11 of the ingredients necessary to create an economic disaster for Texas are present in the state's public education system. Just combine the following: a dropout rate as high as $45 \%$ for Hispanic and $34 \%$ for black students, lower achievement test scores for those who stay in school and graduate, and a higher dropout rate in college for disadvantaged students. Allow these ingredients to leaven for twenty years. Then mix with a public school system where the majority of students are black or Hispanic and bake in an economy that requires increasingly higher levels of education, and you have a recipe for disaster.

The implications of this recipe are frightening. Unless action is taken now, there will be a shortage of skilled workers in the future. It will become necessary to import skilled professionals to meet the requirements of a highly technological economy. At the same time, there will be a great deal of un- or under-employment among disadvantaged citizens. If this happens, Texas will take on the characteristics of a third world economy.

To prevent the above scenario from becoming reality, dropout prevention must become a top priority for Texas. Major education reforms passed in 1984 concentrated on raising minimum standards for all students, but did not specifically address the needs of disadvantaged students. The needs of these students must be addressed to keep them in school and to raise their performance levels.

For these and other reasons, businesses in Texas and the rest of the nation are becoming more involved in the public schools than ever before. In some cases, businesses have formed partnerships with the schools to address the dropout problem. Because businesses are major taxpayers in Texas, they are concerned with the social costs caused by dropping out of school. Statistics show that $90 \%$ or more of the inmates in the Texas correctional system never completed high school. A number of studies have shown the high costs to the state associated
with dropping out of school, with one highly-publicized (and quoted) study identifying more than $\$ 17$ billion in costs from lost wages and taxes and increased burdens placed on social welfare programs.

Another reason for concern is the need to diversify the Texas economy by attracting new businesses to the state. While in the past a pool of unskilled labor was an advantage in attracting business, in the future it may prove to be a major obstacle. Many formerly unskilled jobs now require training because of technological advances and this is a trend that is expected to continue, if not accelerate, in the future.

Because this is such a pressing concern, the League has developed an ambitious two-year project focusing on increased coordination of dropout prevention efforts, evaluation of these programs, and the need for coordination of efforts to educate the public about the dimensions of the problem.

The League is able to contribute to a solution to this problem because of its unique status in relation to both business and government. The League has extensive contacts in both communities, yet enjoys an independence that lends itself to objective analysis of the problem.

The TRL Student Retention Project begins with a number of assumptions. The first assumption is that the focus must be shifted to the positive; rather than talking about dropout prevention, the term "student retention" should be used. The project assumes that the goal is to retain all students through graduation from high school. While the state may never be able to retain $100 \%$ of public school students, that should nevertheless be the goal.

With that goal in mind, the second assumption is that a coordinated effort from both
the public and private sectors will be required to meet this challenge. Given the many strains on the state's budget, resources will have to come from both sectors.
Ultimately, however, the goal of student retention may require some major changes in how the state's children are educated. Such changes will probably not come from within, but will require a great deal of public pressure to bring them about.

Finally, the third assumption is that, while scholarly research is important to understand this issue, there is a need to act now. The problem is serious enough to demand the immediate attention of government and business. Yet, these efforts need to be evaluated in order to see if they are effective. Accordingly, the League will investigate both private and public sector programs to determine what works.

## Project Goals and Activities

## Goal 1: To act as a catalyst for greater COLLABORATION BETWEEN THE PUBLIC AND PRIVATE EFFORTS TO INCREASE STUDENT RETENTION IN TEXAS.

Activities: The number of student retention programs and activities underway in Texas today is enormous; each of the state's 1,057 school districts operates one or more programs. At the state level, the Texas Education Agency (TEA), the Texas Higher Education Coordinating Board, and several other state agencies operate programs designed to increase student retention. In addition there are many private sector programs at work throughout the state, such as the Communities in Schools program, considered by many a model for successful public/private partnerships to meet the challenge posed by the dropout problem.

Once the major participants in the state's many student retention programs have been identified, representatives from a wide range of these programs and representatives of business, labor, the education community, and state agencies will be invited to participate in a series of meetings sponsored by the League. The purpose of these meetings will be to familiarize those involved in student retention

efforts with the status of these efforts, successful or innovative approaches to the problem, and obstacles the participants face as they conduct their work. The primary goal of these conferences is to promote greater knowledge of these efforts, to develop strategies for coordinating student retention activities, and to avoid duplication of effort.

GOAL 2: TO ACT AS A CATALYST FOR GREATER PRIVATE SECTOR INVOLVEMENT IN STUDENT RETENTION ACTIVITIES.

The League will investigate private sector initiatives aimed at lowering the dropout rate. Exemplary programs in Texas and other states will be examined to determine how the private sector can play a larger role in solving this problem. Expanding the private sector's role can result in at least two benefits: first, greater connection between educational and work experiences for students; and second, reduced cost to local and state governments through the use of donated time and resources.

As part of this effort, the League will survey business leaders in the state. The purpose of such a survey is to gauge the level of support for public/private partnerships to combat the dropout problem and to measure current business efforts in this area. Because the Texas Research League is supported by a wide range of Texas businesses, we have at our disposal a valuable asset: access to business leaders throughout the state. These leaders, through their contribution of considerable time and energy to the League's work, have demonstrated their commitment to helping solve governmental and social problems. They can be counted on to respond to the League's survey.
Among the types of information to be collected are: (re)training costs for new (entry level) employees, the types of job skills which are most often lacking in new employees, businesses' assessment of the quality of academic preparation of their employees, whether or not the business contributes to a business/school partnership, the willingness of employers to donate employee time to mentor programs, the feasibility of linking summer job experiences with the school system (making school attendance a requirement for summer employment), and the feasibility of
programs which promise preferential hiring treatment to at-risk students who remain in school.

The project will also examine the role of technology in the classroom. Many corporations are already involved in the development of learning systems using computers. These learning systems may have great potential for reaching two segments of the atrisk population: high-achieving students who are not challenged by the conventional curriculum, and low-achieving students who lack competency in basic skills. Computerized instructional methods have the advantage of permitting individualized lesson plans to be tailored to the needs of the student, allowing teachers to manage human resources more wisely.
Goal 3: To evaluate texas' student retention PROGRAMS AND TO IDENTIFY GAPS IN THE STATE'S EFFORTS.

The educational system has often been compared to a pipeline. Dropouts represent "leaks" in this pipeline. Although the student usually drops out in high school, these leakages may begin at any stage of the educational process. In fact, the factors leading to the student's withdrawal are usually apparent much earlier in the student's school life. Consequently, early childhood programs may be needed for at-risk students to keep them in school. But early childhood programs are no panacea either. Schools must also address the special problems of teenage mothers, impoverished youth, the learning disabled, juvenile delinquents, and students lacking proficiency in the English language, to name just a few of the at-risk groups. A full range of programs to deal with the many causes of student dropouts is needed.

This project will include an evaluation of existing student retention efforts based upon what is known about successful student retention programs. There is a considerable amount of literature concerning what works, both here and across the nation. The League's role will be to gather this information and suggest the "essential elements" of a good student retention strategy. Based upon knowledge of what works, both in Texas and the nation, a set of criteria will be developed for use in evaluating a sample of Texas' many student retention programs. Of particular importance is whether

or not a full range of programs and services is available to meet the needs of a diverse at-risk student population.

Once a set of criteria to use in evaluating programs has been developed, a field survey of student retention programs will be conducted in a sample of Texas school districts. Every program will be evaluated using these criteria. Of special interest are measurable indicators of success such as retention and re-enrollment rates.

The field survey work will also have an additional element: a needs assessment of student retention programs. Project staff will interview, in each district chosen for study, the at-risk coordinator for that district along with participants in student retention programs identified in that district by the TEA. From these interviews information will be gathered concerning the availability of resources for these programs and special needs which may be unmet.

The survey of school district efforts will use random sampling techniques. TEA categorizes school districts according to a number of factors, including district type (urban, rural, suburban, etc.), district wealth, and the percentage of minority enrollment. The random sample will be tested to insure that a representative sample of school districts is chosen. It is reasonable to expect that urban districts contain a different at-risk population than rural districts. It would be valuable to learn the types of problems faced by school districts with different characteristics and their responses to the dropout problem. This information will be valuable in designing statewide strategies to attack the problem, especially for the business community.

## Goal 4: To develop a COORDINATED PUBLIC awareness campaign.

The agenda for the periodic meetings of those involved in student retention programs will include discussions concerning a coordinated public awareness campaign. The campaign will educate the public concerning the severity of the dropout problem, the social and economic costs associated with this problem, and ways in which the public can respond to the challenge (such as participation in mentorship programs). The atrisk student population must also be targeted by this campaign and convinced of the value of completing
a high school education.

## Products

The student retention project will take about two years to complete. The
League's project will generate several products:

- An annotated bibliography of relevant research work in the field of student retention.
- An interim report describing the problem as it exists in Texas and a synthesis of research on what works in student retention programs.
- Final Report. This report will summarize the results of the League's research. It will present an evaluation of Texas' student retention efforts, programs that work and why, the resource needs of student retention programs, recommendations on how to meet these needs (i.e. tax dollars versus business contributions), information on
successful business/school partnerships, information on how businesses can become involved in local programs, and a series of recommendations designed to facilitate greater business and community involvement in local schools.
The results of the field survey work will be published as appendices to the final report.
- TRL Student Retention Update. Combatting the dropout problem is a long-term project. Currently the topic is receiving a great deal of press and public attention. The TRL can contribute to increased public awareness by publishing a periodic newsletter focusing on the dropout problem, its causes, implications, and possible responses. This publication can help to increase knowledge of the problem and keep the business community apprised of both public and private responses to this challenge.


## How Large is the Problem?

The size of the dropout problem in Texas is difficult to estimate, but by any measure it is large. In 1986, according to the U.S. Department of Education, Texas ranked 44th among the 50 states in its ability to retain students until graduation. The problem is equally as serious in New York, which also has a large minority population (see Figure 1).

To understand the magnitude of the problem, it is necessary to define who is a dropout. This might seem elementary, but until recently school districts
could adopt their own definition. This was usually similar, but not identical, to the definition used by the Texas Education Agency (TEA). Because of legislation passed in 1987 a standard definition of a dropout now exists: A dropout is a student who (for any reason other than death) leaves school before graduating without transferring to another school or institution.

Once a common definition has been agreed upon, it is possible to estimate dropout rates. There are


Table 1
Estimated Attrition Rates Texas Public and Higher Education

| Public Education | Public |
| :---: | :---: |
| $(1985-86)$ | Higher Education |
| (1984) |  |

For:
For:

| White | $27 \%$ | White | $26 \%$ |
| :--- | :--- | :--- | :--- |
| Black | 34 | Black | 35 |
| Hispanic | 45 | Hispanic | 38 |

Sources: Texas Department of Community Affairs and U.S. Department of Justice. Higher education figures are for traditionally white institutions only.
many ways to calculate such a rate, some good and some bad. One commonly used method involves comparing enrollments at different grade levels. For example, the rate may be calculated by comparing the number of ninth-graders in a given year with the number of graduates three years later. Because school and district enrollments are not constant, it is necessary to take in- or out-migration into account in computing the rate.

Using the method described above an attrition rate is calculated (see Table 1). This is not the same as the dropout rate, because it does not correct for students who reenter school or complete a high school equivalency program. The attrition rate measures the number of students who fail to graduate on time. This calculation is based on a number of assumptions which may or may not be true. It assumes that the number of students transferring in and out of the school district is fairly constant among the grade levels included in the calculations. A second assumption is that there is no marked increase or decrease in the number of students at a specific grade level. If a district retains (fails) students at a higher rate in the ninth-grade, then this method will yield a dropout rate which over-estimates the size of the problem. On the other hand, excluding students from below ninth-grade may understate the problem; according to some studies nearly half of Hispanic dropouts had completed less than nine grades when they left school.

The best method for obtaining a dropout rate is to institute a student tracking system, but no such system has been in place in the past. The dropout legislation passed last session requires the TEA to develop a system for districts to collect data on student dropouts. The system must attempt to gather information on each student dropout, including the age, sex, ethnic origin, socioeconomic status, and the highest completed grade level of the student
dropout. The TEA will use this data to determine the number of student dropouts each year. Reports must be prepared for each campus, school district, county, and region. The first such report should be issued early in 1989.

Lacking an accurate count of dropouts, perhaps the best data available now comes from the Bureau of the Census. Using this source the dropout rate appears to be close to $20 \%$ for youths age 16 to 24 . The difference between this figure and the $33 \%$ attrition rate is probably caused by students who fail to complete school on time but eventually graduate, return to school at a later date and receive a diploma, or enter and complete a high school equivalency program. But research on the latter group indicates that a GED (General Educational Development) certificate may not be comparable to a high school diploma. This research suggests that GED certifi-cate-holders do not fare as well as high school graduates in the labor market or in higher education.

For at least one reason, the attrition rate is a better indicator of the problems in the schools than the dropout rate. This is because the attrition rate measures the school system's success (or failure) in educating its students under the standards set for academic achievement. If the attrition rate for Texas is truly $33 \%$, then Texas is failing, in some fundamental way, to educate a large group of students. The additional cost of "recycling" students must be added to the initial cost of education. This is not an efficient way to educate students.

## Mark Your Calendar Now!

Spring Board of Directors' Meeting May 4, 1989 Dallas

## Why Students Leave School

Students cite a number of reasons for leaving school: poor grades, not liking school, marriage or marriage plans, pregnancy, and a preference or need for work. However, self-reporting is affected by students' perceptions of their circumstances, and they may report inaccurately. In order to learn more about a student's reasons for leaving school it is valuable to measure the circumstances that surround decisions for dropping out. A number of studies have analyzed data on characteristics of students' family backgrounds, school experiences, and personal characteristics.

Perhaps the most extensive research in this field has been conducted by the National Center for Education Statistics (NCES) in a study entitled High School and Beyond. This study was part of the center's program on the educational and occupational experiences of high school youth. The study collected data on a national sample of high school sophomores in 1980; follow-up studies were conducted using the same group in 1982 and 1984.

According to the NCES study, the following factors are significant in a student's decision to drop out:

- Being two or more years behind grade level.
- Being pregnant.
- Coming from a family where the mother or father was not in the home when the youth was age 14.
- Coming from a family where the father dropped out of school.
- Having relatively little knowledge of the labor
market.
Among the study's other findings were: (1) youth are more likely to stay in school if they are enrolled in a college preparatory curriculum, are satisfied with school, do not intend to marry within five years, expect to attend college, and have more regular religious attendance; and (2) after controlling for such factors as coming from an impoverished home and the education of the father, black youth are less likely than white youth to drop out of school. The study concluded that although blacks do have higher dropout rates than whites, it is because substantially higher proportions of blacks come from economically and educationally disadvantaged backgrounds.

In Texas, a study conducted for the TEA found the following common factors related to dropping out of school:

- the older a student is relative to the average age of students in a particular grade, the more likely the student is to drop out;
- the number of absences in a year were positively related to dropping out; and
- low grades were related to dropping out of school.


## Students Who Reenter School

During the first several years after students drop out, sizable proportions return to school or enroll in GED classes. Data from the NCES study show that about $10 \%$ of high school sophomores from public

Figure 2
Mean Texas SAT Scores by Racial/Ethnic Groups, 1976-1985


Source: The College Board, Addmissions Testing Program.
high schools who dropped out between the summer of 1980 and the spring of 1982 had returned to school or were in GED programs by the fall of 1982.

The NCES study yielded a number of other findings. Dropouts who had been in an academic school program were much more likely to return to school than students who had been in general or vocational school programs. In addition, students with higher scores on an achievement test taken when they were sophomores were more likely to reenter school, as were youth from families at the upper end of the socioeconomic scale (those from families with high income, occupational, and educational backgrounds).

The fact that these students dropped out in the first place may be another indicator of problems with the educational system. In addition to failing its disadvantaged students, the schools are not addressing the needs of high-achieving students. Nearly one in five of the dropouts tracked by the NCES study came from the upper half of the socioeconomic scale.

## CONCLUSIONS

In attempting to find causes for dropping out, it is often difficult to distinguish between symptoms and causes. Factors that relate to the dropout problem are often interrelated. According to the Congressional Research Service "seeking ... basic reasons for decisions to leave high school may result in explanations that are too general to be useful." For example, a student who drops out may cite low grades as the reason for leaving school. To what extent are these low grades related to problems in elementary school, and to what extent are problems in elementary school related to problems in the student's home?

While research on the causes of dropping out is valuable, it is possible to come to at least one conclusion concerning the dropout problem: the public schools are failing to educate many students who come from educationally or economically disadvantaged backgrounds. Dropping out of school is one symptom of this failure. Other symptoms include lower achievement test scores for black and Hispanic students and higher dropout rates for these students if they enter higher education (see Table 1 and Figure 2).

The public schools have arguably done a good job of educating youth from middle- and upper-class backgrounds (witness the great strides in
high school graduation rates since World War II). However, the record is less than exemplary for other groups, especially Hispanic students who represent the fastest growing segment of the population (see Table 2). The challenge for the rest of this century and beyond is to develop schools which will be successful in educating those who have not succeeded in school in the past. Black and Hispanic youth will account for more than half of 'Texas' public school students by the end of the century. Failure to educate and train these youth would have grave implications for the economic and social stability of the state.

For this and other reasons, the structure of education may require some extensive rethinking and restructuring. Schools designed to meet the needs of middle- and upper-class students rest on an assumption that education is reinforced by a student's family and the community. However, for disadvantaged students, evidence suggests there may be a lack of reinforcement from family and community. Some research exploring educational achievement in the Catholic high schools illustrates this fact.

Students in Catholic and other religious high schools generally perform at a higher level than those in public schools. While some argue that this superior achievement is attained by pushing out low-achieving students, the dropout (or pushout) rate at these schools is well below that for nonreligious schools, public or private. Religious schools seem to be better at keeping low-achieving students in school. This may be because religious schools enjoy greater family and community support.

At one time, the public schools operated under a grant of authority from parents, in loco parentis. This grant of authority has largely disappeared. Part

of the cause for this change is that parents no longer exercise the same degree of control over youth, and therefore cannot delegate this authority to the schools. But parents who send their children to religious schools seem to be able to delegate authority to the schools, and these schools operate under a different set of rules.

Community support for education can strengthen the grant of authority to the schools. When family support is lacking, community support may be essential for student achievement. Students do better when there is a sense of community in the schools. Religious schools are often part of a community that brings together parents and their children. This can also be found in some public schools in small towns, where parents know each other and hold their students to higher standards.

The public schools can never completely assume the role played by the family, and reconstructing communities around the schools would be at least
as difficult as reconstructing the family itself. But the authority of schools, and community support for them, must be restored if they are to be successful in the future. This may require schools that are very different from the ones that exist today.

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