THE PROBABILITY OF IDENTIFYING POTENTIAL SOPHOMORE HIGH SCHOOL DROPOUTS FROM ELEMENTS IN THEIR CUMULATIVE RECORDS

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by
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The problem. Are there similarities or characteristics in the cumulative records that would identify students as potential dropouts?

Procedure. Six items of information were selected from the cumulative records: IQ level, grade point average, absences, extra-curricular activities, disciplinary actions and form of guardianship.

Data was obtained from the records of the thirty-two sophomores who dropped out of the 1980 class at Des Moines Lincoln High School. The same data was taken from an equal number of students in the same class who completed the year. This group was selected by means of a random sample.

A Multiple Regression Analysis was used to determine if significant differences exist between the two groups on the first five items. A Chi Square Test was used to determine the significance of the last variable, form of guardianship.

Findings. The Multiple Regression Analysis identified three variables; GPA, attendance and disciplinary actions, as very significant predictors of potential dropouts. Two other elements, IQ level and extra-curricular activities, were found to be insignificant. The Chi Square Test indicated a very strong relationship between the type of guardianship and the tendency for a student to drop out of school.

Conclusions. Grade point average, absences and disciplinary actions are important predictors of potential dropouts. When used in conjunction with the form of guardianship of the student it becomes a very useful tool for administrators and guidance counselors.

Recommendations. Based on the information found in this study it is recommended that: (1) a computer program be developed to facilitate the use of the information by administrators and counselors, (2) the resulting computer program be made available to educational personnel, and (3) additional studies be conducted to determine if there are other elements that would be significant predictors.
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CHAPTER ONE

Introduction

Purpose of the Study

There is a growing concern for the increasing number of students who drop out during their sophomore year of school. It is difficult to determine the authentic reasons for becoming a dropout. The reasons stated are many and varied. These reasons may be the result of administrative efficiency rather than actual circumstances. Some drop slips contain a list of usual or acceptable reasons that can be easily checked off while others leave a blank space to fill in the appropriate information. There is reason to doubt the accuracy of both methods. The former is often incomplete and the latter permits the student to state whatever they feel is necessary to gain their release.

The underlying circumstances which prompt the decision to drop seem to fall into one of two categories: (1) those associated with an immediate problem, and (2) those related to a long-term condition. Examples of the former category would include, but are not limited to, pregnancy, physical injury, emotional stress or current economic conditions. Examples of the latter category would include social deprivation, economic status, learning disabilities, self-concept
and attitude.

Regardless of the reasons, real or imagined, some means must be devised to identify those students who stand the greatest risk of being potential dropouts. It is reasonable to assume that every student could become a dropout. The purpose here is to identify those who show the greatest risk of dropping out.

If a reliable method can be developed then additional help, counseling and remedial measures can be implemented to reduce the number who drop out. It should be remembered that the problem cannot be eliminated, only reduced.

The Problem

Statement of the Problem

Are there similarities or common characteristics in the elements in their cumulative records that could identify students as potential dropouts?

If similarities or common characteristics do exist and if they can be used to predict with reasonable accuracy then potential dropouts can be identified and given remedial assistance.

Related Sub-problems

A review of the student's cumulative records provides six items as possible predictors. Each of these must be analyzed to determine if it is a significant element. The degree to which it is present in one group and absent in
another will determine the validity of the item. The six items being considered are: IQ level, grade point average, absences, involvement in extra-curricular activities, disciplinary actions and the form of parental supervision in the home.

1. IQ Level. Are students with lower IQ levels more likely to drop out?
2. GPA. Do student's grade point averages differ greatly between dropouts and completers?
3. Absences. Are the number of days missed from school significantly different between the two groups?
4. Extra-curricular activities. Are dropouts less likely to become involved in clubs, teams and organizations?
5. Disciplinary actions. Do dropouts encounter a greater number of disciplinary problems?
6. Parental supervision. Is there a relationship between the form of home supervision and the tendency to drop out of school?

Background Information

School administrators and counselors need a reliable method of identifying potential dropouts. The first information available to them on the high school level is cumulative record. These records are sent to the high schools during the summer prior to their entering for the fall term. The cumulative record is a logical starting
point for analysis in this study.

A search of the cumulative records reveals a multitude of facts and figures concerning the student. It was necessary to reduce this information to a manageable number for strict analysis. The decision was made to use those elements common to most students. IQ level, grade point average, absences, disciplinary actions, extra-curricular activities and parental supervision were selected. These items would be analyzed to determine if they could produce a reliable profile of a dropout.

Information regarding age, ethnic background, number of children in the family, rank among siblings, economic status, employment status and general health conditions were not considered at this time.

Limitations of the Study

This study was limited to those students in the sophomore class at Des Moines Lincoln High School during the spring semester of 1980. The control group consisted of the students who dropped out for reasons other than moving to another school district or to another school within the Des Moines district. The comparison group was selected at random from members of the same class that completed the semester. Consideration was given only to those items previously mentioned.
Methodology

The six items of information selected for the study are easily accessible to administrators and counselors. These items appear on the cover of each student's cumulative record folder.

1. IQ level as determined by the Lorge-Thorndike Test, Level D, for 1976.
2. Grade point average for all classes taken during the seventh, eighth and ninth grades.
3. The number of days recorded absent during the seventh, eighth and ninth grades.
4. The number of extra-curricular activities involved in during the same period of time. This includes athletics, vocal and instrumental music, student council and other related clubs.
5. The number of disciplinary actions in which the student was involved that were serious enough to be placed on the student's record.
6. The form of parental supervision in the home responsible for the student. This could be both natural parents, one natural parent, one natural and one step parent, foster parents or a court-appointed legal guardian.

The raw data for both the control and comparison groups appear in tabulated form. Table 4 contains the data for the control group and Table 5 has the data
relating to the comparison group. The raw data is arranged in the following manner: (1) IQ levels are stated as a two or three digit number. (2) GPA is expressed as a decimal between a high of 4.00 and a low of 0.00. (3) Absences are given as a decimal using one decimal place. (4) Extracurricular activities are given by the number of separate activities in which the student participated. Band was counted as one even if the student participated all six semesters. (5) The number of disciplinary actions was given by actual count. (6) The form of parental supervision was determined as follows: a one denoted living with both natural parents, two meant the student was living with only one natural parent, three indicated living with one natural and one step parent, four was living with foster parents and five meant having a court-appointed legal guardian.

Each student was assigned a number to preserve their identity and confidentiality. The numbers 01 to 32 were assigned to the control group and numbers 50 to 81 represent the comparison group or completers.

Procedures

Procedures for Gathering Data

The first step in this study was to gather the data on the six items selected from the files of the thirty-two students who dropped out of school during the 1980 spring
semester. This information was then posted to a table for further reference and analysis. The next step was to select at random an equal number of students from the same class who completed the term. This was accomplished by means of a table of random numbers. There were eleven boys and twenty-one girls in each of the two groups.

Statistical analysis would be used to determine the relationship of the items to the two groups to determine if there was significant differences on these items between the groups. If it were determined that this meaningful difference did exist on some items, they would be used for further study. The items that could be used as reliable predictors would then be used to prepare a computer program for use by school personnel to identify potential dropouts. This program would be written and tested to determine if it would be a useful tool to school officials.
CHAPTER TWO
Review of Literature

In the beginning public education was for the children of the wealthy. Public education was not expected to provide for all youth. During the 1920's and 1930's curriculum changes were introduced to attract more youth into the educational system. Social and parental pressures were not fully behind these efforts. It was felt that the effort of the children was better used working on the family farm or in the family business. The arts, business, homemaking and industrial programs were introduced to counteract the resistance to getting an education. These did provide greater opportunities and were a step in the right direction, however they did not solve the problem of educating the nation's youth.

The great depression of the 1930's saw a multitude of youth leave the school system for a variety of reasons. Most of these were related to economics. This event undid most of the progress of the previous efforts. The federal government instituted programs to help the youth and they were successful, but short-lived. The Civilian Conservation Corps and the National Youth Employment programs provided work for the student dropout, but not an education. The most
important outcome was the recognition by the government of the shortcomings of the public school system.

There has been a continual drive since that time to improve education for all youth. Many projects and concepts have been used to improve the system, none has been a cure-all for the problems.

Legislation has generally solved the problem of getting our youth into the school, the new problem is how to keep them there until they receive a diploma. In his 1963 State of the Union message, then President Kennedy recognized the fact that 40 percent of the fifth grade class would not receive a high school diploma.

Parental and social pressure, teacher insistence and employment considerations place the high school diploma as the minimum acceptable standard for economic survival. Still many do not find the need to stay in school. Public education is striving to do more for all types of students. Great gains are being made in the educational efforts for the mentally and physically handicapped. The poor, economically deprived as well as the talented and gifted are the objects of new and growing programs of instruction. School facilities are being improved and stocked with the latest equipment. Computers are a shining example of this trend. Even the latest strategies and techniques are being employed to meet the demands of the individual student. With all of this the system still fails to provide something for everyone.
The system doesn't meet the needs of a large number of youth who still drop out each year and become an even greater problem to society. This problem is not a new one, it has been with us for the past seven decades. It has been studied, analyzed and discussed over the years and has changed from a fact of life to a serious social problem.

**Defining the Term Dropout**

Part of the problem of finding a solution for the dropout problem is gaining an acceptable and universal definition for the term dropout. All seem to agree that it describes a person who leaves the school system prior to receiving a diploma. This is where the agreement seems to end. There are many questions that need to be answered with some statement of universal or at least uniform agreement. Should the term only include those who leave and never return? Is it for those who leave without the intention of returning? How long must they be out before returning? Are those who earn a General Equivalency Diploma (GED) or other form of high school equivalent certificate still classified as being dropouts? Should a distinction be made between those who voluntarily leave the system and those who are pushed out by administrative action? Another consideration is those who are either mentally or physically handicapped. The limitations of the individual to receive instruction and the other limitation of the system to provide instruction often mean that completion is achieved
prior to graduation. This problem is complicated by the fact that little effort is made to follow up on the students who do drop out. Once they leave the system they tend to become the problem of someone else. Even when they are re-enrolled in the same system the dropout records are not revised to show the true figures. The agencies who issue the GED or high school equivalency certificates prepare reports that are seldom if ever used to revise the dropout statistics. For our purpose, a dropout is one who leaves the school system without a clear intent to return.

It should be remembered that each dropout is a unique individual with a personality that has been conditioned by particular environmental circumstances. There are certain elements that are similar to each of these individuals. Though unique in themselves a reasonable profile can be constructed from the common elements to aid in the identification of potential dropouts.

Research on Dropouts

The research on the dropout problem has been conducted from several points of concern. There are three popular methods that should be explained. The first method is based upon the reasons why students drop out of school. The second method examines the conditions that cause, influence or permit a student to leave the school setting. The third method revolves around the characteristics of the individual that makes it necessary to stop attending
educational activities. Each of these methods has its own merits and shortcomings.

There are two important considerations to remember when trying to compare the results of similar studies on the problem of dropouts. First, the particular conditions and characteristics of the population being examined. The problem relating to a dropout in a metropolitan ghetto and one in a small urban or rural town are hardly the same. The second is concerned with the element of time. The conditions of economics, legal requirements, projects, and the attitudes of school officials are constantly changing. What may be the cause in one place at a given point in time may not be the same for another place at the same or different point in time.

Bert I. Greene states, "Dropouts will continue to be a problem until high school graduation becomes compulsory."\(^1\) Eighty percent of our youth were not educated prior to 1920 and this was not seen as a problem. Seventy percent walked out of the classrooms during the great depression and it was not viewed as a serious threat. Forty percent did not complete high school in the 1950's and this was viewed with only mild concern. Approximately 20 percent are not presently going to receive a diploma and it is finally seen as a serious problem. Why?

The dropout is a problem today because: (1) The percentage of dropouts is down but the actual number has increased. (2) Our more complex society and economic system requires a higher degree of knowledge and skill to compete for positions in the labor force. (3) The age at which persons are entering the labor force has changed. (4) Frustration, fear of failure and the inability to relate personal goals to school goals decrease the student's desire to succeed. (5) The student may become a candidate for a second generation on social welfare. (6) There are very few social and economic opportunities for the dropout. (7) The dropout represents a major social and educational failure, an embarrassment for the whole world to see.

Table 1
Percentage of Students Graduating from High School in the United States*

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
<th>Year</th>
<th>Percentage</th>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>6.4</td>
<td>1930</td>
<td>29.0</td>
<td>1960</td>
<td>65.1</td>
</tr>
<tr>
<td>1910</td>
<td>8.8</td>
<td>1940</td>
<td>50.8</td>
<td>1970</td>
<td>78.6</td>
</tr>
<tr>
<td>1920</td>
<td>16.8</td>
<td>1950</td>
<td>59.0</td>
<td>1980</td>
<td>81.3</td>
</tr>
</tbody>
</table>

*These figures do not reflect those who attended private schools, those in adult education or from correspondence courses.

In 1933, Kline duplicated the dropout study made by Thorndyke in 1905.\textsuperscript{1} The earlier study showed that 81.7 percent of dropouts left school prior to the ninth grade. The later study found that this figure had been reduced to 39.6 percent. These studies seem compatible in that the figures in Table 1 show that 2.6 times as many students graduated in 1930 as in 1900. The Kline report shows that over two times as many students dropped out before the ninth grade in 1905 as was the case in 1933.

**Reasons for Dropping Out**

This method of dropout research is focused on the reasons stated for dropping out of school. This method has many pitfalls. The first of these has to do with the educational system. They prepare drop forms or drop slips with rows of little boxes neatly prepared with accompanying sterile statements of administrative convenience. These look good when reports are reviewed or for the purpose of justifying statistics. They are excellent in expediting the drop process but usually bear little credibility. The second problem with this method deals with human nature. Every parent in tune with reality knows that young people say what they think we want to hear or at least what they believe we will accept. The true reasons are probably

\textsuperscript{1}E. I. Kline, "Significant Changes in the Course of Elimination Since 1900," *Journal of Educational Research*, 26 (1933), 607.
seldom accurately stated. Again, the reasons stated and the real reasons are probably not one and the same.

The reasons stated for dropping out can be placed into one of two broad categories: voluntary and involuntary dropouts. The voluntary dropout leaves the system by their choice. They generally initiate the action. The involuntary dropout is usually excluded from attendance by school officials or by other authorities as the result of activities attributed to the individual. Both appear to be a matter of convenience either for the individual or for the system. There are probably as many reasons for dropping out as there are dropouts.

The involuntary or forced-out individual can be explained by a few simple reasons. Disciplinary action is the first reason. This results from some form of anti-establishment behavior. The unacceptable behavior may have occurred outside of the school and the police or judicial authorities may require the student's presence at another location. A second important reason for being forced out is non-attendance. Here the student indicates to the school system that he or she would rather not be associated with the educational experience. The third reason in this category is pregnancy. This reason is rapidly changing from one of being forced out to one of voluntary elimination. Social attitudes have changed and now allow girls to remain in the normal school setting.
until nature takes its course.

On the voluntary side the stated reasons usually compliment one of two conditions. The student has not been able to acquire an acceptable degree of success in the school setting. The student has found an opportunity to obtain a measure of success outside of the system which offers some economic reward even though it be limited at best. It is difficult to understand why a student would drop out for employment reasons. Without the diploma the job opportunities are quite limited. Statistics show that the high school graduate will earn several times more than the non-graduate during their productive years. Today's jobs require greater skills and longer periods of training. The present economic conditions place jobs at a premium. In addition to this the post-Korean War baby crop is now ready to enter the labor market.

There are two realistic possibilities that may explain these conditions. Either the school system and social pressures have not thoroughly emphasized the desirability of the high school education or the individual has not accepted the reasons and pressures as a reasonable and valid course to pursue.

Schools fail to reach youngsters who are out of step with the normal routine. Schools are obsessed with rote learning, imposed discipline and authoritarian organization. This tends to drive students out of the classroom by
increasing apathy and rebellion. These same students experience a relaxed and flexible home and social life and find it unreal and unnecessary to adjust to rigid standards of the formal classroom setting. For those who can't or won't adjust to these problems dropping out seems to be the best alternative.

Several authors tend to agree with these students. Ashley Montagu comments, "We don't have education in America, only instruction."\(^1\) Hillel Black stated, "The wonder indeed, is not that Johnnie can read, but that Johnnie, after twelve years of school books, wants to read at all."\(^2\) In defense of the above, Harvard's Center for Cognitive Studies has indicated that compulsion, grading, testing and regimentation, as presently practiced in schools, are indeed harmful to students.\(^3\)

"The dropout is everyone's problem," according to Emanuel F. Hammer in his report on school dropouts.\(^4\) He also states that, "In spite of the recent frenzy of

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\(^3\) Report on Student Performance in the Classroom (Harvard University Center for Cognitive Studies, 1979).

attention given to the problem of school dropouts, certain basic failings of the schools from which they flee remain uncorrected." Dr. Hammer observes that schools presently suppress intelligence and stifle creativity. He distinguishes between intelligence and creativity by the following: "intelligence is the ability to see the teacher's point of view and creativity is to see beyond it."

I do not believe that much will change in regard to the reasons why students drop out. The system will continue to check off the little squares with official sounding statements attached and students will continue to give reasons that parents and administrators will accept.

**Conditions Which Cause, Influence or Permit Dropouts**

The second method of dropout research deals with those conditions that cause, influence or permit students to drop out of school. Some of the more important conditions are:

1. The failure of students to achieve a degree of academic success and personal satisfaction in the classroom.

2. The inability of the system to cope with students who demonstrate social inequities or personal problems.

3. Economic reasons that require some to leave for monetary reasons.

4. Social trends that encourage young people to do
their own thing.

5. Legal statutes that only require attendance to a specific age or grade level.

6. The welfare syndrome which supports those unable or unwilling to care for themselves.

Human nature dictates that people soon become disenchanted with any activity that doesn't allow or provide a degree of personal satisfaction. It is little wonder that students who fail to achieve some classroom success should elect to leave. America has always been the land of champions and winners. Society has little respect or tolerance for a loser. The system compounds the problem by not having enough time to spend with those who need it the most. It is far more efficient, economical and expedient to eliminate a problem than to solve it. This is tragic when the problem involves a human being.

D. S. Elliott states that, "Students who experience academic failure are far more likely to display delinquent behavior which in turn leads to official expulsion."\(^1\) His statistics show that students with low grades and the resulting delinquent behavior are ten times more likely to drop out than other students.

Some students find it necessary to leave the school system for economic reasons. Either they must help to

support their family due to circumstances involving their parents. This may result from divorce, death of one parent or from their disability. In some cases it may be necessary for the student to provide for their own support. Teenage marriages often require full-time employment and tend to preclude the opportunity for formal educational activities.

The newspapers, magazines, radio television and other media forms continually bombard students with a multitude of messages advocating doing your own thing. The slogans, "Age of aquarius," the "Pepsi generation," and "Get all the gusto you can get" influence the attitudes and consequently the actions of students. They imply that everyone is doing their own thing, so why aren't you? Even our legislative and judicial systems are stressing the idea of equality. Students perceive this to mean instant equality. They do not stop to realize that what is meant is equality of opportunity and not equality of position. Equal rights, equal protection and equal opportunity alone do not assure equal status.

I am often perplexed that the responsibility, effort and preparation associated with rights and equality are not stated and emphasized as well as the basic premise. I believe that for every ounce of rights there is a pound of responsibility attached. Opportunity may knock, but initiative, effort and sacrifice open the door to achievement and
equal status. It is in the classroom where these qualities can be learned and exercised. But, for the student with few friends, low achievement and in need of money, the opportunity for success seems to lay outside the school and not within. The popular concept with young people is, "if it feels good, do it." For some it seems the good feeling doesn't come from the school or from an association with it. The educational system has had the task of preparing students for life. To instill within them the time honored values, norms and traditions. If the system is unable to do this, the individual will find it elsewhere.

"The school system has little to do with education, it goes on for it's own sake." This is according to the views of Paul Goodman.¹ "It keeps thousands busy, wastes wealth, crushes life, and pre-empts the space in which something interesting could go on." Thus perhaps an outmoded institution has become almost the only available way of growing up.

I do not believe that the system is as bad as this commentary would seem to indicate. It is indeed in need of improvements but not to the extent of eliminating the entire system. Apparently to the dropout the system is a waste of time. It doesn't offer that which is of value to them.

It is difficult to discuss the educational system without some reference to the curriculum. What is presented for study is more important than when or where the study takes place. Even with the great variety of new courses and programs, something is lacking in the curriculum that prompts some to look elsewhere for that knowledge. It would seem unlikely to believe that the dropout doesn't understand the need for an education. The problem then is either with the type of instruction or the method used to provide that instruction. The system doesn't allow for individual needs and concerns. Part of the problem with presentation may be with class size. For many years the studies made in business and industry have concluded that the best span of control for worker productivity has been one supervisor for twelve to fifteen workers. The educational system still insists, probably for economic reasons, on placing twenty-two to thirty-two students per classroom teacher and expects to receive maximum educational benefits for each student.

The typical school curriculum has evolved from the needs of the upper class. The assumption has been that what is good for the upper class is good for all people. Greene believes that, "The present day curriculum depends upon the future for motivation." "We offer the student a promissory note." "We must assure them and keep reassuring them that their study will be beneficial to them
in the future for college and employment."¹

The problem with this concept is that the middle class wants more immediate gratification and for the lower class the future doesn't exist, there is just a steady stream of todays. We live in an "instant" and "prepackaged" generation. Television has eliminated the need for imagination with wide angle focusing and instant replays. Students believe in what they can see and seem unwilling to accept what may be at some point in the future. The wait, for them, is frustrating rather than exciting.

A second problem with the curriculum in most school systems is the universal concept that the path through the experience is one lane and one direction. All must follow the same path with the same experiences and receive the same benefits. This routine leaves little room for individual selection and motivation. It becomes another hurdle of frustration for all students and especially for those who have not found success. The only hope the potential dropout may have is to find a course within their ability and interest range.

The third problem with curriculums in general is the direction they provide. Most are academically oriented for the college bound student. These courses and students are the show pieces of the school. In reality they benefit

¹Greene, Preventing School Dropouts, p. 96.
approximately 40 percent of the students. Guidance counselors would do well to ask more questions of the individual student before offering advice as to what classes to take. When a student doesn't intend to go to college, the course offerings are few and narrow in scope. This again returns to the matter of economics. It is expensive to equip a classroom with mechanical learning aids. The dropout stands a better chance of getting hands on experience on the outside. The system is as much of a failure to him as he is to the system.

The legal requirements for school attendance vary with each state and community. Common ground seems to be the completion of the eighth grade or an age of sixteen. Bill Howard believes there is little evidence to support the attempt to keep potential dropouts in school after the eleventh grade. "By that time the basic circumstances and problems are so deep rooted that another year in school will not cure the problem or improve the probability for social or economic success of that student." ¹

The welfare syndrome is a growing problem. Fueled by the present state of the economy, high unemployment, extended welfare programs and adequate benefits being on welfare can be a measure of success to those who are in the

habit of having even less. Welfare has become a way of life to some families. In some cases it is extending into the second generations of families where the youth have known nothing else.

The items considered in this section are again difficult to study with the expectation of developing universal solutions to the dropout problem. Each study applies to the group studied or at best to another group whose statistics and characteristics are similar. The size, affluence, philosophy and leadership of the district will to a great extent determine the size and extent of the dropout problem. The larger and more affluent the district the greater the possibility and probability of an attempt to reduce the problem.

A very interesting concept, that could explain some of the dropout problem, is presented by Goodwin Watson. Mr. Watson proposes that, "A child may be in such a social, economic or family circumstance that as a matter of course he is expected to drop out of school." "An action can exclude going to school and yet not be a choice against going to school."¹ Researchers too often make the assumption that everything is one way or the other. Either the student wants out of the system or the system wants to be rid of the individual.

Individual Characteristics of a Dropout

The third method for studying the dropout problem is by examining the characteristics of those individuals who drop out. It seems to offer the best possibility for identifying the potential dropout and is least influenced by external factors. There are a few similarities that become evident as the dropout problem is studied. These similarities are: (1) Poor attendance. It is true that not all dropouts have bad attendance records. It is also true that some individuals with poor attendance also graduate. Some of these can be explained by the fact that a good student may have a long-term injury or illness and has the ability to make up the missed assignments. (2) Grade point average. This tends to be greatly influenced by the first one, attendance. (3) Disciplinary problems. This too seems to fit the attendance pattern. The student who is absent a great deal usually has lower grades and more time for mischief. With little success in class they tend to be disruptive. (4) Involvement in school activities. Dropouts tend to be loners with few friends. (5) Age. The usual age for dropouts is between fourteen and nineteen with the peak at sixteen. (6) The type of parental supervision in the home. Where there is a good deal of love and concern there seems to be a stronger desire to succeed and to graduate.

This group of indicators seems to be most useful when trying to identify potential dropouts. The more of these
that are negative the greater the possibility of the student becoming a dropout. It should be noted that a dropout may not have any of these and a completer may have all of them to some degree. These items have high reliability but are not perfect.

The third method of approaching the dropout problem is by examining the characteristics of the individuals who leave the educational system. I selected this method for my study and report. It offers the best possibility for identifying potential dropouts and is least influenced by external factors. It is true that dropouts come in both sexes, a variety of ages, with a wide range of IQ's and a great number of other unique characteristics. There are a few similar characteristics that become evident in the study of those who drop out. These similarities are: (1) Poor attendance. It is true that some students that graduate also have poor attendance. Some of these are also top students. They have the ability to make up the assignments missed due to accident or illness or other extended absences. (2) Grade point average (GPA). This tends to be greatly influenced by the first characteristic, attendance. (3) Disciplinary problems. This, too, seems to fit the pattern. The student who is absent a great deal of the time will receive lower grades. With less success in class they tend to become disruptive. (4) Age. The usual age range for dropouts is between fourteen and nineteen years of
age. The peak is in the sixteen to seventeen age group.

(5) The type of parental supervision in the home. This may vary from both natural parents to institutionalized.

This group of characteristics seems to be the best indicator to use when trying to identify potential dropouts. The more of these present the greater the possibility of the student becoming a dropout. It should be noted that some dropouts will have none of these. A very intelligent girl with excellent attendance, high grades and living with both parents may drop out due to pregnancy. On the other hand a student could possess all of these and still manage to graduate. These again, are indicators with a high degree of reliability, but are not perfect.

Burt Green prepared a checklist common to most dropouts.\(^1\) The list was used for his research project involving dropouts. His list consists of:

1. Consistent failure to achieve passing grades in regular school work.
2. Grade placement two or three years behind normal.
3. Irregular attendance.
4. Overt antagonism of teachers.
5. Marked disinterest in school.
7. Low reading ability.
8. Frequent change in schools.

\(^1\)Greene, *Preventing School Dropouts*, pp. 42-43.
9. Non-acceptance of school staff.
10. Non-acceptance by schoolmates.
11. Friends either much older or much younger.
12. Unhappy family situation.
13. Marked difference in size compared with schoolmates, different interests, dress and personality development.
14. Inability to afford normal school expenses.
15. Non-participation in extra-curricular activities.
16. Inability to compete with siblings.
17. Performance consistently below potential.
18. Serious mental or physical handicap.
20. Record of delinquency.

The problem with this list is that all of the factors are not apparent. Some of them could not be known without previous testing or examination. Some of these are only valid in some special situations. Another problem with this is the determination of how many must be actually present to identify a student as a potential dropout.

Greene also examined a large amount of personal data on each student. This information included the following: Birthdate, grade level, occupations of parents, educational achievement of parents, number of siblings, rank among siblings, health status, physical size, self-concept and
the teacher's judgment of the student's abilities.\(^1\)

To me, much emphasis was placed on external factors. Each item was given equal weight in rating the students. Much of the information would not be available and in some cases the information could not be stated because of Supreme Court rulings. Data, to be useful to the average administrator of counselor in the everyday school setting, should be kept simple, easily available, universally understood and reliable. If these rules are not followed, the research and the resulting findings are of little value for they will be little used, only quoted.

**Conclusions**

The great number of factors that cause, influence or are involved with the decision to drop out or be dropped out make it extremely difficult to devise an effective means to diminish the problem. Time, place and circumstances are constantly in the process of change. The attitudes of society and the needs of the individual are also changeable. New concepts, experiments and techniques are implemented to meet the challenge. The norms and values of society alter the needs and expectations of our young people. The collapse of the traditional family unit and the need for most mothers to be working outside of the home disrupt the traditional parent-child relationship. Someone or something must fill

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\(^1\)Greene, *Preventing School Dropouts*, p. 45.
this void in the lives of students.

The schools play two games, one educational and the other non-educational, according to Goodman.\(^1\) The non-educational role is important. During the tender years the school is a babysitting service. During the middle and later years they are an arm of the police providing cops and concentration camps. The educational role is to provide the apprenticeship training for corporations and to condition young men for the war department. This sounds harsh and far-fetched at first but it probably contains a grain of truth.

Daniel Schreiber has studied the dropout problem for many years through the National Education Society.\(^2\) He eludes to an even greater problem he calls the "Stay in School Dropouts." These students may become actual dropouts at any point in time depending upon individual situations. Even beyond this possibility is the fact that they have in reality given up on learning and are merely going through the day-by-day motions of education. Schreiber describes these youth in this manner, "But numerically far more important than those overt dropouts at sixteen are those children who conform to schooling between the ages of six

\(^1\)Goodman, *The Universal Trap*, p. 41.

to sixteen or twenty, but who drop out internally through
daydreaming— their days wasted, their liberty caged,
scheduled, their desires inhibited, their imagination and
aspirations lost." "Where there is some interest in books
and art, where the youth is seduced by the prospect of money
and status, but even more important where he is terrified to
jeopardize the only way of life he knows." He believes that
the school and the mass media are responsible for teaching
people of all ages that life is inevitably routine and
phony, it is depersonalized, venally graded and bureaucratic.
That the best solution is to toe the mark and shut up.

I sometimes wonder if in doing all we can, if we are
indeed doing enough to eliminate or at least to reduce the
dropout problem. I believe it is more than just identify-
ing potential dropouts, it is changing the system to pre-
vent future dropouts and losing all of the potential
associated with it. "We are, through insistence on adult
purposes, still trying to get young people to do things which
seem unrelated to their needs and purposes."

Labeling a person as a loser, useless or no good may
cause far more students to drop out than the rest of the
causes put together. The self-concept of the individual is
a fragile and delicate thing. No one likes to be put down
or made fun of by others. This may cause them emotional

---

1 Earl C. Kelley, address given to university students,
pain which can only be remedied by dropping out. The un-
educated and unemployed dropouts eventually swell the
welfare rolls which is an even greater social burden. The
cost to society is much more when you consider the waste of
human potential that will never be fully utilized. We
should perhaps label those who leave the school system as
early completers. In this way at least the stigma attached
to dropouts would then be absent and some employment oppor-
tunities would be open to them. In addition to this, their
own self-concept should be raised enabling them to do the
best they can with the knowledge and abilities they presently
have. It seems self-defeating to me to further reduce the
image, self-esteem and opportunities of these individuals
when we openly encourage and promote the potential of the
handicapped who have a lot less to offer. This doesn't
mean that we should cease to promote the handicapped, it
simply means we should give equal effort to all who are
experiencing difficulties in the educational system. A
portion of everyone's success lies in their attitudes,
knowledge, skills, personalities, effort and enthusiasm.
The remainder is in the opportunities granted to them. Why
should we close the economic door on them because of the
label "dropout"? The success of any anti-dropout effort is
the early detection of the potential dropout and the imple-
mentation of remedial measures. The early detection of the
potential dropout is the purpose of this study.
CHAPTER THREE
Presentation of Data

A multiple regression analysis was used to determine if significant differences existed between the two groups on the discriminant variables. A separate chi square analysis was used to determine the significance of the multiple function, guardianship. The Drake University computer was used for the purpose of these analyses.

The five discriminant variables were: grade point average, disciplinary actions, absences, involvement in extra-curricular activities and IQ level. The multiple function element was the type of parental supervision.

The multiple regression analysis determined the following information: GPA explained 0.47827 or .48 of the total. When disciplinary actions were included, together they accounted for .61 of the total. Absences were the next most important variable. When added to the others, .67 of the total could be explained. Extra-curricular activities accounted for 0.0064 and IQ level was 0.00199. These last two accounted for only 0.00835 and are considered to be insignificant (Table 2).
Table 2

Multiple Regression Analysis Summary

<table>
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<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>R SQ Change</th>
<th>Simple R</th>
<th>BETA</th>
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<td>0.47827</td>
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<td>0.05815</td>
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<td>0.67515</td>
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</table>

The outstanding indications shown by the means and standard deviations are on the GPA, discipline and absences (Table 3). The GPA of non-dropouts was nearly twice that of the dropouts. The incidence of disciplinary problems was almost eight times more frequent with the dropouts than the non-dropouts. The figures show that dropouts are absent three times as often as those who do not drop out. The means and standard deviations on the other two are too close to make significant predictions.
### Table 3
Means and Standard Deviations of Five Variables for Dropouts and Non-Dropouts

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<tr>
<th></th>
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<th>Abs</th>
<th>Ex-cur</th>
<th>IQ</th>
</tr>
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<td>Non-Dropouts</td>
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A chi square test was used to determine the relationship of the form of parental supervision in the home. A null hypothesis was prepared and stated that: There is no relationship between the variables and the probability of a student dropping out. The alternate hypothesis stated: There is a relationship between the variables and the probability of a student dropping out. If the figures were greater than 3.84 the null hypothesis would be rejected.

The chi square test showed the results to be:

\[
X^2(1) = \frac{(12-20)^2}{20} + \frac{(20-12)^2}{12} + \frac{(28-20)}{20} + \frac{(4-12)}{12}
\]

\[
= \frac{64}{20} + 5.1 = 8.3
\]

Rejection of the null hypothesis means the alternate hypothesis is correct. The variables most likely to be valid
predictors in order of their ability to predict are: GPA, disciplinary actions, absences and the form of parental supervision in the home.

On the basis of this information, the computer program was designed around these four variables (Tables 4 and 5).

Conclusions

The following conclusions may be drawn from the statistical analysis of the data. Grade point averages, disciplinary actions, and absences are useful predictors of potential dropouts. The value of the prediction is increased by including the type of parental supervision the student has in the home. IQ levels and involvement in extra-curricular activities do not add significantly to the overall value of the prediction.

This information was used to write a computer program to aid administrators and counselors in identifying potential dropouts. The computer program was written for and tested on the Tandy Radio Shack TRS 80 III computer. It can be adapted for use on other small computers such as the Apple II and Commodore models.

Table 6 contains a copy of the program named IPDO which means Identification of Potential Dropouts. A sample run of the program appears in Table 7. The program is simple to use even for those who may have had little exposure to using a computer. The four items of data required by the
<table>
<thead>
<tr>
<th>Student Number</th>
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<th>Grade Point</th>
<th>Daily Absence</th>
<th>Extra-curricular Activities</th>
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Table 4 (continued)

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Table 5
Raw Data for Comparison Group

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<th>Daily Absence</th>
<th>Extra-curricular Activities</th>
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Table 6
IPDO Computer Program

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<th>CMD</th>
<th>Statement</th>
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<tbody>
<tr>
<td>10</td>
<td>PRINT &quot;IPDO PROGRAM&quot;</td>
</tr>
<tr>
<td>20</td>
<td>PRINT TAB(5)</td>
</tr>
<tr>
<td>30</td>
<td>PRINT &quot;IS THIS CORRECT?&quot;</td>
</tr>
<tr>
<td>40</td>
<td>IF C$=&quot;Y&quot; THEN 70</td>
</tr>
<tr>
<td>50</td>
<td>IF C$=&quot;N&quot; THEN 130</td>
</tr>
<tr>
<td>60</td>
<td>PRINT &quot;ENTER GPA&quot;:</td>
</tr>
<tr>
<td>70</td>
<td>INPUT G</td>
</tr>
<tr>
<td>80</td>
<td>PRINT &quot;IS THIS CORRECT?&quot;</td>
</tr>
<tr>
<td>90</td>
<td>IF C$=&quot;Y&quot; THEN 190</td>
</tr>
<tr>
<td>100</td>
<td>IF C$=&quot;N&quot; THEN 130</td>
</tr>
<tr>
<td>110</td>
<td>PRINT &quot;ENTER DAYS ABSENT&quot;:</td>
</tr>
<tr>
<td>120</td>
<td>INPUT A</td>
</tr>
<tr>
<td>130</td>
<td>PRINT &quot;IS THIS CORRECT?&quot;:</td>
</tr>
<tr>
<td>140</td>
<td>IF C$=&quot;Y&quot; THEN 250</td>
</tr>
<tr>
<td>150</td>
<td>IF C$=&quot;N&quot; THEN 190</td>
</tr>
<tr>
<td>160</td>
<td>PRINT &quot;ENTER NUMBER OF DISCIPLINE ACTIONS&quot;:</td>
</tr>
<tr>
<td>170</td>
<td>INPUT D</td>
</tr>
<tr>
<td>180</td>
<td>PRINT &quot;IS THIS CORRECT?&quot;:</td>
</tr>
<tr>
<td>190</td>
<td>IF C$=&quot;Y&quot; THEN 310</td>
</tr>
<tr>
<td>200</td>
<td>IF C$=&quot;N&quot; THEN 250</td>
</tr>
<tr>
<td>210</td>
<td>PRINT &quot;REM TYPE OF PARENTAL SUPERVISION&quot;:</td>
</tr>
<tr>
<td>220</td>
<td>PRINT &quot;REM I0=1, SINGLE=2, FOSTER=3, COMB=4&quot;:</td>
</tr>
<tr>
<td>230</td>
<td>PRINT &quot;ENTER THE TYPE OF PARENTAL SUPERVISION&quot;:</td>
</tr>
<tr>
<td>240</td>
<td>INPUT P</td>
</tr>
<tr>
<td>250</td>
<td>PRINT &quot;IS THIS CORRECT?&quot;:</td>
</tr>
<tr>
<td>260</td>
<td>IF C$=&quot;Y&quot; THEN 430</td>
</tr>
<tr>
<td>270</td>
<td>IF C$=&quot;N&quot; THEN 330</td>
</tr>
<tr>
<td>280</td>
<td>PRINT &quot;G=&quot;:</td>
</tr>
<tr>
<td>290</td>
<td>PRINT &quot;A=&quot;:</td>
</tr>
<tr>
<td>300</td>
<td>PRINT &quot;D=&quot;:</td>
</tr>
<tr>
<td>310</td>
<td>IF G=2.25 THEN 530 ELSE 520</td>
</tr>
<tr>
<td>320</td>
<td>IF A=1.0 THEN 540 ELSE 560</td>
</tr>
<tr>
<td>330</td>
<td>IF D=2 THEN 560 ELSE 600</td>
</tr>
<tr>
<td>340</td>
<td>IF P=1 THEN 620</td>
</tr>
<tr>
<td>350</td>
<td>IF P=2 THEN 640</td>
</tr>
<tr>
<td>360</td>
<td>IF P=3 THEN 620</td>
</tr>
<tr>
<td>370</td>
<td>IF P=4 THEN 620</td>
</tr>
<tr>
<td>380</td>
<td>LET G(X)=1</td>
</tr>
<tr>
<td>390</td>
<td>GOTO 440</td>
</tr>
<tr>
<td>400</td>
<td>LET G(X)=0</td>
</tr>
<tr>
<td>410</td>
<td>GOTO 440</td>
</tr>
<tr>
<td>420</td>
<td>LET A(X)=1</td>
</tr>
<tr>
<td>430</td>
<td>GOTO 450</td>
</tr>
<tr>
<td>440</td>
<td>LET A(X)=0</td>
</tr>
<tr>
<td>450</td>
<td>GOTO 450</td>
</tr>
<tr>
<td>460</td>
<td>LET D(X)=1</td>
</tr>
<tr>
<td>470</td>
<td>GOTO 460</td>
</tr>
<tr>
<td>480</td>
<td>LET D(X)=0</td>
</tr>
<tr>
<td>490</td>
<td>GOTO 460</td>
</tr>
<tr>
<td>500</td>
<td>LET P(X)=0</td>
</tr>
<tr>
<td>510</td>
<td>T=G(X)+A(X)+D(X)+P(X)</td>
</tr>
<tr>
<td>520</td>
<td>PRINT T</td>
</tr>
<tr>
<td>530</td>
<td>IF T&gt;4 THEN 710 ELSE 680</td>
</tr>
<tr>
<td>540</td>
<td>IF T&gt;3 THEN 730 ELSE 690</td>
</tr>
<tr>
<td>550</td>
<td>IF T&gt;2 THEN 750 ELSE 700</td>
</tr>
</tbody>
</table>
Table 6 (continued)

700 IF T=1 THEN 770
705 IF T=0 THEN 770
710 LET A$="HELP"
720 GOTO 760
730 LET A$="NEED"
740 GOTO 760
750 LET A$="CHECK"
760 GOTO 760
770 LET A$="OK"
780 CMD"Z","ON"
790 PRINT TAB(1); PRINT S$; TAB(25); PRINT G; TAB(33); PRINT A; TAB(40); PRINT D;
; TAB(46); PRINT P; TAB(53); PRINT T; TAB(50); PRINT A$;
800 PRINT
810 CMD"Z","OFF"
820 PRINT "IS THERE ANOTHER ENTRY"; "(Y OR N)"
830 INPUT C$:
840 IF C$="Y" THEN 70
850 IF C$="N" THEN 860
860 CMD"Z","ON"
870 PRINT "--------------------------"
880 CMD"Z","OFF"
890 END
program are easily acquired from the student's cumulative records. The program, if used, should provide a reliable tool for school officials in the early identification of potential dropouts.

Table 7
Sample IPDO Program

<table>
<thead>
<tr>
<th>Student's Name</th>
<th>GPA</th>
<th>ATTN</th>
<th>DISC</th>
<th>PSUP</th>
<th>TOTAL</th>
<th>P SYM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andy</td>
<td>1.23</td>
<td>12</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>Help</td>
</tr>
<tr>
<td>Bob</td>
<td>2.65</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Need</td>
</tr>
<tr>
<td>Chris</td>
<td>2.78</td>
<td>14</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>Check</td>
</tr>
<tr>
<td>Debbie</td>
<td>3.45</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>OK</td>
</tr>
<tr>
<td>Edward</td>
<td>3.98</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>OK</td>
</tr>
</tbody>
</table>

To run this program the operator needs to enter five items of data. The name or number of the student, the grade point average, the number of days the student has been absent, the number of disciplinary actions the student has accumulated and the type of parental supervision. The last item distinguishes between living with both natural parents or some alternate form of guardianship.

The program will prepare a total of the predictors and prepare a remark in the P SYM column. This column is for the prediction symbol. If the student is definitely a potential dropout, it will show the word "help." If the
student is not quite as definite but is still in the danger zone, the word "Need" will appear. The borderline case will print the word "check" and if the student doesn't appear to be a potential dropout the word "ok" will be shown. The counselors can then use this list to advise parents and to provide remedial measures for the students so identified.
BIBLIOGRAPHY
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Kelley, Earl C.  Address given to university students, University of Michigan, Ann Arbor, 1967.


