ΣΟΦΙΑ–SOPHIA

Investigation Article

Socio-demographic situation and level of satisfaction with the training of graduates from a private university in Manizales city, Colombia

Diana Lorena Cardona Montoya**
María del Pilar Cerezo Correa***
Laura Patricia Giraldo Vélez ****
María Mercedes Naranjo Aristizábal *****
María del Carmen Vergara Quintero ******

** Mechanical Engineer. Specialist in Industrial Maintenance. Teacher Instructor. Coordi-nator of the Mechanical Engineering Program. Research Group of Mechanical Design and Industrial Development "ARCHYTAS". Manizales, Caldas, Colombia (dcardo-na@autonoma.edu.co).
*** Dentist, Specialist in Health in Research and University Teaching, Specialist in Health Audit, Master's degree in Public Health. Associate Professor. Public Health Research Group. Manizales, Caldas, Colombia. (mapice@autonoma.edu.co.).
**** Economist, Specialist in Management Development, Master's degree in Administra-tion. Assistant Professor. Coordinator of the Economics program. Research group Entre-preneurship. Manizales, Caldas, Colombia. (Pgiraldo@autonoma.edu.co)
***** Graduated in Education, Physical Therapist, Master's degree in Neuro-rehabilitation. As-sociate professor. Body-movement research group. Mmna-ranjo@autonoma.edu.co. Old Railway Station. Manizales, Caldas, Colombia (mmna-ranjo@autonoma.edu.co)
****** Dentist, Master's degree in Health Administration. PhD in Social Sciences. Child-hood and Youth. Professor. Coordinator of the Research Unit, Coordinator and researcher of the UAM graduates follow-up project. Public Health Research Group. Manizales, Cal-das, Colombia. (mcvq@autonoma.edu.co.)

Received: February 2016, Revised: April 2016, Accepted: June 2016

How to cite: Cardona, D.L., Cerezo, M.P., Giraldo, L.P., Naranjo, M.M., Vergara, M.C. (2016) Socio-demographic situation and level of satisfaction with the training of graduates from a private university in Manizales city, Colombia. *Sophia* 12 (2): 233-247.

ISSN (electrónico): 2346-0806 ISSN (impreso): 1794-8932

UNIVERSIDAD La Gran Colombia
Seccional Armenia

Sophia-Education, volumen 12 issue 2. English Version

Abstract

This research aimed to analyze the socio-demographic situation, the level of satisfaction with skills (skills) and the level of institutional identity of graduates. The methodology had a descriptive, longitudinal, retrospective coverage. The population was composed by 2,038 graduates from the Health, Engineering, and Social and Business Studies faculties, between 2008 and 2012. A self-completion questionnaire was used at the moment of graduating. It was found that in the Faculty of Engineering, the majority are men; and in the three faculties there is a greater proportion of singles. The domain of skills related with the use of information had the highest percentage of satisfied participants in the three faculties; while in the skills to identify and use symbols to communicate, the participants are satisfied in a lower percentage. In relation to physical resources, the lowest average satisfaction is presented with spaces for sports and artistic activities, and the highest with the library and computer classrooms. Over 79% (of graduates) are satisfied with the academic background, theoretical foundations and interpersonal relationships of teachers; a smaller proportion are satisfied with fieldwork. Over 75% of graduates of the three faculties would return to study in the university, mainly for the quality of the training. Finally, the graduates have identity with the institution, evidenced in the percentages of satisfaction with the development of skills, teachers, physical resources and some physical spaces.

Key words: Self-evaluation, quality, graduates, relevance, follow-up.

Introduction

This research, performed in an institution of higher education (IES, for its initials in Spanish) is a descriptive longitudinal study that constitutes a strategy of knowledge of graduates' reality, while allowing feedback for both the curricula and the university, as part of its culture of continuous improvement of quality. It is carried out every six months by collecting information with a self-completed survey by graduates at the moment of graduating (M0), a year later (M1), three years later (M3), and five years (M5) later.

At IES, five follow-up projects for graduates have been developed:

- The first two ones were research projects developed in the programs of Dentistry and Physical Therapy as part of the self-evaluation of the programs, which allowed to characterize socio-labor aspects of their graduates, and to know their perspectives against the training processes received.

- The third one consisted of the first phase of the follow-up project for graduates, developed in 2007-2008, financed by the Ministry of National Education (MEN, for its initials in Spanish); this allowed to characterize the social, labor, academic and family situation, and the satisfaction with the training that graduates received in their undergraduate programs, from 2001-2008.

- The fourth project was the second phase of the follow-up to graduates, supported by the MEN, whose final product was organized into two components: the first one allowed to characterize the social, labor, academic and family situation, and the satisfaction with the training that graduates received in their undergraduate programs, from 2001-2008; and the second one was the design of a methodology to evaluate the quality and relevance of the undergraduate academic programs in which were inscribed graduates, employers, the Education Project of the Program (PEP, for its initials in Spanish), and the Institutional Educational Project (PEI, for its initials in Spanish).

- Continuing the process developed for two consecutive years, in 2010 it was carried out the third phase of the follow-up project for graduates, also financed by the MEN, a process that validated the methodology in three IES academic programs as part of a pilot test, which included: Physical Therapy of the Faculty of Health, Economics of the Faculty of Social and Business Studies, and Electronic Engineering of the Faculty of Engineering. Some modifications were made, such as the incorporation of teachers in the evaluation process and the introduction of focus groups with graduates, employers and curriculum committees in order to qualify the results obtained in the surveys.

In this article we present the results of the M0 survey, that is, at the moment of graduating, from the years 2008 to 2012, which allows graduates to be characterized in relation to socio-demographic variables, the development of skills, satisfaction with teachers, physical resources and the level of identity with the institution. This information can be disaggregated by faculties and by programs, and it is used particularly

by curriculum committees as part of their reflection for decision making in the self-evaluation processes for continuous improvement purposes.

The objectives of the study are:

- To identify the socio-demographic characteristics of graduates of the programs.
- To identify the level of satisfaction of graduates from undergraduate programs with the training received and the resources offered by the institution.
- To analyze the perception about the level of development of general skills in the process of graduates' training.
- To know the perspectives of professional development for the graduates of the IES, at the moment of graduation.

To answer this, each graduate of the undergraduate programs, during the five years of study (2008 to 2012) completed the survey at the moment of graduating. This information was systematized in each academic period and analyzed by each academic program and by the three faculties of the institution. This article presents information by faculties.

The follow-up of the graduates in the institution has been a process of continuous evaluation and improvement of quality, and a permanent research that permeates the curriculum development at the level of faculties and academic programs, recognizing their graduates as key actors for institutional dynamics, given that they are the people who, from their personal and professional experience, can give feedback to curricula of academic programs in response to the demands of the work in the specific fields of professional activity, and in coherence with the needs of the region.

Due to the above, the follow-up of graduates is an axis of work of the strategic direction, which responds to national and institutional policies within the framework of the culture of self-evaluation processes and continuous improvement of the quality of the programs, both at undergraduate and graduate level. Following the National Accreditation Council's guidelines, the culture of evaluation is a strategy that enables continuous improvement of quality. One of the most significant global trends in today's education sector focuses on quality (Maya & Herrera, 2012). Under this purpose of quality, higher education institutions have promoted various strategies within which the process of monitoring graduates is reported as a possibility to analyze the relevance of their training and their impact on society and in the job field.

Quality and relevance in higher education have become aspects that, although different, must be analyzed together, as mutually self-determining factors; in fact, both quality and pertinence work in a two-way, from university to society and from this to university. In this sense, it is not possible to achieve a relevant education with low quality training processes; hence, both processes are factors that must be part of the IES agenda from the approach of social responsibility and processes of self-evaluation and continuous improvement of quality.

The challenges imposed by quality education are related to the training capacity to meet the expectations of graduates from technical, technological, under graduate or graduate levels, which are related to intellectual development, higher status, social mobility and better income; that is, training to improve job performance through the development of skills required by organizations and companies, so that they can be able to make an effective contribution to society, contributing to their development and economic and social growth .

This reflects the relevance of a training institution, which is constituted from the axis of the relationship between the university and the environment. It is a determining factor that takes into account the concordance between the missions of IES and the expectations of society. The World Conference on Higher Education - Unesco - held in Paris in 1998, defined that the relevance of higher education should be assessed according to the adequacy between what society expects of institutions and what they do. This, as presented at the conference, requires countries to take an ethical and responsible view of education, and that they respond to a better articulation with society problems and the job field. In this scenario, it seems essential for each educational institution to analyze and evaluate the quality and relevance of the training they are offering; that is, to reflect on the fulfillment of their rationale and the performance of their functions, which will allow them better possibilities to compete on the world stage.

In this way, the responsibility of educational institutions does not conclude with the granting of a professional title; it is necessary that they make all possible efforts to maintain contact with their graduates, to know their conditions in the labor market and their expectations of continuous training (Mejía, Nieto, Arboleda, & Montoya, 2012). These studies have been strengthened by their purpose of contributing to improve the quality of education. The Colombian Ministry of Education says:

Tracking higher education graduates is a growing trend in countries seeking to improve the quality and relevance of academic programs ... as they provide inputs that institutions, the productive sector, government and students are using to make decisions.

(Aldana de Becerra, Morales González, Aldana Reyes, Sabogal Camargo, & Ospina Alfonso, 2008).

Follow-up of graduates is then a mechanism to determine the relevance of the training (that they) received, as well as its quality, as it allows to determine the coherence between training and the needs of the labor market, and in some way it allows evaluate the achievement of the goals that an institution has set itself to fulfill at a given historical moment. In this context, graduates are an important source of feedback, while allowing the university to know where and how they are located, their social and economic role, and the way how they reflect the values acquired during their academic training, aspects that account for the relevance of the programs and curricula of IES (Aldana de Becerra, GM, Morales González, FA, Aldana Reyes, JE, Sabogal Camargo, FJ, & Ospina Alfonso, A. 2008).

From this perspective, follow-up of graduates constitutes an axis for curricular reflection, as it offers a line of diagnosis of reality that allows institutions to reflect around analysis and curricular evaluation, from the valuation in retrospect that graduates do on the quality of the training received by them (Montenegro, 2011).

According to theories of human capital, graduates have gone from being professionals with technical knowledge, to being persons in the midst of social interests, as a social beings (they are). Therefore, they will have to answer for the performance of their professional tasks and to recognize themselves as active members of a society, for their political, social or status interests, making them coherent with policy and development decisions (Ascun & Red Six, 2006).

Follow-up of graduates has to evaluate, within a given period and according to pre-established parameters, the professional efficiency based on the training received, the acceptance in the labor market and the correspondence between the areas of specialization and the needs of the country; and it must account for the fulfillment of the functions of an educational institution, that is, to determine the extent to which the goals in education were achieved, and if the institutional and curricular objectives were met (Aldana de Becerra, GM, Morales González, FA, Aldana Reyes, JE, Sabogal Camargo, FJ, & Ospina Alfonso, To R. (2008). The participation of graduates in institutional life is a key element for the mission conduction of the institution (Ascun & Red Six, 2006). In this sense, it must be part of institutional culture, a protagonist of the democratic life of the institutional work in the development of its mission purposes (Ascun & Red Six, 2006).

Materials and methods

The research corresponds to a retrospective longitudinal quantitative study of descriptive scope; whose population consisted of graduates of all undergraduate programs in the faculties of health (FS), engineering (FI) and social and business studies (FESYE), between 2008 and 2012 (2038 graduates). The sample consisted of 79.14% of the total population of the IES graduates. The data collection technique used was a survey, and as instrument it was used a self-completion questionnaire which was applied each semester at the moment of graduating. The survey includes 7 sections: personal and family information, academic and financial history, skills development, life plan, employment status, level of identity with the institution, and satisfaction with the resources offered; all these (are) fundamental data for the follow-up of graduates, in coherence with what was raised by the labor observatory of the education. For the process of systematization of the information, the database was designed in *spss version 19*, from which a descriptive analysis of each of the variables was performed, and a bivariate and multivariate analysis system was developed.

Results

The results for the behavior of some variables in the three faculties are presented below, mainly the variables that contribute to curricular reflection and institutional feedback, such as socio-demographic characterization, level of satisfaction with the development of the skills, as well as the level of identity and satisfaction with the institution.

As shown in table 1, 1613 graduates participated between 2008 and 2012, with a 79% representation compared to 100% graduates of the three faculties. The highest percentage of follow-up was for the faculty of health, with 88%.

Table 1. Percentage of follow-up of graduates by faculty between 2008 and 2012

Faculty	Number of graduates	Number of graduates who completed the survey at the moment of graduating	% of follow-up
Health	681	601	88%
Engineering	602	436	72%
Social and Business Studies	755	576	76%
Total	2038	1613	79%

Source: Academic Registrar's Office and project database

Socio-demographic characteristics

The socio-demographic characteristics of importance for the present article are sex and marital status of graduates at the moment of graduating, the occupation of their parents, and their respective level of formation; they behaved as follows in the three faculties:

- FESYE and FS are mostly women (FESYE 68%, FS 71%, FI 31%); in relation to marital status, the highest percentages in all three faculties are singles, (FESYE, 71% are singles and 21 % married; FS, 86% are singles and 12% are married; IF, 85% are singles and 9% are married). Graduates who have children mostly report having only one child.

- With respect to parental education, it was identified that for FESYE, 17% completed high school, 15% completed university, and 12% had graduate studies; regarding mothers' education, 20% had complete secondary, 14% had university, and 11% had graduate studies. The fathers are independent workers in 27%; and 26% are employees of private companies. Regarding mothers, 41% are engaged in household chores; and 19% are self-employed.

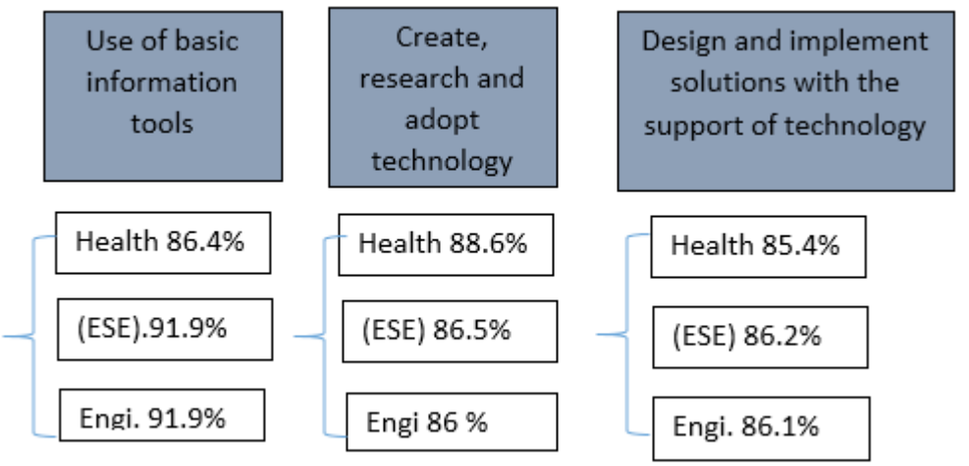
- For FS, the educational level for parents is 17% with complete secondary; complete university education 17%; and graduate education 13%. Regarding mothers' academic background, 22% had complete secondary; 14% had complete university; and 18% had complete graduate studies. Regarding fathers' occupation, 31% are self-employed and 22% are state employees. Regarding mothers, 27% are state employees and 26% are housewives.

- For FI, the educational level of parents is 13% with complete secondary; 19% had complete university education; and 14% had complete graduate education. Regarding training of mothers, 20% had complete secondary; 17% had complete university; and 14% had graduate studies. The occupation of fathers is 31% as independent workers; and 25% are state employees. Regarding the occupation of mothers, 30% are housewives and 22% are state employees.

Satisfaction with the level of skills development

The skills were grouped by areas related to: the use of technology, oral and written communication, information management and attitudes towards work. With regard to the use of technology, there were evaluated the ability to use basic information tools, to create, research and adopt technology, and to design and implement solutions with the support of technology. Figure 1 shows that in this area, over 85% of graduates are very satisfied. The use of basic computer tools is the best qualification in FESYE and FI.

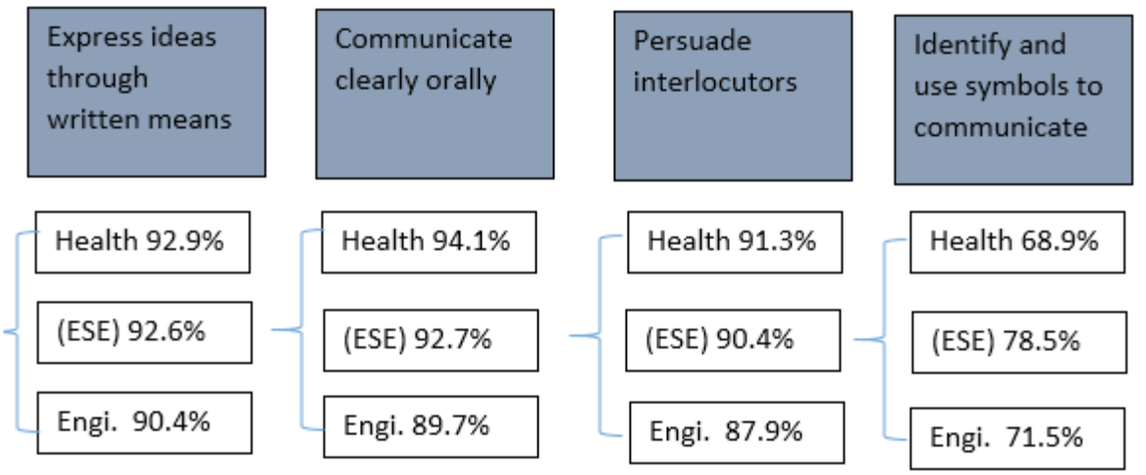
Figure 1. Satisfaction of graduates of the three faculties with the development of competencies related to the use of technology



Source: self-made

Skills related to oral and written communication are the ability to express ideas through written means, communicate clearly orally, persuade interlocutors and identify and use symbols to communicate. Regarding this area, as shown in figure 2, the skills to use symbols to communicate is the one with the lowest satisfaction among graduates of the three faculties.

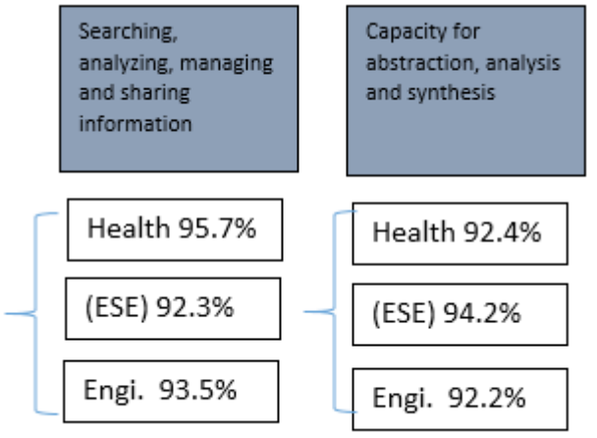
Figure 2. Satisfaction of graduates of the three faculties with the development of competencies related to oral and written communication



Source: self-made

Regarding information management, there were included the skills of searching, analyzing, managing and sharing information; and the capacity for abstraction, analysis and synthesis. The behavior of the level of satisfaction with these skills is shown in Figure 3, where it is evident that over 92% of the graduates of the three faculties are satisfied with the level of development of these skills; about 96% of the participants in the Faculty of Health are satisfied with the ability to manage, analyze and share information; and over 94% in the ESYE faculty with the capacity for abstraction, analysis and synthesis.

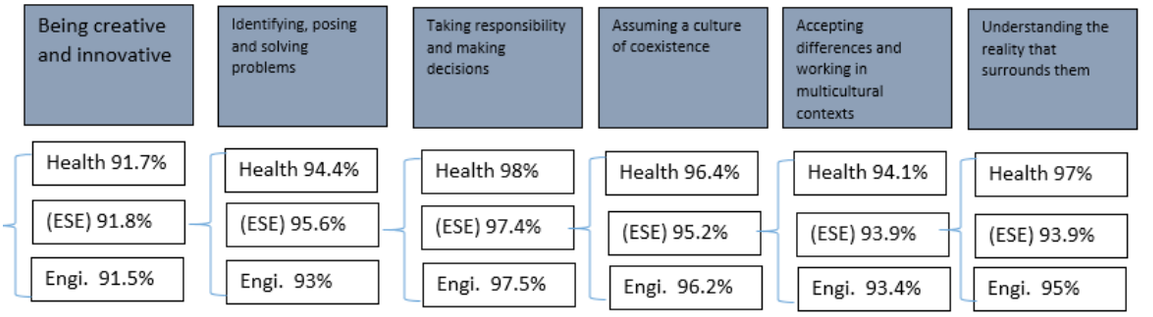
Figure 3. Satisfaction of the graduates of the three faculties with the development of the competences related to the management of the information



Source: self-made

In the area of attitudes towards work, we inquired about the level of satisfaction with the skills of being creative and innovative, posing and solving problems, taking responsibility, making decisions, culture of coexistence, accepting differences and understanding the reality that surrounds them. Faced with the level of satisfaction with these skills, it is evident in Figure 4 that over 92% in all three faculties are very satisfied with these skills. Note that the highest percentage of satisfaction is for the skills to assume responsibility and make decisions, in more than 97% of the graduates; and the one that reports less satisfaction is related to creativity and innovation.

Figure 4. Satisfaction of graduates of the three faculties with the development of skills related to attitudes towards work

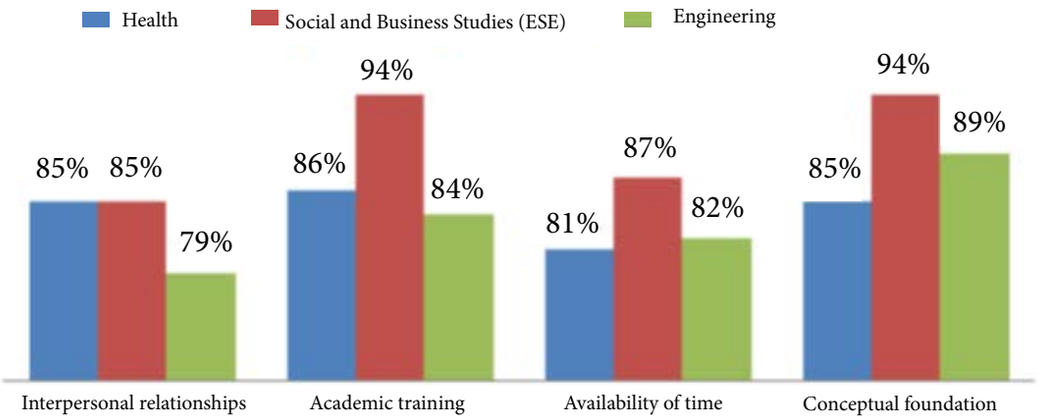


Source: self-made

Satisfaction with the resources offered by the IES

In this aspect, it was investigated the level of satisfaction of graduates with: teachers, support to students, physical resources and administrative management. With regard to teachers, questions were asked about characteristics related to conceptual foundation, interpersonal relationships, availability of time and academic training. The findings are shown in Figure 5:

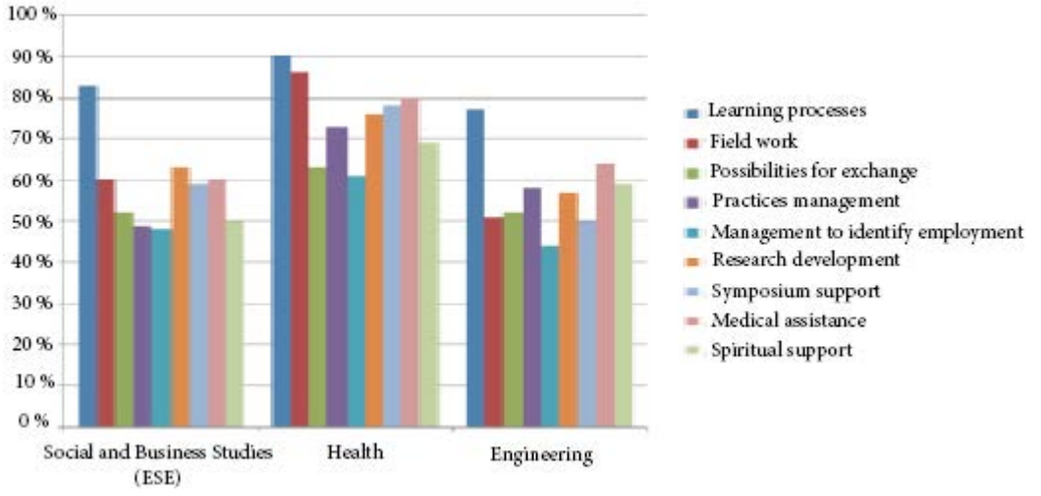
Figure 5. Proportion of graduates of the three faculties satisfied with the characteristics of their teachers



Source: self-made

Over 80% of graduates of the three faculties are satisfied with the characteristics of their teachers. Values above 84% of graduates in the three faculties recognize academic formation and theoretical foundation in their teachers, with a percentage greater than 94% for graduates of the Faculty of Health. 90% of graduates of the Faculty of Health are satisfied with the four characteristics of teachers, and similarly 84% of those of the Faculty of Engineering and ESYE.

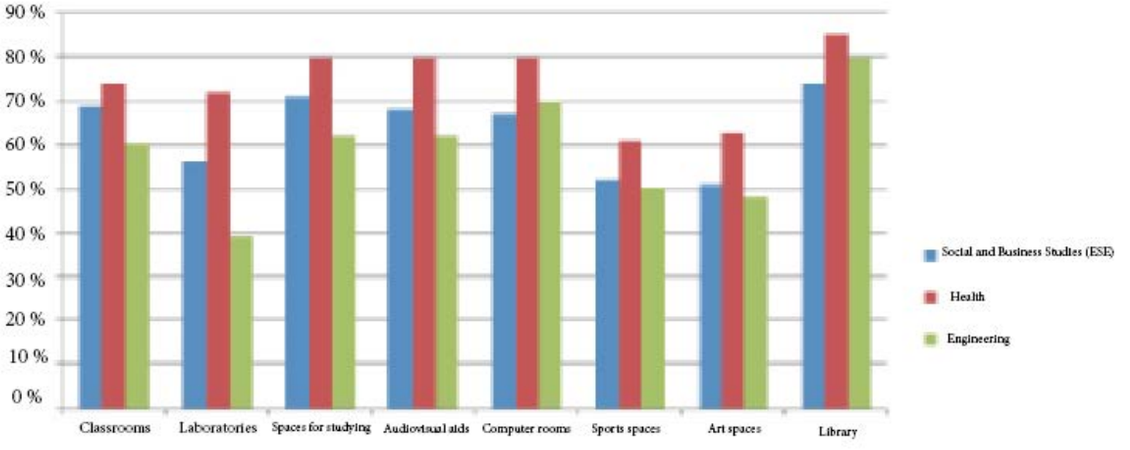
Figure 6. Proportion of graduates of the three faculties satisfied with the supports offered by the IES



Regarding satisfaction with student support, there were included aspects related to learning processes, field work, exchanges, practices, research, among others. Figure 6 shows that support in learning processes is the one with the highest proportion of satisfaction; and the support in management to identify employment is the one with lowest proportion in the three faculties. The most satisfied graduates with all the resources are those of the Faculty of Health.

Physical resources included the spaces required for integral formation of students. The behavior of graduates (who were) satisfied in the three faculties is similar, mainly for satisfaction with the library (superior to 75%) and computer classrooms (superior to 67%). The lowest proportion of satisfied graduates was for sports and art spaces, with less than 60%. It is evident that graduates from the Faculty of Health are, in general terms, the most satisfied with physical resources (figure 7).

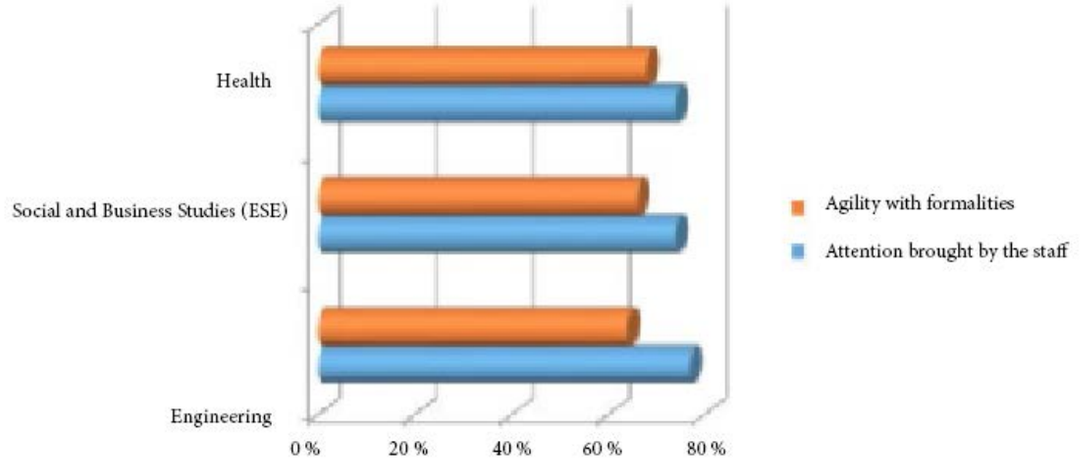
Figure 7. Proportion of graduates of the three faculties (who were) satisfied with the physical resources of the IES



Source: self-made

With regard to satisfaction with administrative management, it is evident from figure 8 that almost 80% of graduates from the three faculties are satisfied with the attention brought by the staff; and in a smaller percentage (below 70%), with agility with formalities.

Figure 8. Proportion of graduates of the three faculties satisfied with the physical resources of the institution

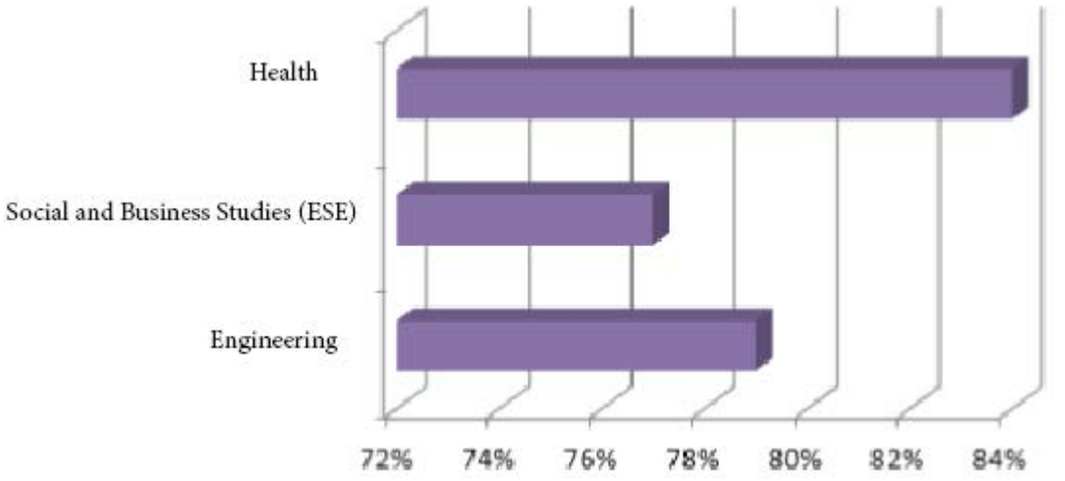


Source: self-made

Level of identity of graduates with the IES

The level of identity with the institution was inquired from questions related to the recommendation that graduates would make to high school students, the option of returning to the institution (or not), and the reasons for doing it (or not). Regarding the option of recommending the university to high school students, it was found that between 75% and 85% of graduates of the three faculties would recommend the HEI, mainly with almost 85% graduates of the Faculty of Health, as shown in Figure 9.

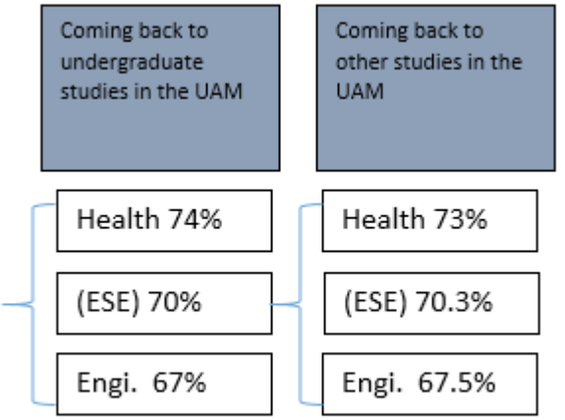
Figure 9. Proportion of graduates of the three faculties who would recommend the IES



Source: self-made

For the question if they would go back to studying in the IES, it is evident in figure 10 that percentages higher than 67% of graduates of the three faculties would do it.

Figure 10. Proportion of graduates of the three faculties who would go back to studying in the IES



Source: self-made

Of the graduates who would return, they would mainly do it for undergraduate studies, followed by graduate studies (specializations and, to a lesser extent, master degree studies), as shown in table 2.

Table 2. Type of studies that graduates would study in the IES

Type of studies	Percentage
Undergraduate	32%
Specialization	33%
Master degree	9%
Diploma course	16%

Source: self-made

With regard to the reasons for graduates to return to university, it was found that over 41% of graduates of the three faculties would return to the institution because of its quality training; and only 1% would do it because of the possibilities of finding employment, as shown in table 3. In a representative way, between 15% and 20% would return because of the recognition of the institution.

Table 3. Reasons to return to IES

Reasons for graduates to return to university	Health	Social and Business Studies (ESE)	Engineering
Quality of training	56%	41%	42%
Quality of professors	12%	11%	16%
Recognition of the institution	17%	20%	15%
Possibilities to find employment quickly	1%	1%	1%
Training for creating an enterprise	1%	11%	3%
Resources to support training	1%	9%	4%
Others	1%	2%	5%
No answer	11%	9%	15%

Source: self-made

Discussion of results

According to the Labor Observatory of Education (OLE, for its initials in Spanish), from the people who graduated of technological and university professions in state and private universities in the Caldas province during the years 2011 and 2012, 5,577 were from professions related to health sciences; 10,195 from economics, administration, accounting and related areas; and 13,486 from engineering, architecture, urbanism and related areas (OLE, 2015). The Universidad Autónoma de Manizales (UAM, for its initials in Spanish) contributed to this figure in the period 2008 to 2012 with 681 in the area of health; 755 in the area of economics, administration and related; and 602 in the area of engineering.

In the three academic programs of the Faculty of Health, it was observed that most of graduates were female. This figure is not far from what happens at national level; for example, OLE reports that 56% of graduates between 2001 and 2012 were women; something similar happens in the Faculty of Social and Business Studies, where the majority of graduates were women; and in contrast with the Faculty of Engineering, where the majority were men. This relates to what happens at national level, where institutions seek to make women (more) interested in the study of science and engineering, due to the imbalance in terms of gender at the moment of making a decision about a career (UNAL, 2012).

Research in Mexico showed a growing participation of women in higher education, evidenced by the steady increase in the number of women enrolled between 1980 and 2005, a period during which the figure practically doubled. In 1980, there were 54 women per 100 men. Over the next fifteen years, the values, though increasing, remained below 100; and from 1995 onwards, they surpassed the threshold of 100, which means a constant process of feminization. In spite of the above, it was observed between 1995 and 2005 that in Dentistry, the proportion of women decreased (Corleto, Cooper, Loredo, & Bolleto, 2006).

Recent studies in Colombia with graduates of Universidad Javeriana in the year 2012 showed that 58% of the graduates are females; it is worth noting that this study does not make reference to a particular profession. This participation of women in higher education programs could be translated into greater inclusion in different productive sectors and promotion of social equity (MEN, 2012).

In Colombia, it was carried out a study to identify the determinants of demand in higher education, considering policies of educational offer, loans and subsidies for financing in private universities; it was found out that women have a higher probability of entering higher education; the opposite occurs with married, divorced or separated persons (Acevedo & Gómez, 2015).

Regarding marital status, this study showed that most of graduates at the moment of graduating were single and without children. This characteristic is also observed in other studies of graduate in Colombia, such as Universidad Javeriana (Javeriana, 2012), where 79.8% were singles; and another at Fundación Universitaria del Área Andina in 2011, with 77.9% of singles (Rodriguez et al., 2012). There's an exception in the IES technologies, in which the percentage of married graduates is higher than in other programs, evidencing a strong relationship between the age at which they graduate and the need to form a family at a median age of life; most of them are adults, who work and study simultaneously.

Regarding the educational level of the father of graduates, it was identified that over 40% has professional studies, with the exception of the fathers of graduates from some technologies. Similar studies show lower percentages (Rodriguez et al., 2012) and (Javeriana, 2012). As for the educational level of the mothers of graduates, it was identified that over 50% have professional studies, with the exception of the mothers of graduates from technologies, for whom the percentages are less than 40%. In studies that sought to establish the relationship between the educational level of the father and the access of their children to higher education, it was found: "The education of parents is essential for school achievement in children" (Marí Klose, Marí Klose, Granados, Granell, & Martnez, 2009, (p. 297)); the same study states that the education level of the mother is the factor that most influences the educational development of children.

With percentages above 50%, the parents of graduates from the Economics Program refer that they have a job as employer or employee, evidencing a relation with the influence of the family for the career decision-making process by graduates of the Faculty of Social and Business Studies; in contrast for graduates from the health and engineering faculties, this percentage does not exceed 20%, prevailing in these cases a job as independent worker or employee. In relation to the job of the mothers, there are percentages below 20% as employers or employees, being 10 points higher in the Faculty of Social and Business Studies; the job of the mothers of graduates is mainly as housewives, state employees, and employers or employees.

Other follow-up studies of graduates show that most of their parents are independent workers or employees, and lower percentages work on their own; and the majority of mothers are engaged in housework (Brunal & Martínez, 2008). He also found that students with parents in higher positions, such as heads or managers,

are more likely to remain and graduate, compared to students whose parents work as workers or employees without command (UAO - Office of Planning and Institutional Development, 2007).

Regarding the age range, the majority of university students in Colombia are younger than 23 years; in EAFIT, (Jaramillo & Ruiz, 2001) the majority are younger than 23 years; in the National University of Bogotá, 33.08% are minors (under 18 years old); in the Manizales campus, 22.81% are under 18 years old; in Universidad Javeriana, Cali, the majority of the students are in the range of 17-20 years old; average university students in Bogota are between 18-24 years old. At Universidad Autónoma de Manizales, the majority of students are between 17 and 25 years old (88%). At Universidad de La Plata, Argentina, 64% of students are between 21-23 years old (UAO - Office of Planning and Institutional Development, 2007).

With regard to skills, the results of follow-up investigations to graduates at the moment of graduating allow to know how the new professionals perceive the development of the skills that they developed during their formation and that are necessary to face the job world. Graduates of the three faculties during the period of study qualify in a higher percentage as *very satisfied* and *satisfied* the skills related to assuming responsibilities and making decisions, to understand the reality that surrounds them, to assume a culture of coexistence, and to learn and to stay updated . The skills with which a greater percentage are *dissatisfied* or *very dissatisfied* are those related to identifying and using symbols to communicate, designing and implementing solutions with the support of technology, using basic computer tools, creating, researching and adopting technology.

Similarly, the OLE in one of its reports shows (MEN, 2012) that recent graduates surveyed from higher education institutions in the country point out that the strongest skills are teamwork to achieve common goals and to apply values and professional ethics in job performance; followed by formulating and executing projects; and identifying, addressing and solving problems. On the contrary, the weakest skills are those associated with the use of specialized computer tools, work under pressure, identification and use of symbols to communicate, and the creation, research and adaptation of technology.

The explanation that graduates give for their qualification could be found in the results of the Reflex project (Aneca, 2008), which states: As a consequence of the application in the classroom of essentially traditional teaching and learning methodologies, the contribution of the University to the development of skills focuses on knowledge and the ability to analyze and learn. Likewise, university studies are a significant contribution to the ability to work as a team and of being understood. However, it is these skills, not the previous ones, which are required for the performance of the tasks of the work that graduates perform. On the contrary, Latin American graduates experience a certain insufficiency in their university education in order to effectively manage their time and adequately deal with work under pressure. There is a very close correspondence between the labor values of Latin American graduates and their achievement in their jobs. On the other hand, social prestige and level of income get relegated to the last positions in their scale of values.

Conclusions

The conclusions are presented for each one of the three faculties:

Faculty of Social and Business Studies

In relation to socio-demographic situation of graduates from the Faculty of Social and Business Studies, the majority of them are women, singles and without children; their parents have university level of education; and their mothers, high school studies.

The highest proportion of graduates finished high school aged between 15 and 18 years.

The proportion of graduates satisfied with the skills acquired in the training process is high in the five years of the study, the proportion is eight satisfied for every 10 graduates.

The average of satisfaction with the characteristics of the teaching staff is above 70% in all the characteristics, except with field work.

The average satisfaction with student support is different in each program within the faculty.

In all programs, in the administrative management factor, the 'attention to people' variable is rated as satisfied between 61% and 81%.

The lowest average satisfaction of graduates with physical resources is presented with sports spaces and spaces for performing artistic activities.

Faculty of engineering

Most graduates are singles and have no children.

Their parents have a professional level of education in a percentage higher than 27.5%; and as for their mothers, the percentages are superior to 50%.

68% of graduates would return to take an undergraduate study in the institution, and the main reason for wanting to return is because of the quality of training. Of the graduates who would not take an undergraduate program again, the main reason they expressed is that the costs of the program exceed their available resources.

Graduates are generally satisfied with the resources offered in terms of teaching staff, with the exception of fieldwork and experimental tests, where satisfaction is lower. The level of satisfaction for student support is greater for medical and psychological care resources, and management of business practices; in general, the level of satisfaction with student support is lower, compared with that for teaching staff.

Graduates of this faculty are satisfied with the attention brought by the administrative staff in percentages above 69%; and with the agility of the administrative procedures (formalities), the percentages oscillate between 54 and 82% of satisfaction.

As for physical resources, the highest satisfaction level is with the library, with an average of 78%; and the lowest level of satisfaction is for laboratories and workshops, with an average of 42%. Graduates have a level of satisfaction superior to 70% with the different skills acquired in the institution.

Mostly, they wish to undertake specialization studies, followed by master's degree studies.

Faculty of health

Graduates are mostly female, singles and without children. Their parents have a level of professional training in proportions that vary throughout the study period.

Graduates of this faculty are satisfied with the development of skills in a ratio of 8 satisfied for every 10 graduates, except for the skills of "identifying and using symbols to communicate," basic computer tools and "being creative and innovative, exposing ideas by written means and persuading their interlocutors."

The average satisfaction of graduates with the characteristics of the teaching staff is above 77%.

The average satisfaction with the attention brought by the administrative staff is 83%; and with the agility for administrative procedures (formalities) is of 75%.

The lowest average satisfaction of graduates with physical resources is presented with sports spaces and spaces for performing artistic activities.

Bibliographic references

Acevedo, S., & Gómez, S. (2015). On the proaability of access to highereducation colombia:determinants and evolution universidad de Eafit. Retrieved from www.banred.gov.co/cites/default/files/eventos/archivos/Prob_educacion:O.pdf

de Becerra, G. M. A., González, F. A. M., Reyes,J. E. A., Camargo, F. J. S., & Alfonso, Á.R. O. (2008). Seguimiento a egresados. Su importancia para las instituciones de educación superior. *Teoría y praxis investigativa,* 3(2),61-65

Aneca, a. N. de E. de la C. y A. (2008). Informe estudiantes titulados universitador y mercado laboral. Proyecto REFLEX, 62. Retrieved from www.aneca.es

Ascun & Red SEIS. (2006). Política para el fomento de la calidad de la educación y el compromiso social a través de los egresados. Retrieved from http://www.javeriana.edu.co/puj/oracle/egresados/docs_red/docs/

Brunal, R., & Martínez, C. (2008). Sitema integral de seguimiento a graduados de la Universidad de Córdoba 2007 - 2008. Montería. Disponible en: http://web.www3.unicordoba.edu.co/sites/default/files/resultadoseguimiento2008.pdf

Corleto, A., Cooper, J., Loredo, H., & Bolleto, L. (2006). *Presencia de mujeres y hombres en la UNAM: una radiografía. México:* Colección Equidad.

Jaramillo, A., & Ruiz, I. C. (2001). Perfil socieconómico del estudiantado de EAFIT, 3(5), 140. Retrieved from http://www.eafit.edu.co/institucional/calidad-eafit/investigacion/Documents/Perfil socioeconómico del estudiantado de EAFIT-2001.pdf

Javeriana, U. (2012). Estudio de seguimiento a recién egresados de programas académicos de pregrado de la sede central 2012 (Vol. 1).Colección análisis institucional 1. Retrievedfrom http://puj-portal.javeriana.edu.co/portal/page/portal/PORTAL_VERSION_2009_2010/resources_v4/SPEGRE2012V1.pdf

Marí Klose, P., Marí Klose, M., Granados, F. J.,Granell, C. G., & Martnez, Á. (2009). Informe de inclusión social en España 2009 (p. 297). España.

Maya Guerra, J. I., & Herrera Herrera, M. E.(2012). Aproximación al estado del arte sobre los estudios de desempeño de graduados de programas de educación superior. *RevistaVirtual Universidad Católica del Norte,* 1(36), 127-157.

Ortega, L. M. M., López, E. N., Arboleda, G. I., & Montoya, M. L. (2012). Perfil socio-laboral de los profesionales en Administración en Salud de la Universidad de Antioquia 1999-2008. Facultad Nacional de Salud Pública: El escenario para la salud pública desde la ciencia, 30(2), 9.

Men. (2012). Resultados de las condiciones laborales de los graduados de educación superior. Bogota. Recuperado de: http://www.graduadoscolombia.edu.co/html/1732/articles-334303_documento_tecnico_2013.pdf.

Men- Ministerio de Educación Nacional. (2008). Análisis de determinantes de la deserción en la educación superior colombiana con base en el SPADIES. Bogotá, Colombia. Retrieved from http://puj-portal.javeriana.edu.co/portal/page/portal/PORTAL_VERSION_2009_2010/resources_v4/Estado_del_Arte_de_la_Retencion_de_Estudiantes.pdf.

Montenegro, I. A. (2011). Proceso de seguimiento a graduados de la Universidad del Magdalena. Retrieved from http://egresados.unimagdalena.edu.co.

OLE- Observatorio Laboral de la Educación. (2015). Observatorio Laboral de la educación. Retrieved from http://www.graduadoscolombia.edu.co/html/1732/channel.html.

Rodriguez, P., Ramirez, R., Hincapié, J. A.,Echeverri, U. C., Agudelo, A. M., Trejos, A. M., & Patiño, H. (2012). Observatorio de graduados egresados Andina (p. 132). Ogea.

UAO- Oficina de Planeación y desarrollo Institucional. (2007). Perfil socioeconómico del estudiante autónomo, 130. Retrieved from http://www.Uao.Edu.Co/sites/default/files/perfil_socioeco_estudiantes_0.Pdf

Unal. (2012). Ingeniería y ciencias es tema también de mujeres. Retrieved February 16,2015, from http://noticias.universia.net.co/vida-universitaria/noticia/2012/11/13/981835/ingenieria-ciencias-es-tema-mujeres.html