring.
Discipline Data

The discipline report for the 1975-1976 school year is not yet available; when it becomes available the data will be compared to the previous year to give additional information on this question.

Student Questionnaire

Students seem to think that there is no change in discipline. Fifty-eight percent in fall and 54% in spring said there had been no change in this area from the semester system. The small decline in this percentage was accounted for by an increase in those who said that there were more discipline problems this year (14% in fall to 17% in spring), but this is so small as to have questionable significance.
Figure IV-15: STUDENT OPINIONS ON NUMBER OF DISCIPLINE PROBLEMS IN AISD HIGH SCHOOLS. Fall, 1975 to Spring, 1976 comparison of student responses on a questionnaire to a question regarding the number of discipline problems in AISD high schools.
8. Has the quarter system had any effect on students' study habits or attitudes toward school?

ANSWER: Undetermined as yet.

SUPPORTIVE DATA:

Survey of Study Habits and Attitudes

The SSHA is a standardized test which questions students about their feelings and attitudes toward school. Students respond to each behaviorally phrased question by indicating how often a particular behavior applies to their own attitudes. The response mode ranges from R—Rarely to A—Almost Always. Student responses are analyzed and provide an objective measure of various aspects of academic behavior. Raw scores are converted to percentiles by using norming tables provided by the test publishers. The norm tables were established by the test publishers based on 5793 students from 14 school systems.

There are six subscales on the SSHA test. These are Delay Avoidance, Work Methods, Teacher Approval, Education Acceptance, Study Habits and Study Attitudes. By summing student scores on Delay Avoidance and Work Methods, a measure of Study Habits is obtained; by summing Teacher Approval and Education Acceptance, a measure of Study Attitudes is obtained. The sum of Study Habits and Study Attitudes yields a score for Total Student Orientation. High SSHA scores are characteristic of high achieving students; low SSHA scores are characteristic of low achieving students.

The scores on the SSHA are to be used as baseline data in subsequent years; they, in themselves, provide a picture of where study habits and attitudes toward school stand at the present and can be compared in the future to similar scores to see if the quarter system has had any long-range effects in this area. On all measures district scores were below the established national norms. Overall ranking was at the 30th percentile on the total score of Study Orientation. The scores by grade show the following:
Table IV-3: DISTRICT-WIDE AND GRADE BY GRADE SUMMARIES OF SCORES ON THE SURVEY OF STUDY HABITS AND ATTITUDES. Percentile scores compared to a national sample of students. Based on a sample of students tested in the spring of 1976.

<table>
<thead>
<tr>
<th></th>
<th>9th grade percentiles</th>
<th>10th grade percentiles</th>
<th>11th grade percentiles</th>
<th>12th grade percentiles</th>
<th>District Wide</th>
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</thead>
<tbody>
<tr>
<td>Delay Avoidance</td>
<td>40</td>
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<td>Work Methods</td>
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<td>Study Habits</td>
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<td>45</td>
<td>45</td>
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<tr>
<td>Teacher Approval</td>
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<td>30</td>
<td>25</td>
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<tr>
<td>Education Acceptance</td>
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<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Study Attitudes</td>
<td>20</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Study Orientation</td>
<td>30</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td>30</td>
</tr>
</tbody>
</table>

These percentiles are based on norms gathered prior to 1965; they may not accurately reflect AISD's current standing compared to the nation as a whole since there are indications that study habits and attitudes are declining nation-wide. However, they do suggest that study habits and attitudes may be problem areas; the data from future years should therefore be of considerable interest.
9. How do parents feel about the expanded number of electives?

ANSWER: The majority are positive.

SUPPORTIVE DATA:

Parent Questionnaire

Parents responded by 53% in the spring that they did not feel that too many electives were offered under the quarter system; this was up from 49% in the fall. Of the remainder in the spring, 23% felt that there were too many electives offered and 22% were undecided.
10. What are the reactions to the larger variety of courses?

ANSWER: Largely favorable.

SUPPORTIVE DATA:

Student Questionnaire

Students were overwhelmingly in favor of the larger number, greater variety and increased choice of courses. They responded 9 out of 10 that having more course choice was a good thing and approximately 70% said that the variety of courses this year was about right. Nineteen percent said that the variety was still not great enough. In specific subject areas such as social studies, science, math and P.E., the percentages were fairly constant: from 62-75% saying the number of courses offered was just right. In English, however, only 53% of students in the spring said that the number of courses was appropriate, down 7% from the fall; one-third of all students in the sample said there were too many English courses from which to choose.

Teacher Interviews

Although teachers are in favor of the new curriculum (in the spring 60% of teachers cited this as a major advantage), they note the additional amount of their time that is required for operating the new curriculum. Specifically, 75% in the spring said it required additional time outside of class to operate under the quarter system; activities related to the wider course variety requiring more time are multiple preparations (mentioned by 37%), establishing new courses (27%), and organizing and obtaining materials for multiple classes (18%). The majority of teachers in two areas, social studies and science, felt that there should be more sequencing of courses, even though this might restrict the students' choice of courses.

Teacher Questionnaire—Junior High Form

Since students at the high school level are provided with much more choice and variety of courses than formerly, teachers of junior high students were asked if junior highs should also provide more course choice. Forty-two percent said that junior high students did need more choice and variety, while 46% said they did not and 12% were undecided.
Parent Questionnaire

Parents agree that the number and types of courses available are adequate; in the spring 74% responded thus for math and 71% for English. The largest group of parents sees the quarter courses and semester courses as equally worthwhile; however, the percent seeing the quarter system courses as more worthwhile rose from 25% in the fall to 35% in the spring, while the number seeing the semester courses as more worthwhile rose from 5% in the fall to 11% in the spring.

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**Figure IV-10: PARENT OPINIONS ABOUT THE ENGLISH CURRICULUM.** Percent of parents making various responses in the fall and spring about the English curriculum.
Figure 1-17: PARENT OPINIONS ABOUT THE MATH CURRICULUM. Percent of parents making various responses in the fall and spring about the math curriculum.
11. What changes do teachers feel need to be made in department course offerings?

**ANSWER:** Varies with the subject area; generally needs of non-college-bound student seen as less well met than those of college-bound. Junior high teachers equivocal on expanding course offerings.

**SUPPORTIVE DATA:**

**Teacher Questionnaire--Form A**

In general, teachers felt that the college-bound student usually is offered a sufficient number of appropriate courses; the response to this was 60% saying this is usually the case and 25% saying this is at least sometimes so. For the non-college-bound student, teacher response were markedly more negative. Only 41% said they usually are offered the appropriate courses, with 33% saying sometimes and 18% responding that this is seldom the case.

**Figure IV-18:** TEACHER PERCEPTIONS OF APPROPRIATENESS OF STUDENTS' COURSES. Teacher responses on a questionnaire to a question about whether college bound and non-college bound students are getting enough appropriate courses.

**Teacher Questionnaire--Language Arts and Social Studies Area Specific Forms**

Much data was gathered on these forms by the instructional coordinators for their particular area; the information relating to specific course offerings and content is too detailed to be presented fully in this context. Some of the more salient aspects include a majority of teachers in language arts favoring the retention of Orientation to Language Arts, a required course, in its present form and a majority favoring certain course additions for next year. In social studies a large majority see a need for requirements in both World History and World Geography (70%), and 63% say that students who plan to enter college get enough preparatory courses in social studies.
Teacher Interviews

The responses to the question of the relative merits of the quarter and semester systems in terms of student preparation show a definite shift in favor of the semester system for both the college- and non-college-bound. In fall, only 6% said that the semester system had offered students better preparation for college; by spring this had risen to 27%. For the non-college-bound, those feeling the semester system offered better preparation rose from 2% (Fall) to 18% (Spring). There were corresponding drops in those saying the systems offered similar preparation and those stating that the quarter system was superior in this regard.

![Diagram showing teacher perceptions of quarter system preparation compared to semester system](image-url)

"Figure IV-19: Teacher perceptions of quarter system preparation of students compared to semester system. Teacher responses to the question 'Is the quarter system better than the semester system in preparing students for post-high school endeavors?' Fall and spring responses given for college bound and non-college bound students. Responses from teacher interviews."
12. How do students feel about the quality of teaching under the quarter system?

**Answer:** About the same as under the semester system.

**Supportive Data:**

**Student Questionnaire**

Students responded by 53% in both fall and spring that they saw little change in the quality of teaching from the semester to the quarter system. Five percent more in spring did say that teaching was better under the quarter system, with 5% drop in those saying it was worse than under the semester system.

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**Figure IV-20:** STUDENT PERCEPTIONS OF QUALITY OF TEACHING. Fall and spring responses on a questionnaire to a question about the quality of teaching under the quarter system.
13. Who is seen as the best person to do advising? What problems are seen?

ANSWER: Most see subject area teachers as the most appropriate advisors. Many problems are reported, but they have diminished since fall.

SUPPORTIVE DATA:

Student Questionnaire

Students felt they obtained the best advice about course selection from subject area teachers for each area; 74% named subject teachers as the best source of information. They also responded by 52% in the fall and 48% in spring that this was in fact where they had gotten the most advice. Overall, students seem to feel that they are taking the appropriate courses. Course descriptions were also seen as helpful in obtaining course information; although evening course fairs were not attended by the majority (65% in fall and 52% in spring), they were viewed as helpful by those who did attend. Only 57% of the students said that they had received enough information for choosing courses; the advice they did receive was viewed as accurate and helpful for all or all but 1 of their courses by 66% of students.
Non-Teaching Faculty Questionnaire

This group was much more negative about the advising process than the students sampled. Seventy-seven percent in fall and 69% in spring said that changes need to be made in advising procedure. The specific changes mentioned most often were more information and training for advisors, more coordination between counselors and advisors and more responsibility to teachers for advising students. In the fall, the non-teaching faculty split fairly evenly on who should have advising responsibility with 36% saying teachers and 34% counselors and other responses dividing the remaining percentage; in the spring, however, the vote for giving the responsibility to subject area teachers had risen to 60% response. This falls in line with what other groups said about advising as well. In the spring the majority still felt that advisors needed more training for such areas as vocational guidance (82%), advising the college-bound (82%), course content (76%) and graduation requirements (87%).

Teacher Interviews

Teachers agree that they should have the primary advising responsibility, but only for courses in their subject area; the number of teachers responding this way rose from 33% in the fall to 41% in the spring. Twenty-two teachers in the spring felt that counselors should also have a large responsibility in this area, up from 19% responses in the fall. A large majority also said that subject area teachers are in fact the major advisors and this should be continued. Problems with advising centered mainly in two areas: too little time allotted to advise adequately and problems with students taking inappropriate courses because of a lack of information or scheduling error. The number of teachers citing scheduling and advising as a major
disadvantage of the quarter system fell dramatically from 43 in fall to 20 in spring, only about one-quarter of teachers interviewed. This is probably reflective of changes made during the year and of experience with the whole advising process. Eleven, however, still list advising in the spring as an area needing change and improvement.

Figure IV-23: TEACHER PERCEPTIONS OF WHO SHOULD HAVE PRIMARY RESPONSIBILITY FOR ADVISING STUDENTS. Fall and spring responses to the question "Who should have the primary responsibility for advising students?" Number of teachers naming each alternative in an interview.

Figure IV-24: TEACHER PERCEIVED WHO DID MOST OF THE ADVISING OF STUDENTS. Fall and spring responses to the question "Who actually does most of the advising?" Number of teachers naming each alternative in an interview.
Parent Questionnaire

Parents see the counselors as the major source of advice for students, but here too the shift toward subject teachers as advisors is evident. In the fall, 49% said the counselor should have major advising responsibility; this fell to 39% in spring. In contrast, those assigning this to subject teachers rose from 23% to 30%. Teachers were also seen as in fact providing the most advice by 32% of parents; counselors as the major source of advice in this area fell from 32% to 26%. Course guides were also seen as quite useful in this regard. Sixty-two percent of parents in the spring felt that their child had received enough advice for deciding on courses, up from 56% in the fall. Eighty-five percent in spring as opposed to 77% in the fall said their child was able to take the courses he/she wanted and needed.

Figure IV-25: **Parent Perceptions of Who Gave Their Children the Most Help in Choosing Courses.** Percent of parents naming various alternatives on a questionnaire, fall and spring.
14. Do students have the information they need to choose courses?

ANSWER: Generally yes.

SUPPORTIVE DATA: Student Questionnaire

Fifty-seven percent of students responded that they had received enough information for choosing their courses, which leaves 43% who did not; these students need a better basis for selecting courses. Students, by 74%, felt that the course description guide was helpful in choosing courses, but most students (65% in fall and 52% in spring) said they did not attend a course fair at all. (This is probably referring to the evening course fair, since attendance at the one held during school hours was not voluntary). Most of those who did attend found them useful and the 13% attendance rise from fall to spring may indicate an increasing awareness of their value. Most students said that the advice they did receive was good; 66% said they got good advice in all or all but one of their courses. Teachers were seen as the major source of course advice for students and a majority of 68% said there were no other courses they should have taken to prepare them for the ones they were in, with an additional 24% in the fall and 20% in the spring saying they should have taken other courses before only one of their present courses.
15. Do parents have the information they need to help their children choose courses?

ANSWER: Parents do not have information, but parents and students do not feel parents should be the primary advisors or courses.

SUPPORTIVE DATA:

Student Questionnaire

Only 4% of students said they got most of their course advice from parents and only 2% felt parents should be the primary source of advice for students.

Parent Questionnaire

Although parents do feel that they received enough information about the quarter system (by 66% in the spring), they do not feel that they or should act as primary advisor for their children. Only 13% of parents said that it was they who gave their children the most advice on courses and only 5% in the spring said parents should be the main advisor. They see this as falling to the counselors and teachers. Even though they are not advising to any great extent themselves, parents do feel that their students are receiving adequate information (62% in the spring) and that they are allowed to take the courses wanted or needed.
16. Do students, parents, coordinators and non-teaching faculty feel that the course fairs are worthwhile?

ANSWER: Yes, with reservations and modification.

SUPPORTIVE DATA:

Parent Questionnaire

There was a sizeable group (49% fall/48% spring) of parents who responded that they did not know if the course fairs were helpful to students. Of those who did have an opinion, almost all said that the course fairs had been helpful.

Non-Teaching Faculty Questionnaire

In fall responses, 72% of non-teaching faculty members felt the course fairs were helpful to students in selecting courses and preparing schedules; in the spring this had dropped to 62%. Sixty-six percent (66%) in fall said they were helpful in aiding students going through the registration process; this also dropped in spring to 47%, with 30% saying they did not help in this regard. Seventy percent (70%) of fall respondents said the course fairs should be continued while only 57% in spring thought so; of the remainder, only 9% in fall said they should not be continued, rising to 22% in spring. The primary suggestions for modifying and improving were made in the spring; they were that the course fairs should be better organized (5 responses), that teachers needed to be more involved and cooperative (5), and that the course fairs' relevance and importance should be stressed to students (5).

Coordinator Interviews

Ten of the 12 coordinators responding to this question felt that the course fairs were worthwhile.

Student Questionnaire

Although 65% of students in fall and 52% in spring said that they did not attend a course fair at all, this may have indicated more a misunderstanding of the term than high absenteeism. Since there were optional course fairs held at night for parents and students in addition to the mandatory ones during school hours, there may have been confusion as to how this question was answered by students. Of those who did attend in the fall, twice as many found them useful as not useful; in spring somewhat over half said they were helpful.
17a. What differences are found in enrollment patterns by ethnicity?

**Answer:** There are certain discernable patterns in course enrollments by ethnicity. Mexican-American students tend to be overrepresented in the areas of business education, reading, career/cooperative education, fundamentals of math, homemaking and art; they tend to be underrepresented in the areas of drama and foreign languages other than Spanish. Blacks tend to be overrepresented in the areas of homemaking and fundamentals of math and underrepresented in advanced math, foreign languages and journalism. Anglo students are overrepresented in areas of advanced math, journalism, drama and foreign language other than Spanish; they are underrepresented in the areas of homemaking, business education, reading and career/cooperative education and fundamentals of mathematics.

**Supportive Data:**

**Course Enrollment Data**

The ethnic distribution of AISD high school students is approximately 13% Black, 17% Mexican-American and 74% Anglo and other. The following data on course enrollments for 1975-76 show courses where this proportion of the three major ethnic groups is not in line with this overall school distribution for ethnicity.

### Table IV-4: Course Enrollment Percent by Ethnicity for Courses Differing from the District Ethnic Distribution

<table>
<thead>
<tr>
<th>FALL QUARTER</th>
<th>M/A</th>
<th>Black</th>
<th>Anglo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journalism</td>
<td>15%</td>
<td>5%</td>
<td>80%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>29%</td>
<td>26%</td>
<td>45%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>9%</td>
<td>3%</td>
<td>88%</td>
</tr>
<tr>
<td>French</td>
<td>7%</td>
<td>12%</td>
<td>80%</td>
</tr>
<tr>
<td>German</td>
<td>3%</td>
<td>4%</td>
<td>93%</td>
</tr>
<tr>
<td>Latin</td>
<td>6%</td>
<td>3%</td>
<td>90%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>16%</td>
<td>27%</td>
<td>57%</td>
</tr>
<tr>
<td>WINTER QUARTER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business education</td>
<td>30%</td>
<td>9%</td>
<td>61%</td>
</tr>
<tr>
<td>Reading</td>
<td>39%</td>
<td>15%</td>
<td>46%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>47%</td>
<td>22%</td>
<td>31%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>9%</td>
<td>1%</td>
<td>90%</td>
</tr>
<tr>
<td>French</td>
<td>9%</td>
<td>8%</td>
<td>83%</td>
</tr>
</tbody>
</table>
Table IV-4 Continued.

<table>
<thead>
<tr>
<th></th>
<th>M/A</th>
<th>Black</th>
<th>Anglo</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>4%</td>
<td>4%</td>
<td>92%</td>
</tr>
<tr>
<td>Latin</td>
<td>11%</td>
<td>2%</td>
<td>87%</td>
</tr>
<tr>
<td>Spanish</td>
<td>27%</td>
<td>1%</td>
<td>69%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>25%</td>
<td>2%</td>
<td>63%</td>
</tr>
<tr>
<td>Art</td>
<td>31%</td>
<td>14%</td>
<td>55%</td>
</tr>
<tr>
<td>Career/cooperative ed.</td>
<td>40%</td>
<td>11%</td>
<td>49%</td>
</tr>
</tbody>
</table>

SPRING QUARTER

<table>
<thead>
<tr>
<th></th>
<th>M/A</th>
<th>Black</th>
<th>Anglo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>37%</td>
<td>17%</td>
<td>46%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>39%</td>
<td>26%</td>
<td>35%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>8%</td>
<td>3%</td>
<td>89%</td>
</tr>
<tr>
<td>French</td>
<td>8%</td>
<td>9%</td>
<td>83%</td>
</tr>
<tr>
<td>German</td>
<td>4%</td>
<td>3%</td>
<td>93%</td>
</tr>
<tr>
<td>Latin</td>
<td>8%</td>
<td>3%</td>
<td>89%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>22%</td>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>Art</td>
<td>29%</td>
<td>12%</td>
<td>59%</td>
</tr>
<tr>
<td>Career/cooperative ed.</td>
<td>30%</td>
<td>10%</td>
<td>60%</td>
</tr>
</tbody>
</table>

17b. What differences are found in enrollment patterns by sex?

**ANSWER:** There are certain discernable patterns in course enrollments by sex. Female students are overrepresented in areas of business education, drama, French, Spanish, vocational homemaking, vocal music and career/cooperative education; they are underrepresented in areas of fundamentals of math, advanced math, German and industrial arts. Male students are overrepresented in fundamentals of math, advanced math, German and industrial arts; they are underrepresented in business education, drama, French, Spanish, vocational homemaking, vocal music and career/cooperative education.

**SUPPORTIVE DATA:**

Course Enrollment Data

The sex distribution of AISD high school is approximately 50% male and 50% female. The following data on course enrollments for 1975-76 show courses where this proportion of sex is not in line with the overall school distribution in courses.
Table IV-5: COURSE ENROLLMENT PERCENTS BY SEX FOR COURSES DIFFERING FROM AN EQUAL DISTRIBUTION. Percent of male and female enrollment in various course areas where male or female enrollment predominates.

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL QUARTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business education</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Drama</td>
<td>39%</td>
<td>61%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>59%</td>
<td>41%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>French</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>German</td>
<td>59%</td>
<td>41%</td>
</tr>
<tr>
<td>Spanish</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Vocal music</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Industrial arts</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>Career/cooperative ed.</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td><strong>WINTER QUARTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business education</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>Drama</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>French</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>German</td>
<td>52%</td>
<td>38%</td>
</tr>
<tr>
<td>Spanish</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>Vocal music</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Industrial arts</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>SPRING QUARTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business education</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Drama</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Fundamentals of math</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Advanced math</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>French</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>German</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Spanish</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Vocational homemaking</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>Vocal music</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>Industrial arts</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>Career/cooperative ed.</td>
<td>38%</td>
<td>62%</td>
</tr>
</tbody>
</table>
Do former students and non-teaching faculty feel that graduation requirements should be changed?

ANSWER: Very mixed opinions.

SUPPORTIVE DATA

Former Student Questionnaire

Former students answering the questionnaire split almost evenly between those who felt that requirements should remain as they are (50%), and those feeling that they should be made harder (47%). Of former students now in college, 61% said that high school had prepared them adequately or very adequately; 15% said that the preparation had been inadequate or very inadequate.

Of former students not now in college 47% felt that their high school training had prepared them well or very well for their jobs and 34% felt that it had not; 19% were not employed.

Figure 7-25: HIGH SCHOOL PREPARATION FOR EMPLOYMENT. Percent for each response given by ASD students who graduated in May, 1975, to the question "Did the required high school courses prepare you for employment?" Return rate of questionnaire was about 60%, which may have biased results.
Non-Teaching Faculty Questionnaire

The non-teaching faculty were also mixed in their responses. In the fall, 66% said that the current requirements meet the needs of college-bound students, but only 42% said they were adequate for the non-college-bound; the majority of the remaining respondents in both cases fell into the undecided category. In spring, those feeling current requirements were adequate fell to 38% for the college-bound and 48% for the non-college-bound student. A more significant change can be seen in those shifting from uncertain to requirements as inadequate. In fall, only 12% saw requirements as inadequate for college-bound and 18% for non-college; in spring these has risen to 23% and 37% respectively. These may well reflect the impact of the new curriculum on the non-teaching faculty's judgement of what training students are getting.

Earned Credit Survey and Dropout Data

The survey of credits students receive shows that a large majority, approximately 70%, are obtained in required areas. If graduation requirements are altered, it could well mean that this figure would be changed. Also, the baseline dropout data might well be changed by an alteration of graduation requirements; if they were made more stringent, it would prevent some students from graduating and if more liberal, the dropout rate might well decline in the future as a result. The present dropout rate is approximately 8% of 9th through 12th graders.
19a. How do teachers feel about teaching some very large sections in exchange for some very small ones?

ANSWER: Uncertain

SUPPORTIVE DATA

Teacher Interview

Teachers were asked if they would agree to teach large sections certain periods in exchange for small sections at other periods. In the fall, the response was quite negative, but by spring it had modified somewhat. In fall, 60% said no, while in spring this fell to 36%. The number saying yes for certain courses or levels doubled. This may be reflective of experience along these lines already encountered under the quarter system.

19b. What size classes are being offered?

ANSWER: The range of enrollments is wide with some small classes being offered only by having one teacher teach several courses during the same period.

Course Enrollment Data

These data show that the class size at every school ranges considerably, from 1-35 students. (This does not mean that a teacher actually has a class with as few as one student, but that only a few were signed up for that course at that period. In these cases, more than one course is usually assigned to a teacher for that period). About one fifth of the courses being taught had enrollments under 20; many of these probably could not be offered if a strict minimum were enforced. The number of small courses also increased from fall to spring. The prevalence of 35 as maximum probably indicates this as the normal enrollment ceiling; this may indicate that some students who requested the course did not receive it once this ceiling was reached.
20a. What do AISD school personnel feel is the best way to facilitate planning by department chairpersons?

ANSWER: Provide them with an additional conference period.

SUPPORTIVE DATA

Principal Interviews

Principals responded by eight to eleven that an additional conference period was the best way to aide department chairpersons in performing their duties.

Coordinators Interviews

Eleven coordinators felt that an additional conference period was the best way to facilitate planning and other activities of the department chairperson. In addition, three supported a stipend and two said a comprehensive job description would be of the most use.

Department Chairperson Questionnaire

Forty-five percent of department chairpersons themselves said that certain activities that they are assigned could be delegated to others. More specifically, they cited accounting for books (ten department chairpersons), scheduling (7), distribution of materials (7), and ordering supplies and materials (6) as primary duties that could be delegated to others within the school.

20b. What changes have occurred in the department chairpersons' role?

ANSWER: The department chairperson's role has been changed by assigning them more duties, requiring more time of them, involving them more in scheduling, advising and registration, and assigning more responsibility for ordering and controlling materials and supplies.
SUPPORTIVE DATA

Department Chairperson Questionnaire

Sixty-three percent of department chairpersons say that the quarter system has changed their role. They cite more time and activities (19 chairpersons), more scheduling and advising responsibility (17), more activities relating to purchasing and accounting for supplies and materials (10) and more coordinating activities as the areas of most extensive changes.

Principal Interviews

Most principals saw the department chairperson's role as changed under the quarter system; they mentioned the activities of scheduling and registration as the largest areas of change, but named many others. These are illustrated in the figure below.

Coordinator Interviews

Almost all coordinators saw changes already occurring for the department chairperson. The most important of these seem to be more involvement in scheduling (6 coordinators), and the requirement for more time delegated to departmental activities (3).

Figure IV-1b  "Roles of the Department Chairperson" Various roles of the department chairpersons cited by senior high principals in the fall of 1971. In the survey, they indicated that there had been little change in the roles.
21. What training do AISD personnel feel advisors need to best fulfill their task?

ANSWER: Teachers feel that they do not need additional training to advise for their subject area and students feel that they are receiving adequate advice, but non-teaching faculty feel that additional training is needed for advisors in the areas of graduation requirements, vocational and college guidance and in course content.

SUPPORTIVE DATA:

Teacher Interviews

Sixty-three percent of teachers in spring felt that the advising process at their school was adequate; this was with 48 of the 83 saying that teachers for their subject area were the primary advisors. When asked about inservice, 55% in fall and 46% in spring felt that the quarter system has changed inservice needs, but only one person in spring placed advising training as a priority for inservice. Eleven teachers felt, however, that the advising process did need improvement.

Student Questionnaire

Fifty-seven percent of students in the spring felt that they had received enough information for choosing courses and 66% said they were given good advice on all or all but one of their courses. The largest group of students saw subject area teachers as the primary advisor (48%) and 76% felt that this was appropriate.

Non-Teaching Faculty Questionnaire

In both fall and spring, non-teaching faculty were very vocal about the need for additional training for advising. By 77% in fall and 69% in spring, they said that changes were needed in the advising procedure. The changes most often recommended were additional time and information for advisory teachers (10 fall responses), advisors obtaining information from subject area teachers (11 in fall), and better coordination between counselors and subject area teachers (9 in fall). In the spring these suggestions were altered somewhat and new concerns of inservice training for advisors (9) and giving more advising responsibility to teachers (11) appeared. A major shift in who should have the advising responsibility occurred in responses from non-teaching
faculty; in the fall, 34% said counselors and 36% subject area teachers, while by spring this had shifted to 60% in favor of subject teachers and only 26% saying counselors. Specifically related to training for advising, the spring figures show 80% saying that training was needed concerning vocational guidance for students; 79% felt this was needed for advising college-bound students and 82% said it was needed for knowledge of course content.
22. In what areas is it felt that teachers need additional training?

ANSWER: Most groups see the primary need in the area of specifics for the new courses and expanded curriculum; non-teaching faculty also see a need for training in advising.

SUPPORTIVE DATA

Non-Teaching Faculty Questionnaire

This group felt that teachers need additional training for teaching the expanded curriculum (55% fall response rate/54% spring) and planning the course content of expanded course offerings (60% fall/65% spring). They also felt that advisors need training in graduation requirements (87% fall/45% spring), vocational guidance (82% fall/80% spring), college guidance (82% fall/79% spring) and course content (76% fall/82% spring).

Teacher Interviews

Teachers themselves do not see a great need for advising training, but do see needs in preparation for new courses (11 responses in fall/5 in spring), and training by subarea and course in specifics for the new offerings (26 fall/26 spring). Also mentioned as important in this area were exposure to new teaching techniques and materials (31 fall/25 spring) and sharing of ideas with teachers of same courses (30 in fall/39 spring).
Release time for teacher education and research

Specialized, practical information for new courses

Individual school meetings or subarea meetings

Exposure to new teaching techniques and new materials

Time in own school for preparing materials and planning

Sharing ideas with other teachers in the same field and teacher-planned inservices

Inservices should be less frequent or not at all frequent

Other

Figure IV-46 TEACHER DEPCTIONS OF DISTRICT INSERVICE. Number of teachers giving various opinions of the value of the district inservice during fall and spring teacher interviews. Fall numbers based on 90 respondents, spring on 92 respondents.
Coordinator Interviews

Coordinators see a need for instruction for teachers in new course content (6 responses) as the primary priority for training.

Principal Interviews

Principals seem to see much less training need for teachers than do other groups. Only two suggestions were received, for the needs of data processing and registration mechanics and curriculum familiarity. Seven said additional training for teachers was either not needed or not wanted.
23. Are students getting the courses they request?

ANSWER: Yes

SUPPORTIVE DATA

Course Enrollment Data

The majority of student course requests were filled, with requests exceeding enrollments by an average of approximately 8% in the fall. This means that overall 8% of course requests in fall were unfulfilled.

Parent Questionnaire

Seventy-seven percent of parents in fall and 85% in spring said that their children were allowed to take the courses they really wanted.

Student Questionnaire

Students responded by 67% in fall and 66% in spring that they got all of the courses that they wanted; an additional 19% in fall and 20% in spring got all but one of their requested courses. Only 3% in fall and 2% in spring said that they received fewer than three of their requested courses.

Figure IV-31: HOW MANY DESIRED COURSES DID STUDENTS GET? Percent indicating various responses to the question "How many of the courses you wanted did you get for quarter?" Responses for fall and spring quarters.
24. What problems are perceived with course outlines?

ANSWER: Generally outlines are seen as useful and adequate; some changes anticipated in amount of material covered in each course.

SUPPORTIVE DATA:

Sr. High Teacher Questionnaire

As illustrated in the figure below, teachers in all subject areas responded generally favorably to questions concerning course outlines. They said by 85% that they usually or sometimes use the goals and objectives suggested and by 76% that they at least sometimes use the instructional methods suggested. Teachers also said that the goals and objectives usually or sometimes meet student learning needs and by 67% that the evaluation methods suggested were usually or sometimes used. The least often used were the equipment and materials suggested, but 58% of teachers used even these usually or sometimes. Teachers also commented on the adequacy of coverage of course outlines as can be seen in Figure IV-33.

<table>
<thead>
<tr>
<th>Are they useful?</th>
<th>43%</th>
<th>31%</th>
<th>19%</th>
<th>7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you feel goals and objectives meet basic learning needs?</td>
<td>53%</td>
<td>32%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Do you use goals and objectives?</td>
<td>48%</td>
<td>39%</td>
<td>19%</td>
<td>2%</td>
</tr>
<tr>
<td>Do you use teaching and instructional methods?</td>
<td>36%</td>
<td>40%</td>
<td>17%</td>
<td>7%</td>
</tr>
<tr>
<td>Do you use media and equipment?</td>
<td>23%</td>
<td>33%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Are media and equipment available?</td>
<td>35%</td>
<td>36%</td>
<td>23%</td>
<td>7%</td>
</tr>
<tr>
<td>Do you use student evaluation methods?</td>
<td>28%</td>
<td>39%</td>
<td>22%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Figure IV-32: Teacher opinion about the course outlines. Teacher response to various questions about the course outlines. Percent giving, from left to right, the responses "usually", "sometimes", "seldom", or "never".
Teacher Questionnaire—Social Studies Form

Social studies teachers said that generally they find the course outlines useful, that their format and general aim is valid and that they used the materials and suggestions from the outlines.

Coordinator Interviews

Most coordinators said that there were at least a few changes anticipated for course outlines for next year. The bulk of these involved either eliminating some course content from the outline (5 responses) or combining of outlines that proved not to contain enough material (4 responses). Six coordinators said no changes in course outlines were anticipated in their areas.

Figure IV-33: ADEQUACY OF COVERAGE OF COURSE OUTLINES AS SEEN BY TEACHERS ON FALL QUESTIONNAIRE.
25a. What level of and priority for financial support are indicated by district personnel for materials?

ANSWER: More financial support is needed for materials; highest priority.

SUPPORTIVE DATA:

Secondary Non-Teaching Faculty Questionnaire

In the fall, 57% said that additional financial support for materials was needed with 35% being undecided; by spring this had risen to 79% with only 15% undecided. In addition, at both times the need for additional materials funding was placed as the highest priority ahead of funding for other purposes such as equipment, inservice, personnel, etc.

Coordinator Interviews

A large majority of the instructional coordinators (13 of 16) saw definite materials needs for next year. One-half said this need was for textbooks, another 6 mentioned supplies, and 4 said the need was for equipment. The vast majority listed materials and equipment as the highest priority for funding.

Principal Interviews

Lack of materials and texts was noted as a problem by principals both fall and spring; 8 of 9 indicated in the spring that these should have highest priority.

Teacher Interviews

A large majority (86%) said that additional financial support was needed for the high schools and the highest priority was given to additional teaching materials; 52 of the 83 teachers placed this first.

25b. What level of and priority for financial support are indicated by district personnel for course outlines?

ANSWER: Little additional.

SUPPORTIVE DATA:
Coordinator Interviews

None of the coordinators felt that course outlines should be a priority for funding.

Teacher Interviews

Although a large majority of teachers saw a need for additional financial support, course outlines were not mentioned as a priority item.

Principal Interviews

Although principals saw course outlines as valuable, they did not give it high priority for funding.

25c. What level of and priority for financial support are indicated by district personnel for inservice?

ANSWER: Some additional, but not high priority.

SUPPORTIVE DATA:

Secondary Non-Teaching Faculty Questionnaire

This group was the one most in favor of additional financial support for inservice. In the fall, 80% of those answering said additional support was needed in this area, but placed it 4th in overall ranking of priorities; in the spring a similar pattern emerged, with 71% favoring additional support for inservice but ranking it 5th in priority to other areas.

Coordinator Interviews

Three of the 16 instructional coordinators stated a high priority for additional inservice funding; this was a much smaller group than those seeing a need for additional money in areas such as materials and equipment.

Teacher Interviews

Of the 86% answering that additional funding was needed for the high schools, only 2 placed inservice among the priority items for such funding.
25d. What level of and priority for financial support are indicated by district personnel for other areas?

ANSWER: Additional funding needs seen for the following: registration procedures and data processing for scheduling; additional personnel; time for department chairpersons and equipment.

SUPPORTIVE DATA:

Secondary Non-Teaching Faculty Questionnaire

In the fall, registration procedures was ranked 1st among funding priorities and support for additional personnel second. In spring, these needs were still present but were not ranked as high as in the fall. The 3rd-rank area in fall was for additional equipment and this too fell to 6th in spring.

Coordinator Interviews

Three coordinators felt that funding should be given to provide an additional conference period for department chairpersons.

Teacher Interviews

The primary additional funding area seen by teachers, ranking lower than materials, was additional personnel. Specifically, a need for additional personnel in the form of clerical help such as departmental aides was cited as a high priority by 27 of 83 teachers.
26. How reliable and valid are the placement tests used in conjunction with the Orientation to Language Arts and Introduction to Science courses?

ANSWER: The Science Proficiency Test has reasonable reliability; validity is still under study. The reliability of the Orientation to Language Arts Needs Assessment Test was also high; because the test was undergoing major modifications no extensive validity studies were carried out; the content validity seems high, however.

SUPPORTIVE DATA

Science Proficiency Test

The reliability found for the 1976 administration of the Science Proficiency Test was .87—indicating that most students taking it again would tend to perform about the same on it the second time. Information gathered from students who passed the test during 1975 indicated that these students do indeed do well in advanced science courses without the introductory course. Students and teachers agreed that these students were ready for more advanced courses; most of these students made A's in their science courses and virtually all the rest made B's. Information about which students had taken the test but failed it in 1975 was not available; however, the students who failed it in 1976 will be studied to see if some of them could probably do well in advanced courses also, or whether the failure to attain a passing score on the test does indicate that a student needs to take the Introduction to Science course.

Orientation to Language Arts Needs Assessment Test (OLA test)

The reliability found for a sample of students taking the OLA test was over .9, indicating that these students would be very likely to perform similarly if given the test again. (This would not be the case, for instance, if the students made many guesses). However, it was clear from examination of the number of students passing various items and various subscales that the test needed major revisions in some areas. For this reason no additional studies were undertaken of the old test.

Note: Validity is the accuracy with which a test measures what it is supposed to measure—science proficiency, for instance, rather than reading ability. Reliability is the consistency with which a test yields the same result when used several times to measure the same thing. The reliability calculated for these tests was the Kuder-Richardson coefficient of internal consistency.
27. Are students unable to take requested courses because of lack of transportation to other schools where they are offered?

ANSWER: Yes in some cases.

SUPPORTIVE DATA

Course Offerings Data

From the printout of course offerings available to students on the request survey sheet for next year, a percentage of the 698 possible courses was calculated of those courses offered at less than one-half of the high schools. This percentage was 30.5%. This means that almost one-third of the courses in the course description were not available to students at at least five schools.

Parent Questionnaire

Only 7% of parents in fall and 5% in spring said that their child was unable to take certain desired courses because they were offered only at other schools and transportation was not available.

Student Questionnaire

Sixty-seven percent of fall students and 66% in the spring said they got all of the courses they wanted. Another 19% (fall) and 20% (spring) got all but one course wanted. Only 3% in fall and 2% in spring got fewer than three of desired courses. Unavailability at the student's school and lack of transportation to other schools may have been a factor in some of these cases.
Regarding the college-bound/non-college-bound preparation question, parents are again more favorable than teachers. Seventy-four percent of parents responding in spring said that their child was getting the courses he/she needed for college. Also, 84% of parents of non-college-bound made a similar response. The majority of all parents responding felt their children were required to take the right number of courses in both English and math.

The one unfavorable area about AISD education that parents saw was discipline. The change from fall to spring is quite notable in this area: in the fall only 22% of parents said discipline was handled badly in Austin schools, while in the spring this rose to 42%. Correspondingly, those feeling it was handled fairly well fell from 52% (fall) to 34% (spring). On the same matter, a majority of teachers at both times saw no effect of the quarter system upon discipline, but those saying discipline was worse this year rose from 6% in the fall to 17% in the spring.

On the whole, a majority of 77% of parents said AISD schools were average or above; this figure changed very little from fall to spring.

![Bar graph showing parent attitudes towards AISD schools](Figure IV-34: PARENT ATTITUDE TOWARD AISD SCHOOLS. Percent of parents giving various responses to the question "On the whole, how do you rate education in AISD?" Percent giving the responses presented for fall and spring.)
How satisfied are parents and teachers with high school education in Austin?

ANSWER: Parents are fairly well satisfied with academic and overall education; they are not satisfied with the disciplinary aspect of education. Teachers generally do not see the college-bound student as getting good preparation and question that of the non-college-bound.

SUPPORTIVE DATA:

Teacher Interviews

Teachers split into four roughly equal groups regarding the adequacy of the college-bound students' preparation; the groups are the quarter system as better preparing the college-bound, as preparing the same as the semester system, as preparing less-well than the semester system and don't know. An important change to notice is that teachers saying the quarter system offered better preparation fell from 46% in the fall interviews to 29% in the spring and those saying the preparation was less adequate than under the semester system rose from 6% to 20%. These are significant changes and may reflect a real deficiency of the new system in the area of offerings and requirements for the college-bound student.

For the non-college-bound, the trend is the same, but the magnitude of the shift in teacher opinion is not as great. A drop of 13% from 56 to 43 for better preparation under the quarter system and a substantial rise, from 2% to 14%, in the quarter system as less well preparing can be seen in this area. Even so, only somewhat over 1/3 of the teachers interviewed see a need for more required courses and the majority do see the quarter system as an improvement.

Parent Questionnaire

Parents are generally more favorable than teachers in assessing academic quality in AISD. Sixty percent of parents in the spring felt that their child could obtain as many of the basic skills under the quarter system as under the semester. Also the percent of parents expressing various opinions of school last year (semester system) and school this year (quarter system) was almost exactly equal in all categories—very good through poor.
29a. What was the attitude of parents and teachers toward shorter terms?

ANSWER: Parents generally favorable; teachers mixed.

SUPPORTIVE DATA

Parent Questionnaire

The change from fall to spring opinion was very small; at both times the majority favored the shorter terms by about 60%.

Teacher Interviews

Teachers were much more mixed on their opinion. There was little change from fall to spring; at both times the number of teachers seeing the shorter terms as advantageous approximately equaled the number seeing them as disadvantageous. Advantages cited compared to the 18-week terms were higher student and teacher interest, less wasted time, more chance to explore various subject areas and more interactions between the teachers and student body. Disadvantages were seen as more paperwork for grading, scheduling, and registration, difficulty of developing student/teacher rapport and lack of continuity due to frequent shifts of students between quarters.

29b. What is the attitude of parents and teachers toward the greater variety of courses?

ANSWER: Very favorable.

SUPPORTIVE DATA

Teacher Interviews

Although the teachers' enthusiasm for the new curriculum had declined somewhat from fall to spring, the majority was still very much in favor of the greater course variety. Many more teachers viewed the new curriculum as an advantage than a disadvantage; approximately 15% in the spring mentioned the curriculum as an area still needing changing or improving.
Parent Questionnaire

The majority of parents felt that their children were required to take the right number of courses in math and English and that the number of courses offered this year under the new curriculum was generally satisfactory. On the negative side, one fourth responded in the spring that there were too few courses required in English; however, only 13% said there was an inadequate supply of English courses available.

29c. What is the attitude of parents and teachers toward the new curriculum in general?

ANSWER: Parents favorable; teachers mixed.

SUPPORTIVE DATA

Parent Questionnaire

Parents feel that their children can obtain as many basics as under the semester system; they also feel that the number of English and math courses required is adequate and that the skills received in these courses are also adequate. The majority also do not view the new curriculum as having too many electives, although about a fourth of the spring responses indicated that there were too many.

Teacher Interviews

The majority opinion among teachers is that there is adequate sequencing of courses under the new curriculum. Approximately one-half feel that more specific courses need to be required, with many suggestions for what these should be. Even though teachers, in general, viewed the new curriculum as having more advantages than disadvantages, there were certain important drawbacks. Operating under the quarter system required much more time outside of class for 75% of teachers interviewed: this was up from 66% in the fall. The activities consuming the most extra time were multiple preparations, establishing new courses and creating and obtaining materials. Inservice needs relating to the new curriculum were also seen as changed by the quarter system; specific changes were a need for inservice by subareas and courses taught (mentioned by about one-third of the interviewees), and more time at beginning and end of quarters for preparing for new courses to be taught (mentioned by 17% of teachers).
29d. What is the attitude of parents and teachers toward year-round schooling?

**ANSWER:** In favor in principal; clinging to "summer off" pattern in preference.

**SUPPORTIVE DATA**

**Parent Questionnaire**

Eighty-four percent (84%) of parents returning questionnaires in the fall and 86% in the spring wanted their children to attend school the three quarters they do now.

**Teacher Interviews**

Fifty-nine percent in fall and 64% in spring were in favor of year-round schooling; on the other hand, 78% in fall and 73% in spring said they would only want to teach for three of the four quarters. Of the remainder, 13% in fall and 18% in spring would prefer to teach all four quarters. Of those teachers opting for three quarters teaching, 53% initially, falling to 40% during the third quarter, would prefer to have the summer quarter off. A large group (from 13% initially to 29%) would have no preference as to when they were off or were undecided. Seventeen percent expressed a desire for a rotation system for when teachers were off each year.

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**Figure IV-35:** Teacher preference for teaching different quarters. Fall and spring responses to the question "Under year-round schooling, which quarter would you want off?" Number of teachers indicating various alternatives. Fall numbers based on 77 teachers; spring based on 70 teachers.
29e. What is the attitude of teachers toward other quarter system matters?

**ANSWER:** Scheduling, advising and registration are seen as problem areas.

**SUPPORTIVE DATA**

**Teacher Interviews**

Scheduling and advising were seen as major disadvantages of the quarter system by teachers throughout the year. There was, however, a noticeable change in the frequency of times this was mentioned; in the fall almost half of the teachers listed this as a major disadvantage, while in the spring only about a quarter did so. The same pattern is seen with the complaint of registration problems—the fall saw one-third of the interviewees citing this as a major disadvantage, while in the spring this fell to approximately one quarter. These trends probably are reflective of improvements made at the school level in the registration and scheduling process during the year. Registration was still seen as an area needing improvement by one-quarter of the spring teachers and scheduling/advising as a continuing problem by about 40% of those interviewed.
30a. Did parents get adequate communication from the schools regarding the existence of the quarter system?

**ANSWER:** No for fall; somewhat better in spring.

**SUPPORTIVE DATA:**

**Parent Questionnaire**

Although 96% of parents in the fall knew that the schools were operating on a quarter system, only 24% said they received the majority of their information about it from the schools themselves and only 45% said they had received enough information about the quarter system. By the spring, this communication gap had narrowed considerably with a full 100% being aware that the schools were on a quarter system and 66% saying they had received enough information on the quarter system. The percent of parents receiving most of their information from the schools had fallen to 18% in the spring, with the majority (62%) obtaining most information from their child which is only indirectly from the schools themselves.

30b. Did parents get adequate communication from the schools regarding the progress of the quarter system implementation?

**ANSWER:** Parents had more information about the quarter system in the spring than in the fall.

**SUPPORTIVE DATA:**

**Parent Questionnaire**

Parents indicated they had more information in the spring than in the fall; 45% in fall to 66% in spring said they had received enough information on the quarter system. Also fully 100% of parents responding in the spring were aware of the implementation of the quarter system in AISD.

30c. Do parents get adequate communication from the schools regarding the courses available and their characteristics?

**ANSWER:** Probably no.

**SUPPORTIVE DATA:**
Parent Questionnaire

Although parents indicated that they had more information in spring on the quarter system in general, there was a small reversal in the responses about information on the new courses available. The percent of parents saying both don't know and "not enough information" rose slightly while those indicating they had received enough information fell slightly. When asked about courses in specific content areas, many parents indicated they did not know if enough were offered or required. In math, this was 18% in spring and in English, 19%; in both cases these figures were similar to the fall. Similarly, 48% indicated they did not know about the course fairs where such information on courses could have been obtained. When asked about whether or not their child was able to take the courses he/she wanted, parents seemed more informed. In the spring 85% said they felt their child got his/her choices and 83% said transportation to another school that offered certain courses was no problem. It appears that parents have a generalized knowledge of whether their student is able to obtain their course choices; they feel, however, that they lack specific information on new curriculum courses and methods of obtaining information.

30d. Do parents get adequate communication from the schools regarding their own children's progress?

ANSWER: No.

SUPPORTIVE DATA:

Parent Questionnaire

With both administrations of the parent questionnaire, responses indicated a feeling that they are not told enough about their child's progress in school. In the spring, over half of the respondents said that they were not told enough about how their high school student was doing in school. In addition, when asked whether their child's skills in math and language arts were adequate, 33% in the fall and 19% in the spring said they did not know. The change from fall to spring does suggest that some improvements have been made in this area, however.
Figure IV-36: PARENT PERCEPTIONS OF COMMUNICATION FROM THE SCHOOL. Percent of parents giving various responses in the fall and the spring to the question of whether communication from the schools was adequate in the areas listed.
31. From what sources do parents obtain most of their information regarding the quarter system and the high schools?

ANSWER: Probably from their children; not from the schools.

SUPPORTIVE DATA:

Parent Questionnaire

Parents received the majority of their quarter system information from their children, especially between the fall and spring administrations of the questionnaire. The next most frequent source was the school, but this fell from a response of 24% in fall to 18% in spring. A majority also feels that they are not told enough about how their child is doing in school. Parents knew very little about the course fairs (48% knew nothing about them). Most parents (62%), however, feel that their children do receive enough information at school for deciding on courses; they see the primary source of student information on courses as being the course guides.

![Bar chart showing sources of parents' information](image)

Figure IV-37: SOURCES OF PARENTS' INFORMATION, FALL. Percent of parents giving each alternative to a question about where they received the most information about the quarter system. Fourteen percent of parents did not respond to this item in the fall.
<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>My child</td>
<td>62%</td>
</tr>
<tr>
<td>The school</td>
<td>18%</td>
</tr>
<tr>
<td>The newspaper</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

Figure IV-38: SOURCES OF PARENTS' INFORMATION, SPRING. Percent of parents giving each alternative to a question about where they received the most information about the quarter system. Fourteen percent of parents did not respond to this item in the spring.
B. MISCELLANEOUS FINDINGS

During the course of the quarter system evaluation a number of interesting items appeared which were not included in the evaluation questions of this final report. However, we felt some mention should be made of this information, especially of the items which concerned the feelings and opinions of parents, students, teachers or others who were affected by the change to the quarter system.

Parent Information

In reporting parent information relating to decision questions, every effort was made in this final report to be objective and to report all opinions. However, decisions must usually be made based on majority opinions, even though some parents expressed feelings that were unique to them and to their children. Some parents expressed concern over the quarter system final exam schedule. They felt that having only two days of finals placed too much pressure on their children. One parent wrote to AISD stating that her daughter had three difficult courses and that all three finals for these courses fell on the same day.

While more parents responding to questionnaires (49% in spring) felt that discipline in Austin's schools was handled adequately, there remained a significant number (42% in spring) of parents who were truly upset over what they felt to be a lack of discipline in the schools. Some even stated that their children were afraid to ride buses or to visit school restrooms.

Some parents were upset because they feel their children are simply not receiving the guidance they need with personal problems. These personal problems ranged from lack of advice about various colleges and college requirements to emotional difficulties which caused students to relate poorly to teachers and fellow students.

Other parents seemed to have bitter feelings about counselors because they felt counselors did not make themselves available to students. Others were sympathetic stating that they felt counselors were overburdened with work.

While the majority of the parents surveyed by the quarter system evaluation commented either positively or negatively on whether their children were receiving adequate training, a surprisingly large number (in some cases almost one quarter of those surveyed) did not know how their children were doing in school or if children were being offered the proper courses.
The majority of parents were satisfied with most aspects of the quarter system. One group of parents, however, cited problems which should be of particular concern to the district such as lack of time in the shorter terms for students to make up work lost because of illness. Lack of continuity in specific skills courses is also a problem for some students under the quarter system. For example, in English or math courses students are building each new term on skills acquired the previous term. Frequent teacher changes causes confusion for students who feel they only just adjust to the teaching style of one teacher when they must move on to another teacher. Parents are not alone in their concern over this problem—some teachers say valuable teaching time is lost because they must spend time at the beginning of each 12-week term evaluating the individual needs and the skills level of each new student.

**Student Information**

In a questionnaire sent to former students of AISD, many graduates stated they felt graduation requirements should be more comprehensive. Course enrollment patterns may shed light on whether students are required to take a sufficient number of courses to fulfill their own post graduation plans and whether graduation requirements should be more stringent. The course enrollment data indicate that most course requests are met by the schools and it is presumed that students, in order to graduate, do request and take all required courses. Yet course enrollment data indicate that there are a number of subject areas usually considered important, especially for college-bound students, which have fairly low enrollments. This may be an indication that high schools are offering but not requiring students to take additional courses which would be an added asset in most post graduation endeavors. Student enrollment in various subject areas which have fairly low enrollments in proportion to possible post-graduation value included foreign language, science and math. Both the college-bound and non-college-bound student were found to be taking an equivalent amount of language arts courses indicating that both are probably simply complying with graduation requirements. It is not known whether language arts graduation requirements are as stringent as they should be; however, there are some indications that they may not be, such as complaints from parents that students are not leaving high school with the level of language arts skills they should possess and consistently low scores on language arts sections of the STEP test. Also, course enrollment data revealed that female students are taking fewer courses usually considered of value, especially to the college-bound student, such as advanced math, language and composition, than male students—indicating the possibility that female AISD graduates may be entering college less well prepared than male graduates.

Two additional tables appear below (Tables IV-6 and IV-7) which are included herein because they contain interesting information gleaned from course enrollment patterns.
<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>QUARTER</th>
<th>NUMBER OF COURSES</th>
<th>NUMBER OF SECTIONS</th>
<th>AVERAGE NUMBER OF SECTIONS/ COURSE</th>
<th>RANGE OF COURSE SIZE</th>
<th>NUMBER OF COURSES BELOW 16</th>
<th>NUMBER OF COURSES 16-20</th>
<th>NUMBER OF COURSES ABOVE 29</th>
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* The only data collected for second quarter was total number of different courses offered.
As we noted in the introduction, the issue of regionalism for educational R/D&I is a live issue—at least for NIE. It is important, then, to understand the educational R/D&I context for regionalism. In particular it is important to understand the balance of forces in this context which on the one hand push for, facilitate or would be amenable to regionalism and which on the other hand would push against, constrain or would not be amenable to regionalism. While it is not possible, within the scope of this analysis, to provide the kind of detailed research and analysis which should undergird policy decisions on specific regional issues, it is possible to provide an overview of the forces which impact regionalism in the education R/D&I context.

In this chapter we look at various aspects of the education R/D&I context at the national/federal, regional and state/local levels as these potentially affect the issue of regionalism. We will then briefly consider (from more of an overview perspective) some of the major characteristics and dynamics of the overall educational R/D&I context. In a later chapter (Chapter Six) we will further examine the educational R/D&I context in terms of the intersection between the issue of regionalism with the various R/D&I functions.

Obviously, the discussion here cannot be comprehensive or extended. A volume-length discussion of the educational R/D&I context (from which this discussion is drawn) is found in Spivak and Radnor (1977)*.

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*A chapter-length summary of this volume is provided in Chapter Three of Radnor, Spivak and Hofler (1977).
Table IV-7: COURSES OFFERED ON THE SURVEY FORM FOR 1976-77. Number of courses offered on the course survey form by each school, percent of total courses offered, and ADA for each school. (There are a total of 698 courses available in the course description).

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ADA</th>
<th>NUMBER OF COURSES OFFERED</th>
<th>PERCENT OF COURSES OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>2168</td>
<td>588</td>
<td>84%</td>
</tr>
<tr>
<td>Austin</td>
<td>1518</td>
<td>514</td>
<td>74%</td>
</tr>
<tr>
<td>Crockett</td>
<td>2635</td>
<td>448</td>
<td>64%</td>
</tr>
<tr>
<td>LBJ</td>
<td>1453</td>
<td>412</td>
<td>59%</td>
</tr>
<tr>
<td>Johnston</td>
<td>1201</td>
<td>551</td>
<td>79%</td>
</tr>
<tr>
<td>Lanier</td>
<td>1920</td>
<td>431</td>
<td>62%</td>
</tr>
<tr>
<td>McCallum</td>
<td>1171</td>
<td>512</td>
<td>73%</td>
</tr>
<tr>
<td>Reagan</td>
<td>1433</td>
<td>424</td>
<td>61%</td>
</tr>
<tr>
<td>Travis</td>
<td>1565</td>
<td>460</td>
<td>66%</td>
</tr>
</tbody>
</table>
ORE was also curious to know what student perceptions were about the number of courses taken in various subject areas. Students were asked if they felt they were required to take too many, the right number or too few courses in the subjects of English, social studies, science, math and P.E. Responses are presented in Table IV-8.

### Table IV-8: SECTION OF STUDENT QUESTIONNAIRE ASKING STUDENT OPINIONS ON ADEQUACY OF COURSE OFFERINGS.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Fall</th>
<th>Spring</th>
<th>% of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>English</td>
<td>554,989</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>A. Too many</td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>B. Just right</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Social Studies</td>
<td>553,990</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>A. Too many</td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>B. Just right</td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Science</td>
<td>551,981</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>A. Too many</td>
<td></td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>B. Just right</td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Math</td>
<td>553,987</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>A. Too many</td>
<td></td>
<td></td>
<td>72</td>
</tr>
<tr>
<td>B. Just right</td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>P.E.</td>
<td>553,981</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>A. Too many</td>
<td></td>
<td></td>
<td>67</td>
</tr>
<tr>
<td>B. Just right</td>
<td></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

During the course of the evaluation classrooms were visited and this resulted in a number of informal discussions with students. Students sometimes expressed feelings in these discussions which differed from the majority opinions expressed on the questionnaires. Like the parents who are dissatisfied, these students represent a smaller group, but they mention problems of which AISD should be aware. Some quite vocally did not like the quarter system; others were indifferent to the school calendar used. Some also commented that they saw little point to having a quarter system which did not offer four full quarters of instruction.
Other comments made by these students were that they didn't really like changing teachers so often or that they had had many problems getting registered for the courses they wanted to take.

Other findings about students not reported earlier follow and are shown in the figures and tables below.

**Average Daily Membership (ADM) and Average Daily Attendance (ADA):**

Figure IV-39 shows the daily membership of AISD Grades 9 through 12 for the last six years. Membership as a whole has risen over the last six years, reflecting the growth of Austin and AISD. Within any one year, membership drops consistently from the first six week period to the last; there is a gradual decrease through the year that is quite consistent. Total AISD high school ADA, and percent of attendance may be seen in Table IV-9.

![Graph showing membership from 1970 to 1976 by six week periods.](image-url)
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<thead>
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<tr>
<td></td>
<td>ADA</td>
<td>ADM</td>
<td>ADA</td>
<td>ADM</td>
<td>ADA</td>
<td>ADM</td>
<td>ADA</td>
<td>ADM</td>
<td>ADA</td>
<td>ADM</td>
<td>ADA</td>
<td>ADM</td>
</tr>
<tr>
<td></td>
<td>13665</td>
<td>14701</td>
<td>93</td>
<td>13702</td>
<td>14853</td>
<td>92</td>
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<td>15144</td>
<td>93</td>
<td>15628</td>
<td>17043</td>
<td>92</td>
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<tr>
<td></td>
<td>13324</td>
<td>14420</td>
<td>92</td>
<td>13260</td>
<td>14628</td>
<td>91</td>
<td>13579</td>
<td>14866</td>
<td>91</td>
<td>14894</td>
<td>16734</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>12863</td>
<td>14143</td>
<td>91</td>
<td>12763</td>
<td>14344</td>
<td>89</td>
<td>12961</td>
<td>14614</td>
<td>89</td>
<td>14336</td>
<td>16435</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>12516</td>
<td>13827</td>
<td>91</td>
<td>12425</td>
<td>13970</td>
<td>89</td>
<td>12766</td>
<td>14199</td>
<td>90</td>
<td>13680</td>
<td>15919</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>12135</td>
<td>13614</td>
<td>89</td>
<td>12144</td>
<td>13661</td>
<td>89</td>
<td>12323</td>
<td>12978</td>
<td>88</td>
<td>13568</td>
<td>15579</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>12001</td>
<td>13381</td>
<td>90</td>
<td>11840</td>
<td>13470</td>
<td>88</td>
<td>12147</td>
<td>13773</td>
<td>88</td>
<td>13394</td>
<td>15362</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>12759</td>
<td>14048</td>
<td>91</td>
<td>12689</td>
<td>14259</td>
<td>89</td>
<td>12972</td>
<td>14517</td>
<td>89</td>
<td>14250</td>
<td>16298</td>
<td>87</td>
</tr>
</tbody>
</table>

**Note:** For years 1970-71, 1971-72, and 1972-73, two high schools included 10th, 11th, and 12th grades only.
II. THE EDUCATIONAL R&D CONTEXT AT THE REGIONAL LEVEL

At the regional level, the educational R/D&I context can be examined in terms of federal regionalism (which is discussed in Chapter Three), in terms of the regional educational R&D labs and in terms of other examples of educational regionalism. We shall discuss the last two aspects of regionalism in this chapter.

1. Regional Educational R&D Labs

In the mid-1960s, federal initiative and funding led to the creation of a number of laboratories and centers. While the distinction between the labs and centers has varied over time and between particular institutions, the labs were essentially to be more regionally focused than the centers. Thus, we will refer to them here as the "regional" labs, though this designation is to no little extent of varying (and even questionable) validity among the labs. One NIE document describes the history of the labs as follows:* 

A. Origin of Regional Educational Laboratories

In 1966, based on authority contained in the Cooperative Research Act as amended by Title IV of the Elementary and Secondary Education Act of 1965 (P. L. 89-10), the

* "Regional Program Discussion", internal NIE discussion document; source and date within NIE unattributed; estimated approximate date: early 1976. While this statement of the history of the labs is in agreement with our understanding, the reader should note that the source document is a discussion document, is not intended to be a complete or final statement, and does not represent an official NIE position. Indeed, a current NIE panel (as of December, 1977), the Panel for Review of Lab and Center Operations, is examining in more depth the story of the "regional" labs.
This drop in membership is costly to the district, which hires teachers to provide for all students enrolled at the beginning of the year, and still has those teachers when the enrollment has decreased by approximately 1500 students. The quarter system may either intensify the problem by allowing more early graduations, or relieve it by having fewer dropouts because of the more flexible curriculum. Data for the 1975-1976 school year will be compared in future evaluations to data from the past to examine what effect, if any, the quarter system does have.

The ADM data will also provide a basis for examining various other records (such as the number of drop-outs and the number of students graduating) which are influenced by the size of enrollment.

Figure IV-40 provides a graph by six week periods of the average size of an AISD high school. The size rose for three years, as Anderson closed and AISD grew, then fell for two years as the new Anderson and LBJ were opened. The movement of the ninth grades to the high schools also explains some of the increase; however, the average size is now only slightly larger than when the ninth grades were first shifted. While the quarter system should have little effect on average school size as long as it is not a year-round program, an increase in school size could provide a strong reason for attempting a shift to year-round schooling. It might also provide an explanation for trends in other data which might be affected by school size. In the 1975-76 school year, average sizes again appear to be rising.
Figure IV-41 shows the ADA for six years as a percent of ADM. Over the six years these data also show a consistent downward trend of three to five percentage points from the beginning of the year to the end. As they are already expressed as a percent of ADM, this means that fewer students are still enrolled at the end of the year, and of those, fewer yet are coming to school. Thus the district, which receives state monies on the basis of ADA, is being penalized still further. Under the semester system ADA showed some tendency to level off or increase at the beginning of each semester. The first year of the quarter system showed a decline at the beginning of the second quarter, but a rise at the beginning of the third.

The faster pace of twelve week terms and the greater variety of courses might have contributed to an increase in ADA for the quarter system, third quarter. On the other hand, with many courses to choose from, the likelihood of misplacement was increased; this may have had a detrimental effect on attendance. Trends of ADA will continue to be examined in the future for further evidence of any of these patterns. Several years will be required to establish whether new trends are in fact occurring, since ADA in any one year can be unduly influenced by weather or illness. ADA also shows a slight drop from year to year; although this drop is not consistent, it suggests that other factors are affecting ADA. This will also be considered when interpreting future ADA data.
Drop-Out Data: Figure IV-42 shows the drop-out rate in AISD for the last three years as a percent of ADM in ninth through twelfth grades. The rate is approximately 7.5%, with some fluctuation. There is no suggestion of an upward or downward trend for the three years for which the data are available (previous to 1972-1973 drop-out data were collected in another form). It is hoped that the quarter system, by offering a greater variety of courses more tailored to individuals' needs, will encourage students to remain in school longer. The change in graduation requirements and the requirements of a minimum math and reading competency may also have an affect on the drop-out rate. As the drop-outs contribute to the decline in enrollment, and therefore in state financing received, it is of considerable importance to see what effect the quarter system may have on this variable. Drop-out data for 1975-76 will be available later in 1976; at that time these data will be examined.

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**Figure IV-42:** PERCENT DROPOUTS OF AISD HIGH SCHOOL MEMBERSHIP OVER A THREE YEAR PERIOD. Defined as those students fourteen years of age or older who left school prior to graduation and, to the best of the District's knowledge, will not enroll in another school.
Discipline Data: Discipline data have been collected for several years; however, the procedure became well standardized only during the 1974-1975 school year. Therefore only that year's data are used. During 1974-1975 there were a total of 1026 discipline incidents reported to the Department of Student Development during the fall semester and a total of 852 incidents reported during the spring semester. Discipline incidents are here considered to be long and short term suspensions and corporal punishment. The total percent of students disciplined during the 1974-1975 school year was 7.2%.

The quarter system may have had a variety of effects on discipline. (Future evaluations of the quarter system will aid in determining whether the quarter system does affect discipline). The shorter terms make it harder to catch up after a short term suspension, but reduce the wait to re-enter school after a long-term suspension. The shorter courses may hold student interest better, presumably reducing discipline problems; on the other hand, the difficulty in choosing the appropriate courses is intensified by the variety of courses available. This results in student misplacement and in some students dropping courses but being unable to replace them with others. Each of these factors may have an impact on discipline. In addition, the data from 1974-1975 show a drop from fall to spring. If this drop reflects the change of semesters, it is possible that the three quarters will show a somewhat different pattern. The data available will be examined to see whether any of these possible effects are in fact occurring. The 1975-76 data will be available later.

College Entrance Examination Board: The CEEB administers the Scholastic Aptitude Test (SAT) to students requesting it at various times during the school year. Although this test is administered to a self-selected sample, it is nonetheless interesting to examine the results, particularly in view of the nationwide finding that SAT scores have been declining. SAT scores for the district as a whole have been available since the 1972-1973 school year.

The figure on the following page (Figure IV-43) shows the AISD and national average on the verbal and math sections of the SAT. AISD students score higher than the national average in both verbal and math aptitude. The average math score is consistently higher than the verbal, a pattern which matches the national trends. AISD students also reflect the downward trend in verbal aptitude which is typical of scores nationwide. Their math decline, however, has been minimal. Figure IV-44 shows the distribution of verbal scores for the last three years. Over the last three years there has been a small but consistent increase in the number of students scoring in the lowest categories—below 400. Contrary to national trends, which have found a decrease in the number of students scoring very high, AISD has had about the same percentage
scoring in the top three groups (above 65%) each year. Thus the lower average seems to result from more students at the low end, rather than fewer at the high end. This is not a result of more minority group students taking the test, however. The percent of non-Anglo students taking the SAT was 11% in 1972-73, 13% in 1973-74 and 12% in 1974-75. These data indicate no clear trend. The 1975-76 SAT data will be available in August 1976; they will be analysed at that time.

Figure IV-43: S.A.T. (MEAN) SCORES. AISD compared to nationwide for 1972-1975; data acquired from CEEB.
Figure IV-44: AISD FREQUENCY DISTRIBUTION (BY PERCENTAGE) OF S.A.T. VERBAL SCORES FOR 1972-75. Data acquired from CEEB.

The distribution for math is shown in Figure IV-45. There is no consistent pattern of change in this distribution across years—which might be expected from the minimal change in district average.

Figure IV-45: AISD FREQUENCY DISTRIBUTION (BY PERCENTAGE) OF S.A.T. MATHEMATICS SCORES FOR 1972-75. Data acquired from CEEB.
A number of theories have been suggested for the nationwide drop in SAT scores. These range from the effect of television to the change in school curriculum. Some of the possible theories assume that the difference in scores reflects a real nationwide drop in the abilities measured by the SAT and look at factors which might influence this achievement. Others concentrate on the possible reasons having to do with students tested. The SAT is a self-selecting sample. The only students taking it are those who request it. Thus it could be affected by early acceptance policies, which lead to more students taking the test only in 11th grade, by the increased number of minority group students taking the test, or by a number of other factors. The full reasons are not known, and probably will not be for some time.

Because the SAT scores are from a self-selected sample, it was felt that some information about the sample would be useful. Figure IV-46 shows the percent of AISD high school students who were included in the SAT report each year. The drop in scores may be partly explained by a larger number of students taking the test. The percent of seniors taking the test has risen slightly over the last three years.

Figure IV-46: PERCENT OF AISD TWELFTH GRADERS TAKING THE S.A.T. DURING 1972-75. Data acquired from CEEB.
CEEB reports data on parental income of the students taking the SAT. These data are from student report, and may therefore not be completely accurate; however, whatever inaccuracies exist probably do not change greatly from year to year. Average reported income for the AISD students taking the SAT for the last three years is shown in Figure IV-47. Income reported has risen steadily. This rise no doubt reflects primarily inflation; however, there is again no suggestion that SAT scores might have dropped because the sample of students requesting the test has changed.

![Figure IV-47. AVERAGE PARENTAL INCOME REPORTED BY STUDENTS TAKING THE S.A.T. FOR THE LAST THREE YEARS. Data acquired from CEEB.]

Although SAT scores are indicative of the performance of only a small segment of AISD's students, they are a barometer of what is happening to students who are interested in college. If the quarter system has resulted in a watered down curriculum, as some people feel, this will...
eventually show up in such places as CEEB scores. If, on the other hand, it provides an opportunity for enrichment and indepth study, this also should eventually affect the SAT scores. Therefore the quarter system evaluation will continue to examine SAT scores, along with such indications of other influences such as those presented above.

Several kinds of data have been gathered in AISD in the past which will be of use in evaluating the effects of the quarter system. These data have been presented, and some indication of the trends which exist and the possible effect of the quarter system on these trends has been made. As data from the 1975-1976 school year and later years become available, these variables will be examined again.

Teacher Information

There were two questions asked of teachers during interviews which are not included in the evaluation questions of this document: "How do you feel about the staff development activities of the district" and "Do you feel the district did enough preparation and planning before beginning the quarter system." In response to the former, teacher opinion was about evenly divided on whether district activities were useful. About one-half said they were satisfactory to good and about one-half said they were a waste of time. In response to the latter question, more teachers questioned in the fall felt enough planning had been done (54%) than in the spring (45%).

The teacher interviews revealed that by and large, teachers are satisfied with the methods of assigning courses in their schools. Course assignments were made based on teacher preference or qualifications or on department chairperson or principal decision which considered teacher preferences. Some teachers said they were certified or hired only for the particular areas they are teaching. A few teachers said assignments were made solely by principals. There is an interesting inconsistency here in that all nine principals said teaching assignments were made by department chairpersons working with teachers in each department.

Teacher interviews also revealed that some teachers felt there is a need for additional personnel, especially clerical, in the schools. The majority teacher opinion was described in Section IVA, Evaluation Questions. It should be mentioned, however, that other teachers felt a need for additional teachers (13 respondents), administrators (3 respondents) and counselors (6 respondents).
School Support Personnel Information

Mention should be made in this miscellaneous section regarding those school support personnel who were not necessarily included in the formal attitudinal studies done by the quarter system evaluation. Conversations with office personnel revealed that these people also have real concerns about the quarter system and yet have had no forum for expressing their needs and attitudes. Due to the many added responsibilities entailed in having students plan schedules and register for three terms a year rather than two, all office personnel such as attendance clerks, registrars, secretaries, etc. are called upon to adjust to and handle many additional duties.

Principal Information

Principals, of all the people surveyed by the quarter system evaluation, have probably been in the best position to judge the efficacy and overall response to the quarter system. In general, principals have demonstrated a very positive attitude, although they have been perceptive in pointing out some of the continuing problems of quarter system implementation, such as scheduling and registration problems and the amount of time required of administrators and other personnel. Principals have also been complimentary to students and personnel within their schools. Some comments made by principals were that teachers had been enthusiastic and have offered a great deal of input; that problems of adjustment to the quarter system have been minimized by advance planning and effort; and that students have generally settled down to work faster than in the past.

Principals also offered constructive criticisms which should be of great value to the district in the future. For the quarter system evaluation principals and their staffs have been extremely helpful and should be commended by ORE for their help and cooperativeness in our evaluation effort.
GLOSSARY

Affective behavior - Those learning values dealing primarily with motivation, feelings, attitudes, interests, appreciations and values.

CIPO - An evaluation model designed by the AISD Office of Research and Evaluation. Its purpose is to provide procedures for evaluating the special programs of the district through use of inputs, processes, and outcomes. The evaluation is aimed at providing information to decision makers.

Cognitive behavior - The recall or recognition of knowledge and the development of intellectual abilities and skills.

Conclusion - A decision, judgement, or influence arrived at by reasoning or deductions from data.

Criterion - A standard.

Data - Bits of information.

Decision making - Making choices among alternatives.

Decision Questions - A formulation of decision alternatives or explorations for decision alternatives in interrogative terms which can serve as formats for the later presentation of decision recommendations based on evaluation information.

Evaluation - The process of determining the value or effectiveness of something for the purpose of making decisions.

Evaluation, Context - Evaluating the planning of the program in relation to the environment in which it will or did operate.

Evaluation criteria - A statement of acceptable standards to be used in the evaluation process.

Evaluation Design - A predetermined strategy for judging the effects of a program.

Evaluation Input - Analysis of the resources available to a program.

Evaluation Process - Judging the effectiveness of the activities and procedures of a program.
Measurement - Determining differences, represented by numbers, between items.

Median - The middle score or number in a distribution.

Mode - The score that occurs most frequently in a distribution.

Model - An example suitable for imitation or reproduction.

Norm - The average score or typical performance for a specified group.

Norm group - It consists of those persons selected to be representative of specified populations, such as third graders in the United States or applicants for specified types of jobs.

Outcomes - The term refers to any student behavior whether affective, cognitive, or psychomotor, whether covert or overt, intended or unintended.

Percentile - A score below which a given percentage of scores lie.

Priority - What activity or item to which resources are allocated in preference to others.

Quartile - Quarters; the 25, 50, and 75 percentile.

Range - The scale distance between the highest and the lowest score.

Rank order (rating) - Listing scores or other items in order from the highest to the lowest or lowest to highest.

Reliability - The extent to which a test gives the same results each time it is given.

Sample - A systematic selection of a portion of the total group.

Sample, random - One in which each element of the sample has an equal and independent chance of being selected.

Sample, representative - One that has as nearly as possible the same characteristics as the original population.

Sequential Tests of Educational Progress - (STEP) A battery of achievement tests designed to measure student skills in the academic areas of Reading, English Expression, Mechanics of Writing, Mathematics Computation and Concepts, Social Studies and Science.
Standard - An acceptable level of performance.

Stanines - A unit of a standard score scale that divides the norm population into nine groups.

Test - A general term used to designate any kind of device or procedure for measuring ability, achievement, interest, and other traits.

Test, achievement - A test of how well a student can perform a given task.

Test, norm referenced - A test which compares a student's achievement with a population of similar students.

Test, standardized - A test that is administered and scored with uniformity of procedure.

Validity - The extent to which a test or other measuring instrument actually measures what was intended to be measured.
and fragmented both within and across the three parallel subsystems. Indeed, it is valid to speak of an educational R/D&I "system" only from an analytical rather than an operational perspective. Within educational R/D&I, there is a relatively low degree of functional specialization and a high degree of functional clustering.*

4. **Shifting Goals and Priorities**

Except perhaps at the level of very broad goal statements, goals and priorities for educational R/D&I have been characterized by marked discontinuity, shifting goals and priorities, and policies and strategies that have not been entirely consistent with each other or with the R/D&I system's goals.

5. **Personnel Base Weaknesses**

While the specialized educational R/D&I personnel base has undergone a significant amount of expansion over the past decade or so, the literature suggests that it is inadequate in sheer numbers (Clark and Hopkins 1969; Hopkins 1971; NIE 1976); is disproportionately concentrated in research, development and evaluation research (Hopkins 1971; NIE 1976); and lacks an adequate supply of trained or experienced R/D&I managers (Schalock 1972). The low prestige and funding instability of educational R/D&I makes it difficult to attract and retain R/D&I personnel.

6. **Funding**

Funding for educational R/D&I is relatively low compared to other sectors such as health, industry, defense, etc.; has tended to be scattered over a large number of projects; has been rather unstable; and is provided primarily by the federal government.

*That is, the extent to which R/D&I personnel and institutions specialize or not in one of the R/D&I functions.*
Other characteristics of the educational R/D&I context could, of course, be noted. The points to be noted here, however, are (1) that the issue of regionalism cannot be considered apart from the larger educational R/D&I context; and (2) these characteristics are particularly critical to any consideration of educational R/D&I policy issue.
CHAPTER THREE

REGIONALISM WITHIN THE FEDERAL CONTEXT

44
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### I. REGIONALISM IN THE FEDERAL GOVERNMENT: THE HISTORICAL DEVELOPMENT OF A PATCHWORK QUILT

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### II. STANDARD REGIONS AND FEDERAL REGIONAL COUNCILS: DEVELOPING UNIFORMITY IN A PATCHWORK QUILT

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### III. BETWEEN STATE AND NATION: A STUDY OF REGIONAL ORGANIZATIONS BY THE BROOKINGS INSTITUTION

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Since NIE is a federal agency, it is important (for the purposes of this analysis) to have at least a basic understanding of regionalism within the federal context. In this chapter, we will provide an overview of: (1) the developmental history of regionalism within the federal context; (2) the nature and history of the ten standard federal regions and the Federal Regional Councils; and (3) a critical study by the Brookings Institution (Derthick 1974). We will then review the implications that may be drawn from this overview.

*To provide the background data for this overview, interviews were help (May - June and November - December, 1977) with administrators in a number of federal agencies having (or being concerned with) various regional approaches. Additionally, a number of relevant federal and other documents were reviewed. Our purpose was exploratory -- to obtain a basic overview of regionalism in the federal context.*
I. REGIONALISM IN THE FEDERAL GOVERNMENT: THE HISTORICAL DEVELOPMENT OF A PATCHWORK QUILT

In general the regional approaches of various federal agencies have developed independently of each other (even within a single department), without a significant degree of planning (or sometimes even department guidance or control), as a result of a variety of considerations. As each major federal agency (and even units within these agencies) tended to develop their own regional "patterns" independently of each other, a multiplicity of federal "regions" developed over time into a "patchwork quilt" regional maze. The complexity of the federal regional maze may be seen from a number of perspectives.

It is probably safe to say that federal "regionalism" initially had its roots in the difficulties of communicating over long distances. Thus, when day-to-day control over operations was important, it would make sense to use some form of regional administration, regardless of whether the term "regional" was used, formal planning was done, or regional conceptualization was involved. An illustration could be army command posts in "regions" of the west. Over time, other considerations for a regional approach came into play; for example: simple formalization of existing organizational realities which had developed over time; program administration issues such as being "closer" to the actual places of program administration and impact; decentralization emphases, whether for organizational reasons (such as delegation/distribution of authority, effectiveness of field supervision) or for reasons of philosophy of government (as in the New Federalism of the Nixon administration); etc.

In a similar vein, regional boundaries have historically been established for a variety of reasons and in a variety of patterns. Illustrative of the variety of rationales for specific regional
boundaries would be: distribution of workload; distribution of population; distribution and a location of specific program or service recipients; perceived "natural" geographic, economic, cultural or political divisions; state boundaries; limitations, both upper and lower, on the appropriate size of a field organization; availability of communication systems; etc. As a result, the regions of federal agencies have historically been highly inconsistent in terms of area size, number of regions in an agency, and location of boundaries. Location of federal regional offices shows a similar variety and inconsistency across federal agencies, reflecting a pattern of "it just developed this way."

Further differences have developed across federal agencies in organization terms. A federal "regional" organization may be a "geographic desk" in Washington, D.C.; groups of technical services or support centers located around the country; a level of supervision; or some combination of these or other types of organizational structures. The role of the top regional official may vary from being a representative of the headquarters office, to being a coordinator of an agency's regional programs, to having line authority over an agency's programs in a region.

That the above considerations have led regionalism in the federal government to resemble a patchwork quilt can reasonably, and quite correctly, be inferred. To illustrate the almost nightmarish proportions of the federal regional maze, we may note the following:

- To obtain the support and cooperation of various federal agencies for a single program in the 1960s, the city of Louisville might well have had to work with federal regional officials located in Atlanta, Charlottesville, Chicago, Philadelphia and Washington, D.C.

- By the late 1960s, HEW had 39 separate regional structures.
As of May 1, 1976*, the number of separate regional structures within a single federal department ranged from two to twenty-seven -- while the number of regions within any given regional structure ranged from two to thirty-seven.

In some instances, some agencies within a single federal department will have regional structures, while others will not.

*Source: Attachments #1 and 2, "Study Report: Federal Regional Boundaries," OMB, July 1, 1971. (Attachments #1 and 2 were added to this report in 1976).
II. STANDARD REGIONS AND FEDERAL REGIONAL COUNCILS:  
DEVELOPING UNIFORMITY IN A PATCHWORK QUILT

Given the multiplicity and complexity of federal regionalism -- and given the tendency of new administrations to put their own "stamp" on federal organization through "reorganization" -- it would be surprising not to find that various suggestions have been made over time to bring some uniformity across the federal regions. Indeed, according to an OMB study report (OMB:1971:1):

The standardization of many Federal regions has been a recognized need since the time of the Truman Administration and probably earlier. Periodically, for more than 20 years, proposals have been surfaced, massaged and buried because of the foreseeable opposition from various quarters that was considered to be too powerful to counter successfully. The bases for specific proposals have varied. Some proposals were based on uniformity for Civil Defense, some for emergency planning, some for improved administrative service, and some for improved coordination. But all had a common objective of uniformity among some related components of the Federal government.

1. The 1960's: A Context for Standardization of Federal Regionalism

In the period of the mid 1960s through the early 1970s, actions were taken to (1) standardize the number and boundaries of federal regions; (2) "co-locate" federal regional offices; and (3) establish Federal Regional Councils (FRC). These actions were most notably taken in the Nixon administration, but the history of such actions encompasses the 1960s before the Nixon administration.

Specifically, the concept of federal regional councils was pilot tested in 1968 in four regions centered around Chicago, New York,
Atlanta and Philadelphia. Consideration had also been given to standardization of regional boundaries. On March 27, 1969, President Nixon announced an executive order for restructuring the federal government.* The restructuring centered around federal regionalism and specifically involved (1) creation of eight standard regions; (2) expansion of the Federal Regional Council concept from four to eight regions; (3) standardization of regional office locations. Less than two months later, on May 21, 1969, President Nixon announced the expansion of the number of standard federal regions from eight to ten.

It should be noted here that President Nixon's executive order on regional standardization initially applied to the five major social service grant agencies (HUD, HEW, DOL, OEO, and SBA). However, the President also requested that "all other federal agencies . . . take note of these instructions, and . . . any changes in their field organizations be made consistent with our ultimate goal: uniform boundaries and field office locations for all social and economic programs requiring interagency or intergovernmental coordination."

Subsequent actions were taken to strengthen and expand the regional standardization, for example, through the Federal Assistance Review Program, studies by OMB, etc. However, the impact of Watergate reduced administration attention to the restructuring program and, in effect, it halted in mid-air -- being neither taken to completion nor retracted. The Federal Regional Council concept is currently under study by the Carter administration.**

2. Causal Dynamics

In broad terms, the standardization efforts of the 1960s and 1970s


**Since early 1977, however, no official report had been issued by late 1977.
stemmed from two principal causes, one philosophical and the other more pragmatic or functional. Some observers would add a third causal factor, the political dimension.

One (the philosophical) causal dynamic centered around philosophy of federal government, specifically the "New Federalism" philosophy of the Nixon administration, with its emphasis on decentralization. President Nixon's press release statement (March 27, 1969) clearly emphasizes the decentralization theme of his executive order for restructuring government service systems. In this sense, regionalism per se provided a vehicle for decentralization -- with standardization of regions and Federal Regional Councils providing "rationality" and "coordination".

A second causal dynamic was more pragmatic and functional -- an "overload" in the federal administrative system. Specifically in the 1960s, the number (and level of funding) of federal social programs tended to be of a categorical nature. The result of the above was to increase dramatically the demands upon federal agency personnel in Washington to (a) manage and coordinate a multiplicity of inter- and intra-Departmental programs and (b) respond to a multiplicity of requests from state and local agencies. In a word, the large increase in categorical social grant programs overloaded the circuits of the "headquarters" management process. As one interviewee stated: "Federal personnel found themselves spending 90% of their time on the phone." Thus, while this causal dynamic was external to and preceded the Nixon administration, it provided a compatible context for his decentralization emphasis.

Political considerations also seem to have played a role. As already noted, President Nixon amended his original executive order within

*Terms used by President Nixon in his March 27, 1969 press release.
**This interpretation was suggested in several interviews.
less than two months to expand the number of regions from eight to ten -- or more specifically, to establish regions headquartered in Kansas City and Seattle. The speed of this change is generally attributed to "political flak" -- i.e., if there were to be regional headquarters, some congressional members wanted one in their own area. Some observers think that President Johnson did not act on regional standardization because he viewed the choice of regional headquarters locations as a political "hot-potato" (perhaps especially in his home state of Texas) -- but that President Nixon saw regional standardization as an available and highly visible means for early fulfillment of campaign promises.

3. Purposes

When the question is asked, "Why was there/should there be standardization of federal regionalism and Federal Regional Councils?", a multiplicity of answers are given. Perhaps the most often stated "purposes" are uniformity, coordination, and access -- but even these terms reflect a variety of more specific purposes. As was noted earlier, suggestions that federal regions be "uniform" had been made at least since the Truman administration -- but the focal purpose for such uniformity varied from Civil Defense to emergency planning, improved administrative service or improved coordination. Coordination has been used to refer to coordination within a single federal department, across some set of federal departments, across programs of different federal departments, between federal and local or state agencies, between federal field officials, or even between state and local agencies. "Coordination" has even been used to refer to consolidation of programs, to sharing of administrative services, and in general to "economy" and "efficiency". "Access" has been used to refer to access between regional officials in different Departments; to access between federal and state or local officials; or simply
to reduce the distances and number of locations involved in travel to federal program offices.

There is probably no single term (or even set of terms) that would adequately capture the multiplicity of purposes related to standardization of federal regionalism or to the establishment and functions of Federal Regional Councils. Nor does there need to be. Rather, it is more important to be aware that there may be such a multiplicity of purposes -- each of which would be differentially significant for different agencies and across different contexts.

We should further note that concepts of uniformity, coordination and access are essentially pragmatic, functional concepts -- which to a large extent quite correctly reflect the meaning of regionalism in the federal context. At the same time, we must note again that federal regionalism may in any given instance have other meanings -- as a reflection of a philosophy of government, of one's "theory" of organization, or of political realities and dynamics.

4. Realities of Regional Standardization

The efforts to standardize federal regionalism indicate, and provide insights about, the types of varied and conflicting realities which must be considered in relation to regionalism. Some of these realities facilitate and/or push towards regionalism. Other realities constrain regionalism. Yet others are essentially neutral.

A. Realities Facilitating Standardization

The discussion thus far has largely been about realities which would seem to have provided contextual impetus to facilitate efforts to standardize federal regionalism.

1. The existence of a fragmented federal regional maze within which coordination requirements could, in terms of an OMB study (OMB 1971), "reach almost nightmare proportions."
2. The need for coordination across federal programs and agencies. (Coordination is often seen as a purpose or reason for regionalism per se.)

3. The perception that "access" (however defined) would be facilitated through regionalism. (Access is often seen as a reason for regionalism per se).

4. The political reality (according to some observers) that President Nixon perceived standardization as a politically visible way of fulfilling campaign promises.

B. A "Neutral" Factor: Criteria for Establishing Regional Boundaries

According to an OMB study (1971:4), earlier "proposals for standardization were invariably based on an assumption that a 'best' regional structure for any particular program could be developed, and that in general this was the case for the existing patterns for most programs." If such a premise were true, the ramifications for standardization would be highly significant — standardization would have to be a "less that best" compromise solution, with the value of standardization being weighed against the disadvantage to a program. Or, perhaps, it would be possible to develop several "standard" patterns, such as a separate pattern "for urban-oriented programs, for rural-oriented programs, for natural resource programs, for law enforcement programs", etc. (OMB, 1971:7).

It was to determine the validity of such "best" assumptions that an OMB study reviewed "the factors used by each of the agencies to guide the development and evolution of their regional organizations." The conclusions of this review are quite significant and worth quoting here (OMB 1971:7–8).
"One of the major considerations, conceptually, was a review of the factors used by each of the agencies to guide the development and evolution of their regional organizations.

It became very clear throughout the studies that such factors or criteria actually had little practical effect on the evolution of regional structures. They are frequently used to rationalize or justify an existing structure or they provide a conceptual base for a desired adjustment but the real decisions are made on the basis of other intangible, political, or internal administrative considerations. Only in very rare cases could the existing structure be identified in such a way that the factors set forth as important and overriding would in fact support the present structure without major exceptions that neutralize the argument.

In nearly every instance, when a specific factor was cited, examination disclosed that there were enough exceptions in the agency structure to conclude that the argument had little validity. For example, one agency emphasizes the need for a balanced workload as a primary objective but its largest region is more than twice as large in terms of workload as the smallest. In another case, emphasis is placed on maintaining river basin boundaries and the agency has the Colorado river basin and others, divided between two or more regions. Cultural and archaeological relationships were considered important in one agency and the same agency divided the area being used as an example among three regions. One agency cited the importance of locating its offices in small cities close to depressed rural areas and yet had some of its offices in the largest metropolitan areas of the country. Whatever the factors used, time after time the exceptions refuted the major arguments.
The fact is that the United States cannot be consistently divided on the basis of any single factor in a way that does not result in as many disparities as it resolves. Equal population distribution produces vast differences in geographic area and travel time. Equality in geographic areas produces tremendous differences in workload. Similarities in climate, plant or animal life, or topography again produce inequalities in area, workload, population or other measures. As a result, decisions on regional organization are made after considering a variety of factors and making a subjective judgment based more on intangible considerations than anything else and then the decision is rationalized in tangible terms. The picture is further complicated by the fact that state boundaries adhere to no consistent principle, frequently either following major waterways or being arbitrary straight lines surveyed independent of natural geography. Additional problems are added by the fact that major metropolitan areas, trade centers, agricultural centers and similar area-wide concentrations of common urban and rural activity tend to be brought together by, rather than divided by, many of the waterways that form our internal political boundaries.

Only in very rare cases could the existing structure be identified in such a way that the factors set forth as important and overriding would in fact support the present structure without major exceptions. The Maritime Administration is one of the few cases in which the cited rationale stood up. It has three regions, based on the shipping and ship-building industry on the three major coastal areas (Atlantic, Gulf and Pacific), and the agency organized three regions related to these coastal areas. Three other agencies have been identified so far as having similar overriding considerations that warrant exceptions to the Uniform Boundaries. They are the U. S. Attorneys, the Coast Guard,
and the Bureau of Aviation Safety in DOT. One can only conclude that, with some of the rare exceptions mentioned, there is no overwhelming argument for any particular set of regional boundaries as being "best" for any Federal agency."

C. Realities Constraining Standardization

Given that a strong need for coordination existed and that one set of regional boundaries is in most cases as reasonable as another, one could easily conclude that the need for standardization of federal regions would have been obvious and pressing — indeed, so obvious and pressing that standardization would have been acceptable and relatively easily accomplished. In point of fact, such has not been the case — the realities of federal regionalism are two-sided. There are constraining as well as facilitating and neutral realities. It is to these constraining realities that we now turn.

a. The Weight of Historical Development

While there may in general be no one best regional pattern, there nonetheless did exist various regional patterns that developed over time and carried with them the weight of long-standing perceptions, vested interests, etc. Further, one would expect resistance from cities that would lose regional offices — and thus lose some degree of population, financial resources and status. Resistance could also be expected from at least some of employees who would have to face the travail of physical relocation. Indeed, in point of fact, the "travail vs. travel" problem was one of the major issues in planning and implementing standardization.
b. Reasonable Exceptions

As already noted, the OMB study (1971) did find agencies for which standardization of regional boundaries really was not applicable. These exceptions were of two kinds: non-conformity and partial conformity. In the first instance (non-conformity), valid reasons were found for regional boundaries which were not consistent with the standard boundaries (e.g.: the Maritime Administration whose regional boundaries were, quite validly, based upon coastal areas). In the second instance (partial conformity) agency administration and/or program needs called either for more or fewer than ten regions. However, while the number of regions would be non-conforming, regional boundaries for these agencies would not contradict the standard boundaries.

c. Sub-Regional Agency Structures

The basic purpose of federal regional standardization was to facilitate coordination of federal program activities in the field. However, not all federal agencies had regional structures. Some located their field offices instead at the state level (e.g.: the Soil Conservation Service and Administration in Agriculture, the Bureau of Land Management in Interior, and the Office of Business Services in Commerce). Other agencies had various sub-regional structures which were fragmented and inconsistent across agencies and which in some cases were not even formally established and did not appear on formal organizational charts (OMB 1971:10).

While these non- or sub-regional structures do not constrain regional standardization per se, they do (by their very
existence) significantly constrain the coordination purposes of regional standardization.

d. Political Constraints

Whatever the arguments for or against regionalism per se or standardization, political considerations appear to have affected decisions about standardization. As noted earlier, political considerations appear to have been the moving force behind President Nixon's rather rapid decision to expand the number of regions from eight to ten. Further, the politics of Watergate effectively "slowed down" standardization efforts.

e. Regional Standardization is Not a "Natural" Phenomenon

A review of the historical development of federal regional patterns and the findings of the 1971 OMB study quoted earlier clearly indicate that regional standardization is not a natural phenomenon. If anything, both this history and the lack of any single overwhelming basis for regional "homogeneity" would tend to indicate that regional fragmentation is a more "natural" phenomenon. As an OMB staff report (1970) similarly concluded: "nearly every individual considering the division of the United States into Federal regions has a somewhat different concept based on personal experience and a particular program outlook."

5. Realities of Federal Regional Councils

The development of Federal Regional Councils is obviously intertwined with the development of federal regional standardization. Thus, to a
large extent, the realities of standardization apply also to the Federal Regional Councils, but some additional considerations do come into play. In effect, we may say that regional boundary and office location standardization provide only a geographic basis for federal program coordination. Federal Regional Councils were intended to provide the organizational format for coordination. However, three major problems have plagued the FRCs to date.

A. Representation and Authority

The Federal Regional Councils are composed of representatives of federal agencies having programs or other activities (e.g.: regulatory, service) within a region. However, these agency representatives have had differing levels of authority. Some have had full line authority over regional programs of their agency. These council members could indeed make coordination commitments for their agency. Other council members, however, had only coordination responsibility (without line authority) over regional programs of their agency. Still others were indeed simply representatives of their parent federal agency (in some cases being simply the agency official geographically closest to the standard regional headquarters city, and in some cases being changed each year). In these last two cases, council members did not have the authority commit either their parent agencies or their regional offices.

B. Differences in the Locus of Regional Program Authority

The problem just noted is essentially a reflection of a larger dynamic: differences between federal agencies as to the locus of program authority in a region. In a word, even where regional boundaries were standardized, regional organizational structures and lines of authority were not. Some agencies
such as CETA (DOL) established regional structures which gave the regional director full line authority over agency programs in the region (though policy authority was retained by the Washington office). Others did not.

To a large degree, these differences reflect classic organizational tensions over program control. Should programs in the field (i.e., region) be controlled by their parent program groups at "headquarters" or by field personnel? Should programs at the field (i.e., regional) level be controlled by "generalists" (i.e., by a single regional director with line authority over field programs) or by program "specialists" (i.e., separately by the several field program directors who are responsible to their separate headquarters program offices)? Standardization of regional boundaries and office locations provides no insights about the answers to these questions. Indeed, it may be worth noting that in the early 1970s, conflicting opinions about issues such as these led to a rather unique use of the terms "regional" and "decentralization" in HEW, wherein for some "decentralization" meant delegation of authority to the various regional program units and "regional" meant delegation of authority to the regional director.

C. Non-Regions and Sub-Regions

This third problem area has already been noted earlier, but it is worth noting again here -- agencies having no regional structures or having sub-regional structures. Thus, the 1971 OMB study noted that (1) the multiplicity of contacts required for federal agencies lacking regional field structures "has prevented the establishment of any effective coordination mechanism, particularly in relation to the Federal Regional Councils"; and (2) "problems are beginning to emerge as a result of agencies taking internal action to pull programs together that cross regional lines" (sub-regions) (OMB 1971:10).
6. The Current Status of Standardization and Federal Regional Councils

As of May 1, 1976*, twenty-one federal departments or independent agencies had a total of 103 regional systems. Of these, only 24 were in complete conformance with the standard regional boundaries (i.e., had exactly 10 regions whose boundaries conformed with the standard boundaries); 37 were in partial conformance (i.e., had more or fewer than ten regions, but regional boundaries were consistent with the standard boundaries); and 42 were in non-conformance. Of the program agencies involved in President Nixon's original executive order: HUD and SBA had one regional system each (both in conformance); HEW had three regional systems (two in conformance and one in non-conformance); DOL had twelve regional systems (seven in conformance, 4 in partial conformance, and one in non-conformance).

The Federal Regional Councils have not been as effective as had been hoped and are currently under review by the Carter administration.

*Attachment #1, OMB 1971. (This attachment was added in 1976).
III. BETWEEN STATE AND NATION: A STUDY OF REGIONAL ORGANIZATIONS

BY THE BROOKINGS INSTITUTION

Regionalism in the federal context has taken many forms and has ranged in scope from a single policy for a single program in a single unit to a federal agency to rather large scale efforts such as the Tennessee Valley Authority. Insofar as federal regionalism has had limited foci and has been scattered and disaggregated throughout the federal government, we would expect the variety, multiplicity and complexity (and attendant dynamics and problems) that we have already noted. It would be helpful, then, to examine the nature and dynamics of more large scale federal regional approaches.

A study by the Brookings Institution provides some significant insights into the nature and dynamics of such large scale federal regionalism (Derthick 1974).* This study examined the following large scale federal regional organizations.**

- The Tennessee Valley Authority (TVA) -- Established by Congress in the 1930s for the development and conservation of the Tennessee River and valley; encompasses parts of seven states.

- The Delaware River Basin Commission (DRBC) -- Established in 1961 by the states of New York, Delaware, and Pennsylvania to negotiate differences between these states and to develop the Delaware River. DRBC was established in response to disagreements over use of the waters of the Delaware River and to a 1954 Supreme Court decree allocating the river waters and appointing a river master.

* This section of our policy analysis is devoted solely to this Brookings Institution study. Thus, page references in this section will refer solely to this study.

** Regionalism was defined in this study as encompassing parts or all of these governmental jurisdictions.
The Appalachian Regional Commission (ARC) -- Established by Congress in 1965 as a result of the initiative of the Conference on Appalachian Governors (during the 1960 election), of President Kennedy and of the landslide 1964 national elections. A joint federal-state body was established to plan and coordinate federal aid to the Appalachian Region.

Title V Commissions -- Public Works and Economic Development Act of 1965. Following the example of the ARC, this act "authorized joint federal-state commissions for regions that lagged behind the rest of the nation" (p. 2). The chief function is economic development. Seven Title V Commissions by 1972.

Title II Commissions -- Water Resources Planning Act of 1965. Created to be a "standard form" to coordinate planning for major river basins ("coordination" had been performed by various executive-created federal interagency committees). Seven Title II Commissions by 1972.

Federal Regional Councils (FRC)* -- Created by Executive order to coordinate programs of various federal agencies (as discussed above in section II of this chapter).

Several observations should be made here about these regional organizations and about the Brookings Institution study.

1) The agencies chosen for the Brookings Institution study all represent efforts at "structural reform of at least a limited sort" (p. 14) and represent inventions "designed to improve the working of the American federal system" (p. vii).

2) All of these agencies represent attempts to "coordinate" activities across multistate areas.

*See previous discussion.
a) With the exception of the FRCs, they all involve cross-state geographical areas which are defined either by a river basin or some kind of homogeneously-perceived socio-economic need.

b) The geographical areas thus defined do not "fit" (geographically) the established jurisdictional lines (i.e., state boundaries).

c) With the exception of the DRBC, all represent efforts to coordinate federal activities.

d) DRBC represents an effort of self-coordination among several states. However, the federal government "joined the organization too, becoming a signatory to an inter-state compact for the first time." (p. 1).

e) With the exception of TVA (which has independent authority) and DRBC, all represent efforts to coordinate federal activities with the established state and/or local governments (and the federal government is part of the DRBC). They do not (including TVA) represent new and separate governmental units, at least in a Constitutional sense.

3) All of these agencies except the FRCs were established by Congressional action. The FRCs were established by Presidential order and differ from the others in having no formal appropriations or staff except as are provided (in effect) on an ad hoc basis.

4) All of these agencies are of major scope.

The agencies upon which the Brookings Institution study focused provide a more specifically and narrowly focused examination of regionalism than is true of this CISST examination of regionalism. This narrower focus may somewhat limit the generalizability of the findings of the
Brookings Institution study, but its findings are nonetheless quite thorough, powerful and relevant to this policy analysis.

1. Arguments for Regional Organization as Structural Reforms

Viewing regional organizations as structural reforms designed "to improve the working of the American federal system" (p. vii), the Brookings study nos. two general arguments (cases for) regional organizations:

1) "At its most daring, the case for regional organization argues that the state governments are artificial creations, obsolete and too numerous, which should be replaced by larger governments rationally adapted to the 'natural' or sociocultural features of American society. In this radical form, as proposals for regional government, proposals for regional organization have no chance of adoption." (p. 5)

2) "In its more modest and pragmatic form, the main argument for regional organizations is that they are needed to respond to the problem of "scale" that arises when functions spill over state boundaries without, however, requiring nationwide action. The problem of scale may arise when actions in one state jurisdiction substantially affect the welfare of a neighboring jurisdiction." "The scale problem also arises when common social or economic characteristics or natural features extend across jurisdictional boundaries so that government activities ought to encompass the homogeneo-s area." (p. 6)

Two observations may be noted about the "scale" argument. First, the Brookings study defines the "scale problem" as a "lack of fit between the area jurisdictions of governments and the demands of governmental functions" (p. 8) -- i.e., where the "demands of governmental functions cross state lines". Another conceptualization of the "scale problem", not so clearly delineated in the Brookings study, focuses on resources...
and capabilities -- i.e., where the need is greater than can be met through the resources of a single state; or where the state "A" may have resources relevant to the needs of state "B"; or simply where a combining of resources across states may be synergistically or cumulatively beneficial. These last two instances are not (logically) necessarily problems of scale in the sense of a single state being incapable of providing needed resources. Rather, they are problems of scale in the sense that interstate (i.e., regional) collaboration would be beneficial.

Second, the Brookings study notes that "while regional organizations are justified primarily as responses to the scale problem . . . none of them is justified in that way alone. They are also advanced as solutions to what may be the problems of 'coordination' and of 'centralization'." (p. 8)

2. Purposes of Regional Organizations

The Brookings Institution study correctly notes that a regional organization should be judged/evaluated in relation to the functions, objectives or purposes it is intended to serve. It is interesting, then, to note that this study speaks of the functions or purposes of federally-related regional organizations from several different perspectives.

From one perspective, the purposes of the regional organizations studied focus and coordination -- coordination of economic development related to depressed areas; coordination of planning for the development of river basins; coordination of social programs. From another perspective, the functions or purposes could be to be a "channel" for the flow of federal funds; to be a medium for interstate bargaining and for resolution of interstate conflict; to be, in effect, lobbyists on behalf of regional interests. From yet other perspectives, the functions or purposes of regional organizations could be to provide mechanisms of response to problems of scale; to promote interstate collaboration; to counterbalance problems of centralization (e.g.: loss of citizen interest and participation; the alleged inability of the "centralized" bureaucracy to govern).
The Brookings study makes one further point which is worth quoting:

"In sum, the common experience of regional organizations suggests the importance of viewing the coordination problem also as a problem of definition of purpose, which is a legislative function. So conceived, it is no easier to "solve" than conflict in inter-agency relations. Its true source is the heterogeneity of opinions and interests in American society, and the openness of government to a variety of influences - an openness that is not matched, and never can be, by the capacity of government to rationalize and make consistent either legislative or administrative acts. The point is that any attempt at rationalization must take in a much larger universe than executive agencies and a wider range of techniques than executive reorganization." (p. 208)

3. Types of Regional Organizations

The Brookings study notes that the regional organizations studied may be categorized from a functional perspective as "those with operating, management, or regulatory functions" (TVA, DRBC) and "those that are for planning and coordinating only" (ARC, Title V and Title II Commissions) (p. 9).

The Brookings study also differentiates the regional organizations studied in terms of their forms:

1) autonomous (TVA)

2) a forum of peers (DRBC, Title II Commissions) -- here "the organization that will ultimately carry out the plans cooperates in the planning" (p. 7).

3) catalyst (ARC, Title V Commissions) -- i.e., a single federal appointee, and rationale being that "an independent coordinator, newly introduced into a milieu of hitherto uncoordinated organizations, can define regional goals for these other
organizations to pursue".

Neither of the latter regional organizational forms has "the right to pursue independently the goals it defines." (p. 8).

Finally, the Brookings study also categorizes the regional organizations studied in terms of how they respond to the federal coordination problem. Four approaches are noted.

1) a single federal agent (presidential appointee), who is "supposed to speak . . . for all interested federal agencies" (p. 10) (DRBC, ARC, Title V Commissions)

2) an interagency coordinating council (FRC and Title II Commissions)

3) transfer of the coordination function to another level of government, i.e., the states — only the ARC has specifically explicated this approach

4) a multipurpose agency, "within which are contained functions normally carried out by more than one federal agency" (p. 11) (TVA)

4. Criteria for Judging the Effectiveness of Regional Organizations

The Brookings study notes that regional organizations may be seen as strategies or agents for decentralization. From this perspective, then, the effectiveness of regional organizations may "be judged by a combination of two criteria: the amount of federal authority the regional organization has, and the accessibility of that authority to nonfederal interests." (p. 13).

The Brookings study offers another very interesting perspective from which regional organizations might be evaluated — i.e., by "how regional they
are" (p. 188). It is probably typical to assume that regional organizations are indeed regional in character. However, the Brookings study may well be offering an important perspective on regionalism by noting that "regionalism may be treated as a variable to be judged by the relative success of the organizations in maintaining a regional orientation, in fostering or responding to a regional consciousness, or in aggregating interests within the region and articulating distinctively regional goals." (p. 188).

5. Between State and Nation: Some Conclusions About Regional Organizations

While it would not be feasible here to list and discuss all of the findings of the Brookings study, it is important to try to capture some of the basic thrusts of the study's findings. While the specific focus of the study and the nature of the organizations studied should caution against quick and superficial generalizations, neither should we too quickly and superficially reject the potential for generalizability.

A. Prognosis: Little Chance for the Generalization of Regional Organizations as Major Innovations

The Brookings study concludes that there are many constraints against widespread development of successful regional organizations of the type and scope studied. The study concludes that:

1) Strong regional organizations, as major innovations, are "political accidents, the product of ad hoc coalitions whose success was fortuitous in important respects" (p. 192) -- specifically, the result of the "fortuitous combination of opportunity, determined leadership, catalytic events, and weak or distracted opposition" (p. 193). They also benefit from being "new and experimental" -- assets which by definition are not generalizable.
2) Conversely, the weak regional organizations studied were those resulting from central planning which attempted to generalize (i.e., create several similar regional organizations) the example of an initial, "leading" regional organization.

3) All of the regional organizations studied suffered from a lack of strong regional identity. None resulted from a regional consciousness per se.

4) Further, none (with the possible exception of TVA) has yet been able to develop, within its geographical area, an "independent regional consciousness . . . by the force of its own activities or of its assertion of a regional interest" (p. 189).

5) Those at the state level who "want" joint (i.e., federal-state) regional organizations do so not for the "value" of a "regional organization" per se. Rather, they "want federal participation mainly because they want the access to federal powers or funds that will come with it." (p. 214).

6) Further, such federal-state "jointness" seems to be of marginal effectiveness.

7) While regionalism "is one of those ideas that grips a few minds or much of an academic discipline" and has been "much subject to intellectual fad and fashion," there has "never been a sustained movement for regional organization that left its impress across the United States" (p. 3).

In sum, the Brookings study concludes that regional organizations remain experiments and deviations from the norm and the "odds are
against their being formed and, if formed, against their flourishing" (p. 4).

B. Some Constraints on Regional Organizations

A number of reasons are suggested which mitigate heavily against the development and feasibility of regional organizations similar in nature and scope to those studied. For example:

1) As noted above, there is generally a lack of "regional consciousness" within the United States, at least in the sense of governmental entities.

2) As governmental entities, regional organizations have no Constitutional basis; are actually rival governmental units which are superimposed on and in addition to already existing governmental entities; and must enter into and compete with a "crowded universe" of rival governmental entities (TVA was the sole exception -- its "universe" was not so crowded in the 1930s).

3) The states have very strong "survival" capability in relation to any regional organization which would compete with or supplant them as governmental entities.

4) The "systematic problems" to which regional organizations are supposedly addressed -- "federal lack of coordination and excessive centralization -- do not appear to be substantially ameliorated by any form, with the possible exception of TVA" (p. 229). Indeed, as "superstructure upon the more traditional structure of federal-state organization, they are a complicating feature" (p. 229). Thus, the Brookings study notes that regional organizations
can plausibly be viewed as a contributor to the coordination problem. That is, any "new" organization is potentially a contributor, on the assumption that the essence of the coordination problem is the multiplication of specialized yet interdependent organizations. The size of the coordination problem increases with the size and variety of the organizational universe. If the new organization's functions overlap those of existing organizations, as is true with the leading regional organizations, the difficulties increase further. And if they challenge the very principles on which the organizational universe is ordered, the difficulties are compounded again. Regional organizations with operating and management authority, by substituting area for function, would revise the most fundamental principle of federal administrative organization." (p. 199).

5) From the above, it follows that there will inevitably be high costs of administrative confusion associated with regional organizational approaches.

6) Also, it follows that regional organization, as an innovative structural reform, will not "happen naturally or easily"--it will have to be "compelled".

7) Interest in regional organization is intermittent and visionary; opposition is ubiquitous, if often inarticulate.

8) What kind of regional organization works at all, or best, is simply unknown.

9) There are other means or channels for accomplishing the purposes associated with regional organizations. For example, the Brookings study notes the experience of the
ARC and the Title V Commissions and concludes that "the results of such a program would probably not be very different if it was administered by joint regional commissions than if it was administered by a federal agency through grants directly to the states." (p. 225). We may note here, however, that this conclusion, while not "favoring" regional organizations, at least does place them on an "equal level" with other, non-regional alternatives.

10) "One of the genuine obstacles to sustaining regional organizations is that state governments are so busy managing direct relations with the federal government and meeting responsibilities under grant-in-aid programs that they have no effort to spare for regional activity. The inertial force of state activity is so great and the states as claimants for federal funds are so powerful that it is impossible for regional organizations to transcend the states in defining regional goals." (p. 222).

C. Some Further Conclusions about Regional Organizations

The essence of the findings of the Brookings study may perhaps be seen in its conclusion that the "principal thing that experience suggests is that pragmatism is the best policy: it leads to the most effective regional organizations" (p. 226). In stating this conclusion, the Brookings study essentially confirms -- and applies to regionalism -- a similar conclusion reached in 1935 by the National Resources Committee: "that the selection of an organizational type should depend on the functions to be assigned, the area of operation, the location of the constitutional powers required, and the incidence of benefits and costs" (p. 226).
The implications of this "pragmatism" conclusion are:

1) The form of a regional organization is more likely to be effective if it is context-specific rather than generalized and centrally planned. If anything, effective regional organizations tend to be historical accidents rather than to result from generalized central planning.

2) "None of the different approaches to coordination embodied in the regional organizations is sufficiently superior to the rest to make it preferable. Nor is any particular approach so clearly successful as to contribute substantially to justification of the regional form." (p. 195).

Question should be raised, however, as to whether or not effective "pragmatic historical accidents" can be facilitated, supported and/or orchestrated by a federal or other agency which is not (at least initially) a "core party" to a potential or developing regional organization -- and if so, what manner of facilitation, support, orchestration. The DRBC might partially represent such a case, but the Brookings study does not directly raise this issue.

Another conclusion of the Brookings study is simply that the distinctive "virtue of regional organizations is that they are suited to respond to particular needs or problems isolable on a regional scale and somehow peculiar to an area as a natural or social or economic unit." (p. 229). Similarly, the Brookings study concludes that if "a regional organization is to become the vehicle for responding to or inducing regional consciousness, a location within the region is probably desirable, if only to foster regional orientation of the staff." (p. 189).
Another conclusion of the Brookings study is that "the common result is either specialization of activity or a low level of activity. Regional action proceeds within a narrow sphere or at a slow pace" (p. 192). Thus there "appears to be a trade-off between depth of organizational change on a regional scale and breadth of change. It has been possible to create organizations that depart substantially from established forms and that command important resources of authority and revenue, but only in isolated cases. Such change has not occurred systematically and comprehensively. When forms are created through central planning and are inaugurated throughout the system" (p. 194), "innovation is much more limited" (p. 194).

Finally, while the Brookings study suggests that it "is not possible to abstract from these cases a model of a regional planning organization for the United States... experience suggests certain guiding principles" (p. 186) — specifically

"powerful inducements to regional planning must be supplied, presumably by the federal government. Planning should not be sharply separated from governments or agencies with which the relevant operating functions are lodged; it will gravitate to them anyway, and the separate planning organization will be left with nothing to do or will find a substitute for planning. Organizations "for planning" should be denied opportunities to engage in alternative activities that may displace the planning function, which is likely to be unattractive. The "regional" area for which planning is supposed to be done must have a clear and compelling rationale. Otherwise, there is no chance of resisting the inertia of existing jurisdictional arrangements." (p. 186).

6. Implications for Regionalism in Educational R/D&I

In order to understand the implications of the Brookings Institute study regionalism in educational R/D&I, it is important first to take note
of the nature of the study -- most specifically that it is a study of large scale, federal regionalism. This raises a caution about generalizing this study's findings to small scale and/or non-federal regionalism. At the same time, the study's findings do tend to coincide with the review of federal regionalism in section I of this chapter and with the conceptual and operational perspectives on regionalism which will be noted in Chapter Four and Five of this policy analysis.

With the above in mind, the primary implications of the Brookings Institution study for regionalism in the educational R/D&I context would seem to be the following:

1) Regionalism is not a panacea. It cannot serve all relevant purposes nor solve all problems.

2) Whatever may be its merits for a particular purpose or in a particular context, regionalism has at least two major limitations or handicaps.

   a) There is a lack of clear and strong "regional identities". Thus, regionalism tends to lack a socially legitimized base.

   b) As a governmental entity, regionalism is "extra-Constitutional." Thus, governmental regionalism lacks existence and authority or power in its own right. Further, regionalism is, in effect, superimposed on both state and federal government -- with all the potential problems this may raise.

3) Particular attention needs to be given to emergent, context-specific regional approaches.

We will discuss these and other specific implications of the Brookings Institution study in later chapters as is relevant.
IV. IMPLICATIONS OF THE FEDERAL CONTEXT OF REGIONALISM

From an overview perspective, the federal context of regionalism must be described as complex, conflicting, fluctuating and (therefore) full of risk. It would, then, be a grievous error to jump from this analysis of the federal context of regionalism to conclusions that regionalism itself or any particular regional approach, form, purpose, policy, etc. is either good or bad or will "work" or not. From the perspective of a decision maker, such conclusions may be made only in reference to a particular context at a particular time and in reference to the particular purposes which (from the decision maker's perspective) regionalism would be intended to serve. Even here, different conclusions might be reached by other persons or organizations from the perspective of their own purposes, values and interests. Thus, one major implication of the federal context for regionalism is that there will inevitably be differences of opinion and conflict about the value and effectiveness of regionalism in any of its particular manifestations. Such is simply the nature of the federal context of regionalism. However, as we shall note in the next chapter, the issue is even broader than the specific context -- such is the very nature of regionalism itself. The value and effectiveness of regionalism itself is determined by the particular context in which it is manifested and by the purposes which it is seen as serving -- or hindering.

With the above in mind, there are some implications which should be drawn from the discussion thus far.

The federal context for regionalism is a highly political context. Thus, regionalism in this context will be affected by issues of power, authority and "turf" -- whether between regional organizations or personnel and a "headquarters" federal agency; between regional organizations or personnel (as arms of a federal agency) and state/local agencies; or between several separate federal agencies. Where more than one federal
agency is involved in and/or relevant to a particular regional approach (as is often likely to be the case), difficulties in coordination/orchestrating may well arise around differences in priorities and specific programmatic interests and purposes and around issues of autonomy, turf, power, etc. Indeed, in this sense, regionalism in the federal context is an issue (in part) of intergovernmental relations.

It is also important to note that the political context is a fluctuating context. Thus, regional approaches that are highly dependent upon the federal government for financial support and/or authority will be especially vulnerable unless (1) they have a short term focus, or (2) they have some mechanism or capacity to act as a "buffer" against the fluctuations of the federal context. Examples of such "buffers" could be: strong support from state or municipal governments (which, however, may be difficult to build, for they, too, represent a political context); a wide range of purposes and programmatic areas that would permit flexibility as the "political winds" shift.

Two conclusions of the Brookings Institution study (Derthick, 1974) are worth repeating here:

1) That successful regional organizations (at least in a large scale sense) are political and historical accidents -- which tend not to be generalizable.

2) That attempts to use regional approaches for coordination purposes do not in fact solve all coordination problems.

From the perspective of designing for regionalism, several implications of our analysis of the federal context should be noted.

1) Because of the political nature of the federal context, there well may be tensions between regional designs which would serve political purposes and regional designs which would serve R/D&I system purposes. While such tension is not a foregone conclusion, it is a distinct possibility.
2) In any given instance there may (and likely will) be several purposes relevant to regionalism -- and they may be in conflict. Some of the purposes may be served by regionalism; some may be hindered by regionalism.

3) Analysis of regionalism in the federal context reveals what appears to be an inherent dilemma in designing for regionalism -- a dilemma resulting from the fact that multiple purposes may be relevant to regionalism. Thus, on the one hand, if regional approaches are designed narrowly (i.e., for a single purpose), multiple regional approaches would be required to meet the needs of multiple purposes -- thereby increasing the complexity and the coordination problems of regionalism (factors particularly salient in the federal context). On the other hand, the broader the scope for which any single regional approach is designed, the more difficult it becomes to find a single regional design that is "satisfactory" across the purposes, programs, agencies and other participants involved.

4) One of the "stickiest" problems in designing for regionalism is the issue: Who is going to decide what purposes are to be served by a regional design (and in what relative order of priority)? Different participants will likely have different perceptions about what purposes can and/or should be served -- with resultant differences in regional design implications. Should decisions about purposes be made at the federal level? If so, by which agency? Which level within the agency? Which branch of the federal government? Or should such decisions be made by state and municipal agencies? Should non-governmental participants of an R/D&I system play a role in making purpose decisions? If so, which R/D&I system participants? What role?

Perhaps another way of stating the same issue is to note that obtaining agreement on purposes among relevant parties is
likely to be both a critical yet a difficult task in designing for regionalism.

Finally, we repeat the conclusion of the 1971 OMB study that with perhaps a few exceptions, decisions about regional boundaries and about the number and size of regions are likely to be arbitrary decisions -- i.e., several different regional "maps" are likely to be more or less equally justifiable.
CHAPTER FOUR

THE CONCEPT OF REGIONALISM
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In Chapters Two and Three, it has been our purpose to gain an overview understanding of the context for the issue of regionalism in relation to educational R/D/I. It is now time to "step back" and think about the concept of regionalism. Just what do we mean when we call something a "region"? What are the major dimensions of regionalism? Why is so much variety to be found in the historical forms and dynamics of regionalism?

The discussion thus far will help to answer these and similar questions -- and conversely, the answers to these questions will help us to understand why regionalism has taken the forms and directions that we have seen in the discussion thus far. In addition, how we understand the concept of regionalism will provide some crucial guide-poses for basic design issues: when/when not, why/why not, how/how not to design for regionalism.
I. THE REGIONAL CONCEPT: ITS NATURE AND DIMENSIONS

1. Regionalism -- A Concept

An overview of the multiplicity of regionalism in its varied historical and sectoral contexts points to a very basic conclusion. A "region" is in essence a concept -- a concept which is defined in relation to some specific reality (or mix of realities) such as geography or culture.

This is not to deny that regions can be (and are) identified -- the concept is too widely used to allow this. Thus for example, though there might be minor differences over the exact placement of outside boundaries, there are geographical characteristics which serve to define geographical "regions" (e.g.: the Great Lakes region, the Appalachian region, the Rocky Mountains region, the Northwest region, etc.). Similarly (though here we might get more argument and precise definition becomes somewhat harder), within various geographical areas there can exist sufficiently identifiable needs or cultural characteristics which also seem to define a "region" (e.g.: Appalachia). In some instances, state boundaries may serve to identify the boundaries of a geographic/cultural "region" (e.g.: the South).

Thus, regions can be (and are) identified -- but they can be (and are) identified in so many varying ways that we can only conclude that "region" is essentially a concept.

2. Defining a Region -- Some Major Conceptual Modes

There are a variety of conceptual modes which may be used as ways of "defining" or "identifying" a region. Each will have its strengths -- and its limitations. We now turn to a brief examination of what may be considered major conceptual modes of regional definition.
A. A Region as a Geographic Area

The most common, basic definition of a region is that it is a contiguous, self-contained geographic area — and for the purposes of this analysis, we shall accept such a definition, with all the benefits and limitations this may imply.

The main obvious limitation of a region as a geographic entity is simply that it has no fixed meaning as to size, numbers of regions, or boundaries of regions. Thus, the concept of a region may be applied at several levels: regions within a single state (e.g.: the regions of an SEA); interstate regions (e.g.: the ten standard federal regions); or even regions which encompass several countries (e.g.: the Mideast region; the Common Market region).

In this analysis, we will be concerned only with regionalism at the interstate level — though most of the analysis will be applicable in principle to intrastate or international regionalism.

Even on an interstate basis, the geographic concept of a region has no fixed meaning as to size, number of regions, or boundaries of regions. Different geographic characteristics may be used with equal validity to define a geographic region — and the resulting "regions" will vary accordingly. Thus, we may with equal validity describe the geographic regions of the United States in the following ways: eastern and western "regions" (using the Mississippi River as the key geographic characteristic); the east coast, west coast and plains states "regions" (roughly using the Appalachian and Rocky Mountain ranges as the key dividing lines); the northeast, southeast, midwest, northwest and southwest "regions" (using the points of the compass as the key geographic characteristic). Within any of these, further divisions could be made (e.g.: upper and lower midwest "regions").

* We briefly discuss international regionalism in Wad, Atul, Michael Radnor, Durward Hofler and Maryann Joseph, "Contextual Approach to Development and the Role of Technology in Developing Countries", in Radnor and Hofler (1977).
The variously defined geographic "regions" may thus vary according to the key geographical characteristics used, may vary greatly in size and shape, and may indeed overlap.

We may also note here that similar observations can be made when the geographic mode of defining a region is combined with some other concepts such as culture or needs.

B. Regionalism from a Non-Geographic Perspective

It is possible to think of a region being defined not in geographic terms but in terms of common needs, common demographic characteristics (e.g.: large cities), or common socio/cultural characteristics (e.g.: Hispanic-American social groups) which are too geographically scattered to be defined as a geographic region. There is merit to such an approach, especially from the perspective of educational R/D&I. The commonality so defined would allow resources and efforts to be focused rather than scattered, both in terms of knowledge production and of knowledge utilization. Thus, such approaches to educational R/D&I merit attention. At the same time, regionalism is generally defined in geographic terms. Certainly, from a political perspective, the intent of NIE's congressional reauthorization legislation focuses on geographic regions. In this analysis, then, we shall focus on issues of geographically defined regionalism.

C. Regional "Homogeneity" -- and Regional Diversity

The concept of a region often involves the idea that some kind of homogeneity exists within the region. The kind of homogeneity which is perceived to exist may vary; for example: critical historical and/or cultural characteristics (e.g.: the South); population density; ease of travel; climate; basic type of business (e.g.: agricultural or industrial); or just simply
geographical features. Whether a specific geographic region is initially "identified" on the basis of some kind of perceived homogeneity or some homogeneity is "found" in a previously identified "region" is probably a chicken/egg question -- and likely a moot one at that. In either case, the perceived homogeneity is used as the basis for consideration of regional forms, policies, programs, etc.

Approaching regionalism through the concept of regional homogeneity has one very serious limitation -- there are a variety of "reference points" (such as those noted above) from which to identify (or deny) the homogeneity of a region. This variety in possible homogeneity reference points leads to two problems.

First, if homogeneity is used to identify regions, then we are likely to find significant differences in the sizes, numbers and boundaries of "regions" -- depending upon the "reference points" used.

Second, any given geographic region (however initially defined) will never be purely homogeneous -- diversity can always be found. In a largely rural region, there will be urban areas. There may also be differences in population density, levels of income, political preferences, etc. in various parts of the region. In a region which is historically and culturally defined (e.g.: the South), there will be variations (perhaps significant variations) of the "defined" culture. For example, it can be argued that the cultures of northern and southern California (or of Alabama, North Carolina and Texas) are more different than alike even though they may be within a "region" that is perceived to have some kind of cultural homogeneity.

It is at this point that many of the arguments over regionalism often arise -- i.e., arguments over whether a given region is "homogeneous" or "diverse". Such arguments may be theoretically and intellectually interesting -- but in and of themselves they are irrelevant to an analysis of regionalism and its implications.
The issue for regional analysis is not homogeneity versus diversity -- there will be diversity. Rather, the issues are (1) whether approaching regionalism from the perspective of some perceived regional homogeneity will serve some useful purpose; and then (2) if so, whether the perceived regional homogeneity (however defined) is sufficient in relation to the stated purpose. (Obviously, "sufficiency" would be defined differently for different purposes -- and/or by different interested parties).

D. Regional Complementarity

While regional "homogeneity" (even if in so simple a form as arbitrarily set but nonetheless "common" boundaries) is probably the most often-used mode of thinking about regionalism, it is not the only possible (or useful) mode. Indeed, homogeneity is not even a necessary ingredient of regionalism. For example, we may think of a region in terms of complementarity across diversity. To illustrate, the educational system of state "A" may have needs for which state "B" has complementary resources, while a university in state "C" has the needed dissemination linkages between the first two states. For another example, several states in a given region may each be largely rural, but each has a few larger cities. It might be that no one state would have enough large cities to warrant or facilitate major educational R&D activities related to the needs of their larger cities -- but together, such educational R&D activities could be both warranted and possible. The "complementarity" here would be the possibility of coalescing resources across states.

E. Regionalism as a Culture of Collaboration

Discussions of regionalism often focus on such issues as creating regional institutions; meeting the needs of regions; the availability
of resources; whether a regional or some other approach (e.g., at a national or a more local level) is "better"; etc. While all of these may be valid concerns, it may be important to approach regionalism from a different perspective, a perspective of a region as a social reality — or more specifically as a culture of collaboration. Such a concept was implied in the above discussions of homogeneity and complimentarity but needs to be carried further.

A culture of collaboration (in its mature form) would be characterized by (1) a sense of common needs and fate (while at the same time recognizing diversity); (2) a history of collaboration (so that collaboration is not something "new and strange"); (3) a recognition of (belief in) the value of collaboration (even to the point of collaborating on needs or issues which are not strictly "regional" or for which resources could be found at a more local level); (4) a variety of collaborative (i.e., regional) mechanisms; (5) an ability to form new collaborative arrangements with relative ease; and so on. A collaborative culture may involve collaboration both among the local R/D&I system participants within a region and between local and national level R/D&I system participants. Viewed from this perspective, it is relevant and valid to think of a geographic region which emerges over time, which is indeed perceived as a region by its members and which has a stability over time as a collaborative culture.

Two points may be noted here. First, the perspective of regionalism as a culture of collaboration does not require (and is thus not limited by) a primary initial focus or emphasis on development/utilization of institutions, specific needs, specific R/D&I functions, etc. — but is capable of using/responding to such emphases. Second, a collaborative culture within a region may well have an important secondary effect of providing a support base for educational R/D&I.
F. Regionalism as an "In-Between" Area

Thus far, the discussion has approached regionalism from the assumption that regions are, in effect, a set of geographic areas which together make up a "whole" (i.e., the nation).

There is, however, a somewhat different understanding of a "region" which is important for this analysis: a region is an area somewhere between a larger and a smaller area -- i.e., it is an "in-between" area. For our purposes here, a region would be an area in between federal and local/state governments and in between national and local perspectives.

We may note here that from this perspective, whether or not regions differ from each other in some way is not of primary significance (though of course such differences may still have important implications). Rather, from this perspective, the meaning and significance of regionalism derives from the similarities, differences and relationships between local and national perspectives, needs, purposes, organizations, etc.

This point needs to be taken one step further. In the United States, federal and state governments have a constitutional reality. City and county governments have a legal and historical/traditional reality. Each of these exists as a separate and distinct unit of government possessing legislative, judicial and executive authority. By contrast, regionalism in the United States has no reality as a separate and distinct unit of governmental authority. Various specific federal

* We remind the reader that for the sake of simplicity, we are using the term "local" to refer to both state and sub-state areas, institutions, etc.
regional agencies may indeed have certain quasi-governmental powers, but (1) they are still units of the federal government; (2) they are units of a specific branch of the federal government (either the executive or the judiciary); and (3) their quasi-governmental powers vary in nature and extent and are derived from the federal government (either through legislation or administrative policy). Similar comments would be made where a regional agency is established by a set of states.

A similar governmental reality should be noted here in relation to the educational R/D&I context. Direct responsibility for education in this country is constitutionally reserved for the states — and to a large extent reserved for local units of government by very strong, historically-embedded traditions.

G. Regions as Aggregate Composites of Local Elements

Another way of defining a region is to say that it is the aggregate of some set of more local "units" or "elements". From this perspective, regional characteristics represent a composite of the characteristics of the more local units — and it is in and through this aggregate composite that a region's basic homogeneity, complementarity, needs, etc. are defined.

From this perspective, regional characteristics do not necessarily have to differ across regions in order to consider a regional approach. For instance, the purposes of effective and efficient delivery of services may call for a regional approach completely apart from any consideration of whether the various regions (however defined) are significantly different from each other.

From this perspective, it is important to understand the basic relationship between a "region" and its "local units". There are three points to be noted here.
a. Regionalism as an Interrelationship of "Local" Units

The concept of having a region implies some set of interrelationships between any number of local organizations, institutions, people -- e.g.: cooperative activities in need identification, services; building of networks of communication (formal or informal); developing relationships between people and organizations; etc. Regardless of the nature or purpose of the regional interrelationships, however, we are really speaking of interrelationships between local organizations and personnel. Thus, some form or concept of "localism" is inherent to "regionalism".

b. "Localism" Does Not Imply "Regionalism"

The reverse, however, does not hold true. Many of the activities which one might consider doing on a regional level (e.g.: need identification, field testing, personnel exchange) are done on a local level -- even at times on a cooperative basis -- without any notion of there being a "region". Thus, there may be local elements without the existence of any regional arrangements or institutions -- or even without any notion that a "region" exists at all.

c. Regionalism from the Perspective of Local Units

From the perspective of the local units of a region, then, the significance of regionalism would reside in the ability of a regional approach (as perceived by the local units) to enhance the value of what is (or could be) done locally; to provide services or resources which are not provided locally (or which could be provided more effectively, at less cost, etc. through a regional approach); to provide political leverage to buffer local units against environmental forces; and the like. From a local perspective, regionalism
could have a negative significance if a regional approach were to be seen by local units as creating conflicts over power, status, "turf", competition for scarce resources and the like.

H. Regionalism: Large Scale, Quasi-Permanent Groupings

Three concepts have been implied throughout the above discussion of various "modes" of defining regionalism.

First, regionalism implies some kind of "grouping together" -- for example, a "grouping together" of needs, of resources, of states, of collaborative efforts (to meet needs, to form a "collaborative culture"), of relationships between national and local organizations, etc.

Second, the discussion has implied that these "groupings" are rather large scale -- otherwise, why would a regional approach ever need to be considered?

Third, the discussion has implied that these "groupings" will generally have a quasi-permanent stability. Otherwise, regionalism itself would have only occasional, short term significance (though of course, regional approaches might indeed be considered occasionally for short term purposes). Here, however, it is crucial to be clear about the meaning and implications of "quasi-permanent". Quasi-permanent does imply that if regional approaches are only short-term in nature and lack stability over time, then serious questions must be raised about the allocation of significant resources to regionalism. On the other hand, quasi-permanent does not imply: (1) that all regional approaches must be of a long term nature (some purposes might be best met through short term regional approaches); (2) that regional approaches should be