

PERSISTENCE AND DROPOUT IN THE VOCATIONAL EDUCATION HIGH SCHOOL IN MINAS GERAIS

ROSEMARY DORE
ANA ZULEIMA LÜSCHER

Translated by David Coles

ABSTRACT

This article focuses on some considerations concerning the multiple contexts of carrying out the research Vocation Education and School Dropout in Minas Gerais. Amongst its main objectives, this inquiry tries to identify the factors that contribute to the student's persistence (continuation) or dropout in vocational and technical education in the State of Minas Gerais. To begin with, it discusses some analysis of the conditions which favours student's persistence or dropout. Next is examined the context of Brazilian educational policies and the relationship between basic education and vocational education. It also points out the scarcity of theoretical and empirical information on the question. To illustrate the problem of the school dropout, it gives some empirical data related to a Program of Vocational Education in Minas Gerais, and briefly analyses them. Finally, it presents some preliminary conclusions.

DROPPING OUT • VOCATIONAL EDUCATION • TECHNICAL EDUCATION •
SECONDARY EDUCATION

THIS ARTICLE ADDRESSES multiple contexts of a study investigating the dropout rate for high-school-level vocational education in the Brazilian state of Minas Gerais from 2001 to 2008.¹

Among the main objectives of the investigation in question are a broad characterization of vocational education in Minas Gerais during that period, and the

¹The project is run by teachers and students of the Postgraduate Programme of the School of Education of the Federal University of Minas Gerais, within the Group for Evaluation and Educational Measurements. It is part of the Observatório da Educação program, organised and sponsored by the Committee for Postgraduate Courses in Higher Education (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – CAPES*) and by the Anísio Teixeira National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira— INEP*), agencies of the Ministry of Education (*Ministério da Educação e Cultura*).

identification of factors that may lead students to stay on at, and/or drop out from, that modality of education. In order to achieve these goals, qualitative and quantitative research procedures were followed. The qualitative procedures aimed to identify and construct the subject of research and its context of relations: the school dropout rate and its indicators, the theoretical underpinnings of the analysis and the different contexts in which high-school-level vocational education is located, whether educational policy or the labor market, and others. Quantitative procedures used secondary data from the schools census with statistical resources that enabled the subject of study to be apprehended within a horizontal and descriptive perspective. Descriptive studies and theoretical studies on the school dropout rate were the foundation for the organization of the third stage of the study, which is still ongoing, consisting of gathering primary data on dropout factors in high school level vocational education in the state of Minas Gerais.

First of all, we present the theoretical context of the analysis and the wide range of situations that may lead a student to remain in school or drop out of it. Then we focus on the context of Brazilian educational policy, focusing on the relationship between compulsory education and vocational education, above all its influence on the processes of continuity and/or dropping out from vocational education. Another important dimension within the context of the study, highlighted herein, has to do with the scarcity of theoretical and empirical information on this phenomenon, and the difficulty of building suitable indicators to investigate it. Some empirical data from a vocational education program in Minas Gerais will be presented in order to illustrate the problem of the school dropout rate and briefly analyzed. Finally, some preliminary conclusions are offered.

THE MULTIPLE CONTEXTS OF RESEARCH INTO DROPPING OUT FROM VOCATIONAL EDUCATION

THE THEORETICAL CONTEXT: THE DIVERSITY OF DROPOUT SITUATIONS AND WHAT CAUSES THEM

The school dropout rate has been associated with situations as diverse as students repeating a year or being held back at school, students leaving the institution, students leaving the education system, students not completing a given level of education, students leaving school and returning later. It also refers both to individuals who have never entered a given level of education, particularly in compulsory

education, and to students who have completed a given level of education but behave like dropouts. Another aspect deemed important in dropout situations has to do with the school level at which it occurs, since dropping out of primary school or secondary school (VIADERO, 2001; FINN, 1989) is significantly different from dropping out of adult education or higher education (MONTMARQUETTE, MAHSEREDJIAN, HOULE, 2001; MORROW, 1986).

Dropping out of general secondary school or from vocational education has to do with a greater or lesser degree of democracy in access to this level of education among the population. In many countries, above all in Europe, access to middle or secondary education is virtually universal, although it is not compulsory. The fact that this level of education is not mandatory has significant consequences for the phenomenon of the dropout rate, and has led some researchers to distinguish between three essential conceptual dimensions for investigating why students abandon school: 1) the educational level at which this happens, such as compulsory education, secondary education or higher education; 2) different types of dropping out, such as noncompletion, returning, definite non-conclusion, among others; 3) the reasons behind dropping out of school such as choosing another school, going to work, lack of motivation to continue studying, problems at school, and personal or social problems (JORDAN, LARA, MACPARTLAND 1996).

Another dimension which is held to be important in the study of the school dropout rate entails the standpoint chosen for examining the problem: the individual's, the school's, or the education system's. What the system sees as a dropout problem is sometimes not a problem for the individual or for the school considered in isolation (DWYER, WYN, 2001). For example, from the standpoint of the system, it may be a problem when a student is readmitted ten years after having dropped out of the educational process, even if the school or the student himself do not think so. If a student has not completed a school career within the legally established timeframe, the system will need to adopt alternative structures allowing the student to return, such as second-chance schools, or in the case of Brazil, the modality called Education for Young People and Adults (*Educação de Jovens e Adultos – EJA*). This is a traditional perspective which differs from that proposing “permanent education”, where students dropping out and returning are not necessarily seen as a problem. The student leaves and comes back. However, “permanent education” refers primarily to the context of adult life. In an analysis of dropping out from school, whether from the standpoint of

the traditional education system, or that of permanent education, it must be clear which standpoint is being taken as the main reference, as well as the possible connections between these different perspectives: the system's, the school's or the individual's perspective.

If, in themselves, the range of situations that may be deemed dropping out of school make investigation of the problem complex enough, what can be said when the causes of dropping out are introduced into this analysis? For Rumberger (2004), one of the most important researchers of this issue in the United States, understanding the causes of the graduation rate crisis is key to finding solutions for the problem. However, the possible causes for dropping out are extremely hard to identify because, as with other processes linked to school performance, the phenomenon is influenced by a set of factors involving the student and their family as well as the school and the community they live in. In a wide-ranging review of the most important studies of the causes of dropping out of school, Rumberger identifies the individual perspective (covering the student and the circumstances around his or her school career) and the institutional perspective (taking into consideration the family, the school, the community, and the student's peer group) as the main contexts for investigation of the problem. Values, behaviors and attitudes that lead to greater or lesser engagement (or belonging) of the student in school life are taken into consideration at the individual level. Although different theories exist about dropping out of school, most state there are two main types of school engagement: academic or learning engagement and social engagement or the student's interactions with classmates, teachers, and other members of the school community. How the student relates to these two dimensions of school life decisively affects his or her decision about dropping out of, or remaining at, school (RUMBERGER, 1987, 2004).

In the individual's perspective, family background (parents' educational level, family income and family structure) has been acknowledged to be the single most important factor behind the student's success or failure at some point in their school career. Another family-related factor that contributes to dropping out and which has been emphasized in studies, is social capital, in other words the quality of relationships with parents, with other families, and with the school itself (COLEMAN, 1988; MCNEAL, 1999; TEACHMAN, PEASCH, CARVER, 1996). From the school's perspective, among factors that are related to a student remaining in school or dropping out of it, there are: the make-up of the teaching staff, the school's resources, the school's structural

characteristics, as well as the school's teaching and general processes and practices. Each of these factors gives rise to many others, which taken together make up a school framework that can favor a student's staying on at, or dropping out of, school. Finally, studies show that the community and the peer group also play a major role in dropping-out processes.

This vast, intricate set of individual, institutional and social circumstances present in the analysis of the dropping out phenomenon leads to the explanation that dropping out of school is a complex, dynamic and cumulative process of disengagement by the student from school life. Dropping out of school is merely the final stage of the process. (RUMBERGER, 2004; NEWMANN, WEHLAGE, LAMBORN, 1992; WEHLAGE ET AL., 1989; FINN, 1989).

The complexity of the dropping out process requires equally complex solutions that are hard to put into practice and involve the participation of a range of social agents. Most studies propose "prevention" as the most suitable approach to the problem: early identification of the problem and individual follow-up for those who are at risk (EUROPEAN COUNCIL, 2004, p. 105). Three main players are identified for finding answers to the problem of dropping out of school and developing suitable mechanisms to prevent it: 1) the education system, which must provide the population wishing to or needing to return to training with a range of choices; 2) school institutions, which must seek solutions to problems within their competency; and 3) the production system, which must encourage young people to resume their education process. However, given the range of situations that could be taken into consideration in analyzing this problem and the still imprecise nature of the concept, most researchers conclude that there is a knowledge gap about this subject and that the problems in this area have not yet been solved.

The bibliography on the school dropout rate also states that its occurrence in vocational education is one of the most important reasons behind the low level of professional qualifications and skills found in young people as they attempt to enter the labor market (EURYDICE, 1994; OECD, 2003, 2004, 2004a). If this problem is to be solved, it will not be enough to examine its consequences and seek solutions after the problem has appeared. On the contrary, researchers have emphasized the need for public policies for the early identification of dropping out of school so as to enable at-risk youths to be tracked and thus prevent the problems from occurring (EUROPEAN COUNCIL, 2004; MARKUSSEN, 2004). In Brazil, the issue of dropping out of vocational

education is further complicated by the fact that young people do not have easy access to this teaching modality because of high dropout levels and other indicators of school failure in compulsory education. The relationship between compulsory education (primary and secondary school) and vocational education is one of the most significant contexts arising from the study of the dropout rate from vocational education in Brazil and Minas Gerais.

THE EDUCATIONAL POLICY CONTEXT: THE RELATIONSHIP BETWEEN COMPULSORY EDUCATION AND VOCATIONAL EDUCATION

The theoretical context of the investigation we present here shows how necessary it is to associate a study of the school dropout rate with a study of social, institutional and individual factors that may affect students' decisions about remaining in school or dropping out before completing a course. It is therefore necessary to take everything into consideration, from the student's type of integration into the broader social context, which involves economic, social, political, cultural and educational issues, to the student's individual choices, aspirations and possibilities. Mediation between the general conditions that are present in the social context and those conditions presented by the student during his or her schooling is performed by the school. From a social and individual standpoint, the school represents a fundamental opportunity to face and overcome the constraints of the context, in the face of individuals' desires and aspirations, enabling them to construct new, more complex and broader prospects for integration and participation in social life. However, this requires the student to remain in school. In the case of education in Brazil, conditions of the student's access and continuity in school, and above all in vocational education, are largely defined by educational policy for this modality of teaching, and its relationship with the provision of secondary education.

Secondary education in Brazil has been marked by this duality of objectives since the 1930s: on the one hand, general training aiming at continued studies in higher education; on the other hand, professional training with a more immediate focus on the labor market. This dualist framework was crystalized between 1942 and 1946, when the Organic Laws of Education were passed, setting up courses in the industrial, commercial and agricultural fields as distinct branches from secondary education. (ROMANELLI, 1978; LÜSCHER, 1980). Since then, Brazilian secondary education has undergone five educational reforms, one in every decade. This set of reforms has one

notable characteristic, a pendulum swing towards one or the other pole of relationships between secondary school and vocational education; in turn, prospects for the unification/articulation of general training with vocational training and proposals for a disassociation between the two types of training were put forward. The dual framework was not overcome in any of the reforms, however (DORE SOARES, 1999). Educational policy is currently ruled by the 1996 National Education Guidelines and Bases Act (*Lei de Diretrizes e Bases da Educação Nacional*) and by the countless decrees, resolutions, and regulations that followed it. The set of measures adopted not only maintained but even deepened the divide between general training and professional training by organizing vocational education into a completely separate teaching system from that of compulsory education. In order to receive a diploma in vocational education, it is a prerequisite that a student must complete his or her secondary education, either concomitantly with it or after it. Educational policy in the first decade of the twenty-first century attempted, to a certain extent, to mitigate the old dichotomy by creating a new possibility of linking secondary education to vocational education through a modality that was integrated between both (DORE, LÜSCHER, 2008a). Enrolments in this modality have increased, but it is still a small share of all enrolments in vocational education: 16.9% in 2009. Of enrolments in the integrated modality, 87.7% are in the public education system (BRAZIL, 2009). The Federal government is currently promoting a policy to extend enrolments and increase the number of establishments in vocational education within the federal system and other public education systems, but 55% of the total number of enrolments for all vocational education are still within the private education system. The separation between secondary and vocational education, springing from the greater provision of technical courses by the private education system, has a decisive negative impact on the ability of students to access and remain within vocational education. It is a way of organizing education that goes against major trends in the broader context of labor relations; trends which in the 1990s showed a rapid replacement of one model of professional training centering on strict specialization and on the segmentation of labor – as characteristic of the Fordist and Taylorist organizations of labor – by another model centering on general education with a scientific and technological basis for all workers. In the field of vocational education, this is the corollary of technological developments, of more flexible working processes, and of the rationalization of production (DORE SOARES, 2001; PAIVA, 1989).

Enabling student access to and continuity within the vocational education system – which are factors that cannot be dissociated from access and continuity in compulsory education – is another aspect that is present in relations between secondary school and vocational education. Given that a person can only receive a certificate from a vocational course if they have completed secondary education, one prerequisite for identifying bottlenecks of school flow at this level of education is to grasp and understand the problems of students remaining in, or dropping out of, vocational schools.

Until recently the dropout rate from primary school was acknowledged to be a recurrent issue and deemed one of the major obstacles to making education democratic in Brazil (WERLE, CASTRO, 2003; BRANDÃO, BAETA, 1983; ROCHA, 1983). This went entirely against the constitutional provision whereby people had the right not only to have access to school, but to enjoy ideal conditions to remain in school so that they can develop themselves fully, prepare themselves for the exercise of citizenship and qualify for the labor market (BRAZIL, 1988). Government educational and/or social policies, such as automatic promotion from one grade to the next – reducing distortions between a student's age and the year in which they are studying – and the Family Grant program (*Bolsa Família*), today help make access to primary school universal and help curb the dropout rate. However the dropout rate is still high in primary education (4.4% in 2008). This, and the repetition of grades and poor results in the Compulsory Education Evaluation System (*Sistema de Avaliação da Educação Básica – SAEB*) (BRAZIL, 2007), shows that for education to be truly democratic much more is required than the mere attendance of 98% of children between 7 and 14 at primary school.

Data from the National Sampling Survey of Households (*Pesquisa Nacional por Amostra de Domicílios – PNAD*), from the Government Statistics Office (*Instituto Brasileiro de Geografia e Estatística – Fundação IBGE*, 2008) and from the school census conducted annually by the Anísio Teixeira National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*, BRAZIL, 2009) show that there are great discrepancies in the schooling of young people from 15 to 17, the most representative age bracket for secondary school. In 2009, this age group accounted for 84.12% of enrolments in secondary school. Population data from IBGE show that there were approximately 10.3 million young people aged between 15 and 17 in Brazil in 2019. The total number of enrolments in secondary school for that year was 8,337,160. The set of data presented here shows that

in 2009 some 3 million young people aged between 15 and 17 (30% of the age bracket) were not attending secondary school.² Furthermore, enrolments at this level of education from 2001 to 2009 did not grow significantly – in fact they fell 0.7% over the period. (BRASIL, 2001, 2009)³. The statistical information shows that there is a trend to stabilize the provision of secondary school in Brazil today. However this stabilization is too early and is incompatible with social pressure and the constitutional requirement for secondary education also to become compulsory,⁴ and there are insufficient places in secondary education to accommodate the population in the corresponding age bracket. In 2009 42% of students completing primary school (the first nine grades) did not remain in school. The data show the existence of major bottlenecks in the school flow from the primary to the secondary systems, making it difficult for young people to continue studying, either to complete their compulsory education, or to obtain a technical training at secondary school level, or still to enter upon a higher education course.

The existence of bottlenecks in the school flow in compulsory education drastically reduces the chance of young people having access to technical education. In 2009 the total number of enrolments in vocational schools represented only 10.32% (861,114) of enrolments in secondary education (BRASIL, 2009). When one compares the population of young people in the 15-to-19 age range (16,970,000) (FUNDAÇÃO IBGE, 2008) to the total number of enrolments in vocational education, it can be seen that the latter account for slightly more than 5.0% of this population.

Based on the data presented here in, one may conclude that in Brazil the chances of access to vocational training are limited both by educational policy and by factors involving students' performance in compulsory education. For those managing to overcome all the hurdles and enroll in a vocational course there is still the challenge of overcoming conditions that do not always favor their continuity in the school.

The bottlenecks whereby students are held back in the school flow between secondary education and vocational education, however, have not been an obstacle to

² This does not mean that these young people were out of school; some of them were still in primary school.

³ Enrolments in secondary school: 2001 = 8,398,008; 2009 = 8,337,160.

⁴ Compulsory education in Brazil is for nine years, from 6 to 14. Free compulsory education is expected to be extended by 2016, coming to 14 years' duration, from 4 to 17 (BRASIL, 2009a).

the policy of extending public vocational education, and this has been implemented by the Federal government in the current decade. The total number of enrolments grew 46% everywhere in Brazil from 2003 to 2009, in all education systems (federal, state, municipal and private). In the same period there was an expansion of 26.7% in the total number of schools. In the Federal network, where the greatest investment from public policy occurs, there was marked growth in the number of enrolments and of schools. There was a 50% increase in the number of federal schools from 2003 – when there were 140, to 2009 – when there were 210 (BRASIL, 2006, 2009). Enrolments in all technical education rose 9% in the same period. However, growth in the number of enrolments in the private system came to 47% from 2003 to 2009, outstripping the Federal system, showing a mismatch between them. Investment by the Federal government in vocational education has grown significantly⁵, but the private education system is growing more, and now accounts for 55.5% of total enrolments as opposed to 44.5% in the set of public systems. In this set of systems, the Federal network's share of enrolments is 22.6%, and comes to 10.1% of the total in vocational education.

The difference between public and private networks in the growth of enrolments stems partially from the several public policy guidelines for expanding vocational teaching in each one of the administrative pillars, federal or state. In the federal sphere, the expansion policy focuses on creating new Federal Institutes of Education Science and Technology (*Institutos Federais de Educação, Ciência e Tecnologia* – IFETs), which make up the Federal Network of Professional, Scientific and Technological Education (*Rede Federal de Educação Profissional, Científica e Tecnológica*), which is also made up of Federal Centers for Technological Education (*Centros Federais de Educação Tecnológica* – CEFETs), Federal Agricultural Technology Schools (*Escolas Agrotécnicas Federais*) and Technical Schools (*Escolas Técnicas*). In the State sphere, as in the case of Minas Gerais, the expansion policy has privileged the private vocational education network, in which the state purchases places for young people and adults who are interested in this type of training, and this comprises the Professional Education Program (*Programa de Educação Profissional* – PEP).

The expansion of secondary level vocational training and the opening up of new opportunities for access to professional training and integration into the labor market for

⁵ “Twenty-one million Brazilian Reals were invested [in integrated secondary education] in 2006; R\$ 38 million in 2007 and R\$ 52 million in 2009 ” (Regattieri, Castro, 2009, p. 191).

young people have enabled vocational education to become more democratic. Thus, as happens in European countries, the United States and Australia, dropout rate problems emerge that may jeopardize the process of democratization of vocational education. This study of conditions leading students to remain in vocational education or drop out of it has to do with another important context of this study into the dropout rate for this type of education: scarcity of information.

THE CONTEXT OF INFORMATION ABOUT THE DROPOUT RATE FROM VOCATIONAL EDUCATION AND REPERCUSSIONS FOR THE CONSTRUCTION OF INDICATORS

One of the major problems facing a study into the dropout rate from vocational education in Brazil is the scarcity of information on the subject. The lack of information affects both the theoretical framework and the empirical one and creates further difficulties for the study in the construction of suitable indicators for investigating the problem (DORE, LÜSCHER, BONFIM, 2008).

Not only is the school dropout rate a serious problem in primary school, but it also extends into secondary school according to data from a recent survey carried out by the Getulio Vargas Foundation (*Fundação Getúlio Vargas* – FGV, 2009). In higher education there are also several studies on the topic of the dropout rate and the major reasons behind it, in the range of courses offered in several states of Brazil (ANDRIOLA, ANDRIOLA, MOURA 2006; KIPNIS, 2000; PEIXOTO, BRAGA, BOGUTCHI, 1999; SANTOS, 2002; SILVA, 2006; VELOSO, ALMEIDA, 2002). However, when it comes to vocational education, no systematic surveys and/or information on the dropout rate exist, as we found in a survey of the database of the School of Education of the Federal University of Minas Gerais, which contains 100% of scientific periodicals published in Brazil in the area of education (DORE, LÜSCHER, 2008a). There are more articles on failure at school, but they mainly refer to primary school and do not distinguish between dropping out and being held back one year as factors of failure. Thus an analysis of dropping out from school loses the specificity required for full understanding, above all with regard to the most important indicators to help identify its causes.

Surveys carried out about the causes of dropping out at other levels of education, such as secondary and higher, offer some important indicators for investigating the problem within vocational education. One example is the Getúlio Vargas Foundation's 2009 study of the secondary school dropout rate, based on secondary data from the IBGE National Surveys of Employment for 2004 and 2006. The results of the survey

highlight two main reasons for young people up to 17 years of age dropping out of secondary school: lack of interest/motivation (40.29%) and lack of family income (27.09%); other reasons came to 31.73% of replies. In higher education, surveys identify a number of reasons for dropping out: students' family background (socio-economic level, level of schooling of parents, among other aspects) and difficulty in reconciling studying and working (SERPA, 2000; NETO MUSIELLO, 2001; ANDRIOLA, ANDRIOLA, MOURA 2006); ignorance of the course and/or immaturity in choice of profession; disappointment with the course; lack of encouragement from the labor market, which downgrades certain careers or fails to absorb professionals from certain areas; poor academic performance in the first year of the course because of precarious training in primary school (VELOSO, ALMEIDA, 2002); being held back a year; difficulty in relations with the teaching staff; difficulty in adapting to the structure of the courses (PEIXOTO, BRAGA, BOGUTCHI, 1999; KIPNIS, BAREICHA, 1998; KIPNIS, 2000; BORZO SILVA, POLENZ, 2004; GOMES, 2005; SILVA, MAINER, PASSOS, 2006). Most of these indicators are mentioned in international studies; students' socio-economic conditions are deemed the main reason for dropping out and/or for other types of school failure at all levels of education. The set of indicators mentioned here, above all those associated with higher education, given the vocational nature, guided the construction of the data-gathering instruments used in interviews with students, both those who had dropped out from vocational education, and those who had completed it, teachers, coordinators and directors of technical schools, in the current stage of the survey.

Conceptual difficulty in identifying the major causes of dropping out from technical education is added to the difficulty in the empirical field. The Ministry of Education (*Ministério de Educação* – MEC), through its Anísio Teixeira National Institute for Educational Studies and Research – INEP, carries out an annual school census for all compulsory and vocational education. However, data concerning the school performance (passing, failing, dropping out, transferring, and so on) of students on vocational courses are not a mandatory field in the census, and the data is not duly systematized by the INEP team. Only information on enrolments and course completion is available. Data on course completion, in turn, bear so little relation to the data on enrolments that, although they suggest a high dropout rate, it would be rash to raise any quantitative hypothesis about the problem. Another source of information used to try to identify the dropout statistics for vocational training was IBGE's Monthly Employment Survey (*Pesquisa Mensal de Emprego* – PME), (FUNDAÇÃO IBGE, 2009). However, the

information in the PME (enrolments, numbers of students dropping out, and numbers of students completing the course) takes the whole set of professional training courses and does not break it down into levels or areas of training.

THE DROPOUT RATE IN VOCATIONAL EDUCATION IN MINAS GERAIS

Constraints and limitations in descriptive studies of vocational education at various levels are not exclusively a problem in Brazil only. Studies conducted by the International Centre for Technical and Vocational Education and Training (UNESCO, 2006) have shown difficulty in performing comparative analyses between professional training systems in different countries – not only because of the particularities of the organization of this type of education in each country, but mainly because of the lack of consistent, standardized statistical records enabling comparison parameters to be established. Nonetheless, the numbers of students dropping out of secondary school and vocational education are constantly the topic of surveys and studies in many countries (ENSMINGER, SLUCARCIK, 1992; FINN, 1989; JÓNASSON, BLÖNDAL, 2005; RUMBERGER, 1987, 1995, 2004; RUMBERGER, THOMAS, 2000; MARKUSSEN, 2004).

In Minas Gerais, as we have mentioned, the State Secretariat for Education (*Secretaria de Estado da Educação – SEE, MG*) introduced the Professional Education Program (PEP) in 2008. Its objective was to increase the number of enrolments in this modality of education. To do so, it purchases places in private schools, making use of their installed capacity. As part of its strategy to introduce and control the program, the Secretariat set up a monitoring system of the numbers of students dropping out, and the main reasons for this. These figures were the first, indeed the only, accurate indications that we had access to on student dropout rates in this modality of education, even though they do not encompass all technical education provided in the state of Minas Gerais (MINAS GERAIS, 2009). For 2008, the dropout rate was 27.43%. This is a very high rate in any modality of education, and is even more troubling in the case of the Professional Education Program, since the students receive scholarships to attend the courses.

Twelve major causes of students dropping out were identified in the SEE-MG. Top of the list was *abandoning the course for employment/work reasons* (36.56%). This cause can be linked to students' socio-economic status, which forces them to choose work over studying. This reason for dropping out of school is borne out in surveys conducted at other levels of education in Brazil, as well as in studies on technical

education carried out in other countries. The second most common cause found in the SEE-MG study is *unjustified abandonment* (20.91%). This is too frequent for such an imprecise cause. Dropping out of education without justification requires detailed investigation to enable its true causes to be detected. The two next most statistically frequent causes in the SEE-MG study also demand deeper examination of their meaning. *Incompatible timetable* accounts for 9.15% of students dropping out. However, exactly what this incompatibility is remains unclear. Is the technical course timetable incompatible with working hours? Is it incompatible with the timetable of other studies which have higher priority? Is it incompatible with family and household responsibilities? The cause *Studies*, which accounts for 8.91% of students dropping out also requires more detailed examination of its meaning.

TABLE 1
MINAS GERAIS 1st HALF 2008: DROPOUT RATE IN THE PROFESSIONAL EDUCATION PROGRAM—PEP

MOTIVE	%
Moved to another town	4.23
Entered higher education course	7.4
Employment	36.56
Studies	8.91
Transport	2.95
Health	3.01
Children	1.43
Could not relate to the course	1.75
Incompatible timetable	9.15
Drop out/Unjustified	20.91
Pregnancy	1.85
Found it too hard	1.85

Source: Minas Gerais, 2009

In the PEP, the reasons for dropping out of the course are identified by the questions asked of the students by the school when they drop out of the course, or when the school follows them up to ask why they are not attending class. The methodology is one which predominantly takes individual factors behind the student's decision to drop out of school into consideration. However, since dropping out of school is part of a complex process involving individual, institutional and social variables, these variables should be understood in their particularities but also in their interrelationships. A study on the causes of dropping out of school must therefore include factors associated with the teaching institution's sphere of competency and performance as well as the individual motivations; for example, the technological subjects of the courses, the

teaching practices, the scheduling of the subjects, trainee programs and other professional practices, evaluation processes, and the training of the teaching staff, among other aspects.

FINAL REMARKS

The result of the PEP's monitoring of the dropout rate is unequivocal as to the need to further study the causes of students dropping out, and to plan measures to prevent the problem. The fact that the dropout rate is so high in technical courses organized on the basis of public policy that seeks explicitly to privilege professional training as a means of integrating young people into the labor market, again places our considerations in the context of Brazilian educational policy as it organizes secondary school and vocational training. Current educational policy for vocational education, developing strategies for expansion, must take into consideration the dropout rate and the major causes of it so as to avoid running the risk of taking misguided and expensive decisions. Beyond individual factors, the identification and analysis of intra-school factors affecting the dropout rate cannot be ignored in the implementation and evaluation of public policy for technical education, at whatever level – federal, state or municipal. Defining technological areas or axes for the provision of technical courses will undoubtedly be decisive in students' remaining in technical schools or otherwise. This is an issue that requires specific investigation.

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ROSEMARY DORE

Ph.D. in Philosophy of Education, Associate Professor of the School of Education of the Federal University of Minas Gerais – Belo Horizonte

rosedore@fae.ufmg.br

ANA ZULEIMA LÜSCHER

Ph.D. student in Education, School of Education of the Federal University of Minas Gerais – Belo Horizonte

anazull@gmail.com

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