

# Motivational Factors for the Master's Degree: a Comparison between Students in Accounting And Economics in the Light of the Self-Determination Theory\*, \*\*

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## ABSTRACT

The general aim of this study was identifying the motivational level of students in Accounting and Economics regarding the search for a stricto sensu graduate degree. Also, it sought to determine the variables that significantly influence the motivation of these individuals. Having the Self-Determination Theory as a basis, a questionnaire was prepared resorting to the Academic Motivation Scale developed by Vallerand, Pelletier, Blais, Brière, Senécal, and Vallières (1992), and translated into Portuguese by Sobral (2003). The database contains observations of 173 university students from public institutions in Minas Gerais, Brazil, which provided courses in Accounting and Economics. The methodological procedure consisted in conducting a non-parametric test of mean values for the Motivation Self-Determination Index (MSI) of students, in calculating the correlations between the MSI and individual characteristics of students, and finally in estimating multiple linear regressions. Research results indicated that students in Accounting showed no difference regarding the motivational level when compared to students in Economics. It was also possible to notice that women, older students, scientific initiation scholarship holders, those from lower socioeconomic backgrounds, and those whose mothers have higher educational level tend to have a rather self-determined motivation. Additionally, it was found that insertion into the labor market increases self-determined motivation to pursue a stricto sensu Master's degree only in the case of students in Accounting. The research was limited to the fact that the sample only included students of public education institutions from Minas Gerais. For future research, it is suggested that the procedures of this study be replicated in private institution and in different states.

**Keywords:** self-determination theory, master's degree, motivation, accounting, economics.

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## 1 INTRODUCTION

The ability of a nation to generate knowledge and convert it into wealth and social development depends on the action of some institutional agents that aggregate and apply this knowledge (Cruz, 2000). In Brazil, universities and governments are the main components of the national system of knowledge generation and dissemination. Therefore, research in Education gains importance due to the fact that its study object is a key support for educating citizens, as the teaching activity generates skills to use knowledge in a position of thinking through, criticizing, and creating (Andere & Araújo, 2008).

As for the accounting field, and considering the rapid expansion of courses in Accounting, the study of education may also contribute to ensure the quality of teaching, which should not occur only in quantitative terms, but also on a qualitative basis (Ramirez, 2011). In this scenario, the education of Master's and Ph.D. students in the accounting field proves to be essential so that the expansion of undergraduate courses in Accounting also occurs in qualitative terms, since an effective and good-quality education is grounded, to some extent, in its faculty (Cornacchione, 2004). Thus, professors should know and master not only accounting practices, but also the art of teaching (Andere & Araújo, 2008).

Even with the expansion of courses in Accounting and the clear relevance of academic education among its faculty, data from the Brazilian Coordination for Improvement of Higher Education Personnel (CAPES) (2015), for May 2015, point out 22 Master's degree programs in Accounting recognized and recommended by the agency, as well as 11 Ph.D. programs in this field. On the other hand, when analyzing the number of *stricto sensu* graduate courses in rather consolidated knowledge fields, such as Economics, for instance, we observe a completely different reality. In May 2015, there were 46 Master's degree programs and 27 Ph.D. pro-

grams in that field. However, we cannot fail to mention that, in recent years, there has been a large increase in the number of graduate courses in Accounting, despite a disparity when comparing to other knowledge fields.

If, on the one hand, there is a clear lack of *stricto sensu* graduate courses in Accounting, on the other, the number of undergraduate courses in the area approved by the Brazilian Ministry of Education (Ministério da Educação - MEC) is much larger than that in Economics. Indeed, in August 2014, the country had 1,328 courses in Accounting in face-to-face Bachelor's degree programs, while in Economics undergraduate courses according to the same model were only 266 (Ministério da Educação, 2014).

Thus, the reduced supply of *stricto sensu* graduate courses in Accounting may be an indication that students in the field are not motivated to continue their studies. In this scenario, shortage might represent an issue of demand, instead of supply. In an attempt to better understand this phenomenon, this research question was formulated: *What is the motivational level of undergraduate students in Accounting and Economics regarding the search for a "stricto sensu" graduate degree?* Therefore, the general aim of this study is identifying the motivational level of students from both courses regarding the search for a *stricto sensu* graduate degree. Additionally, the factors that mostly affect this motivation are described.

To answer the research problem and achieve the goal outlined, this article compares the motivation of students in Economics to that of students in Accounting as for the search for a *stricto sensu* degree, also identifying the factors that mostly influence such motivation. By identifying and comparing the motivational factors of students from these two knowledge fields, it is possible to propose solutions so that the demand for professionals who hold a Master's or Ph.D. degree in accounting is met.

## 2 LITERATURE REVIEW

Among the various existing motivational theories, a large part relates to four main trends: behaviorist, cognitivist, humanistic, and psychoanalytic (Penna, 2001). The most significant theorist of the first of these trends is John Broadus Watson, a character as essential in the history of Psychology as Sigmund Freud (Strapasson, 2012; Strapasson & Carrara, 2008). Motivation, from the behaviorist perspective, seeks to show the influence of a variety of physiological states on human behavior (Lopes & Abib, 2003). According to Barrera (2011), the behaviorist theory emphasizes environmental factors in determining behavior, taking into account the background stimuli and, especially,

the consequent stimuli, reinforcing or punitive ones.

The cognitive view, in turn, emerged in the 1970s, with the rejection of a part of the behaviorist philosophy, and it states that the human being is endowed with consciousness, limited by, but not reducible to, the human condition (Castañón, 2007). The assumptions of cognitivist scholars consist in (i) placing structural processes and mental functions as the study focus of psychologists; (ii) associating to psychology the goal of knowledge and practical application; and (iii) prioritizing objective methods at the expense of self-observation and self-accounts, which are useful, but not enough to understand motivation (Davidoff,

2001).

The humanistic view, mainly represented by Abraham Maslow and Carl Rogers, supports the idea that people see the world from a unique perspective of their own, and scholars from this field claimed that the human being was much more complex than animals, in order to be studied according to figures (Schultz & Schultz, 2005). According to Santos (2003), the humanistic approach focuses on the person and her/his interpersonal relationships, and it aims to understand the individual's growth in her/his processes of internal construction and personal organization of reality, interacting with society in an interconnected way.

The psychoanalytic view, which begins with Freud's studies, conceives human action as motivated by unconscious forces, whose goal is the satisfaction of sexual and/or aggressive drives (Barrera, 2011). In this trend, scholars think that human behavior is determined by unconscious motivation and instinctual drives, and the *Id* (seen as the reservoir of instinctual drives), the *Ego*, and the *Superego*, together, constitute the personality structure of an individual (Sampaio, 2005).

In this scenario, within the trends introduced, there are also numerous theories that try explaining the development process of motivation, such as, for instance, the Theory of Needs, by Maslow, McClelland, and Alderfer; the Two-Factor Theory, by Herzberg, Mausner, and Snyderman; the Theory of Expectations or Instrumentality, by Vroom; the Reinforcement Theory, by Skinner and Connellan; the Theory of Goal Setting by Locke and Bryan; and the Equity Theory, by Homans and Adams (Robbins, 2002; Tamayo & Paschoal, 2003; Vieira, Vilas Boas, Andrade, & Oliveira, 2011). In this study, we worked with the Self-Determination Theory, by Deci and Ryan, due to its application to educational contexts (Joly & Prates, 2011; Sobral, 2003, 2008).

## 2.1 Self-Determination Theory

It is an empirically based theory on human motivation, development, and well-being, which focuses on the types of motivation, with particular attention to the autonomous and controlled ones. It is also related to social conditions, proposing variations for each basic psychological need for autonomy, competence, and relationships, among others (Deci & Ryan, 1985, 2000, 2008).

While several studies and theories about motivation address it as a unitary concept, emphasizing the general motivations that each individual might have towards particular behaviors or activities, the Self-Determination Theory, as proposed by Deci and Ryan (2008), categorizes motivation into various levels (subgroups), in order to verify which type or quality of a specific motivation might be more important than the others to predict or influence certain behaviors.

Within the Self-Determination Theory, autonomous motivation comprises both intrinsic and extrinsic motivations, while controlled motivation covers external

factors, such as rewards or punishment and introjection, related to aspects such as the need for approval, shame, self-esteem, and ego (Sobral, 2003). When people are controlled, they are often forced to think, feel, or behave in certain ways. It is noteworthy, however, that both the autonomous and controlled motivation drive behaviors, in contrast to demotivation, which represents the absence of intent or motivation (Deci & Ryan, 2008).

Based on the studies by Bowlby (1969), DeCharms (1984), and White (1975), Deci and Ryan (1985) introduced the theoretical assumptions related to intrinsic motivation. These authors established that, to feel intrinsically motivated, a human being requires that three key elements are provided: autonomy, competence, and sense of belonging (Deci & Ryan, 2000). Unlike the discourse of Skinner (1998), according to which human behavior might be a function of physiological needs, the authors of the Self-Determination Theory think that fulfilling an activity is the very reward of an individual.

According to Almeida (2012), autonomy, competence, and sense of belonging are basic psychological needs for the development of self-determined motivational orientations. These three needs are regarded as universal and they are observed in individuals from various cultures. However, some differences related to the means required for fulfilling them may be observed, according to the characteristics of each individual (gender, age, and culture). Within the education context, i.e. the focus of this study, Guimarães and Boruchovitch (2004) claim that interaction in the classroom, and in the school as a whole, must be a source to meet these three needs.

According to DeCharms (1984), and Reeve, Deci and Ryan (2004), autonomy occurs when individuals notice an internal causality locus and see themselves as agents and the origin of their actions. However, when an individual realizes that her/his behavior is influenced only by external agents, through control, rewards, and pressures, the experience of self-determination will not be observed, i.e. the individual will not be intrinsically motivated (Bzuneck & Guimarães, 2007). Thus, the Self-Determination Theory suggests that some behavior can be negatively influenced by extrinsic factors, since external rewards may be seen as an attempt to control, something which might undermine an individual's sense of autonomy and, therefore, could demotivate her/him (Deci & Ryan, 2008).

The need for competence is theoretically grounded in the studies by White (1975), and it means that the human being, due to her/his poor innate aptitude, needs to learn and develop skills required by the environment where she/he enters. Thus, "competence might have a motivational aspect that guides the body to seek domination, and it cannot be assigned to impulses in face of specific needs or instincts" (Guimarães & Boruchovitch, 2004, p. 146). In addition, in order to master challenging tasks capable of providing increased competence, the individual might achieve what White (1975) named

as the efficacy feeling.

The sense of belonging refers to the perception of safety in individuals' relationships and, in the education context, it applies to relationships between students and parents, professors, and colleagues, something which is associated with autonomy, internal control, good relationship with authority characters and adequate anxiety levels (Guimarães & Boruchovitch, 2004).

Thus, in the school context, there are indicators that intrinsic motivation promotes student learning and performance. An intrinsically motivated student engages in activities that provide opportunity to improve her/his knowledge and skills (Neves & Boruchovitch, 2004).

## 2.2 The Academic Motivation Scale

Vallerand, Pelletier, Blais, Brière, Senécal, and Vallières (1992) developed the Academic Motivation

Scale (AMS), through the concepts of the Self-Determination Theory. This instrument has been widely used in the Education field (Joly & Prates, 2011). It was translated into Portuguese for the first time by Sobral (2003), in order to analyze the motivation of undergraduate students in Medicine with regard to their own course. Since then, several studies have been conducted at the national level, trying to examine and validate the psychometric features of this instrument (Guimarães & Bzuneck, 2008; Joly & Prates, 2011).

The instrument translated by Sobral (2003) brings together 28 items, distributed into 7 subscales (4 items seek to measure each subscale). Three subscales correspond to types of intrinsic motivation, three include the types of extrinsic motivation and one seeks to capture demotivation or lack of motivation (amotivation). The various subscales of the AMS are described in Table 1.

**Table 1** Motivation levels of the AMS according to the Self-Determination Theory

(a) Intrinsic Motivation to Learn	It corresponds to do something for the satisfaction to learn and understand what you want in the future.
(b) Intrinsic Motivation to Achievement	It is identified with doing something for pleasure, personal fulfillment, and discovery of new things.
(c) Intrinsic Motivation to Experiencing Stimuli	It refers to do something for trying sensations.
(d) Extrinsic Motivation by Identification	It refers to do something because one has decided to.
(e) Extrinsic Motivation Regulated by Introjection	It corresponds to do something because the individual presses her/himself to do so.
(f) Extrinsic Motivation by External Control	It is identified with doing something because the individual feels pressured by something or someone to do so.
(g) Demotivation	It is related to lack of motivation to fulfill the task.

Source: Sobral, D. T. (2008). Autodeterminação da motivação em alunos de medicina: relação com motivos de escolha da opção e intenção de adesão ao curso. *Revista Brasileira de Educação Médica*, 32(1), 56-65.

Therefore, this study has been based, on the Self-Determination Theory, and it used an adaptation of the AMS translated by Sobral (2003), given the wide applicability, both of the theory chosen and the questionnaire adapted in studies related to students' motivation (Ako-to, 2014; Fairchild, Horst, Finney, & Barron, 2005; Joly & Prates, 2011; Sobral, 2003, 2008; Spittle, Jackson, & Casey, 2009; Stover, Iglesia, Boubeta, & Liporace, 2012; Sun & Chen, 2010).

## 2.3 Empirical Studies

Sobral (2009) aimed to analyze the educational motivation of students in Medicine, with academic progress indicators during the undergraduate course in the University of Brasília (UnB). To do this, the author used the theoretical framework of the Self-Determination Theory, applying the AMS to 285 students enrolled in the beginning of the second year of the course. Among the main research results, the author highlights the positive and significant correlation between the students' intrinsic motivation and academic performance. Moreover, the research findings allowed concluding that the motivation indicators characterized in the beginning of the graduate

course have little predictive effect, but significant, on the continued academic performance of students in Medicine.

Ferreira (2010) examined in a sample of elementary school students, the relationship between the perception of the basic psychological needs for competence, autonomy, and belonging and the motivational quality, evaluated through the continuum of the Self-Determination Theory. The sample gathered 625 students from 5<sup>th</sup> and 6<sup>th</sup> grades from a countryside town in Paraná, Brazil. Among the main results, the author shows that meeting the three basic psychological needs favors the presence of intrinsic motivation and self-regulated forms of extrinsic motivation. Besides, the research results make it clear that all of these self-regulation forms are significant predictors of students' emotional engagement, confirming the postulate of the Self-determination Theory, according to which the higher the self-perception of competence, autonomy, and belonging, the higher tendency to observe motivational self-regulation.

Joly and Prates (2011) applied a Brazilian version of the AMS, designed by Vallerand et al. (1992), to 170 students in the state of São Paulo, Brazil, from 5 undergraduate



ate courses (Biological Sciences, Physical Education, Nutrition, Pedagogy, and Psychology). Through this study, the authors identified significant differences in the self-perception of university only due to the course attended. In addition, the results regarding validity and accuracy have enabled the authors to assign psychometric characteristics to the AMS for college students in the state.

Leal, Miranda, and Carmo (2013) analyzed, also from the perspective of the Self-Determination Theory, the

motivation of students from a course in Accounting in a Brazilian public university. By using a sample of 259 students enrolled in the various academic periods, the authors found evidence that, on the one hand, there are students willing to deepen their knowledge level or achieve an adequate foundation for pursuing their future career, while, on the other hand, there were students concerned only in getting the diploma or interested in meeting the attendance requirements.

### 3 METHODOLOGY

This article is classified, according to its goals, as descriptive and explanatory, as it establishes relationships between different variables, trying to describe and correlate them and, moreover, it seeks to explain the determinants of motivation for pursuing a *stricto sensu* graduate course. Concerning the approach to the issue, this is a quantitative study, since it uses statistical tests and econometric models to measure the interaction degree of different variables under study. Finally, as for the research procedures, we carried out a survey by applying questionnaires to college students (Lakatos & Marconi, 2007; Martins & Theóphilo, 2009).

The survey questionnaire, available in the annex, was built having the AMS as a basis, developed by Vallerand et al. (1992) and first applied to the Brazilian context by Sobral (2003). The survey sample was defined according to accessibility and it consists of students in the courses of Accounting and Economics from five Brazilian public higher education institutions (HEIs), located in the state of Minas Gerais, which provide both courses. The final database consists of 173 valid questionnaires, with 87 students in Accounting and 86 in Economics.

It is worth highlighting that the choice to compare motivation for pursuing a *stricto sensu* graduate degree among students in Accounting and Economics was due to the fact both courses fall within the general area of Applied Social Sciences, something which ensures similarity between the subjects addressed. In addition, it is believed that comparison between students from these two courses becomes useful to the national literature as, from the perspective of Accounting, there are individuals with college education more focused on technicality, with a curriculum that consists mainly in applicable themes, and, from the perspective of Economics, there are students with a notably theoretical academic background. Thus, when comparing individuals from both ends who, at the same time, belong to the same general area, it was believed to be possible to draw comparisons and provide the study with richer inferences. Nevertheless, we should notice that constraints of time, financial resources, and accessibility made it impossible to apply the survey questionnaire to students from other courses in the area of Applied Social Sciences, such as Administration and Law, for instance.

The data collection instrument was applied in the end

of the first half and in the beginning of the second half of 2014. Only the answers of students who entered their HEIs at least two years before were used. This restriction is justified by the fact that these students are already familiar with the university environment, therefore, they are better able to answer a questionnaire concerning the potential factors that motivate them to pursue a Master's degree.

The survey questionnaire is divided into three parts. In the first, personal information about the student were collected, such as parental education, family income, current employment status, and whether she/he was a scientific initiation scholarship holder. The second part, built having the AMS as a basis (Sobral, 2003; Vallerand et al., 1992), aimed at measuring students' motivation with regard to the search for a Master's degree. This part of the questionnaire has 28 statements for which the students should mark the agreement/disagreement level, ranging from 1 (totally disagree) to 5 (totally agree). Given that the AMS was prepared through the Self-Determination Theory, hence the questionnaire scale has statements that aim to capture the individuals' intrinsic and extrinsic motivation to pursue a Master's degree. Thus, 12 statements on the scale refer to the various types of intrinsic motivation (4 statements for intrinsic motivation to learn, 4 for intrinsic motivation for pursuing the degree, and 4 for intrinsic motivation to experience stimuli), 12 are related to variations in extrinsic motivation (4 statements for extrinsic motivation by identification, 4 for extrinsic motivation regulated by introjection, and 4 for extrinsic motivation by external control) and 4 to the presence of demotivation (amotivation). It is noteworthy that the grouping provided for the statements of the instrument is grounded in the original paper by Vallerand et al. (1992) and the papers by Sobral (2003, 2008).

In addition, it becomes necessary to justify that the preparation of the questionnaire through the AMS is due to the fact that studies conducted with this instrument are effective to measure motivational levels, both among college students and elementary education students, in the national and international contexts (Joly & Prates, 2011; Rufini, Bzuneck, & Oliveira, 2012; Sobral, 2003, 2008). The third stage of the questionnaire consisted of a consent form informing the student about the research objectives and it explained that completion

was voluntary.

Data analysis procedures were guided by Sobral (2008). Therefore, the following statistical tools were used: (a) correlation coefficient, for measuring the association between pairs of variables; (b) calculation of the Motivation Self-Determination Index (MSI), built by Sobral (2008) through the responses obtained by applying the AMS; (c) mean value difference tests, to check whether the MSI for students in Accounting differs from the MSI for students in Economics; and (d) multiple linear regression analyses to identify the factors that mostly influence the motivation level of the students in the sample.

To perform the procedure described in “a,” the tools available in a *Microsoft Excel* spreadsheet were used, after tabulating the data collection instrument. For obtai-

ning the MSI for each respondent, we used the following method proposed by Sobral (2008) (where the letters refer to the motivational levels of the Self-Determination Theory presented in Table 1):  $MSI = ((2(a+b+c)/3+d) - ((e+f)/2 + 2g))$ . The MSI may vary, therefore, from -48 to +48, considering that for each letter of this formula there are four statements, whose value could vary from 1 to 5. To perform the test in “c” and estimate regressions for “d,” the application *Stata 12* was used. The variables used to explain the MSI (dependent variable) in multiple linear regressions were obtained since the first step of the instrument to collect data of the study.

Table 2 presents the event that each of the variables constructed seeks to capture, the treatment received by each variable, and the expected relationship between the variable and the MSI.

**Table 2** *Synthesis of the variables used in the study*

Event	Variable	Treatment Adopted	Expected Relationship
If the student is studying Accounting or Economics	Course	The value 1 was assigned to the students of the course in Accounting, and the value 0 to those in Economics.	Inversely proportional (negative regression coefficient).
The student's gender	Gender	The value 1 was assigned to female students, and the value 0 to male ones.	Directly proportional (positive regression coefficient).
The students' age	Age	Continuous variable.	Inversely proportional (negative regression coefficient).
The student's marital status	Marital Status	The value 1 was assigned to single students, and the value 0 to those who are married, have a marriage-like relationship, are divorced or widowed.	Directly proportional (positive regression coefficient).
The student's family income	Income	The value 1 was assigned to students belonging to social classes “A” (family income higher than 20 minimum wages) and “B” (family income higher than 10 and lower than 20 minimum wages), and the value 0 was assigned to those belonging to classes “C” (family income higher than 4 and lower than 10 minimum wages), “D” (family income higher than 2 and lower than 4 minimum wages), and “E” (family income not higher than 2 minimum wages).	Directly proportional (positive regression coefficient).
Students' maternal education	Maternal Education	The value 1 was assigned to students whose mothers have, at least, lato sensu graduate degree, and the value 0 to those whose mothers have an education level up to complete higher education.	Directly proportional (positive regression coefficient).
Students' paternal education	Paternal Education	The value 1 was assigned to students whose fathers have, at least, lato sensu graduate degree, and the value 0 to those whose fathers have an education level up to complete higher education.	Directly proportional (positive regression coefficient).
If the student has a paid job	Employment Status	The value 1 was assigned to students who said to have a job, and the value 0 to the other ones.	Inversely proportional (negative regression coefficient).
If the student holds a scientific initiation scholarship	SI Scholarship	The value 1 was assigned to students who said to hold a scientific initiation scholarship, and the value 0 to the other ones.	Directly proportional (positive regression coefficient).
The student's self-perception of academic performance	Performance	The value 1 was assigned to students who reported “good” or “excellent” performance, and the value 0 to those who reported “reasonable,” “bad,” or “very bad” performance.	Directly proportional (positive regression coefficient).

Source: Prepared by the authors.



The dichotomous variable "Course" received the value 1 when the student was linked to the course in Accounting, and 0 when linked to the course in Economics. The Self-Determination Theory establishes that intrinsically less motivated individuals have a greater chance of not achieving their goals, because, for them, motivation is related to an external factor (Deci & Ryan, 2008). In this context, it is believed that a potential explanation for the poor education of masters and doctors in Accounting may be related to the fact that students in Accounting show lower intrinsic motivation than undergraduate students in Economics. Thus, given that the MSI increases the higher an individual's intrinsic motivation to pursue a Master's degree is, an inversely proportional relationship between the variable "Course" and the MSI was expected.

The dichotomous variable "Gender" received the value 1 when the individual said to be a woman and 0 when he said to be a man. According to the literature, women tend to have higher educational level than men (Matos & Machado, 2006). Thus, it was expected that the female students showed higher intrinsic motivation to pursue a Master's degree, when compared to male students, regardless of the course they have graduated from. Therefore, a directly proportional relation between the variable "Gender" and the MSI was expected.

As for the continuous variable "Age," an inversely proportional relationship to the MSI was expected. This is so because the older the individual, the greater the chance to have financial and social issues, such as the existence of children, for instance, who tend to hinder her/him from pursuing a *stricto sensu* graduate degree. Hence, among these individuals, the motivation to pursue a Master's degree might not be related to executing the activity itself (intrinsic motivation), but to the external benefits that could result from the completion of the task (extrinsic motivation), such as increased salary, better job, or better social status. According to the Self-determination Theory, the more extrinsic motivation is, the more likely the individual is to fail achieving her/his goals (Deci & Ryan, 2008).

In the dichotomous variable "Marital Status," the value 1 was assigned to single students and 0 to the married ones, as well as those who have a marriage-like relationship or those who are divorced or widowed. For this variable, a directly proportional relationship was expected, i.e. it was expected that single individuals had greater intrinsic motivation to pursue a Master's degree. As the justification presented to the variable "Age," the idea behind this measurement is that single individuals have a lifestyle with less financial and social obligations, something which might make it easier to pursue a Master's degree. Thus, for single students, the continuity of the studies may be associated to the very fulfillment of the activity (intrinsic motivation) and not to external rewards (extrinsic motivation), something which might make the completion of the Master's course more feasible.

The dichotomous variable "Income" had value 1 when students belonged to the social classes A and B, and 0 if

the individual belonged to the classes C, D, and E. The directly proportional relationship expected for this variable is due to the ease that individuals of higher social classes have to continue their studies, after graduation. Among them, it is possible to devote exclusively to the activities of a *stricto sensu* Master's degree, given the financial support of their family members, something which may not fit the reality of individuals belonging to the social classes C, D, and E.

The dichotomous variables "Maternal Education" and "Paternal Education" received value 1 if the student's mother or father had, at least, a *lato sensu* graduate degree, and 0 if the educational level were up to complete higher education. The expected relationship for the two variables, therefore, was directly proportional. This is so because the children of more educated parents, in view of the relationship between education and income, tend to receive more investments to pursue their studies, something which generates greater possibility of pursuing a Master's degree (Barros, Foguel, & Ulyssea, 2006; Reis & Ramos, 2011; Schultz, 1988).

The dichotomous variable "Employment Status" received the value 1 when the student reported to have a job, and 0 for those who did not have it. In this sense, the expected relationship for the variable and the value of the MSI was inversely proportional, since the students who are inserted into the labor market tend to face difficulties to leave a job (or at least reconcile it with the academic activities). Also, among these individuals, one of the potential motivators for pursuing a Master's degree is related to external factors, such as salary increase or better career opportunities, both related to extrinsic motivation.

The dichotomous variable "SI Scholarship" had the value 1 for the student who reported to hold a scientific initiation scholarship, and 0 otherwise. For this variable, a directly proportional relationship was expected, to the extent that a scientific initiation scholarship allows the student to enter the academic context, relating her/him to the research and teaching environment. Thus, it creates in the individual a sense of belonging to the academic environment, enabling the development of intrinsic motivation to pursue a *stricto sensu* degree, this is the strongest motivation form to achieve a certain goal (Deci & Ryan, 2008).

Finally, for the dichotomous variable "Performance" the value 1 was assigned if the student reported that her/his performance in the course was excellent or good, and 0 for those individuals who stated to have a reasonable, poor, or very poor academic performance. The idea behind this variable is that students with an excellent or good perception of performance have a higher academic profile and, therefore, they might be more intrinsically motivated to pursue a Master's degree. Thus, the expected relationship to the variable "Performance" and the value of the MSI was directly proportional.

To validate the survey instrument, the pretest was conducted with 6 undergraduate students (3 in Accoun-

ting and 3 in Economics) from one of the HEIs in the sample. No modification was necessary after performing this procedure. The students participating in the pretest were not used to constitute the survey database.

In addition, the Cronbach's alpha coefficient, calculated for the second part of the questionnaire, reached the value of 0.86. This result shows that the questionnaire was efficient and it is in line with the Cronbach's alpha obtained by studies that applied the AMS (Joly & Prates, 2011; Rufini, Bzuneck, & Oliveira, 2012; Sobral, 2003, 2008).

### 3.1 Research Hypothesis

The research hypothesis that guided this study is: *Students in Economics have more intrinsic motivation to*

*pursue a Master's degree, when compared to students in Accounting.* The theoretical basis of this hypothesis is grounded in the Self-Determination Theory, according to which individuals with higher extrinsic motivation are more likely to fail to achieve their goals. This is so because, for them, the motivation to fulfill a certain task is supported by external factors, such as salary increase, better status in the labor market, or family pressure, for instance, and not by factors related to the very fulfillment of the task. In this context, a small change in the reality faced by an extrinsically motivated individual or the emergence of some difficulty over a Master's course might be reasons strong enough to fail to achieve the goal of obtaining a Master's degree (Deci & Ryan, 2000, 2008).

## 4 RESULTS

In order to validate the self-determination development continuum, the seven levels (factors) measured by the survey instrument, which was adapted from the AMS, were correlated. In this context, Table 3 shows the correlations for each of the subscales of motivation observed in the questionnaire. As shown by other studies (Joly & Prates, 2011; Sobral, 2003), the subscale "demotivation" showed a negative correlation both with the subscales of intrinsic and extrinsic motivation, except the "extrinsic motivation by external control," with which it was positively correlated. Additionally, it was possible to notice that the correlations between the various subscales are in line

with the simplex model proposed by Vallerand, Pelletier, Blais, Brière, Sénécal, and Vallières (1993), with some differences. The three intrinsic motivation levels showed a high positive correlation to each other. Similarly, the three levels of extrinsic motivation also showed a significant positive correlation to each other, except the "extrinsic motivation by external control," which showed low correlations to the other motivational levels, although they were positive. Furthermore, even more strongly than shown by Sobral (2003), it was possible to notice a significant association between almost all intrinsic motivation subscales and those of extrinsic motivation.

**Table 3** Correlations between the motivation subscales of the survey instrument

Motivation Levels	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Intrinsic to learning (a)	1.000	0.564	0.818	0.791	0.567	0.133	-0.491
Intrinsic to fulfilling (b)		1.000	0.614	0.536	0.467	0.115	-0.651
Intrinsic to experience stimuli (c)			1.000	0.781	0.593	0.096	-0.554
Extrinsic by identification (d)				1.000	0.782	0.242	-0.477
Extrinsic regulated by introjection (e)					1.000	0.439	-0.302
Extrinsic by external control (f)						1.000	0.159
Demotivation (g)							1.000

Source: Prepared by the authors.

The results shown in Table 3 indicate that the individuals of the sample noticed influence both from factors inherent to the very individual and factors related to the external environment. Thus, in general, we may think that the instrument used in the survey was satisfactory to measure the factors that motivate students from undergraduate courses in Accounting and Economics to pursue a Master's degree.

Table 4 shows the descriptive analysis of the sur-

vey respondents. As we can see, the sample is evenly distributed between the two courses, each bringing together half of the respondents. The average age of students in Accounting is 25 years, while that of students in Economics is 23 years. We can also see that 61% of respondents in Accounting and 43% in Economics are women. In addition, 97% of the respondents in Economics and 89% of students in Accounting said to be single.



Also through Table 4 we can see that, in the survey sample context, there were more students in Accounting belonging to the social classes A and B (22%), having the methodology adopted by the Brazilian Institute of Geography and Statistics (IBGE) as a basis,

than in Economics (15%). Nevertheless, only 3% of the mothers and 2% of the fathers of students in Accounting had an educational level equal to or higher than the *lato sensu* degree. In the context of Economics, the proportions reached 9% and 7%, respectively.

**Table 4** Descriptive analysis of the variables

	Accounting	Ciências Econômicas (%)
Course	50	50
Average age (years)	25	23
Women	61	43
Reported to be single	89	97
The mother had a graduate degree (at least a <i>lato sensu</i> one)	3	9
The father had a graduate degree (at least a <i>lato sensu</i> one)	2	7
Reported to belong to the social classes A or B	22	15
Said to have a job	62	29
Said to hold a scientific initiation scholarship	2	26
Classified their own performance as excellent or good	74	66

Source: Prepared by the authors.

Regarding the existence of an employment relationship and a scientific initiation scholarship, it was possible to notice that, in the Accounting course, 61% of respondents were employed and only 2% held a scientific initiation scholarship. In the Economics course, these proportions were 28% and 26%, respectively. This demonstrates that, in the sample context, students in Economics had a much greater contact with the university and scientific research environment when compared to students in Accounting. In contrast, students in Accounting had greater insertion into the labor market.

Regarding the perception of performance, it was found that students in Accounting had a more positive perception of their academic performance than respondents from the Economics course. This is so because

74% of the students in Accounting reported having good or excellent academic performance, while for students in Economics the proportion was 66%.

Table 5, in turn, displays the students' motivational levels in both courses by motivation scale, as prescribed by the AMS. The letters "a" to "g" shown in Table 5 correspond to the respective motivational levels described in Table 1, namely: (a) intrinsic motivation to learn; (b) intrinsic motivation to fulfill; (c) intrinsic motivation to experience stimuli; (d) extrinsic motivation by identification; (e) extrinsic motivation by introjection; (f) extrinsic motivation by external control; and (g) demotivation. The MSI represents a measurement adopted by Sobral (2008), and is meant to measure the students' ultimate motivation index, according to the formula presented in section 3 – Methodology.

**Table 5** Motivational levels

Course	Types of Motivation							MSI
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
Accounting	15.79	15.38	14.00	13.94	12.59	11.07	8.30	15.63
Economics	15.07	15.81	13.15	13.02	13.91	10.76	8.58	14.39
Differences between Average Values	0.72	-0.43	0.85	0.92	-1.32	0.31	-0.28	1.24

Source: Prepared by the authors.

Through Table 5 we can see that students in Accounting in the sample, except intrinsic motivation to fulfill (b) and extrinsic motivation regulated by introjection (e), had higher motivational levels than students in Economics. In addition, analyzing demotivation (g), it was possible to notice that, in the

sample context, students in Economics were more demotivated to pursue a Master's degree. These findings contradict the expectations set by the research hypothesis, from which it was hoped that students in Economics might show greater intrinsic motivation to pursue a *stricto sensu* Master's degree (as a conse-

quence, higher MSI) than those in Accounting.

Table 6 shows the correlation between each of the study variables, the types of motivation, and the MSI. As we can see, the correlation index demonstrated for the study variables was low, considering the methodology proposed by Cohen (1988). The result of the correlation established for the variable “Course” and

the MSI (0.042) is already an indication there is no statistically significant difference between the MSI among students in Accounting and those in Economics in the research context. This relationship, however, has been seen more robustly through nonparametric testing for average values and by estimate multiple linear regressions.

**Table 6** Correlation between the variables and the motivational levels

Variables	Types of Motivation							MSI
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
Course	0.105	-0.057	0.110	0.123	0.207	0.069	-0.036	0.042
Gender	0.131	0.102	0.072	0.122	0.158	0.065	-0.180	0.150
Age	0.073	-0.060	0.165	0.041	-0.006	-0.211	-0.052	0.085
Marital Status	-0.041	0.085	-0.031	-0.027	-0.082	-0.049	-0.081	0.054
Family Income	-0.030	-0.283	-0.060	-0.062	-0.114	0.005	0.203	-0.171
Maternal Education	0.105	0.134	0.016	0.131	0.051	0.031	-0.163	0.152
Paternal Education	0.044	-0.114	-0.033	0.016	0.007	0.045	-0.004	-0.017
Employment Status	0.124	0.010	0.032	0.198	0.244	0.172	0.009	0.025
SI Scholarship	0.125	0.171	0.136	0.042	-0.050	-0.080	-0.183	0.192
Performance	0.200	0.110	0.250	0.190	0.165	0.103	-0.043	0.133

Source: Prepared by the authors.

The Shapiro-Wilk normality test and the Kolmogorov-Smirnov test indicated that the distribution of the MSI did not show normality. Therefore, the nonparametric Mann-Whitney test was applied, and through its result, it was not possible to reject the null hypothesis that the average MSI of students of both courses come from populations with the same distribution. Therefore, although the average MSI of students in Accounting is higher than the average MSI of students in Economics (Table 5), it is not possible to say that the difference between the average values is statistically significant.

The estimation of multiple regressions by using the variables in Table 6 as a basis was also employed. It is worth noticing that, in no time, this study aimed to explain all factors that motivate students in Economics and Accounting to pursue a Master's degree. Thus, more important than the result presented by the adjusted  $R^2$  of multiple regressions are the coefficients for the variables, as well as their statistical significance. In this study, we regarded as acceptable the significance level up to 10%, a common practice in the area of Applied Social Sciences (Loureiro & Gameiro, 2011).

The first estimated regression was formed by the explanatory variables “Course,” “Gender,” “Age,” “Marital Status,” “Maternal Education,” “Paternal Education,” “Family Income,” “Employment Status,” “SI Scholarship,” and “Performance.” Table 7 shows the results for Model I.

As we can see, the variables “Course,” “Paternal Education,” “Employment Status,” and “Performance” are not statistically significant at 10%, 5%, or 1%. In turn, the variables “Gender,” “Age,” and “Marital Status”

showed significance at 10%, the variables “Maternal Education” and “Family Income” showed significance at 5%, and the variable “SI Scholarship” showed significance at 1%. The F-test of Model I allowed us to reject the null hypothesis that the variables together do not explain variation in the MSI, and the adjusted  $R^2$  of the model was equal to 0.1051, indicating that 10.51% of the variation in the MSI may be explained by the variables used, a result which was already expected, given the low correlation observed for the study variables and the MSI.

The second multiple regression estimated added to the ten variables observed in Model I two interaction variables, namely: (i) “Interaction 1” (Course\*Employment Status), which received the value 1 for students in Accounting and those who were working, and the value 0 for cases in which the student was either attending the Economics course or not working, or even both options; and (ii) “Interaction 2” (Course\*Performance), which received the value 1 for students in Accounting who reported excellent or good academic performance, and the value 0 in the case of a student in Economics or those who reported reasonable, poor, or very poor academic performance, or even both options. The rationale for the inclusion of these interactions in Model II lies on the fact that the variables “Course,” “Employment Status,” and “Performance” have not shown consistent statistical significance, when estimating Model I. Nevertheless, it is noteworthy that the variable “Paternal Education,” which was not statistically significant in Model I, received no treatment through interactions because the variable



“Maternal Education,” significant in Model I, already captures the effect of a more or less educated family environment on the student.

The result of estimating Model II is also described in Table 7. As we can see, all variables statistically significant in Model I were also statistically significant in Model II, and they showed the same signal to the estimated coefficients. It is noteworthy, however, that the variable “SI Scholarship” showed statistical significance at 1% in Model I at 5% in Model II. All other variables had the same statistical significance in both models.

In addition, the variable “Interaction 1,” included in

Model II, was statistically significant at 10%. In turn, the variable “Interaction 2” did not show statistical significance compatible with the limits established by the study. It is also worth noticing that the F-test of Model II allowed us to reject the null hypothesis that the variables together have no explanatory power for variation in the MSI, too, and the adjusted R<sup>2</sup> of Model II was 11.55%, therefore higher than that of Model I. Thus, theoretical analyses of the variables used, as well as multicollinearity tests, poor model specification, and heteroscedasticity were performed having the results of Model II as a basis.

**Table 7** Result of multiple linear regressions

Variables	Model I	Model II
Constant	-11.0356 (8.6171)	-8.0389 (8.7229)
Course	2.2559 (2.4677)	-4.3509 (4.5230)
Gender	4.0708 (2.2781)*	3.8827 (2.2824)*
Age	0.4925 (0.2498)*	0.4808 (0.2486)*
Marital Status	7.4915 (4.3641)*	7.4955 (4.3393)*
Maternal Education	10.5451 (4.6431)**	10.1222 (4.6268)**
Paternal Education	-0.0793 (5.5706)	0.3688 (5.5663)
Family Income	-6.3781 (2.9021)**	-6.8309 (2.8945)**
Employment Status	2.2420 (2.3350)	-1.9762 (3.4462)
SI Scholarship	9.1750 (3.4629)***	8.8591 (3.5542)**
Performance	3.2391 (2.4095)	1.3282 (3.3825)
Interaction 1 ( <i>Course * Employment Status</i> )		7.9276 (4.5805)*
Interaction 2 ( <i>Course * Performance</i> )		4.3907 (4.8084)
Number of observations	173	173
R <sup>2</sup>	0.1571	0.1772
Adjusted R <sup>2</sup>	0.1051	0.1155
F-test	0.0016	0.0013

Note. \* Significant at 10%; \*\* Significant at 5%; \*\*\* Significant at 1%.

Source: Prepared by the authors.

In this context, through Table 7, we can see that women in the sample show more motivation, in intrinsic terms, to pursue a Master's degree. The coefficient of the variable “Gender,” significant at 10% in Model II, was positive, as expected when the variable was constructed, and reaching 3.8827. Thus, we may say, for the sample context, that women have, on average, a MSI 3.8827 higher than that of men, something which is in line with the literature in the field of Education, where women tend to be better educated (Matos & Machado, 2006) and, therefore, they show higher intrinsic moti-

vation for studies.

The results of Model II allow us to conclude, for the sample context, that the older the student, the higher her/his motivation, in intrinsic terms, to pursue a *stricto sensu* Master's degree. The variable “Age,” significant at 10% in Model II, had a positive coefficient with the value of 0.4808. Thus, a one-year increase in the student's age generates, on average, an increase of 0.4808 in the MSI of individuals in the sample. This result was the opposite of what was expected when the variable “Age” was constructed.

The variable “Marital Status,” significant at 10% in Model II, had a positive coefficient equal to 7.4955. Thus, we may say that single students in the sample tend to be, on average, more motivated, in intrinsic terms, to pursue a *stricto sensu* Master’s degree, when compared to married students or those who have a marriage-like relationship or those who are divorced or widowed, something which was expected when the variable was constructed. Single students showed more self-determined motivation to keep studying after graduation, precisely because they tend to have less commitments and responsibilities. In contrast, married students or those who have a marriage-like relationship or those who are divorced or widowed are at a stage of life that may make it harder to pursue a *stricto sensu* Master’s degree, due to the existence of children and the need to work, for instance. Thus, for married individuals in the sample, as well as those who have a marriage-like relationship or those who are divorced or widowed, the motivation for pursuing a Master’s degree may be rather related to external rewards, such as salary increase and better job, for instance. According to the Self-Determination Theory, the higher individual’s extrinsic motivation to fulfill a given task, the greater chance to fail to complete this activity (Deci & Ryan, 2008).

The variable “Maternal Education,” significant at 5% in Model II, showed that students whose mothers had at least complete *lato sensu* graduate education, in the sample context, are more motivated in intrinsic terms for pursuing a *stricto sensu* Master’s degree. This finding is consistent with the literature. There is a tendency for students to seek an equal, or even better, education when compared to their parents. This takes place to the extent that better educated families tend to enjoy better economic conditions, which allow investing more in education (Barros, Foguel, & Ulysea, 2006; Reis & Ramos, 2011; Schultz, 1988).

The variable “Family Income,” significant at 5%, showed a result contrary to what was expected. As shown in Table 7, families from the social classes A and B in the sample showed, on average, a MSI 6.8309 lower than families from the social classes C, D, and E. Thus, we may say that, in the sample context, students from a richer background tend to show lower extrinsic motivation to pursue a *stricto sensu* graduate degree, soon after the undergraduate course.

In turn, the variable “SI Scholarship” had the result expected when it was constructed. Through the result of regression in Model II, we can see that students in the sample who held a scientific initiation scholarship showed a MSI 8.8591 higher than those without this benefit. This evidence is related to the students’ sense of belonging to the HEI, due to the scientific initiation scholarship and the consequent commitment of these individuals to academic research and the university environment. According to the literature, one of the key mechanisms for individuals to develop self-determined motivation is a sense of belonging (Guimarães & Boruchovitch, 2004). So, a student with scientific initiation scholarship, having greater contact with the HEI, tends to feel more involved, more intrinsically motivated, and not to quit studies after graduation.

The variable “Interaction 1,” significant at 10%, showed a result opposite to the expected one when the variable was constructed. We could notice that, in the sample context, students in Accounting who were inserted in the labor market (employed) showed more self-determined motivation (higher MSI) than those in Accounting who were not working and those in Economic Sciences, either working or not. Thus, given the sample context, a student in Accounting who was employed has, *ceteris paribus*, a MSI, on average, 7.9276 higher than the MSI of her/his colleagues in the Accounting course who are not inserted in the labor market, or than the students in Economics, either working or not.

The Variance Inflation Factor (VIF) test, performed to verify the absence of multicollinearity between the explanatory variables in Model II, allowed us to conclude that they are not multicollinear. The highest VIF value found is below 10, the amount stipulated by Gujarati (2006) as the limit from which the variables become highly collinear. Ramsey’s Reset test, used to check whether Model II has some omission problem concerning variables formed by non-linear combinations of ‘x,’ showed there are no traces of poor specification. Finally, White’s test for heteroskedasticity did not allow us to conclude that Model II is homocedastic. In this way, to see if heteroscedasticity was impacting the statistical significance of variables, we estimated Model II by using White’s robust method, whose data are shown in Table 8.

**Table 8** Robust Model II

Variables	Model II
Constant	-8.0389 (7.336074)
Course	-4.3509 (4.756893)
Gender	3.8827 (2.178936)*

Tabela 8 Cont.

Age	0.4808 (0.1926318)**
Marital Status	7.4955 (3.373741)**
Maternal Education	10.1222 (3.722314)***
Paternal Education	0.3688 (6.500762)
Family Income	-6.8309 (3.040944)**
Employment Status	-1.9762 (3.906224)
SI Scholarship	8.8591 (3.38201)**
Performance	1.3282 (3.794787)
Interaction 1 ( <i>Course * Employment Status</i> )	7.9276 (4.777242)*
Interaction 2 ( <i>Course * Performance</i> )	4.3907 (4.884257)
Number of observations	173
R <sup>2</sup>	0.1772
F-test	0.0001

Note. \* Significant at 10%; \*\* Significant at 5%; \*\*\* Significant at 1%.  
Source: Prepared by the authors.

It is worth noticing, however, that White's robust correlation does not change the values of estimated coefficients. The only change takes place in estimated standard errors and, as a consequence, in significance tests for the variables. Thus, as

shown in Table 8, according to White's robust correlation, the variables "Gender," "Age," "Marital Status," "Maternal Education," "SI Scholarship," and "Interaction 1" kept showing statistical significance at the same levels previously observed.

## 5 FINAL REMARKS

The general aim of the study was identifying the motivational level of students in Accounting and Economics regarding the search for a *stricto sensu* graduate degree. Based on the Self-Determination Theory, a data collection instrument was created by having the AMS as a basis, designed by Vallerand et al. (1992), and it was firstly applied in Brazil by Sobral (2003). Thus, through the methodology proposed to analyze the answers of 173 students from both courses (87 in Accounting and 86 in Economics) in public HEIs in Minas Gerais, it was possible to draw some inferences.

The justification presented by the research hypothesis of this study for the shortage of Accounting practitioners with a Master's degree (especially when compared to the number of masters in Economics) lied on the fact that undergraduate students in Accounting have low intrinsic motivation to keep studying after graduation, when compared to students in other knowledge areas whose graduate course is more consolidated, such as Economics, for instance. Nevertheless, by using the statistical test of mean differences and the analyses of multiple linear regressions estimated for the survey sample, we could notice

that the motivational level of students in Accounting is not statistically different from the motivation level of students in Economics, therefore, the research hypothesis was rejected.

Thus, the main finding of this study suggests, in view of the database used, that the reason why there are fewer students in Accounting who pursue a Master's degree (when compared to students in Economics) is not related to motivation to keep studying. By showing a profile rather aimed at the labor market (62% of the students in Accounting in the sample were working, against 29% of the students in Economics), we may think that students in Accounting end up delaying the purpose of pursuing a higher academic degree, thus once they enter the labor market, face barriers that prevent them from attending a Master's course. It is worth highlighting, however, that the mere fact of being inserted into the labor market does not mean that individuals have low motivation, in intrinsic terms, to pursue a Master's degree. This is so because, according to the results found for the variable interaction of the undergraduate course with insertion into the labor market, the students in



Accounting who work show more self-determined motivation to pursue a Master's degree than their peers who do not work and the students in Economics, whether they work or not. In this scenario, the labor market may not be regarded as an alternative competing with the Master's degree among the students in Accounting, considering that, in our sample context, those who work are more intrinsically motivated than those outside the labor market. Therefore, we stress that, at some point, even showing an intrinsic motivation to pursue a stricto sensu Master's degree equal to that of students in areas with a large number of practitioners who have a Master's and Ph.D. degree, as in the case of Economics, the student in Accounting face barriers to keep studying.

Another research finding concerns the influence of parental education on the students' motivating to pursue a Master's degree. As evidenced by the result of multiple regression analyses, maternal education was the factor with the greatest impact on self-determined motivation of students in the sample. Nevertheless, when analyzing the proportion, for each undergraduate course, the mothers having, at least, a lato sensu graduate degree, it was found that 9% of the students in Economics in the sample have mothers with this educational level, something which was true only for 3% of the students in Accounting. So, perhaps because they live in a household where parents have a lower educational level, the students in Accounting in the sample may receive little encouragement from family members to pursue a stricto sensu graduate degree.

The survey results also showed that a significant factor in relation to self-determined motivation is the

existence of scientific initiation scholarships. As shown by the results of regression analyses, the students granted with scientific initiation scholarships have more motivation to pursue a stricto sensu graduate degree. Nevertheless, through the descriptive analysis of this study, we could notice that only 2% of the students in Accounting in the sample held scientific initiation scholarships, against 26% of the students in Economics. Such disparity is mainly due to the large supply of jobs and internships for students in the area of Accounting. In addition, most of the courses in this area analyzed by the survey are provided in the evening, something which tends to facilitate and encourage students to enter the labor market and, as a consequence, they do not benefit from scientific initiation scholarships. However, given that it also became clear that students who work and attend an Accounting course have higher self-determined motivation, so for these students exchanging a scientific initiation program by entering the labor market does not constitute a risk for the intrinsic motivation to pursue a Master's degree. The importance of scientific initiation scholarships tends to be higher, therefore, among the students in Economics.

This research had as a limitation the fact of analyzing only students from public HEIs in Minas Gerais, Brazil. Thus, it is suggested that the procedures adopted herein are applied in further studies, with samples consisting of students from private institutions, as well as students from HEIs in other Brazilian states, so that it is possible to compare the results obtained in this study to those conducted in different contexts.

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## ANNEX

By using the scale below, indicate, please, to what extent each of the items corresponds to a reason that would make

you pursue a Master's degree, considering 1 as the lowest agreement and 5 the highest one.

1) Because I believe the Master's degree will provide me with a better paid job in the future.	1	2	3	4	5
2) Because I feel satisfied and pleased when learning new things.	1	2	3	4	5
3) Because I think a Master's degree will prepare me better for the career I have chosen.	1	2	3	4	5
4) Because I like to have contact with the university.	1	2	3	4	5
5) I think the Master's degree might be a waste of time because it would not bring me any future benefit.	1	2	3	4	5
6) Because of the pleasure I feel when surpassing myself in studies.	1	2	3	4	5
7) To prove to myself that I am able to complete the course.	1	2	3	4	5
8) Because of the pleasure I feel when I get in touch with what I had never seen or known.	1	2	3	4	5
9) Because the course will make a difference for me to work in an area that I like.	1	2	3	4	5
10) Because, for me, being in contact with the academic life is a pleasure.	1	2	3	4	5
11) I was more motivated to pursue a Master's degree before; now, however, I wonder if it would provide me with some actual benefit.	1	2	3	4	5
12) Because of the pleasure I feel when surpassing myself in some of my personal accomplishments.	1	2	3	4	5
13) Because in my family many people have this degree and, therefore, I feel obliged to achieve it.	1	2	3	4	5
14) Because I feel important when I am successful academically.	1	2	3	4	5
15) Because of the pleasure I feel when increasing my knowledge on subjects that attract me.	1	2	3	4	5
16) Because I believe that the Master's degree will provide me with social prestige.	1	2	3	4	5
17) Because the Master's degree will help me increase my employability.	1	2	3	4	5
18) Because of the pleasure I feel when getting involved in interesting discussions with my professors.	1	2	3	4	5
19) I cannot see what might motivate me to pursue a Master's degree and, frankly, I do not worry about it.	1	2	3	4	5
20) Because of the pleasure I feel when dealing with the process of difficult academic activities.	1	2	3	4	5
21) To show myself that I am an intelligent person.	1	2	3	4	5
22) Because the continuation of my studies will allow me to keep learning about many things I am interested in.	1	2	3	4	5
23) Because I believe that a Master's degree will increase my professional competence.	1	2	3	4	5
24) Because the Master's degree will allow me to be in contact with challenging subjects.	1	2	3	4	5
25) Nothing would make me pursue a Master's degree.	1	2	3	4	5
26) Because the Master's degree will allow me to feel a personal satisfaction in my quest for excellence in education.	1	2	3	4	5
27) Because I want to show myself that I can succeed in studies and the completion of the Master's degree might be the fulfilling of it.	1	2	3	4	5
28) I would pursue a Master's degree only if it was a requirement of the company where I work to ascend professionally.	1	2	3	4	5