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Source: *The Journal of Educational Research*, Apr., 1966, Vol. 59, No. 8 (Apr., 1966), pp. 363-368

Published by: Taylor & Francis, Ltd.

Stable URL: <https://www.jstor.org/stable/27531743>

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Some Types of High School Dropouts¹

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ABSTRACT

Dropouts are not a homogeneous category, and the evidence indicates that many dropouts are capable of doing satisfactory work in high school. While some dropouts have limited intellectual ability, earn poor grades, are retarded in their grade placement, and are poor readers, many other dropouts do not face these particular problems.

Many of the apparent contradictions in the findings concerning dropouts can be resolved by distinguishing between early and late dropouts. Students with limited ability generally leave school early; capable dropouts tend to remain in school longer. Comprehension of the diverse data concerning dropouts requires specification of three types: 1) involuntary dropouts, 2) retarded dropouts, and 3) capable dropouts.

THERE HAS been a growing concern in recent years over the number of students who leave high school prior to graduation. Many writers have decried the potential waste of human resources occurring as a consequence of school dropout; the mass of under-educated, unemployed, and frustrated youth in the United States is said to constitute "social dynamite."

Many studies have been conducted, and these have led to the accumulation of many conclusions about dropouts. Frequently, the conclusions about dropouts are contradictory, and thus are confusing. Such contradictory results stem from a basic limitation of much of this research; namely, the conception, either explicit or implicit, that those who drop out of high school are a homogeneous group. This perception gave rise to the widespread stereotype of dropouts as "dummies," or persons lacking the ability to complete high school. Variations on this theme stress the dropouts' difficulties with reading, poor grades, and grade retardation. If an exception is noted, it is that problems of health or economic pressures might lead a student to drop out.

Characteristics of Dropouts

An effective response to the problem of high school dropouts will only be possible after order is imposed on the heterogeneous data available. This requires specification of *types* of dropouts. In this paper, the apparently contradictory findings concerning the dropouts' level of intelligence, difficulties with reading, grade retardation, and

poor grades are analyzed, and a typology of dropouts is presented as a means of integrating the available evidence.

Intelligence Scores

Many Americans are convinced that dropouts are drawn from the bottom of the intelligence distribution. This view is supported by studies which have found that limited intellectual capacity is a definitive characteristic of dropouts (5, 6, 7, 10, 24). For example, the U. S. Department of Labor recently conducted a survey of dropouts in seven communities scattered throughout the United States, and the results which are presented in the accompanying table are fairly typical of the studies which emphasize the association between low intelligence test scores and school dropouts (24:14). The Otis Mental Ability Group Test was the most widely used in the areas studied, and "a quotient of 85 is the point below which successful completion of most high school subjects is regarded by educational authorities as generally difficult" (24:13). Students with IQ's between 85 and 89 are usually slow learners; 90 to 109 represents the normal range and 110 or above is the level of ability required for college work.

Clearly, the most obvious difference between the dropouts and graduates lies in the proportion whose IQ's are under 85, and hence lack the requisite ability to complete high school. Not to be overlooked in this comparison of dropouts and graduates is the overlap in IQ scores. Many of the dropouts have higher IQ's than some of the

Measured Intelligence of Dropouts and High School Graduates

	I Q			
	85 and Under	85-89	90-109	110 and Over
High School Graduates	10%	11%	63%	16%
Dropouts.....	31%	15%	48%	6%

high school graduates, and some dropouts have the intellectual equipment necessary to do college work. Nevertheless, this investigation offers evidence that low intelligence is related to dropout, and further support for this view has been reported by Delaney, who has observed that only 46 percent of the dropouts he surveyed have average or above average intellectual ability (7).

On the other hand, studies conducted in California and New York City conclude that dropouts do not differ significantly in intelligence from those who remain in school. A comparison of 72 dropouts who were in continuation school and 72 students from regular high schools in Stockton and Fresno, California, in which the two groups were matched on age, sex, grade, scholastic aptitude and paternal occupation, revealed no significant difference with regard to IQ (12). However, the group of regular students is not representative of the student population, since these students were matched with the continuation students, in part, in terms of scholastic aptitude. Among the studies reported by McCreary and Kitch is one conducted by Sando in California's Contra Costa County. The investigator studied 100 consecutive sophomore withdrawals from eight high schools and matched each of them as nearly as possible with 100 sophomores who remained in school on the basis of school attended, sex, socio-economic status, and rate of promotion. The groups were not matched in intelligence, but they showed no significant difference when their IQ's were compared (18:37). Again, in New York City, the Board of Education found little difference in the average IQ scores of graduates and non-graduates; further, all of the IQ scores were within the normal range (3:26).

Somewhat different results were obtained in a study conducted in Detroit, in which Layton compared dropouts with the norms of standard tests of "native learning ability." According to the test norms for the total student population, 20 percent are rated above average, 60 percent average, and 20 percent below average. In comparison, only nine percent of the dropouts were rated above average, while 67 percent were rated average, and 24 percent were rated below average (15:7). Similar results have been obtained by other investigators (18:31).

These contradictory findings may stem partially from the use of different definitions of school dropouts. In addition, some of the discrepancies between these investigations presumably result from the use of different, though often unspecified, intelligence tests which have different norms.

The results differ primarily, however, as a consequence of the failure to differentiate between

early and late school dropouts. Those who drop out prior to entering high school may be considered early dropouts. There appears to be as much difference between students who leave school early and those who leave later, that is, after entering high school, as there is between all dropouts and high school graduates. In statistical language, this is the notion of within-group or intraclass variation in contrast to between-group or interclass variation. Consequently, when dropouts at all levels are studied as a single, homogeneous group, significant differences may be obscured and the analysis confounded. Examination of the literature indicates that this possibility has rarely been recognized, though there are notable exceptions (8, 17, 24).

Analysis of those who drop out early shows a high proportion of students with limited ability, as in the Labor Department survey. On the other hand, when the intelligence scores of late school dropouts are analyzed, little or no difference is found in comparison with high school graduates, as was the case in the New York City Board of Education study of students who left school after entering high school. Findings intermediate between these extremes may well result from investigation of varying, but unspecified, proportions of early and late dropouts.

Evidence for this interpretation—that the students with limited ability are the first to leave school—is provided by Dillon. He found that 36 percent of 1,018 dropouts in grades seven through twelve had IQ scores below 85; in contrast, 75 percent of the dropouts who left school in the seventh grade scored below this level (8:34).

One additional point deserves mention here. It is important to recognize that IQ test scores correlate highly with reading ability. Those who have learned to read well will do better on this kind of test than children who are poor readers (4:13). Using the California Test of Mental Maturity, Cook and Lanier found that the language IQ of dropouts was considerably below that of those who remained in school (6, 14). In addition, the nonlanguage IQ scores of dropouts were higher than their language IQ scores. This suggests that difficulties with reading may also be an important factor related to leaving school.

Reading Achievement

The Rochester study of dropouts from the ninth through the twelfth grades offers a clue to the nature of this problem by presenting a cross-tabulation of the dropouts' measured IQ and reading test scores. These scores were obtained from the American College Entrance Test and the Nelson Silent Reading Examination; the scores of students in Rochester schools were used to establish norms. The dropouts measured lower

on the reading tests; the median IQ score for boys was at the forty-first percentile, whereas their reading score was at the thirty-first percentile. This difference was significant at the .01 level (9:14-16).

This suggests that reading achievement is significantly related to the dropouts' academic difficulties. Using the California Reading Achievement Test (Advanced), Bledsoe found that dropouts from the ninth and tenth grades had a mean reading comprehension score of 7.9, while the rest of the ninth graders had a mean score of 8.9 (2). Penty also found a relationship between reading ability, as measured by the Iowa Silent Reading Test, and withdrawal from high school: more than three times as many poor readers as good readers dropped out of school (20:51). Nachman and his co-workers found that 75.4 percent of the dropouts scored below the median of their level on a reading test, and 53.4 percent were in the lowest quarter (19).

Disabilities in reading may have serious repercussions. Pupils who are poor readers have difficulty in doing the work required. One of the consequences of poor reading is failure and grade retardation.

Grade Retardation

In the literature on dropouts, one finds literally dozens of studies which point to grade retardation as one of the outstanding characteristics of dropouts (1, 8, 9, 10, 16, 23, 24). Livingston, for example, reported that of all dropouts who withdrew prior to entering ninth grade, every one was retarded at least one grade and 84 percent were retarded two grades. Of those who graduated from high school, only one percent were retarded one grade and none were retarded more than a single grade (17). In its survey of seven communities, the U. S. Department of Labor included grades eight through 12 in four areas and grades nine through 12 in the remaining three; it was found that 84 percent of the dropouts were retarded at least one year, and 53 percent were retarded two or more years. Specifically, 87 percent of the boys and 80 percent of the girls were retarded one or more years, and 59 percent of the boys were retarded two or more years as were 44 percent of the girls (24:17).

Retardation is considered one of the most reliable indicators of future dropout.² Any pupil retarded two years by the time he reaches the seventh grade is unlikely to finish the tenth grade and has only a negligible chance of finishing high school. If the pupil is retarded three years, he is not likely to enter the ninth grade (21:8).

The crucial importance of differentiating between early and late school dropouts also is apparent in the reports which consider grade retar-

dation. Some studies have failed to make this distinction, and, as a consequence, the relationship between dropout and grade retardation has been confounded. The studies in which this distinction has been made, such as the ones conducted by Livingston and by the Department of Labor, suggest that those who leave school early, that is, before the ninth grade, are most likely to be retarded, whereas those who drop out later are much less likely to be retarded. Closely related to the area of grade retardation is the question pertaining to the grades of dropouts.

Grades

A number of studies have reported the grades of dropouts but, with the exception of Dillon's investigation, these are of limited utility because early and late dropouts are not distinguished. Dillon found that 180 in a sample of 1,018 dropouts earned A's or B's in elementary school, and 65 percent of these students maintained a comparable level of performance in junior high school. However, only 17 percent (31 of the 180) maintained this level of performance in high school (8). On the basis of this evidence, Dillon suggests that a clear trend is evident—the grades of dropouts are not always poor, but become worse as they progress through the several educational levels.

The inference that students leave school because they cannot, or do not, maintain high grades does not necessarily follow. Dropouts show a general decline in scholarship from the elementary to the senior high school, but information concerning the grades of a control group of graduates is required before one can be certain that such a general decline is not the result of more rigorous grading policies. In short, a similar decline might also characterize those who remain in school.

The data provided by Dillon suggest that many dropouts do not earn more than average or "C" grades. These are, of course, early dropouts, and many of them have limited intelligence. Dillon's study also revealed that, of the dropouts who reached the eleventh or twelfth grade, approximately 45 percent were doing passing work.

Poor or even failing grades do not necessarily imply a lack of ability. A capable student may perform poorly either through lack of motivation or prolonged absence from school. Consequently, grades alone cannot be used as an index of ability—measured intelligence and reading skill may be of equal or greater importance as indices of intellectual capacity.

Summary

In summary, a review of the available literature suggests the critical importance of distinguishing between early and late school dropouts.

Students with limited ability generally leave school early—often before entering senior high school. Among the late school dropouts, one finds few who lack the requisite ability to complete high school. Since the U. S. Department of Labor survey of seven communities found that 10 percent of high school graduates score below 85, the lower limit of the normal range of intelligence test scores, it is reasonable to expect a comparable percentage of retarded students to be found among late school dropouts. Thus, while many early dropouts are youngsters with limited ability, the evidence suggests that there is little difference in ability between late school dropouts and high school graduates.

Implicit in this examination of the findings of previous research are several distinct types of dropouts. The remainder of this paper is devoted to the presentation of this typology.

Types of Dropouts

Analysis of the findings on dropouts suggest that three major types of dropouts may be distinguished. These types are: 1) the involuntary dropouts, 2) the retarded dropouts, and 3) the intellectually capable dropouts.

The Involuntary Dropouts

Those individuals who leave school as a result of some personal crisis constitute involuntary dropouts. Each year as a result of illness or accident, a small number of students are physically disabled and forced to withdraw from school. For others, the death of a parent, particularly the father, requires an immediate entry into the world of work. Regardless of the specific reason, the involuntary dropouts leave school because of external circumstances over which they have no control. A student may use physical health or economic problems as his reason for dropout when, in fact, he is retarded. For typological clarity, one may require that only intellectually capable students may be considered for inclusion as involuntary dropouts. The number of dropouts who would fit into this category presumably is quite limited, and the nature of the relationship between these cases of personal crisis and dropout is readily apparent. Nevertheless, it is important to distinguish this type of dropout, for their academic and social characteristics might confound the analysis, if included with the other types.

To identify and explain involuntary dropouts is a relatively easy task. Since these cases occur as a result of physical health or economic problems, it does not, however, appear feasible to predict potential dropouts of this type.

The Retarded Dropouts

The retarded dropouts are those who are not capable of doing the necessary work required for promotion to higher grades and eventual graduation.³ Two types of students contribute to the category of retarded dropouts. In general, retarded dropouts may be identified by their low scores on achievement and intelligence tests, poor grades, grade retardation, and reading disability. In some cases of school retardation, however, the adolescents have average or high intelligence, if tested with a nonverbal IQ test. For such students, their low reading ability results in low achievement scores, low grades, and possibly even grade retardation. Some writers have recognized such cases, and they have suggested that reading disability is the cause of a wide range of school problems, including dropout and delinquency (13, 22:85-8). While this is a particularistic fallacy, the existence of school retardation among students whose IQ scores are within the normal range must be recognized. Thus, within the category of retarded dropouts one finds students who lack the innate ability to do the required work, and also students who may have the potential ability to do adequate work, but lack the requisite skills to perform satisfactorily.

Like the involuntary dropouts, the retarded dropouts can be identified and explained with relatively little difficulty; retarded dropouts lack the skills or abilities necessary for academic pursuits. Many dropouts of this type are officially labeled "uneducable," and are dropped from school by administrative authority because of their inability to succeed academically. The available evidence suggests that retarded dropouts leave school early, whereas capable dropouts tend to remain in school longer.

The Capable Dropouts

The term capable dropout is used in reference to those students who have the requisite ability to do passing or even superior work in high school, but who may or may not be making satisfactory academic progress. These students leave school for reasons other than low ability.

This type has two identifying characteristics. The capable dropouts are students who have average or high IQ's and adequate or high reading ability. In general, they have adequate academic standing in terms of grades and achievement scores and the absence of grade retardation, though these are not definitive characteristics. A word of caution is in order. A student who is a capable dropout might be incorrectly designated a retarded dropout on the basis of his low grades and achievement scores. The key to identifying the capable dropout is his adequate reading abil-

ity and IQ. His grades may, in fact, be primarily D's and F's. In such cases, the capable dropout is "flunking" for reasons connected with citizenship, lack of attendance or truancy, or the fact that he is a behavioral problem in school. His response to the school situation may indicate a lack of motivation, but he is not failing because he lacks ability for academic pursuits. When he does his work, it is not F work; his major difficulty is that he does not do his required work.

Of the various types of dropouts, it is the capable dropout that is considered a contemporary social problem, because his abilities and potentialities are not realized, and thus constitute a societal waste. The available data indicate that at least half and perhaps as many as three-fourths of all dropouts have the necessary ability to graduate from high school (15, 18:31, 24). Involuntary dropouts, who have adequate ability, comprise a relatively small percentage of these dropouts. This implies that many dropouts are intellectually capable, but the evidence is by no means clear. This poses an important research question: What is the proportion of dropouts in each of the types identified?

Analysis of intelligence scores, reading achievement scores, grades and other information readily available in school records will be of limited utility in attempting to identify which students, among those who are intellectually capable, are potential dropouts. To determine why capable students drop out will require investigation of sociological and psychological variables and examination of the educational philosophy governing the schools. In another paper it is proposed that the explanation of why capable students drop out must be sought in an analysis of the social milieu of the school, peer and parental attitudes toward education, and the student's position in the web of peer group interaction (11).

Conclusion

The prevalent stereotype of dropouts depicts them as persons lacking in intellectual ability; but the evidence indicates that many dropouts are capable of doing satisfactory work in high school. Further, the available data demonstrate that while some dropouts earn poor grades, are retarded in their grade placement, and are poor readers, many other dropouts do not face these particular problems.

Many of the apparent contradictions in the findings concerning dropouts can be resolved by distinguishing between early and late dropouts. Students with limited ability generally leave school early, whereas capable dropouts tend to remain in school longer. Hence, the stereotype of the dropout emphasizes the characteristics of early dropouts, of whom a significant proportion

are of limited intellectual capability, receive poor grades, are poor readers, and are retarded in their grade placement.

Comprehension of the diverse data concerning dropouts requires the specification of three types: 1) involuntary dropouts, those who leave school as a consequence of some personal crisis such as the death of a parent; 2) retarded dropouts, those who lack sufficient ability to handle academic pursuits and who tend to drop prior to entering high school; and 3) capable dropouts, those who terminate their education prior to high school graduation, despite the fact that they have the ability to do the required academic work.

FOOTNOTES

1. This investigation was supported in part by Public Health Service Research Grant No. MH 07173-01 from the National Institute of Mental Health.
2. In the interpretation of data on grade retardation, it is important to recognize that some school districts limit the number of grades that a child may be retained. Consequently, data on grade retardation as an indicator of future dropout may apply only to those school districts that do not impose these limitations. It may also be necessary to take into account those students who have not been retained more than one year but are enrolled in remedial classes.
3. In some districts, a policy of "passing" such students from grade to grade and finally awarding a certificate of attendance has come into vogue.

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