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THE FATE AND PROBABLE FUTURE OF HIGH SCHOOL DROPOUTS AND THE IDENTIFICATION OF POTENTIAL HIGH SCHOOL DROPOUTS.

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*DROPOUT RESEARCH, *DROPOUT PREVENTION, *DROPOUT IDENTIFICATION, *HIGH SCHOOLS, *COMPARATIVE ANALYSIS, HIGH SCHOOL GRADUATES, ALEXANDER COUNTY, ILLINOIS, CARBONDALE, CALIFORNIA ACHIEVEMENT TEST

THE PRIMARY AIM WAS TO DEVELOP INSTRUMENTS FOR IDENTIFYING HIGH SCHOOL DROPOUTS. THESE INSTRUMENTS WERE USED TO INVESTIGATE THE FATE OF RECENT GRADUATES AND DROPOUTS OF CLASSES 1963, 1964, AND 1965 IN ALEXANDER COUNTY, ILLINOIS, AND TO ESTABLISH FURTHER CORRELATES IDENTIFYING POTENTIAL DROPOUTS. BOTH THE OBJECTIVE AND SUBJECTIVE INSTRUMENTS DEVELOPED SHOWED HIGH DEGREES OF CORRELATION--0.826 AND 0.840 RESPECTIVELY. SOME CONCLUSIONS WERE--(1) THE INSTRUMENTS MAY BE OF VALUE IN IDENTIFYING POTENTIAL DROPOUTS IN LARGE NUMBERS, (2) AS MANY PREVIOUS STUDIES HAVE SHOWN, THE GREATEST OBJECTIVE PREDICTORS WERE ACHIEVEMENT, READING PLACEMENT, AND MATHEMATICS PLACEMENT, (3) IT WAS FOUND THAT AN ACCUMULATION OF SEVERAL CORRELATES MEASURES FAIRLY WELL AND ALLOWS ONE TO DEVELOP SATISFACTORY TOTAL MEASURES. IT WAS RECOMMENDED THAT ALL PERSONS RECEIVE SPECIAL TRAINING BEFORE MAKING USE OF THE SUBJECTIVE INSTRUMENT DEVELOPED BY THIS RESEARCH. (GD)

HIGH SCHOOL DROPOUTS
FATE--FUTURE--IDENTIFICATION

OE 5-85-005
SIU Research and Projects 21-13-2-49170
June 1, 1965 to January 1, 1966

A FINAL REPORT

January 1, 1966

Southern Illinois University
Carbondale, Illinois

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Delyte W. Morris

President

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THE FATE AND PROBABLE FUTURE OF HIGH SCHOOL DROPOUTS AND THE IDENTIFICATION OF POTENTIAL HIGH SCHOOL DROPOUTS

(Unit Sch. District No. 5, Alexander Co., Ill.)

A Final Report of Research

By

Ralph O. Gallington
Director and Principal Investigator

January 1, 1966

PREFACE

An interest in youth and their satisfactory vocational adjustment has been the motivation for this study. The questions frequently asked are: (1) What becomes of high school dropouts? (2) Graduates? (3) What students among our present high school populations are likely to dropout before graduation? (4) How can potential dropouts be identified? (5) What remedial practice would retard the drop out rate?

The observed dropout rate in Alexander County, Illinois has been very high, comparatively speaking, over the past few years. Although some slight improvement has been noticed over a five year period 384 per cent of those entering the freshman year the fall of 1959, had dropped out before graduation with their class, the class of 1963.

Preliminary surveys were initiated with the financial support of Research and Projects, Southern Illinois University, during the summer of 1964. The primary aim was to develop instruments for identifying high school dropouts. Objective and subjective measures were proposed and studied and preliminary studies of validation were made of several correlates. These instruments were considered ready for final study and validation in the current study. The main purpose of the current study was to investigate the fate of recent graduates and dropouts of classes 1963, 1964, and 1965 in Unit District No. 5, Alexander County, Illinois and to establish further the correlates identifying potential dropouts.

Special acknowledgements are made of the assistance given by Mrs. Grace Duff, Superintendent of Schools, Alexander County, Illinois; Mr. Dean D. Barringer, Superintendent of Schools, Egyptian Unit District No. 5, Alexander County; Mr. Kenneth A. Graves, Principal, High School, Tamms, Illinois; Mr. Ronald H. Smith, Principal, High School, Thebes, Illinois; Mr. Archibald Mosely, Principal, Elementary School, Hodges Park, Illinois; Mrs. Helen M. Davis, Principal Young Elementary School, Sandusky, Illinois; Mr. L. C. Windhorst, Coordinator of the Cooperative Vocational Education Program, High School, Tamms and Thebes, Illinois; and Mr. Alton Keith Crider, a recent graduate (1962) of Tamms High School.

Ralph O. Gallington

Director of the Research Project

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INTRODUCTION

This manuscript presents the final report on a research project supported under Section 4 (c) of Public Law 88-210. Sponsorship was recommended by the Educational Resources and Development Branch, Division of Adult and Vocational Research, Bureau of Research, United States Office of Education. The United States Office of Education designation was No. 5-85-005, and the Southern Illinois University budget designation was No. 21-13-2-49170.

There were two purposes for this study: (1) to study the fate and probable future of high school dropouts in Unit School District No. 5, Alexander County, and (2) to investigate tentative correlates which seem to identify potential dropouts in this area of Illinois. Part I is a report on the first purpose, and Part II is a report on the second purpose.

The first purpose involved a survey of actual dropouts, and actual graduates to determine whether any differences could be recognized between the two groups. As the study progressed, certain definite differences were discovered and identified for use in tabulating the survey findings. (See Appendix A) A random sample of both (graduates and dropouts) groups was made for study purposes. Since the ratio of graduates to dropouts was about sixty/forty, the sample was selected on this ratio, approximately. Moreover, the sample was scattered across three different classes of students: 1963, 1964, and 1965. These dates represent the proper high school graduation date of each class according to age, school entrance,

and the like. To get an original listing of each class, the freshman (9th grade) class rolls were used in making the sample selection.

The second purpose was to test further two instruments for identifying potential dropouts in Unit District No. 5, Alexander County, Illinois. Earlier, studies in this district had revealed probable correlates. Since former students (graduates and dropouts) were to be surveyed anyway (to collect data for Part I), the two instruments were applied to some of these subjects for validation. A subjective instrument (Appendix B) was applied especially to those for whom the schools had insufficient objective data in cumulative record files. An objective instrument (Appendix C) was tested further also. The data to test the objective instrument were found in students' files where sufficient objective cumulative records had been kept.

In order to initiate the survey for Part I, certain types of data were considered for use in the study. Differences between graduates and dropouts seemed possible in such areas as family, marital status, spouse's situation, employment, migration and mobility, home situation, economic status, outlook and promise of a better future. Extreme cases were selected for study purposes and an interview outline to collect data was prepared (Appendix A).

In each case the home of the subject was visited and data were collected either from the subject or a person from the immediate family who could answer all of the questions included in the interview outline (Appendix A). Several of the subjects surveyed had left the

area to find work or to pursue a higher education. This was especially true of the graduates, according to the data shown in Part I of this report. Subjects included in the survey were selected on the basis that all information sought by the survey could be obtained logically from either the subject himself or someone who had full knowledge of the subject's whereabouts and situation. Sixty-three cases of graduates and fifty-seven cases of dropouts were included in Part I of this study. Part I is a report on the probable fate and future of graduates and dropouts from School District No. 5, Alexander County, Illinois.

Part II of this report is concerned with the instruments which might be effective in identifying potential high school dropouts in Southern Illinois. By an earlier study (Summer 1964, sponsored by Southern Illinois University, Research and Projects), it was found that certain correlates were significant for identification purposes in Alexander County, Illinois. A pilot study was made and tentative instruments were established for further validation. Objective data were thought to be the best for use in the identification process. However, it was soon discovered that, for many likely subjects, the schools did not have uniform data in students' cumulative record files. Moreover, it was found that the collection of uniform cumulative data for all students was impractical because of the emigration problem in the area school district. Many families found residing in Unit District No. 5 had recently moved there from southern states from which such uniform objective data was not procurable. Since this problem was of constant concern,

another instrument seemed desirable. The second instrument desired, it was thought, should measure equally as well as the objective instrument and should be applicable to all students whether or not cumulative files were available. Part II sets forth a study of the two instruments developed for use in the identification of potential high school dropouts in Unit School District No. 5, Alexander County, Illinois.

At the outset it was assumed improbable that all children of this area have the mental capacity to complete high school, but it was assumed also that many of the actual dropouts could have finished high school. Another assumption was that society is responsible for providing opportunities for children at all levels of mental capacities)to gain as much education or training as possible during the compulsory public school attendance ages. It was further assumed that with the right opportunities almost all of those who had dropped out of school (Tamms and Thebes, Illinois high schools, at or near their sixteenth birthdays) could have, before that time, developed some salable skills on which a life-long vocation could be based. Moreover, this seemed to be a logical assumption to make for almost any other high school in America. It seemed to follow that many children with the right educational opportunities might be encouraged to stay in high school longer and that those who drop out before graduation might be prepared better to enter the labor force.

By making an identification of the potential dropouts in the schools, it appeared that teachers, counselors, and school

administrators in the local area could plan more appropriate programs to meet the needs of this group. It was thought that this study might assist also in discovering some of the faults of the high school programs from which dropouts had withdrawn. Recognition and an acceptance of local conditions and situations as they might be; acceptance of responsibilities by society; and the use in future planning of data collected by such studies as this should do much to aleviate the high school dropout situation in America.

PART I

AN INQUIRY INTO THE FATE AND PROBABLE FUTURE OF RECENT GRADUATES AND DROPOUTS

THE FATE AND PROBABLE FUTURE

The Population Sample

This part of the research dealt with a study of circumstances surrounding recent dropouts and graduates from the high schools in Tamms and Thebes, Illinois. The primary purpose here was to determine what difference in outlook could be identified between those who had graduated and those who dropped out before graduation. This was the only criterion used to select the two groups for this part of the study.

The first table (Table No. 1) reveals that occasionally dropouts actually re-enter in subsequent years and may or may not eventually graduate. A final decision on this should not be made until these particular students are followed for a sufficient period of time, particuarily while they remain in school. Where sufficient time is allowed to elapse, the percentage of dropouts was found to be under 40 per cent of the total students involved from the ninth grade forward. (See Figure No. 1)

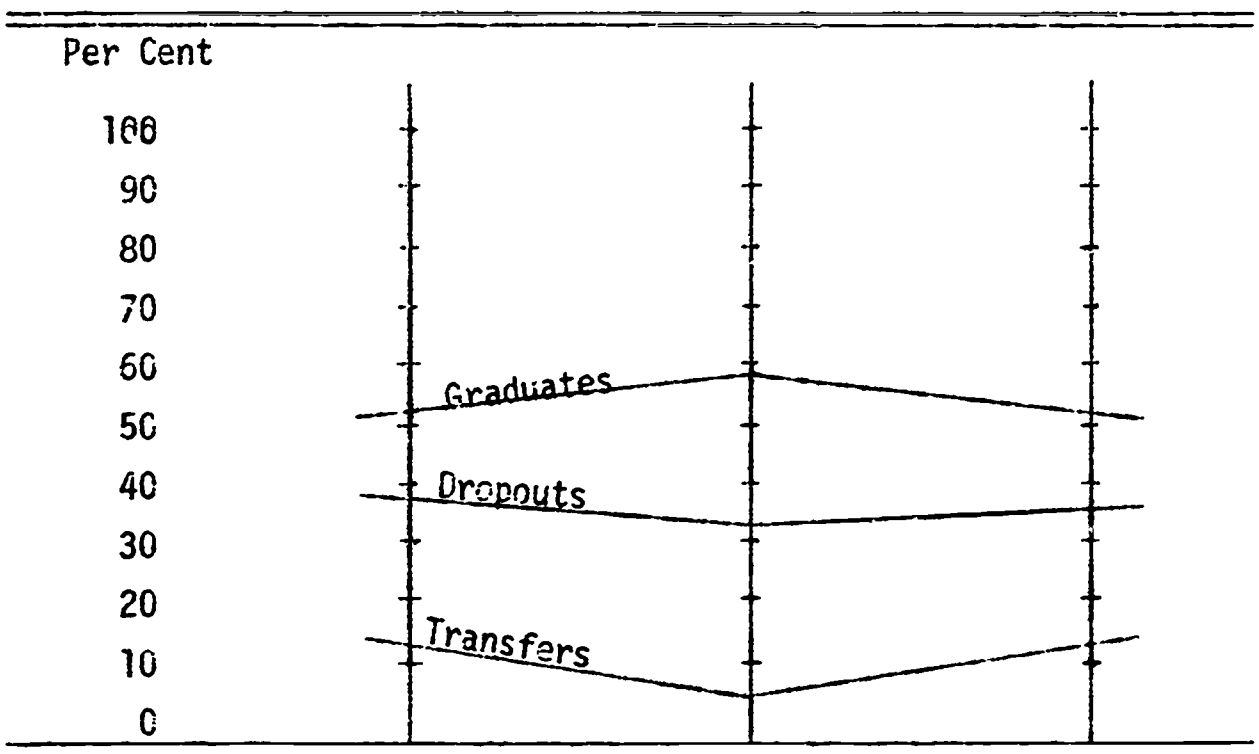
TABLE 1

THE HIGH SCHOOL CLASSES FROM WHICH THE SAMPLE WAS SELECTED IN EGYPTIAN SCHOOL DISTRICT NO. 5

Year	Re-enter		Transfer		Dropped		Graduated		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1963	0	0.0	10	10.1	38	38.4	51	51.5	99	100
1964	2	2.5	6	7.6	26	32.9	45	57.0	79	100
1965	3	4.0	8	10.5	26	34.2	39	51.3	76	100

FIGURE 1

TRENDS IN RESPECTIVE CLASS ENROLLMENTS
FOR EGYPTIAN UNIT, No. 5.



The Family Situation

In comparing the groups from the family point of view, a higher per cent of dropouts were married living with their spouses than graduates. Fourty-seven per cent of the dropouts were so recorded, whereas only 25 per cent of the graduates were married. A very few from both groups who had married were living with their parents. More girls than boys in both groups were married. More dropouts were living with some one "other" than a relative. Among the graduates only 14 per cent were living with parents and only 14 per cent were living with someone "other" than a relative. The largest percentage (44%) of the graduates were living alone

whereas only two per cent of the dropouts were alone. Most of such persons would have been working (or in school) away from home. Other "family" data may be found in Table 2.

TABLE 2

WITH WHOM THE SUBJECTS WERE RESIDING

	DROPOUTS		GRADUATES	
	No.	Per Cent	No.	Per Cent
Parent(s)	12	21	9	14
Wife	6	10	4	06
Husband	19	33	9	14
Sibling	2	04	4	06
Relative	2	04	1	02
Alone	1	02	27	44
Other	15	26	9	14
	57	100%	63	100%

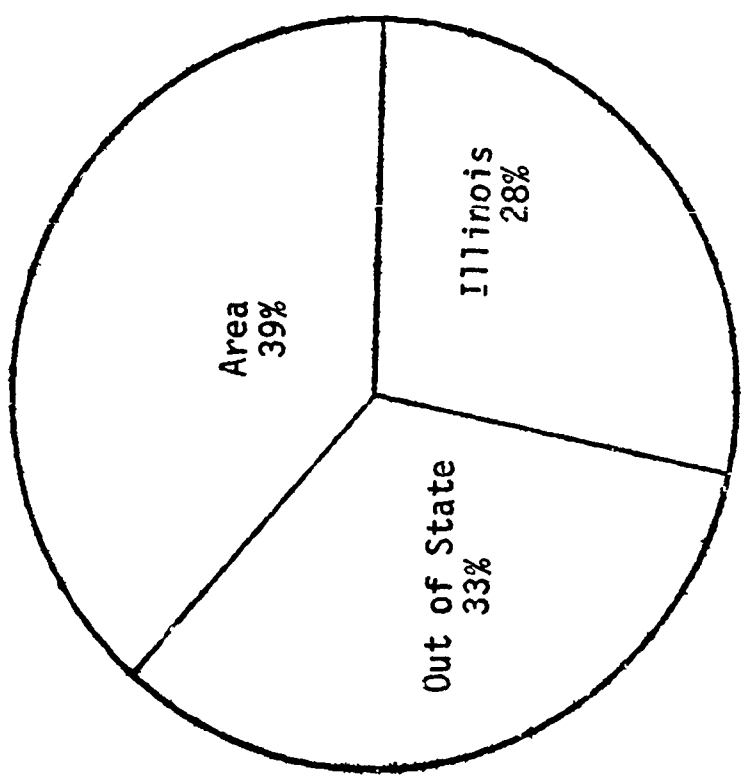
Of those married, both groups tended to marry former schoolmates (61 per cent of the dropouts and 75 per cent of the graduates). There were no divorces recorded among the graduates and only one among the dropouts. The latter seemed insignificant at this writing.

Geographic Location of Subjects

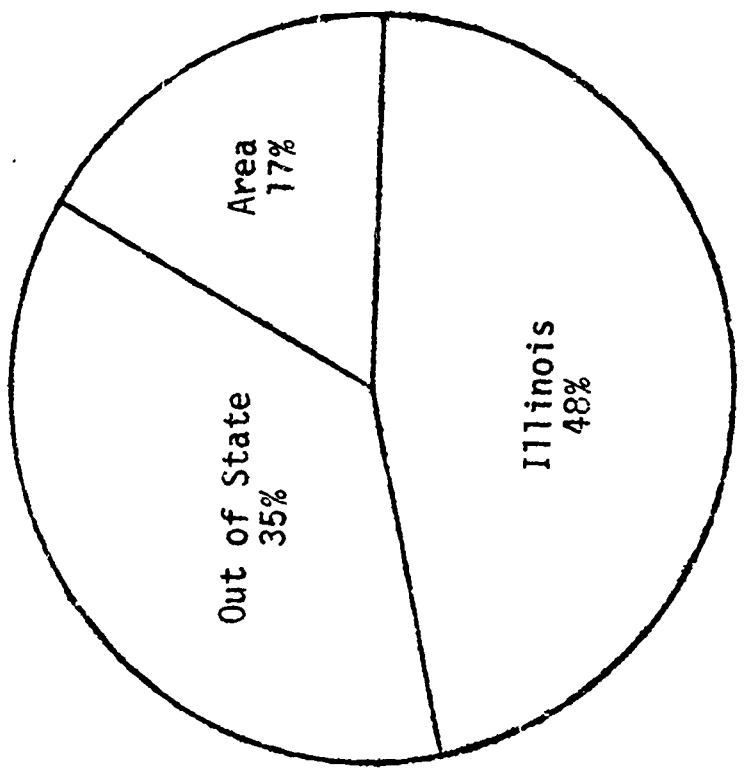
Figure 2 presents the geographic location of former students by groups. Dropouts tend to remain in the area (where they attended high school) to a higher degree than graduates. When investigating the type of community where each group resided, there was little difference. More of both groups lived in small towns and larger cities than those who lived on farms or in a rural location.

FIGURE 2

GEOGRAPHIC LOCATION OF FORMER STUDENTS



Dropouts



Graduates

Employment

Figure 3 disclosed the extent of employment, Aside from the housewives a larger percent of graduates have (1) full time employment, (2) sought higher education, and (3) entered the armed forces, in that order. None of the dropouts have sought higher education according to Figure 3 (Students). The dropouts, in order of extent of employment, rate (1) full time employment, (2) housewife, and (3) part-time employment as the top three. The housewife characterizes the dominate roll of the female dropout. There is no outstanding roll characterizing the female graduate however she is (1) a full-time student, (2) a full-time employee, or (3) a housewife.

According to Figure 4 common labor dominates the dropout's lot, whereas semi-skilled employment is generally obtained by the graduate. This was also true of the spouses of these groups; spouses of dropouts were employed more as common laborers than any other class.

Table 3 presents relative classes of occupations among graduates and dropouts. Service occupations, business, and industrial occupations dominate the employment areas of graduates. "Housewife" among dropouts is ranked at the top with industry and service occupations following in order. Data regarding the employment of spouses seemed to show somewhat the same patterns. However, both graduates' and dropouts' spouses were predominately in industrial occupations.

The sum of out-of-state employers of graduates was greater than that of dropouts. A considerable larger number of dropouts were working in the local area or community. Of those leaving the area, a considerable

FIGURE 3

EXTENT OF EMPLOYMENT

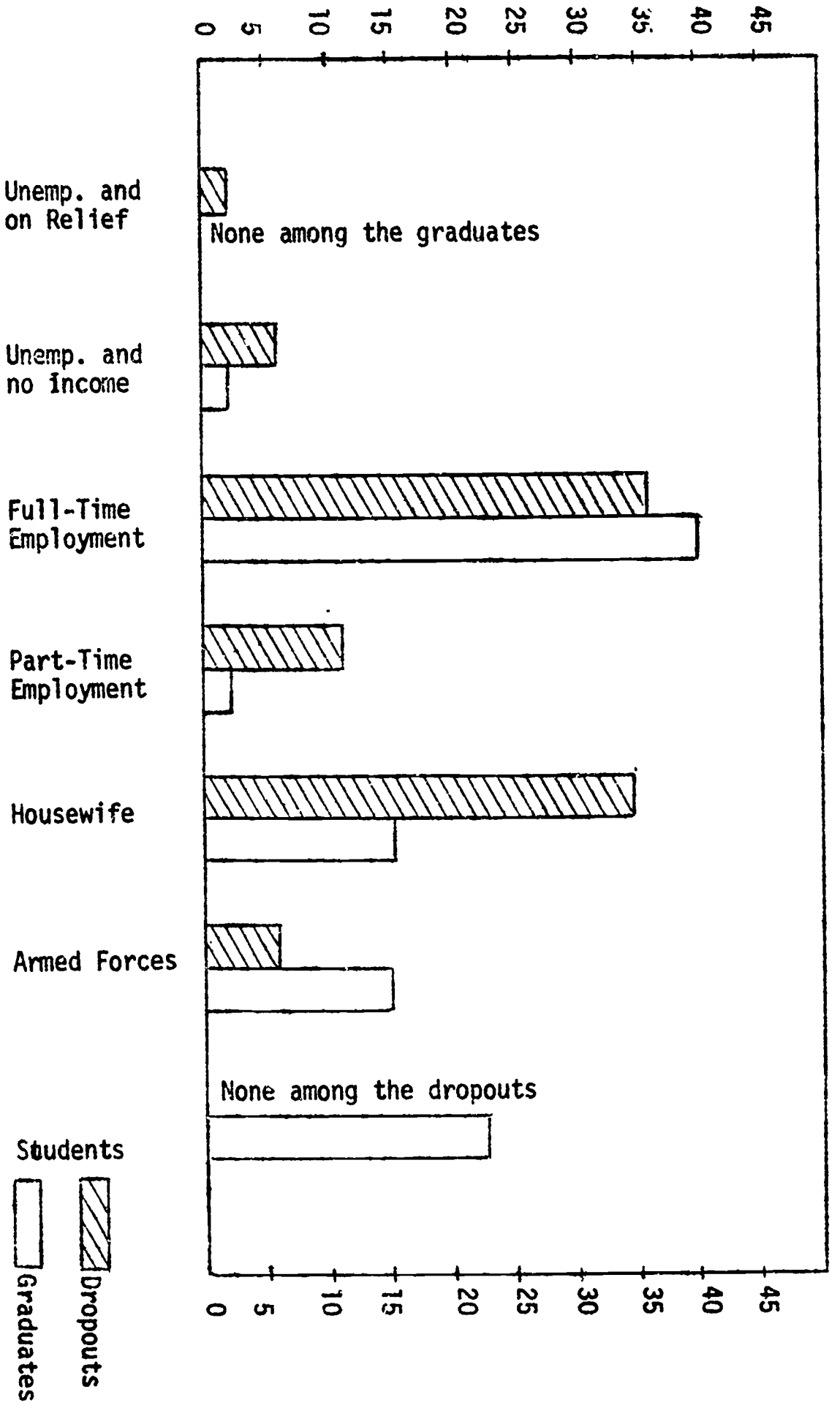
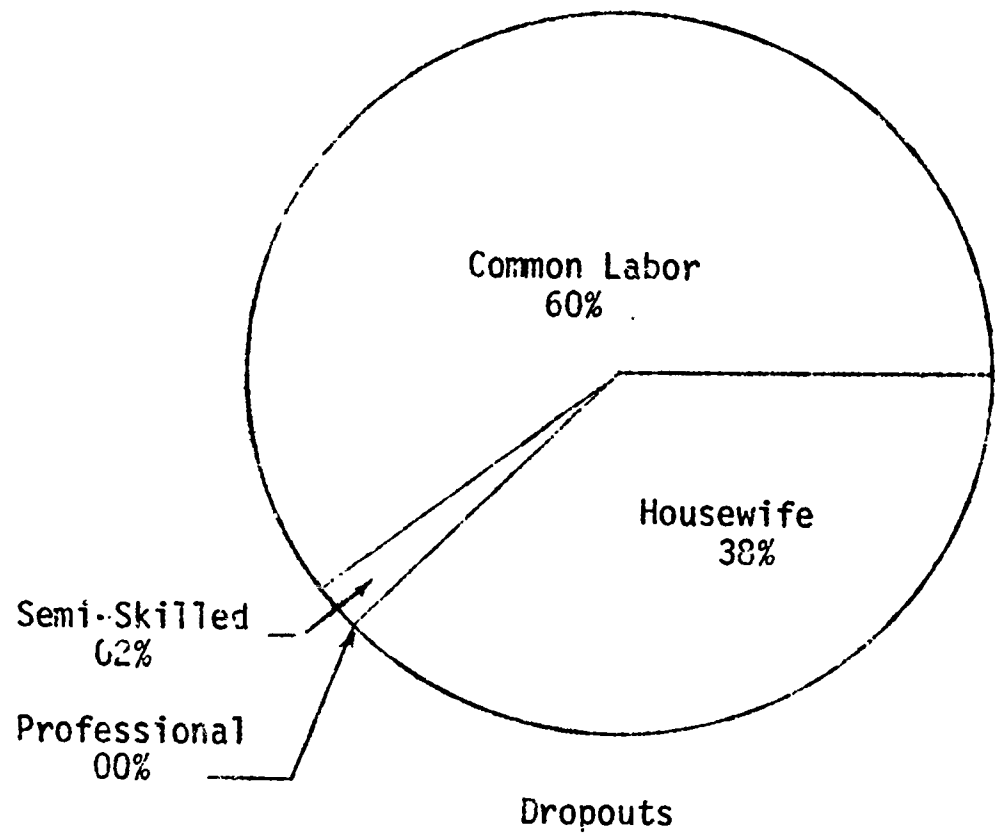
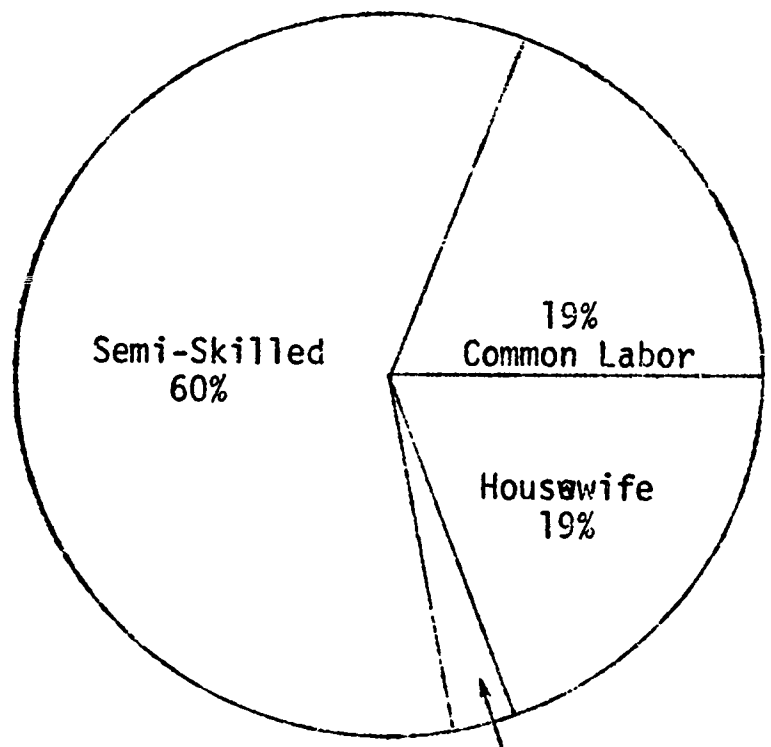


FIGURE 4

CLASSES OF OCCUPATIONS REPRESENTED AMONG:



Dropouts



Graduates

percentage of dropouts go to large metropolitan areas, whereas the graduates and their spouses seem to gravitate to smaller cities. Regardless, both groups seem to leave the local area with a larger number of dropouts remaining in the local area. (See Figure No. 6)

TABLE 3

REALM OF FORMER STUDENT'S EMPLOYMENT

Graduates	Per Cent	Dropouts	Per Cent
Service Occupations	39	Housewife	38
Business	23	Industry	31
Industry	19	Service Occupations	25
Housewife	19	Business	04
Farming	00	Farming	02
Total	100	Total	100

Outlook For The Future

Upon discussing the social and economic outlook with respondents, the job future for dropouts is very definitely "poor" and only "average" or "fair" for about one third. On the other hand, for graduates, the future could be considered "good" with the future of 40.6 per cent appearing to be "average" or "fair" and the future of only 5.3 per cent appearing to be "poor". (See Figure No. 6)

FIGURE 5

EMPLOYER LOCATION — TYPE OF COMMUNITY

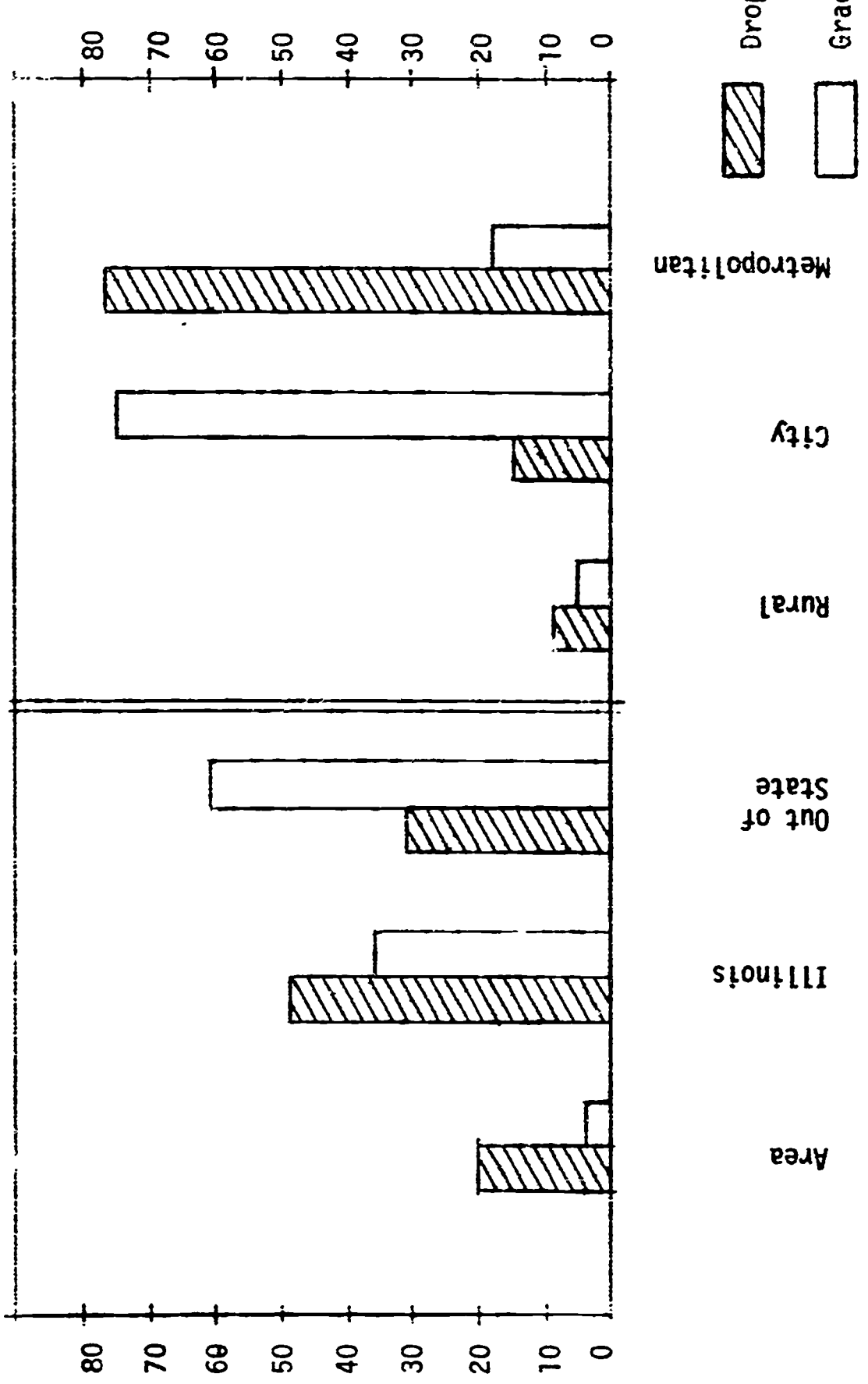
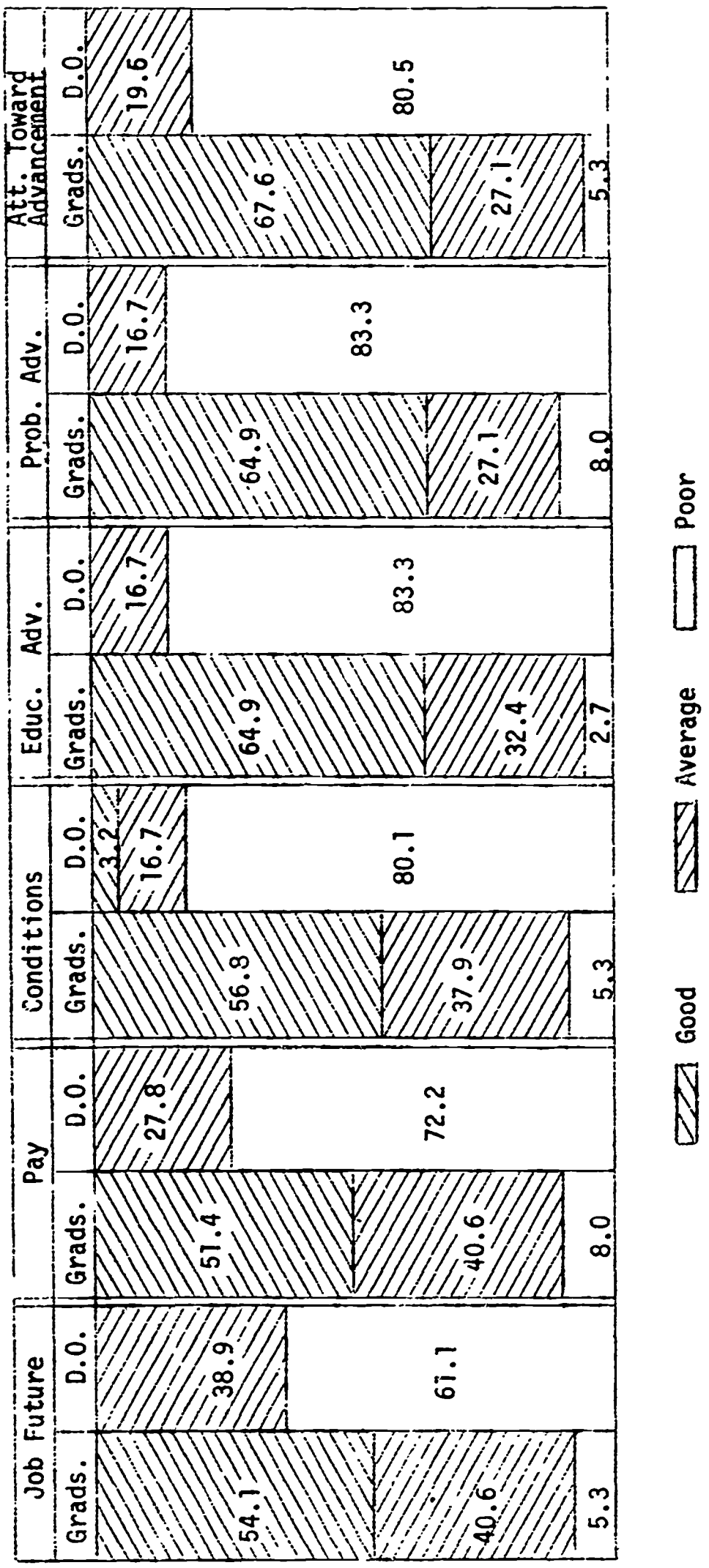


FIGURE 6
SOCIAL AND ECONOMIC OUTLOOK FOR THE FUTURE
(Percentages)



With respect to "pay" the comparisons were even worse for the dropout. Figure 6 classifies 72.2 per cent of the dropouts with a "poor" salary. Again "working conditions" appeared even worse than pay among the dropouts.

The opportunities for educational advancement were good for graduates and poor for dropouts. The same can be said of the probability of advancement on the job. This in part was due to the former student's attitude toward his work and motivation regarding advancement. This attitude was positive among graduates and either neutral or somewhat negative among dropouts.

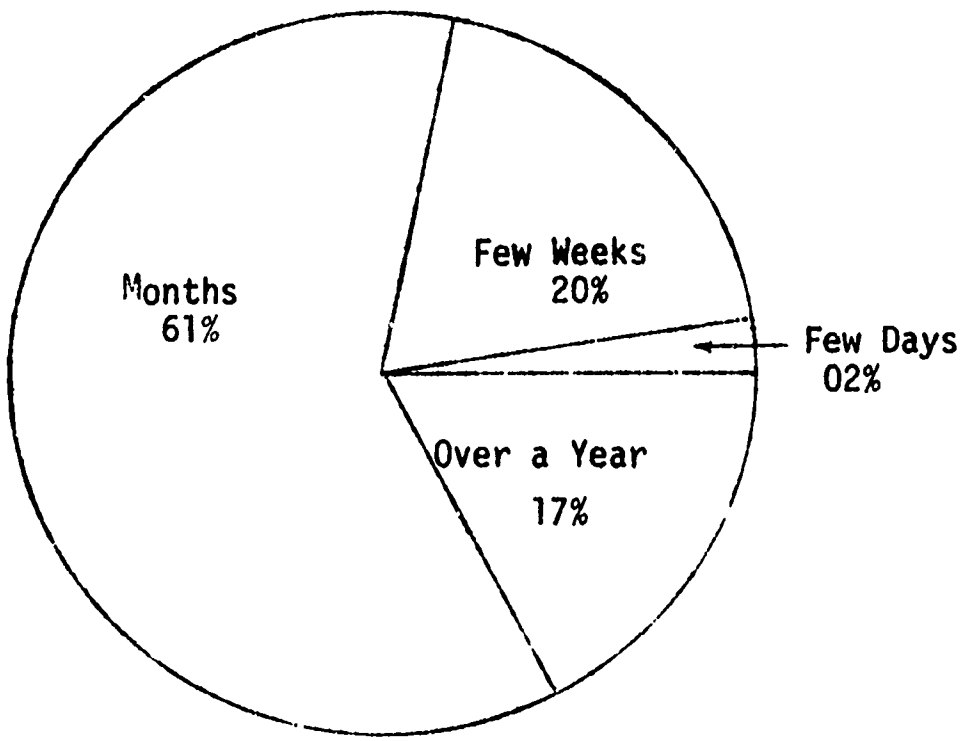
Figure 7 shows the elapsed time between school attendance and employment. It will be noted that the dropouts were detained several "months" finding work. Graduates found work in a few days. In studying the spouses of the same groups, similar data were recorded. Almost all of those who had found steady work had done so upon their own initiative. This applied to both graduates and dropouts.

Attitudes of Subjects

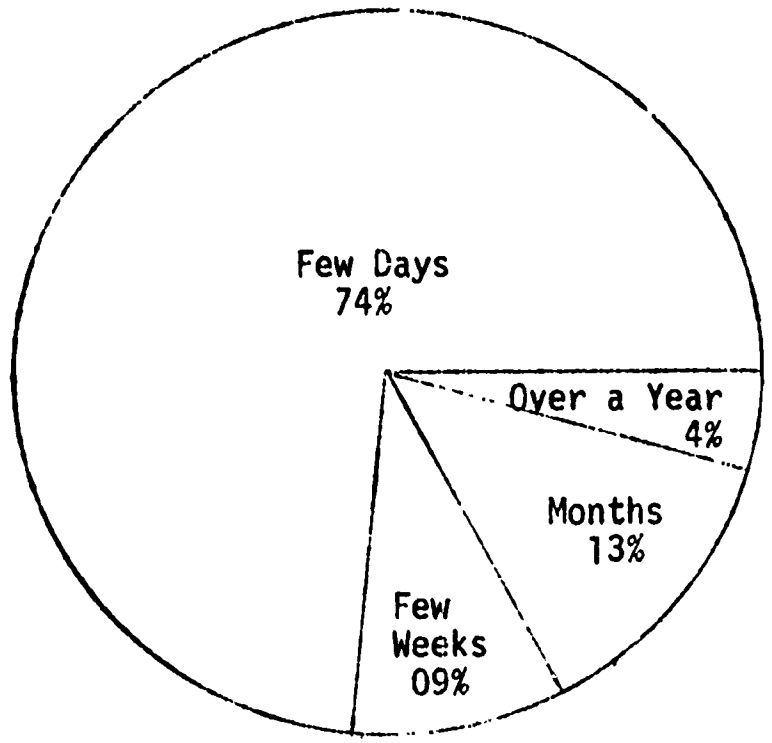
Graduates generally recommend high school graduation for "all" children, whereas dropouts recommend it for "some" generally (See Table No. 4). It might be noted further that graduates tended to be planning additional education or training for themselves and dropouts were not. The spouses of both groups seemed to have very few plans for continuing their education. Spouses of graduates were ahead in planning for future education but not significantly so.

FIGURE 7

ELAPSED TIME FROM LAST ATTENDED SCHOOL SESSION
TO FULL-TIME EMPLOYMENT



Dropouts



Graduates

TABLE 4

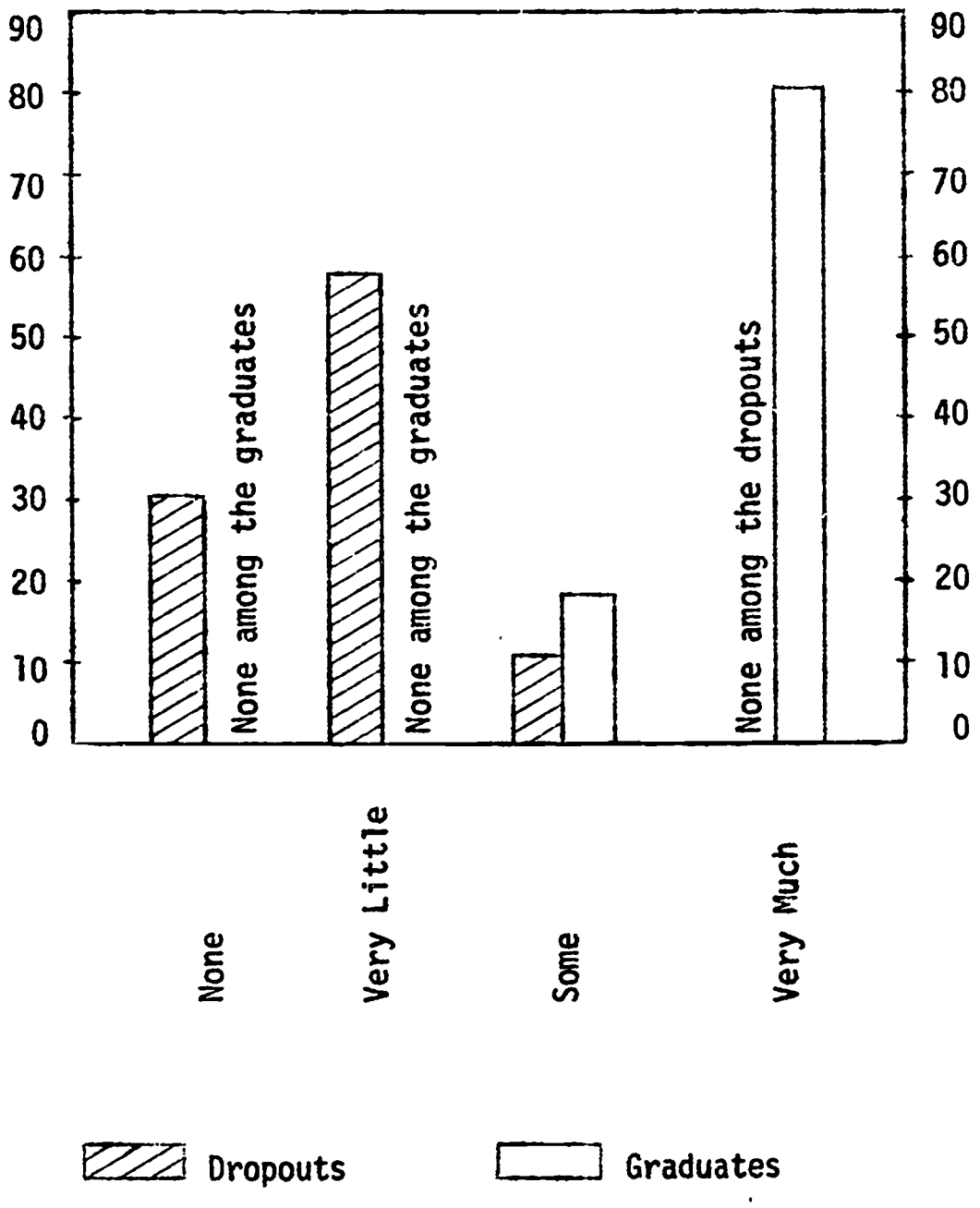
RECOMMENDATIONS FOR HIGH SCHOOL GRADUATION
MADE BY FORMER STUDENTS

	Dropouts		Graduates	
	No.	Per Cent	No.	Per Cent
No	4	07	0	00
For Some	35	*61	0	00
For Almost All	12	21	0	00
For My Children	5	09	8	13
For All Children	1	02	55	*87
Total	57	100	63	100

When respondents were asked about the advantages of high school graduation, every graduate felt that high school had benefited. (See Figure No. 8) A very large percentage (89 per cent) of dropouts felt that a high school education was of very little or no benefit. The data have shown the reverse. All of the high school graduates felt that graduation had been a great help or of some help to them in securing employment and getting prepared for it. Almost all high school graduates had ambition and seemed to be working toward established goals. Conversely, the dropouts seemed to be living from hand to mouth without ambition, future plans, or hopes. Considering all of the dropout cases, however, hardly any (just one) was, at that time, on public aid. Regardless, the future did not look good for that group.

FIGURE 8

BENEFIT OF HIGH SCHOOL ATTENDANCE



Generalizations

1. A high school diploma opens many doors of opportunity to those students who graduated from the Tamms and Thebes High Schools during the years 1963, 1964, and 1965.

2. The high school graduate has demonstrated more initiative than one who has dropped out.

3. One's opportunities for advancing in education are enhanced by a high school diploma. Without the high school diploma the opportunities for educational advancement are almost negligible.

4. The graduate tends to delay decisions of commitment such as marriage, employment, and the like until he is prepared better to accept responsibilities.

5. The migration of graduates is greater than that of the dropouts. This may indicate that the dropout has a stronger drive to better himself as well as his being better prepared to adjust himself to a new situation.

6. The graduate seems to be less dependent upon others than the dropout.

7. Graduates recommended high school graduation; dropouts seemed to prefer not to discuss the subject.

8. Graduates seemed to be involved with advanced education or were planning to pursue advanced studies in either academic or vocational programs.

9. Dropouts' future is very uncertain.

10. Generally, the immediate job opportunity for a dropout is common labor, and then only if such work is available.

11. Graduates can find work almost immediately upon graduation; dropouts require several months to find work and then it is not of a lasting nature.

PART II

INSTRUMENTS TO IDENTIFY POTENTIAL HIGH SCHOOL DROPOUTS

INSTRUMENTS

Tentative correlates for identifying potential high school drop-outs were available at the start of this study. Appendix B and C are exhibits of the instruments approved by letter (See Appendix D) dated August 26, 1965 and signed by Richard Bloom, Human Resources Development Branch, Division of Adult and Vocational Research, USOE. These instruments had been subjected to a tentative validation by a previous test.

The Subjective Instrument

The subjective instrument (Appendix B) was established with 10 correlates involving the subjects' home, attitude toward education, attitude toward authority, attitude toward earning a living and work, ability to converse, poise, attitude toward peers, apparent capacities, apparent vocational choice and apparent knowledge of occupations. At the outset it was discovered that researchers had to be trained to administer this instrument if an acceptable degree of reliability was to be obtained. This was accomplished by the preparation of a manual of instructions for judging numerical ratings on the five-point (0-4) scale. For example, in rating a subject on "The Home-Living Conditions" the following instructions were given:

A. <u>The Home-Living Conditions</u>

0 - Large. Evidence of constant and expert maintenance, Very modern fixtures and/or in very correct taste with respect to its style. Clean. Expertly landscaped.

1 - Moderately sized. Well kept. Modern fixtures. Good taste in style. Well furnished attractive grounds and exterior.

2 - Medium sized. Neat and clean. Needs some maintenance. Fairly well furnished. Modern facilities. No special exterior care or grounds improvements.

3 - Unfavorable housing. Might have inside toilet. Serviceable but run down. Inadequately furnished. Generally neglected inside and out.

4 - Almost unliveable. Unserviceable. Outside toilets. Junky furniture. Poorly kept and unclean.

For each of the remaining nine correlates of the subjective instrument, a similar set of instructions was given. The other nine correlates are as follows:

B. Attitudes toward people.
C. Attitudes toward school.
D. Attitudes toward work.
E. Appearance and poise.
F. Vocational interests.
G. Vocational understandings.
H. Personnel ambitions and drive.
I. Speech and communication abilities.
J. General philosophies, and the like.

The possible range of total scores on the subjective instrument was from zero to forty. When trained researchers were used in collecting data a very high correlation of reliability was achieved. This was demonstrated in a preliminary study to produce the tentative correlates. The final validation of the correlates was to be included herein and the data on this validation follows.

TABLE 5

SUBJECTIVE SCORES AND THEIR MEANING
(Percentages)

	Dropouts Correctly Identified	Graduates Falsely Identified
Score of 21 or higher	94.1	8.2
Score of 17 or higher	96.5	25.9
Score of 13 or higher	98.8	41.2
Score of 9 or higher	98.8	62.4
Score of 5 or higher	100	91.8

A high numerical score on this instrument indicated a very strong identification of a prospective dropout. Table No. 5 shows the results of the application of this instrument to 85 dropouts and 85 graduates. This shows the optimum score for identification purposes. A score of 21 or higher correctly identified 94.1 per cent of the dropouts while falsely identifying 8.2 per cent of those who graduated. An item analysis of the ten correlates is presented in Table No. 6.

TABLE 6

PERCENTAGES OF STUDENTS GROUPED ACCORDING TO SUBJECTIVE SCORES AS DETERMINED BY INDIVIDUAL CORRELATES

Correlates	Dropouts					Graduates				
	0	1	2	3	4	0	1	2	3	4
A.		05	08	32	55	01	09	46	28	16
B.	02	02	24	60	12	38	43	18	01	
C.	06	16	36	30	12	53	27	20		
D.	01	01	26	51	21	36	50	13	01	
E.	01	01	30	62	06	26	38	36		
F.	06	05	30	54	05	28	42	28	02	
G.	04	11	49	32	04	38	42	20		
H.	01	01	32	55	11	13	45	40	02	
I.	01		15	08	76	34	28	24	12	02
J.		01	06	17	76	16	40	27	15	02

Each criterion applied to the subjects contributed to the selection of dropouts and graduates according to scores. It may be observed that a high percentage of dropouts were scored a "3" on correlate "B", "D", "E", "F", and "H". Further, the tendancy was towards a "4" score since correlates "A", "I", and "J" scored "4" among dropouts. It is significant to note that (4) "very unsatisfactory" housing was prevalent among 55 per cent of the dropouts. Also, this unsatisfactory score (4) applied

to a majority of the dropouts when it came to their general "knowledge of occupations" and their apparent "vocational ch[illegible]e." Seventy-six percent of the dropouts were identified by each of these two correlates. The score of "1" was most dominate among graduates.

To pursue the objective of identifying dropouts, a statistical treatment was applied to the total scores of dropouts and graduates. This was done to determine whether these scores had any significance in the identification of potential dropouts. The following statistical evaluation of the subjective instrument makes use of the biserial correlation between total scores of graduates and dropouts.

$$\text{bis.r} = \frac{M_G - M_D}{\sigma T} \times \sqrt{pq}$$

$M_G = \frac{\text{Sum of graduate scores}}{\text{Number of graduates}}$

$M_D = \frac{\text{Sum of dropout scores}}{\text{Number of dropouts}}$

p = Percentage of group G

q = Percentage of group D

σT = Standard deviation of entire group.

$N_D = 85$ $\quad p = .5$ $\quad \Sigma D = 2429$

$N_G = 85$ $\quad q = .5$ $\quad \Sigma G = 998$

$N_T = 170$ $\quad \Sigma D + \Sigma G = 3427$

$\Sigma D^2 = 71711$

$\Sigma G^2 = 14538$

$\Sigma D^2 + \Sigma G^2 = 86249$

$$M_D = \frac{\Sigma D}{N_D} = \frac{2429}{85} = 28.58$$

$$M_G = \frac{\Sigma G}{N_G} = \frac{998}{85} = 11.74$$

$$M_{(D+G)} = \frac{\Sigma D + \Sigma G}{N_T} = \frac{3427}{170} = 20.16$$

Standard Deviation Of Entire Group

$$\sigma T = \sqrt{\frac{\Sigma D^2 + \Sigma G^2}{N_T} - (M_{D+G})^2}$$

$$\sigma T = \sqrt{\frac{86249}{170} - (20.16)^2}$$

$$\sigma T = \sqrt{507.35 - 406.42} = \sqrt{100.93}$$

$$\sigma T = 10.04$$

$$\text{bis. } r = \frac{M_G - M_D}{\sigma T} \times \sqrt{pq}$$

$$= \frac{11.74 - 28.58}{10.04} \times .5$$

$$= 1.68 \times .5$$

$$= .84$$

A correlation of .84 is obtained by the total scores of the entire group made up of graduates (G) and dropouts (D).

The Objective Instrument

The second instrument, used in determining graduates and dropouts, was of the objective-data-gathering type. Here an instrument was designed whereby most data could have been collected for each subject from his cumulative record folder. Unlike the subjective instrument, no special instructions or manual was needed to prepare researchers to use this instrument.

Again a scale was used to collect data numerically. Plus (+) scores were to indicate a tendancy toward the dropout characteristics, whereas minus (-) scores were to indicate a tendancy toward the graduation of a subject. (See Appendix B)

As in many previous studies grade retardation proved to be a fairly good measure as well as days absent in the seventh and eighth grade classes. Test scores from two sets of tests were used depending upon whether the student had been given, in the eighth grade, the California Achievement Test. If the subject had taken this test then his scores were checked on items, Nos. 3, 4, and 6. On the other hand, if the subject had missed the C.A.T. at the eighth grade level, he was measured by the Iowa Test of Educational Development.

TABLE 7

OBJECTIVE SCORES AND THEIR MEANING
(Percentages)

	Dropouts Correctly Identified	Graduates Falsely Identified
Score of 7 or higher	98.3	10.0
Score of 5 or higher	100	26.7
Score of 3 or higher	100	40.0
Score of 0 or higher	100	60.0

Table 7 gives some indication of the ability of the objective instrument to identify. For example a score of plus (+) seven (7) would identify correctly 98.3% of the dropouts in the sample. In doing so it would falsely identify 10.0% of the graduates in the sample.

Table 8 shows the grouping of students by plus and minus scores used on the scale. It is clear that a plus one (1) would most clearly identify the dropout and that a zero (0) would most clearly identify a graduate. The numerical identity is close on this scale but it will be noted that the scores cluster heavily toward the plus side for dropouts and much less so for the graduates.

TABLE 8

PERCENTAGES OF STUDENTS GROUPED ACCORDING
TO OBJECTIVE SCORES
AS DETERMINED BY INDIVIDUAL CORRELATES

Correlates	Dropouts					Graduates				
	8	1	00	-1	-3	3	1	0	-1	-3
1.	04	31	65				03	96	01	
2.	10	48	37	05			10	48	42	
3.	61	35	03	01		03	11	44	33	09
4.	54	42	04			01	16	35	39	09
5.	91	03	02		04	46	16	15		23
6.	49	43	08			04	16	46	24	10
7.	04	63	33				34	66		
8.		51	48	01		05	38	57		
9.	38	34	23	05		22	23	34	21	
10.		51	44	05		01	15	48	13	23
11.	12	22	66				08	92		
12.	06	11	83			02	12	86		

The statistical treatment here again was based on the biserial correlation between total scores of graduates and dropouts. A correlation of .825 here does show that the instrument may have value in the identification of potential high school dropouts.

$$\text{bis. } r = \frac{M_G - M_D}{\sigma T} \times \sqrt{pq}$$

$M_G = \frac{\text{Sum of graduate scores}}{\text{Number of graduates}}$

$M_D = \frac{\text{Sum of dropout scores}}{\text{Number of graduates}}$

$N_D = 120$

$N_G = 120$

$N_T = 240$

$p = .5$

$q = .5$

p = percentage of group G

q = percentage of group D

σT = Standard deviation of entire group

$\Sigma D = 1682$

$\Sigma G = 43$

$\Sigma D + \Sigma G = 1725$

$\Sigma D^2 = 25608$

$\Sigma G^2 = 3346$

$\Sigma D^2 + \Sigma G^2 = 28,954$

$$M_D = \frac{\Sigma D}{N_D} = \frac{1682}{120} = 14.016$$

$$M_G = \frac{\Sigma G}{N} = \frac{43}{120} = .368$$

$$M_{(D-G)} = \frac{\Sigma D + \Sigma G}{N_T} = \frac{1725}{240} = 7.19$$

Standard Deviation Of Entire Group (σ)

$$\sigma T = \sqrt{\frac{\Sigma D^2 + \Sigma G^2}{N_T} - (M_{D-G})^2}$$

$$\sigma T = \sqrt{\frac{28954}{240} - (7.19)^2}$$

$$\sigma T = \sqrt{120.683 - 51.6961} = \sqrt{68\ 987}$$

$$\sigma T = 8.30$$

$$\text{bis. } r = \frac{M_G - M_D}{\sigma T} \times \sqrt{pq}$$

$$= \frac{.36 - 14.02}{8.30} \times .5$$

$$= .826$$

GENERALIZATIONS

This part of the study was completed in order that some follow-up of the dropout situation in Unit District No. 5, Alexander County, Illinois might be possible. The instruments would enable school people in this district to identify dropout-prone students and to arrange special programs for or special treatment of them in order to establish reliable retentive measures. Actually any retention which would, at the same time, provide for a better adjustment to society and a satisfactory occupational prepardness would improve the outlook and future of many prospective or potential dropouts in the district. Part I presented the outlook and possible future of these unfortunate people. Part II should provide the impetus to set in motion certain remedial practices to alleviate the situation of high school leavers whenever they chose to withdraw from or complete the high school curriculum.

Since the high school records of all students are not uniform, it seemed desirable to create a subjective judgement instrument to identify prospective high school dropouts. The subjective instrument has demonstrated a fairly high degree of accuracy when applied to actual graduates and dropouts. Additional studies should be made which would involve prediction as well. This is also true of the objective instrument. It seems logical that both instruments might demonstrate predictative values since both showed a high correlation when comparing the total scores of actual graduates and actual dropouts.

Although there is much which could be said regarding unmeasurable and unaccounted for variables in this study, the correlation coefficients are extremely satisfactory for both instruments. (subjective instrument, .84; objective instrument, .826). However, the general conclusions which

follow should be observed by persons who comtemplate making use of these instruments or similar ones in future studies.

Conclusions:

1. Graduates may be identified falsely by the instruments developed, but the values at cut-off points seem to indicate that the instruments may be of value in identifying potential dropouts in large numbers.

2. Graduates had what has been considered "better" attitudes generally than dropouts.

3. Poor housing was a rather significant measure in identifying potential high school dropouts.

4. Graduates seemed more outgoing and conversant than dropouts.

5. Graduates were informed to a higher degree about occupations and had made more progress towards informing themselves about occupational choice than dropouts.

6. Peer pressures were stronger than authoratative pressures or stresses among all former high school students, graduates as well as dropouts.

7. Dropouts with many older siblings were more prevalent than dropouts with many younger siblings. Conversely, graduates with fewer older siblings were more prevalent than graduates with fewer younger siblings.

8. Absenteeism was more prevalent among dropouts at the seventh and eighth grade levels than among graduates.

9. Absenteeism was more prevalent among dropouts at the seventh and eighth grade levels than grade retardation.

10. As many previous studies have shown the greatest objective predictors were: (1) achievement; (2) reading placement; and (3) mathematics placement.

11. Rather's occupation was an especially good measure of graduates and dropouts.

12. An accumulation of several correlates was found to be much more predictive of graduation or not. The biserial correlation formula measures this fairly well and allows one to develop satisfactory total measures.

Recommendations

1. All persons should receive specific training before making use of a subjective instrument such as developed by this research.

2. Trained guidance counselors, working ethically and confidentially with student records, should work with researchers and administrators in devising various remedial practices to reduce high school dropouts.

3. In developing criteria for the identification of potential dropouts one should make an effort to use as many correlates needed to improve the total instrument but to drop off the less significant correlates which, when added to the total instrument, make the instrument's use unweildy.

APPENDIXES

APPENDIX A

THE INTERVIEW OUTLINE

Note: For use by specially trained persons only, and to be memorized and used without note taking if possible.

Name_____(if married, maiden name in parentheses)

Data of Birth_____School_____Grad. or D.O. Date_____

Original Home Address_____

I. Family Background:

A. With whom the subject is living?

M = Mother
F = Father
P = Parent(s)
W = Wife
H = Husband
G = Grandparent(s)
S = Sibling
R = Relative
O = Other
A = Alone

B. Geographic Location:

A = Area
I = Illinois
O = Out of State

C. Type of Community?

R = Rural
C = City
M = Metropolitan

D. Marital Status of Interviewee:

S = Single
M = Married
D = Divorced

E. Marital Date:

1960
1961
1962
1963
1964
1965

F. Date if Divorced (Check)

1960
1961
1962
1963
1964
1965

G. Date if Remarried (Check)

1960
1961
1962
1963
1964
1965

H. Married Former Schoolmate: yes no

I. Children: Number_____ Boys (No.)____Girls (No.)_____

J. Persons earning the living in the household:

Y = Your (he or she)
P = Parents - one
N = None
S = Spouse
B = Both Parents

II. Employment:

A. Extent

R = Unemployed on Relief
C = Unemployed receiving compensation
P = Part time
A = Armed forces
U = Unemployed no income
F = Full time
H = Housewife
S = Student

Extent, Spouse

R = Unemployed on Relief
C = Unemployed receiving compensation
P = Part time
A = Armed forces
U = Unemployed no income
F = Full time
H = Housewife
S = Student

B. Class

C = Common labor
P = Professional
H = Housewife
S = Skilled
Ss= Semi-skilled

Class, Spouse

C = Common labor
P = Professional
H = Housewife
S = Skilled
Ss= Semi-skilled

C. Realm

I = Industry
B = Business
O = Service Occupation
D = Domestic
F = Farming
H = Housewife

Realm, Spouse

I = Industry
B = Business
O = Service Occupation
D = Domestic
F = Farming
H = Housewife

III. Employer:

A. Location

A = Area
I = Illinois
O = Out of State
N = None

B. Type of Community

R = Rural
C = City
M = Metropolitan

Location, Spouse

A = Area
I = Illinois
O = Out of State
N = None

Type of Community, Spouse

R = Rural
C = City
M = Metropolitan

C. Product or Service

M = Manufacturing
F = Forestry
B = Business
C = Communications
Fd= Food

Mi = Mining
T = Transportation
Fa = Farming
H = Health
O = Other Services

Product or Service, Spouse

M = Manufacturing
F = Forestry
B = Business
C = Communications
Fd= Food

Mi = Mining
T = Transportation
Fa = Farming
H = Health
O == Other Services

IV. Work Perspective Opportunities:

A	Job Future	G = Good	A = Average	P = Poor
B	Pay	G = Good	A = Average	P = Poor
C	Conditions	G = Good	A = Average	P = Poor
D	Ed. Adv.	G = Good	A = Average	P = Poor
E	Prob. Adv.	G = Good	A = Average	P = Poor
F	Att. Toward Advancement	G = Good	A = Average	P = Poor

Work Perspective, Spouse:

A	Job Future	G = Good	A = Average	P = Poor
B	Pay	G = Good	A = Average	P = Poor
C	Conditions	G = Good	A = Average	P = Poor
D	Ed. Adv.	G = Good	A = Average	P = Poor
E	Prob. Adv.	G = Good	A = Average	P = Poor
F	Att. Toward Advancement	G = Good	A = Average	P = Poor

V. Types of Jobs Held:

A. M = Manufacturing
F = Forestry
B = Business
C = Communications
Fd= Food
Mi = Mining
T = Transportation
F = Farming
H = Health
O = Other Services

Spouse

M = Manufacturing
F = Forestry
B = Business
C = Communications
Fd= Food
Mi = Mining
T = Transportation
F = Farming
H = Health
O = Other Services

VI. Lapse of time before securing a job:

A. D.= a few days
M = months
W = a few weeks
O = over a year

Spouse

D = a few days
M = months
W = a few weeks
O = over a year

VII. Found Work:

A. Y = Yourself
F = Family or friend
O = Other
N = Newspaper ad
A = Agency

Spouse

Y = Yourself
F = Family or friend
N = Newspaper ad
A = Agency

VIII. Attitude toward educational background:

A. Help of School Attendance

N = None
S = Some
L = Very Little
M = Very Much

B. Recommendations for School Attendance

N = No
AA= For Almost All
A = For All
S = For Some
C = For My Children

C. Training Since High School:

S = Specific Vocational Training
G = High School Graduation
E = General Education
N = None

Spouse

S = Specific Vocational Training
G = High School Graduation
E = General Education
N = None

D. Further Schooling Planned:

S = For Specific Vocational Training
G = For High School Graduation
E = For General Education
N = No

Spouse

S = For Specific Vocational Training
G = For High School Graduation
E = For General Education
N = No

IX. Responding

M = Mother
F = Father
P = Parent(s)
W = Wife
H = Husband
G = Grandparent(s)
S = Sibling
R = Relative
O = Other
I = Individual

APPENDIX B

Name_____ SUBJECTIVE INSTRUMENT School_____

	Outstanding, Very favorable or Excellent	Favorable, Good, Above average	Average, Fairly acceptable, Not especially Good	Unfavorable but not poorest, inferior	Very Unsatisfactory, Very poor to poorest
	0	1	2	3	4
A. The Home - Living Conditions					
B. Attitudes towards education - school					
C. Attitude towards school authority, rules and adherence to disciplinary standards					
D. Attitude towards work, earning a living, training for a job, etc.					
E. Ability to communicate with others					
F. Poise					
G. Attitude towards peers					
H. Apparent capacities					
I. Apparent vocational choice					
J. Knowledge of occupations					

Fig. 2--Form used to collect data by interview

APPENDIX C

Name_____

Status: Fr. Soph. Jr. Sr. Drop

Class last attended_____

Sex M F

OBJECTIVE INSTRUMENT

Weight	3	1	0	-1	-3	Total
1. Grade Retardation	-2	-1	0	+1		
2. Days Absent (seventh and eighth grade)	26 or more	16-25	6-15	0-5		
3. Correctness of Expression (3) or Reading Placement (eighth grade)	0-9 Below 7.5	10-39 7.5-8.4	40-59 8.5-9.4	60-79 9.5-10.5	80-99 Above 10.6	
4. Gen. Voc. (8) or Achievement Placement (8th grade)	0-9 Below 7.5	10-39 7.5-8.4	40-59 8.5-9.4	60-79 9.5-10.5	80-99 Above 10.6	
5. Extracurricular Activities (8th grade)	0	1			2	
6. Quantitative Thinking (4) or Arithmetic Placement (8th grade)	0-9 Below 7.5	10-39 7.5-8.4	40-59 8.5-9.4	60-79 9.5-10.5	80-99 Above 10.6	
7. No. of older siblings	7 or more	2-6	1 or less			
8. No. of younger siblings	7 or more	2-6	1 or less			
9. Economic status	Poor	Fair	Average	Good		
10. Father's occupation		Unskilled	Semi-skilled Skilled Clerical Service	Agriculture	Sales Managerial Technical Professional	
11. No. of Feeder Schools	3 or more	2				
12. Living with whom	Neither Parent	One Parent				

Total _____

Fig. 1--Form used to collect data for records

APPENDIX D

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education
Washington, D.C. 20202

August 26, 1965

Dr. Ralph O. Gallington

Southern Illinois University

Carbondale, Illinois

Dear Dr. Gallington:

This letter is a notification that the rating scales which you submitted to our office has been cleared for public use by the International Clearance Committee of the Office of Education.

Yours very truly,

(Signed)

Richard Bloom
Human Resources Development
Branch
Division of Adult and
Vocational Research