

Streaming, Absenteeism, and Dropping-Out

Manuel Crespo
Université de Montréal

Justo Michelena
Centre de services sociaux du Montréal Métropolitain

A descriptive model of absenteeism and early withdrawal from school is developed using a census of the students registered in 1974-75 in secondary III, IV, and V of the Francophone sector of a large Québec school board located in a highly urbanized area. Crosstabular analysis tends to show that the streaming system is inversely related to absenteeism and dropping-out, even when intelligence, age, academic performance, and type of school are considered separately. A path analytic model confirms the crosstabular analysis: The streaming system remains associated with both absenteeism and dropping-out. The data also confirm some of the results of previous studies on dropping-out. Certain statements of the study are qualified with respect to intervention policies.

Cet article présente un modèle descriptif des phénomènes d'absentéisme et d'abandon scolaire précoce. Pour les besoins de l'étude, on a utilisé un recensement des étudiants inscrits en 1974-1975 au secondaire III, IV, et V — secteur francophone — d'une importante commission scolaire québécoise située dans une région hautement urbanisée. Selon une analyse de tableaux de classification, il semblerait que le système de répartition des élèves par niveau est inversement relié à l'absentéisme et à l'abandon scolaire, même lorsque sont considérés isolément l'intelligence, l'âge, les succès scolaires et le type d'école. Un modèle analytique de cheminement confirme d'ailleurs cette analyse: le système de répartition des élèves par niveau demeure associé tant à l'absentéisme qu'à l'abandon scolaire. Les données recueillies corroborent également quelques résultats de recherches antérieures sur le phénomène l'abandon scolaire. Certaines conclusions de la présente étude sont cependant nuancées en fonction des politiques d'intervention.

Absenteeism and dropping-out are at the forefront of the educational scene in Québec. These problems are not new; what is new is the strong emphasis that government officials and educators are now placing upon the early detection of potential drop-outs and the follow-up of chronic absentees. In a period of declining enrolments, early withdrawal from school compounds this phenomenon: school depletion occurs thus at both ends of the system (in primary schools and in the last two years of secondary school). Since school financing functions mainly on a *per capita* basis, each drop-out threatens the school boards' budget equilibrium. This situation has certainly contributed to the renewed interest in the strategies for coping with absenteeism and dropping-out.

The purpose of this article is to present results of a two-phase study of the determinants of some forms of school maladjustment, namely absen-

teeism and dropping-out.¹ The first phase reported here is based on the analysis of macro-statistics taken from the records of a large school board. In the second phase of the study, which is based on a survey of students in the same school board, the conclusions reached in the first phase will be more closely examined. These results will be reported at a later date. More precisely, the aim of this article is to analyze the relationships between a *structural* variable, the *streaming system*, and absenteeism and dropping-out. The Québec *streaming system* is an academic device whereby students are channelled into three (sometimes four) different "tracks": slow, average, and enriched. Until recently, this system was applied in the early years of high school. At the moment of the study, it was applied exclusively in the last three years of high school. Since professional practitioners pointed out that the streaming system was failing to produce its intended effects (allowing students to obtain a high school education), the school board authorities decided to evaluate the system. This paper was, at the outset, a preliminary approach to a more comprehensive evaluation of the streaming system.

Several studies have attempted to identify the variables which influence absenteeism. For the most part, the research deals with four dimensions: psychological, socio-cultural, academic, and personal experience in family life (Birman & Natriello, 1978; Eaton & Houghton, 1974; Hart, 1975; Galloway, 1976; Pasilé-Trépanier, 1970). The most interesting and systematic research, however, is to be found in studies conducted on the drop-out. In general, the profile of a drop-out includes at least one and often several of the following characteristics: lower than average intelligence, major academic problems, low attendance rate, lower class background, and a broken home. (Yudin et al., 1973, give a good summary of the drop-out's profile. See also Backman et al., 1971; Bourdeau & Bourbeau, 1975; Cervantes, 1965; Kaplan & Luck, 1977; Kaufman, 1968; Kelly & Pink, 1974; Lévesque, 1979: 77-80; Reich & Young, 1975; Watson, 1975; Zamanzadeh & Prince, 1978).

Over the last decade researchers have become interested in the effects of the streaming system on certain school issues.² Most of these studies do not deal specifically with the effects of streaming on absenteeism and dropping-out. Nevertheless, they provide the conceptual framework of a model for the understanding of these two behavioral outcomes, and thus it is worth reporting them here. Breton (1970) found a positive relationship between program of study (college/non-college tracks) and educational aspirations (see also Gilbert, 1977). Schafer and Olexa (1971) have examined some of the effects of the streaming system on the performance of secondary students. In their opinion, it is a mistake to believe that the system of academic stratification, while dividing students into homogeneous groups according to their learning capacities, allows the weaker students to benefit from better instruction and increased

academic output. Alexander and McGill (1976) documented the effects of streaming on several academic aspects. Compared with students enrolled in a non-college stream, those in a college stream have, among other characteristics, higher academic performance, higher educational goals, and better self-conceptions of academic competence. Alexander, Cook and McGill (1978) consider that being placed in a college track increases the benefits that the student may derive from the educational system, whereas placement in a non-college track would be a considerable handicap where future education is desired (see also Heyns, 1974). Rosenbaum (1975) shows how the system of academic stratification creates the conditions for two different processes of socialization: the "college track" leading towards differentiation processes (development of creativity, opening up of various career possibilities, etc.), and the "non-college track" leading towards homogenization processes (equalization of opportunities at the base of the occupational pyramid, less motivation, etc.). (See also Rosenbaum, 1976.)³

Some of the studies reviewed *indirectly* raise the possibility of becoming a school absentee or drop-out as a result of placement in a slow stream. A few studies, however, directly tackle this question from a structural perspective. Crespo (1974) pointed out the negative influence of the streaming system on absenteeism. Recently Kelly (1978) found a consistent negative relationship between streaming and two measures of absenteeism (cutting classes and skipping school). Kelly (1971) considers dropping-out as one of the results of the streaming system. According to him, perceived low academic status, resulting from position in a slow stream, favors negative experiences conducive to dropping-out. (See also Kelly, 1974). In a study of several school boards in Québec, Blais (1973) found an over-representation of drop-outs in vocational training, particularly in the so-called "short professional course." A recent Québec Ministry of Education report (Bourdreault, 1979) confirms Blais' findings. Approximately 35% of students enrolled in vocational training withdraw from school as compared to 26% of those enrolled in the general (academic) course. (See also Bourdeau & Bourbeau, 1975.)

Several researchers have analyzed different structural and process variables influencing absenteeism and dropping-out. Few, however, have consistently investigated the relationships between the streaming system and these two outcomes. This study analyzes this relationship by means of a method that allows great flexibility. Its aim is to arrange different predetermined and outcome variables in a descriptive model⁴ to gain a preliminary understanding of their interrelationships. Its basic hypothesis is that placement in the lower sector of the streaming system is conducive to absenteeism and dropping-out. Furthermore, it is postulated that attention should be focussed on the effects of that system when studying the sources of school maladjustment.

METHODOLOGY

This study is based on a census of the students registered in 1974-1975 in secondary III, IV, and V ($n = 42,258$)⁵ in the Francophone sector of a large Québec school board located in a highly urbanized area. The students' cumulative records were used to construct a set of variables for use in the study. These variables are: absenteeism, academic performance, age, dropping-out, intellectual ability, type of school, and streaming. With the exception of the "streaming" variable, the pivotal variable of the analyses, these variables were selected because previous studies have identified them as being related to absenteeism and dropping-out.

It should be stressed that some of the important variables brought out in other studies are missing from the data set, in particular those concerning family and socio-economic status. Unfortunately, due to a heated debate on the confidentiality of certain types of information, the cumulative record of the students of this particular school board no longer contained information on occupation, education, and income of the head of the family. Imperfect as it may be, the type of school attended may be considered as an indirect measure of the socio-economic status of a student. The cumulative record does, however, contain information on the type of family structure of the subject (whether he lives with a father and mother, single parent or other). The validity of this data, however, is rather questionable, and it is for this reason that it has been excluded from this study.

Definition of Variables

- The absence variable measures the rate of student absenteeism as reported by each of the schools. This rate of absenteeism is expressed in a weighted percentage. The rate was calculated in terms of the days that each student should have attended school before his withdrawal (if he withdrew before the end of the school year), or from the number of days in class (if he did not withdraw before the end of the school year).

It should be noted, however, that this rate of absenteeism reflects only the minimum, since there are numerous problems involved in recording the true number of days missed by each student.⁶ To facilitate the cross-tabulation of this variable with others in the study, it was used in discrete form according to a quartile distribution. Note that this transformation was used only in the contingency table as, in the multiple regression analyses, the variable is used in its continuous form.

- The academic performance variable represents the combined results of the most recent standardized French and mathematics tests registered in the cumulative record of the student.⁷ This variable is divided into three categories: inferior (value: 1) which includes all the students with a performance of 3 stanines⁸ or less on the two tests; superior (value: 3) which includes all the students with a performance of 7 stanines or more

on the two tests; and average (value: 2) which includes any other performance combination on the two tests.

- The age variable represents, in the contingency table, a dichotomization of the recorded population in terms of age: students of 15 or under and students over 15. For the multiple regression analyses, age is entered as a continuous variable.

- Dropping-out is a dichotomous variable which represents the students whose records have been judged "active" during the year 1974-75 (value: 0), and those whose records have been judged "inactive" (value: 1) during the same year. In fact, the activity criterion corresponds to attendance at school. Consequently, the students with active records did not withdraw from school during this year while those with inactive records did.⁹

- The intellectual ability variable represents the classification of students in terms of their intellectual ability as measured by their performance on the most recent test given by the school board. Intellectual ability is measured in stanines.

- The school variable represents all the secondary schools of the school commission ($n = 45$). For the purposes of this study, these schools were divided into three categories according to "socio-pedagogical deprivation." According to the existing system of classification of these secondary schools, they are divided into three categories: underprivileged, average and favored.¹⁰

- Lastly, the streaming variable represents the classification as applied to each individual student.¹¹ The "slow" students (value: 1) are all those who are at the slow level in both mathematics and French; the "enriched" (value: 3) are all those students at the enriched level in both mathematics and French; the "average" (value: 2) are those who have any other combination in these two basic subjects.

DATA ANALYSIS

Analysis of the data was carried out at two levels. Firstly, an attempt was made to measure the degree of association among the absences, dropping-out, and streaming variables, while exerting various controls. Secondly, multiple regression techniques, in conjunction with path analysis,¹² were used to provide a factual understanding of absenteeism and dropping-out in this school board.

STREAMING, ABSENTEEISM, AND DROPPING-OUT

Bivariate analyses reveal that students with a high rate of recorded absences and drop-outs are overrepresented in the "slow" stream. Ap-

proximately 39% of students registered in the slow stream have a high absenteeism rate, whereas only 8% of those registered in the enriched stream have high absenteeism records (22% in the “average” stream). Also, early school withdrawal decreases progressively from the slow to the enriched stream: 24% of the slow stream withdrew early, but only 3% of the enriched stream did (11% of the “average” stream).

The relationship between streaming, absenteeism, and dropping-out remains constant after controls for intellectual ability, age, academic performance, and type of school are exerted. As Table 1 shows, all coefficients (gamma)¹⁸ have the same sign and, with the exception of academic performance, their respective strengths are very similar. Thus, whether the students are classified as more or less intelligent, whether they are younger or older, whether they come from a school considered as “underprivileged” or “favored,” or whether their performance is good or poor, does not make much difference with respect to relationship of streaming and absenteeism and dropping-out.

TABLE 1
*Zero-Order and Partial Gammas Between
Streaming and Selected Variables*

<i>Behavioral Outcome Variables</i>	<i>Zero-Order Gamma With Streaming</i>	<i>Partial Gamma With Streaming Controlling For:</i>			
		<i>Intelligence</i>	<i>Age</i>	<i>School</i>	<i>Academic Performance</i>
Absences	—0.35	—0.30	—0.34	—0.35	—0.27
Dropping-out	—0.52	—0.47	—0.51	—0.50	—0.45

n = 30, 800

A Path Analytic Model of Absenteeism and Dropping-Out

The second and final level of analysis uses a descriptive model of absenteeism and dropping-out to refine the results already reported. Since path analytic techniques will be employed, several comments on specification are needed. As a reminder, the variables included in the model are: intellectual ability, age, academic performance, type of school, streaming, absenteeism, and dropping-out. In recursive models (see Figure 1), the direction of the influences diagrammed should not be subject to controversy. Thus, for example, the age variable precedes any other variable. The same is true for intelligence since the potential of any student antecedes his performance, stream assignment, absenteeism, or withdrawal. The school variable poses no problem: before obtaining an academic score, being assigned to a particular stream, being absent, or withdrawing from school, a student must be enrolled in a given school. Even if academic performance is measured in the same year as assignment to a given

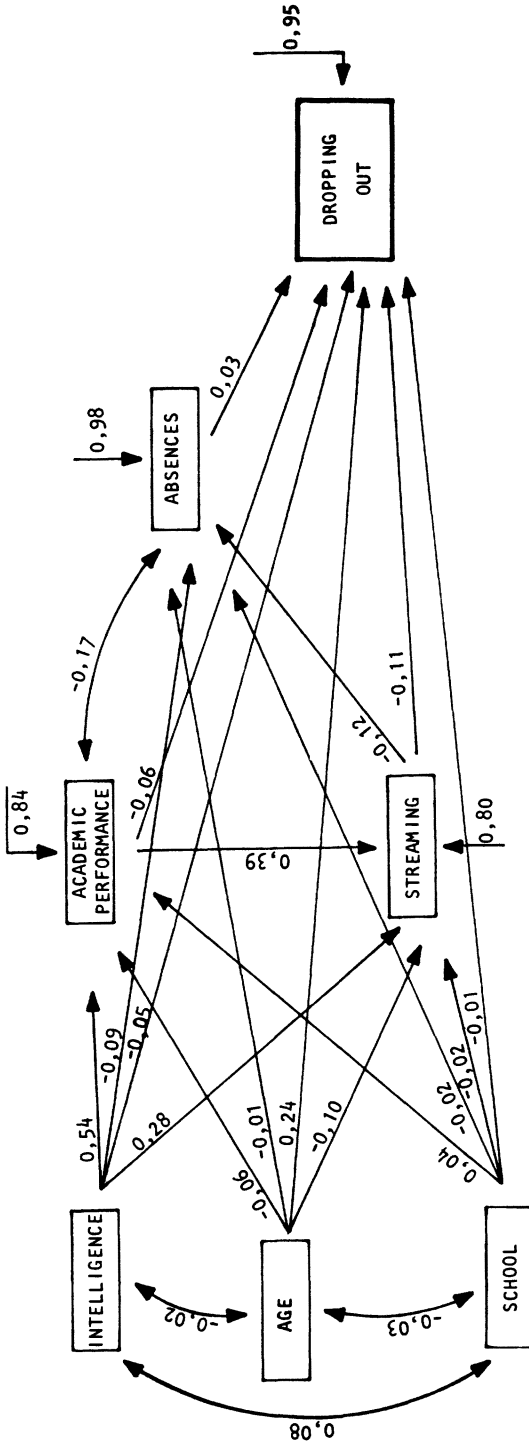


FIGURE 1
Path Diagram of Absenteeism and Dropping Out

stream, and in this way the relationship may be ambiguous (Heyns, 1974), academic performance tests of this school board always measure the acquisitions of the preceding year. Therefore, in spite of the temporary coexistence of the two measures, academic performance precedes assignment to various streams, and the specification adopted in the model is justified. As for the specification of streaming towards absenteeism and withdrawal, it should be noted that students are absent or withdraw during the year, whereas they are assigned to their respective streams at the beginning of the year. In the model, it is impossible, however, to definitely establish the direction of influence between academic performance and absenteeism. Thus, these two variables are considered to have an ambiguous relationship. Lastly, withdrawal certainly comes after all the other variables of the model.

As expected, the variances explained in academic performance and streaming are high: 30% and 37% respectively. (For these data and following discussions, see Table 2).

For academic performance, the most important factor is intellectual ability ($\text{Beta} = 0.54$). Age is a relatively minor factor, although it is negatively related to performance: older students don't perform as well as younger ones. The variable "type of school" also does not have any noticeable influence on performance.

Both intellectual ability ($\text{Beta} = 0.28$) and academic performance ($\text{Beta} = 0.39$) are strongly related to assignment to a particular stream. Age is negatively related: older students are thus overrepresented in the slow stream, which may be an indication of a poorer antecedent school career. Again, the school variable has no relation whatsoever to assignment to a stream. Even if approximately 63% of the variance in stream assignment is not explained by intelligence, academic performance, age, and type of school, the two meritocratic variables (i.e., intelligence and performance) are strongly related to curriculum placement. Although these findings leave open the question of selection procedures at the local school level, it should be admitted that stream assignment in high school¹⁴ in this School Board relies heavily on performance criteria.

Disappointingly, the model explains only 3% of the variance in absenteeism; this weakness will be discussed in the conclusion of this article. Nonetheless, streaming, the research variable, is the major factor accounting for recorded absences ($\text{Beta} = 0.12$). Slow stream students thus tend to have more recorded absences than students placed in the enriched stream. This finding is interesting because multiple regression techniques allow for the simultaneous control of the variables in the equation. Note, in addition, that with the exception of intellectual ability ($\text{Beta} = -0.09$), the remaining variables have weak relationships with absences. Furthermore, the association between academic performance and recorded absences is inverse and moderate ($r = -0.17$). Note, again, that an association of variables, rather than an influence, is postulated.

TABLE 2
Beta Coefficients of Regressions of Absenteeism and Dropping Out

<i>Determined Variables and Equations (a)</i>	<i>Predetermined Variables</i>						<i>R²</i>
	<i>Intelligence</i>	<i>Age</i>	<i>School</i>	<i>Performance</i>	<i>Streaming</i>	<i>Absences</i>	
Academic performance	(1) 0.5382	—0.0570	0.0377				0.2960
Streaming	(2) 0.2785	—0.0967	—0.0156	0.3856			0.3654
Absences	(3) —0.0852	—0.0116	—0.0202		—0.1181		0.0337
Dropping out	(4) —0.0460	0.2406	—0.0117	—0.0641	—0.1050	0.0285	0.1031

n = 30,700

(a) For each equation, beta coefficients appear horizontally.

In the case of the final dependent variable, dropping-out, the model verifies the links established in the previous crosstabular analysis. Thus, streaming is still linked to withdrawal ($\text{Beta} = -0.11$) even after ability, age, type of school, academic performance, and recorded absences are simultaneously controlled. The most important variable is age, however ($\text{Beta} = 0.24$), which confirms the results of other studies on the subject. The importance of the age variable may be partially explained by the fact that compulsory education ends, as in other major industrialized countries, at approximately 16 years of age. The relationships between intellectual ability, academic performance, and withdrawal are weak ($\text{Beta} = -0.5$ and -0.6 respectively) even if in the predicted direction.¹⁵ Finally, type of school as well as recorded absences have little bearing on dropping-out. The fact that recorded absences do not seem to be related to dropping-out is questionable, particularly because professional practice, confirmed by research findings (see, for example, Zamanzadeh & Prince, 1978), considers chronic absenteeism as a major step towards dropping-out.

More refined analyses, not shown here, qualify this statement. In these analyses, recorded absences are still linked to dropping-out, but only among "favored" schools. For this type of school, the beta coefficient of absences on dropping-out is 0.13. An interpretation of this interaction effect may be that chronic absenteeism (more than 20 days of absence during the school year, according to this particular School Board) is not as great a problem in the favored schools (12% of chronic absentees) as it is in the underprivileged schools (31% chronic absentees). Thus in the favored schools an absentee is "atypical" and would therefore experience much greater "pressure" from his/her peers. If conformity with typical norms is not reached, the only solution may then be to withdraw from school. In the conclusion, an alternative, explanation, based on measurement problems, will also be discussed.

In comparison with the explained variances in intellectual ability and academic performance, the variance explained in dropping-out appears to be rather weak ($R^2 = 0.10$). The weakness of the model, although very disappointing, is still within the limits of "reportable" findings. This is particularly so when dropping-out, which is a very complex phenomenon, has been linked to a multiplicity of interrelated factors not covered by the pool of data in this study. Although the variables of this pool have not been able to account for a larger percentage of variance in dropping-out, the stability of the findings through the successive analyses gives credit to the hypothesis of unintended effects of the streaming system. Even if the results shown here are by no means definitive, they do open an interesting avenue for further study. What is worthy of consideration is the consistency (rather than the strength) of the effect of streaming independent of factors such as intelligence and academic per-

formance, variables considered, in most studies, to be major determinants of dropping-out (and absences).¹⁶

CONCLUSION

Although factual and descriptive in nature, this study has established a consistent relationship between streaming, absenteeism, and dropping-out. Moreover, streaming appears to be linked to these two phenomena independently of such variables as ability and performance, which are traditionally viewed as determinants of them. The weakness of the model and the "modest" effect of streaming are, nevertheless, serious constraints to a hasty translation of these results into educational policies. The consistent findings of the study, however, indicate that, with regard to the problem of dropping-out, one of the avenues to explore is how the curriculum is structured. It may then be beneficial to pay particular attention to the possible unintended, harmful effects of the streaming system.

The weakness of the model points not only to the complexity of the problem but also to the ways in which certain variables were constructed. This is the case particularly for absenteeism, where a measure was provided by the unqualified cumulative record of the student: there is no way of knowing whether or not the absences are motivated. Therefore the low explained variance in absenteeism should not be surprising. Absences due to problems at home, long illnesses, and other reasons only serve to confuse the model.

The same remark concerns the low variance explained in dropping-out. The data do not show a noticeable influence of absenteeism on dropping-out, despite evidence to the contrary. It is worth noting, however, that absenteeism and dropping-out were measured in the same school year (1974-75). It is not known how much influence absenteeism would have had if it had been measured in 1973-74 and dropping-out in 1974-75.

Another deficiency may also add to the explanation of the weakness of the model. As already noted, the students' records contained no information regarding occupation, income, and education of the parents. If a variable reflecting the socioeconomic status of the students' family had been introduced, perhaps the explained variances would have increased significantly. The actual explained variance in dropping-out is, nevertheless, not negligible, especially since a crucial variable, streaming, can be manipulated for policy matters, and since academic research often brings to light only non-manipulative variables like socioeconomic status (Davis, 1975).

If concern with the possible "ironic"¹⁷ effects of the streaming system leads to a redefinition of the academic structure, this should be done with extreme caution. A reform of the streaming system should not imply a complete and immediate abolition of this system. This remark is impor-

tant because the whole system is now being questioned by the Québec ministry of education (Gouvernement du Québec, 1979:159). Administrators and educators should discard the mechanistic perspective of a direct influence of streaming on absenteeism and dropping-out. It is not because a student is placed in the slow track that he will become a chronic absentee and finally a drop-out, or because he is placed in the enriched track that he will complete high-school. Beyond the aspect of mechanical placement, there seem to be other processes linked to assignment to a particular stream. Qualitative data, gathered in conjunction with this study, emphasize the importance of certain educators' and students' attitudes and perceptions vis-à-vis the streaming system. Further analysis of these mediating variables would help to qualify the statements already made using the computerized data from the students' cumulative records.¹⁸

NOTES

Modified version of a paper presented to the Annual Meeting of the Canadian Sociology and Anthropology Association, Fredericton, 1977. The authors thank Professor Ross E. Traub, Department of MECA, OISE, Professor A. J. C. King, Faculty of Education, Queen's University, Mrs. Marthe Hurteau, Department of Measurement and Evaluation, Université de Montréal, and an anonymous reviewer of *CJE* for their most helpful comments on an earlier draft of this paper. Although their comments helped the authors to reshape the paper, none of them may be held responsible for its content. The authors would also like to thank the *Direction générale de l'enseignement élémentaire et secondaire, Ministère de l'éducation du Québec* (file no 75-85) and the *Commission des écoles catholiques de Montréal* for their financial support. This article does not necessarily represent the official viewpoints of the *Ministère de l'éducation du Québec* or the *Commission des écoles catholiques de Montréal*.

- ¹ The term "school maladjustment" refers to those behavioral outcomes within the school setting that are judged to be so by the school administration. It is clear, as one reviewer remarked, that from the students' point of view the so-called "mal-adjusted" behavior may be rational and indeed adjusted. The term does not convey any meaning of "complaisance" vis-à-vis school processes. From the administrators' perspective, however, school absenteeism and dropping-out are behavioral outcomes that undermine their accountability. To be accountable, the school administrator wishes to obtain maximum attendance and high certification rates from the students under his or her jurisdiction.
- ² As the main thrust of this paper is on streaming in secondary education, the literature pertaining to "ability grouping" in elementary education has been disregarded. The picture drawn from this literature is not as clear as that of streaming in secondary education. Some authors, like Goldberg, Passow, and Justman (1966), did not find consistent differences attributable to ability grouping. On the contrary, Douglas (1964) found, in his longitudinal study, marked differences in achievement by ability groups. (For this discussion see Hurn [1978]: 155-157).
- ³ Bowles and Gintis (1976) would interpret this two-fold mechanism as a societal device for sorting the future bourgeois leader and the worker, the former educated to be creative and innovative and the latter educated to be obedient and conformist, necessary "qualities" for a stable and efficient production.
- ⁴ Descriptive because no test for the validity of the model was done. (For such a test, see Jöreskog, 1978). Furthermore, since the school board of the study functioned exclusively on a homogeneous (segregated) grouping basis, there are no

- comparative data about heterogeneous (integrated) grouping that would justify a perfect causal explanation of the observed differences.
- ⁵ The numbers in the tables may vary on account of missing values for certain variables.
 - ⁶ Moreover, occasionally there would be no information regarding the absences of a particular student.
 - ⁷ These tests were made up by the school board. Their reliability is at least 0.90.
 - ⁸ Stanine or standard-nine: the normal curve is divided into nine distinct categories with $\bar{x} = 5$ and $s = 2$. The reliability of intelligence tests built by the school board averages 0.90. Stanines 1 to 5 represent 4%, 7%, 12%, 17%, and 20% respectively of the normal curve. Evidently the remaining 40% is distributed symmetrically among stanines 6 to 9 inclusive.
 - ⁹ The cumulative record does not distinguish between withdrawal and transfer to another school system. The number of students, however, who were transferred to another public or private school system is negligible. In the area of this particular school board, moving usually takes place at the end of the school year; private school admissions usually take place at the beginning of the school year and there cannot be many students whose families bought a new house outside of the school board area. Besides, the percentage of students at secondary levels III, IV, and V with inactive records is 14%, which is fairly close the percentage of drop-outs at this level, according to the available figures in the school board.
 - ¹⁰ This classification was set up using the factorial analysis of 15 different pedagogical, social, and economic variables: intellectual ability, performance in French and mathematics, school absenteeism (two variables), percentage of drop-outs, streaming, CEGEP admissions, record of exam failures, family SES, family organization, teachers' scholarship, experience and absenteeism, interschool mobility. (For the definition of the variables, see Crespo, 1975). Thus the schools are seriated in terms of the basic conditions, schools said to be underprivileged having the most pedagogical problems, the "favored" the least problems and the "average," as the name suggests, having average problems. Generally, the socio-pedagogical index closely follows the socioeconomic statuses of the different geographical sectors of this school board.
 - ¹¹ According to the officers of the school board, placement in the different academic streams is a function of students' intellectual ability and academic performance. The three streams in this study are all academic but the lower stream is terminal, as it does not lead to the pursuit of college level education. Note that the selection procedures take place at the local level and the school board simply registers the decisions of the schools. Some studies question the validity of selection procedures, allegedly meritocratic, employed by schools (cf. Rosenbaum, 1976).
 - ¹² The regression analyses were conducted in hierarchical manner with listwise procedure for missing data. (For path analytic techniques, see Alwin & Hauser, 1975; Asher, 1976; Duncan, 1975; Wolfe, 1980).
 - ¹³ Gamma coefficient is a measure of association between two or more ordinal variables. Ranging between -1 and $+1$, its interpretation is somewhat analogous to product-moment correlations (see Blalock, 1972: 415).
 - ¹⁴ Maybe the selection is almost already completed at the beginning of high school or early in the high school career.
 - ¹⁵ However, Traub et al. (1976) found substantial differences on achievement tests, among both Anglophones and Francophones, between students with plans to pursue post-secondary study and students planning to leave school to pursue other activities (see pp. 305 and 311).
 - ¹⁶ It should be added that sex, another variable linked to dropping-out (boys tend to withdraw from school more often than girls), does not modify the variance explained or the effect of streaming. Even the relationships within the model do not

vary much, except in the case of the relationships between absences and dropping-out. Among girls, absenteeism has a somewhat greater influence on dropping-out than among boys.

¹⁷ Because it would produce contrary results to those expected.

¹⁸ Contrary to critics who have argued against the use of "official" statistics, the author feels that it is presumptuous to refuse, on purely ideological grounds, to search for the orientations these computerized records open up for further investigation.

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Manuel Crespo is an Associate Professor in the Faculté des sciences de l'éducation, Université de Montréal, Montréal, Québec H3C 3T3.

Justo Michelena is a Research Associate at the Centre des services sociaux de Montréal Métropolitain, Montréal, Québec H2L 4R5.