

# Análisis no paramétrico de las condiciones laborales y psicosociales de estudiantes en un centro temático de la Universidad de Guadalajara

*Non-parametric Analysis of the Working and Psychosocial Conditions of Students  
in a Thematic Center of the University of Guadalajara*

*Análise não paramétrica do trabalho e condições psicossociais dos alunos em um centro temático da Universidade de Guadalajara*

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## **Resumen**

En México, los jóvenes universitarios enfrentan un doble desafío frente a las exigencias de su formación profesional y las condiciones laborales. Esta investigación se orientó a estudiar la situación laboral de la población estudiantil del Centro Universitario de Ciencias Económico Administrativas (CUCEA) de la Universidad de Guadalajara, en Jalisco, México. El objetivo consistió en analizar las características de los empleos remunerados en los que se desenvuelven los estudiantes del CUCEA, otorgando especial atención a los componentes psicosociales del entorno laboral. La metodología empleada fue de carácter cuantitativo, de corte transversal con análisis estadístico de tipo no paramétrico de variables cualitativas; se aplicó una encuesta a nivel licenciatura del CUCEA durante el segundo semestre del 2015 a una muestra de 346 estudiantes, de los cuales 145 se encontraban laboralmente activos durante el estudio. En un primer momento, se identificó la existencia de precariedad laboral respecto a percepción salarial, se encontró que principalmente oscila en un rango que va de 2 103 a 4 206 pesos mexicanos mensuales. En cuanto al tipo de jornada laboral se detectó que 49 % es de medio tiempo, mientras que los de tiempo completo representan al 32 % y el 19 % restante se encuentra en otras modalidades. La falta de prestaciones sociales es evidente dado que sólo 1.4 % de los encuestados son acreedores a las prestaciones básicas establecidas en la Ley Federal del Trabajo. En tanto a la formalidad del contrato de trabajo ésta es baja ya que la mayoría son trabajos de confianza; es decir, que son empleados no sindicalizados con contratos temporales o indefinidos, e incluso no tienen contrato.

**Palabras clave:** jóvenes universitarios, formación profesional, condiciones laborales, factores psicosociales.

## **Abstract**

In Mexico, young university students face a double challenge in the demands of their professional training and working conditions. This research consisted in studying the labor situation of the student population of the University Center of Economic and Administrative Sciences (CUCEA) of the University of Guadalajara, Jalisco, Mexico. The objective was to analyze the characteristics of the paid jobs in which the students of the CUCEA developed, giving special attention to the psychosocial components of the environment and the working

conditions. The methodology used was of quantitative nature, cross-section and no parametric analysis; a survey was applied to CUCEA undergraduate students during the second half of 2015 to a sample of 346 students, of whom 145 were working in the study. At first, the existence of labor precariousness regarding salary perception was identified, it was found that it mainly oscillates in a range from 2,103 to 4,206 Mexican pesos per month. Regarding the type of working day, it was detected that 49% is half-time, while full-time workers represent 32%, the remaining 19% is in other modalities. The lack of social benefits is evident since only 1.4% of the respondents are creditors to the basic benefits established in the Federal Labor Law. As for the formality of the contract of employment this is low since the majority are works of trust; That is, they are non-union employees with temporary or permanent contracts, and even have no contract.

**Key words:** university students, vocational training, labor conditions, psychosocial conditions.

## **Resumo**

No México, jovens estudantes universitários enfrentam um duplo desafio diante das demandas de treinamento profissional e condições de trabalho. Esta pesquisa foi orientada para estudar a situação laboral da população estudantil do Centro Universitário de Ciências Econômicas e Administrativas (CUCEA) da Universidade de Guadalajara, em Jalisco, México. O objetivo foi analisar as características dos empregos remunerados em que os alunos da CUCEA trabalham, dando especial atenção aos componentes psicossociais do ambiente de trabalho. A metodologia utilizada foi quantitativa, transversal, com análise estatística não-paramétrica de variáveis qualitativas; uma pesquisa no nível de graduação da CUCEA foi aplicada durante o segundo semestre de 2015 para uma amostra de 346 alunos, dos quais 145 trabalhavam no estudo. Em primeiro lugar, identificou-se a existência de precariedade trabalhista em relação à percepção salarial, verificou-se que oscila principalmente em uma faixa que varia de 2 103 a 4206 pesos mexicanos por mês. Em relação ao tipo de dia útil, foi detectado que 49% é meio tempo, enquanto os trabalhadores em tempo integral representam 32% e os 19% restantes estão em outras modalidades. A falta de benefícios sociais é evidente, pois apenas 1,4% dos entrevistados são credores dos benefícios básicos estabelecidos na Lei Federal do Trabalho. Na medida em que

a formalidade do contrato de trabalho é baixa, uma vez que a maioria são empregos de confiança; ou seja, são funcionários não sindicais com contratos temporários ou indefinidos e até não têm contrato.

**Palavras-chave:** estudantes universitários, formação profissional, condições de trabalho, fatores psicossociais.

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## Introduction

The work has a great influence in the daily life of the man and is materialized through the characteristics and conditions of the labor markets (De Jesus and Ordaz, 2006), as well as in the relation with the economic, social and political spheres, besides the quality of working life of people; which results, among other things, in low wages, lack of benefits and social protection and labor instability, which, as in the case of Mexico, characterize the situation of a very large population (Garcia, 2013).

This population includes young university students, who, even when they have access to a higher education level in public universities, are simultaneously working in increasing proportions in the labor market<sup>2</sup>, with the purpose of satisfying their economic needs and defraying, among others, their school, transportation and food expenses, without ruling out the benefits that work as an experience can bring to their future professional life. However, according to previous research results, the employment situation of university students reflects factors of precariousness because they have temporary or non-contract employment and, therefore, benefits are scarce and even non-existent, in addition to receiving low salary (Silva-Gutiérrez and Rodríguez-Téllez, 2016).

In this context, the relevance of the study of the working conditions of the university population that work in the labor market during the student life is identified, since at the

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<sup>2</sup> De acuerdo con Carrillo y Ríos (2014 pp.86-87), en la encuesta realizada por ellos en el 2009, en una muestra de mil 830 estudiantes de licenciatura de los seis centros temáticos de la Universidad de Guadalajara donde se imparten prácticamente la totalidad de las carreras de la zona metropolitana de Guadalajara, 43 % de los estudiantes participantes contaban con trabajo, proporción por encima del promedio nacional de 35 por ciento.

international level the psychosocial study of working conditions has the necessary recognition and relevance in the social, economic, organizational and individual areas; (Blanch, Sahagún and Cervantes, 2010), unlike what happens in Mexico, where the recognition of the phenomenon and the relevance especially in the legal field are very limited and research is still incipient.

Therefore, the objective of this work was to analyze the working and psychosocial conditions of a population of undergraduate students of the CUCEA of the University of Guadalajara, in the State of Jalisco, Mexico; as well as the statistical significance of the psychosocial dimensions included in the qCT Working Conditions Questionnaire (Blanch, Sahagún and Cervantes, 2010).

In the case of Mexico, data at the national level indicate that "35% of the student population shares study and paid work" (National Employment and Employment Survey 2009, in Carrillo and Ríos, 2014, p.87). particularly in public institutions, the growth of young people who share both responsibilities, especially in careers where they do not require full-time dedication.

Mexico is a country with high levels of poverty and inequality, 57.7 million people do not have enough income to satisfy the basic basket, so it is not difficult to infer the situation of young people, especially when only 17.3% of those in the age range of 14-29 is part of a household without economic or social deficiencies (Mora y De Oliveira, 2014).

Case studies such as that of Cuevas and De Ibarrola (2013) are known, where they applied a survey to 95 students and interviews to 12 of them; from which it was identified that 67% of university students were working alongside their studies, most worked in medium and micro enterprises, as well as in their own businesses, all in the secondary and tertiary sectors, and a small part in large companies. More than 50% received salaries of 2 500 pesos per month or less and only 30% more than 6,000 pesos per month. For this reason, authors such as Beduwe and Giret (2004) and Guzman (2004) point out that university students find motives and needs to work independently of precariousness and employment conditions. Likewise, Carrillo and Ríos (2014) indicate that in the situation of a student also working, not only the individual but also the family perspective influences; particularly emphasize economic needs as a predominant measure to decide whether or not college students work. In another instance, there is also the motivation for professional experience, learning and, in some cases, economic and family independence.

In terms of professional achievement, there is generally a consensus among empirical studies that student work is beneficial to the work stage as a graduate. In this respect it is argued that the work gives experience and knowledge that increase future productivity, especially if the work provides complementary knowledge to those of the career. Ruhm (1997) as well as Carr, Wright and Brody (1996) found in previous studies positive associations of student work with their future income and probability of being employed.

In the case of Mexico, Planas and Enciso (2014) conducted a study with graduates of the University of Guadalajara in the period 2008-2009 to a sample of 2 017 participants. From this work it was found that one year before leaving their careers 57.2% of the students were working. Only 20% of those working developed career-related activities, which made it easier for them to get a job. Likewise, it was considered that the main reason was not only economic, but also to become independent or to gain experience.

Sharing remuneratory activities and university studies, regardless of the benefits related to future professional achievements and academic achievement during the course of the course, leads to important considerations and analyzes about the work situation of students and the social, psychological and economic aspects involved in the double condition of student and worker, which leads in the present study to the analysis of the perceptions that young university students have about working and psychosocial conditions based on their experiences in the labor market. The present document provides important data about the sociodemographic, academic and labor conditions of the participants, and through the non-parametric analysis it is confirmed that the variables analyzed show a statistically significant relationship, from which inferences can be made.

### **Labor and psychosocial conditions**

The concept of working conditions, taken from Spanish Law 31/1995 on Prevention of Occupational Risks, refers to "any characteristic thereof that may have a significant influence on the generation of risks to the health and safety of the worker" (Blanch , Sahagún and Cervantes, 2010, p.176).

According to the original theoretical model of the qCT Working Conditions Questionnaire, it presents six scales: Scale 1.1, Development (Scale 1.2), Organization and Material Environment

(Scale 2.1), Organization and Social Environment (Scale 2.2 ), Organization-Person Adjustment (Scale 3.1) and Person-Organization Adaptation (Scale 3.2); which are grouped into three categories: Organization and Method (Scales 1.1 and 1.2), Organization and Environment (Scales 2.1 and 2.2) and Organization and Person (Scales 3.1 and 3.2). These three categories are grouped into a single dimension called "Working Conditions" (Blanch, et al., 2010, p.179).

The qCT, was designed as a tool to evaluate central components of the psychosocial, perceived and subjective dimension of working conditions in organizations of service to people; "Its content includes aspects of such conditions that, depending on their presence and intensity, may function as protective and health promoting factors or, on the contrary, as psychosocial risk factors" (p.178). According to this model, working conditions are shaped around a triple relationship of the organization with the method, the environment and the person. (Millán, Calvanese and D Aubeterre, 2013, p.29).

Since the 1970s, studies have been identified that address the importance of psychosocial factors in relation to health and, consequently, the issue has gained breadth, diversification and complexity (Moreno-Jiménez B., 2011). The study of working conditions has focused mainly on physical and environmental aspects; however, in the last fifteen years the risks of psychosocial origin gained recognition and greater attention due to the effects on health, which is why this line of research is relevant and still valid.

It should be noted that the concepts of working conditions and psychosocial factors use particular disciplinary emphases or guidelines in the various researches, despite the inclusion of common elements in the methodological approach. Examples of this are studies by Yanes and Primera (2006); De Frutos, González, Maíllo, Peña and Riesco (2007).

## **Methodology**

Through a quantitative approach, the study took place in the University Center of Economic and Administrative Sciences (CUCSEA) of the University of Guadalajara. This institution occupies the third place in total enrollment at national level. A survey was applied considering the population of 17 768 students at the undergraduate level. The research process included a period of application of questionnaires during the second half of 2015. Due to the size of the CUCSEA student population, electronic means were used to facilitate the application of the

questionnaire. the inclusion criteria based on the percentages of credits completed by students up to the time the information was collected<sup>3</sup>. The Academic Secretariat of the university center provided a student directory to obtain e-mails from students to invite them to participate in the study. Based on the inclusion criteria, the data of 3,157 students that formed the study population were obtained; with this number the representative sample with a confidence level of 95% was integrated with 346 students.

The survey included a questionnaire of socio-demographic data and academic aspects of the student, of own elaboration. Labor aspects were taken from the National Survey of Occupation and Employment (ENOE), built by the National Institute of Statistics and Geography (INEGI) in its version of "Basic Questionnaire" (2016). The Work Conditions Questionnaire (Blanch, Sahagún and Cervantes, 2010) was also designed as a tool to evaluate the psychosocial components of the work environment in service organizations.

The instruments were administered in a virtual way through the platform Google forms from two strategies: sending by email and direct application in classrooms. Based on the above, a filter question was used in the questionnaire to determine if the student covered the characteristic of having a paid job in the last six months. In case of fulfilling this criterion, the students continued with the filling of the questionnaire, otherwise the participant concluded his contribution. A total of 145 working students were obtained and three cases were eliminated because they did not provide complete answers.

With the information obtained a database was constructed in Excel, whose estimates and calculations were made in SPSS (Statistical Package for the Social Sciences). The academic data of the students, such as: average, percentage of credits, number of subjects taken per school year, among others, were obtained through the consultation of the Comprehensive System of Information and University Administration (SIIAU), from the code of the students, for which they had the consent of the same.

The analysis of the information was of non-parametric type, using the Kruskal-Wallis test, considering the variables related to the students' work situation and the psychosocial conditions

<sup>3</sup> El criterio de inclusión considerado tomó el avance académico de los estudiantes a través de su porcentaje de créditos cursados, es decir, materias: de 30-39 % como inicio de la carrera, 60-69 % como el periodo medio y 90-99 % como cierre de su licenciatura.

perceived by the young people in the labor context where they work.

## **Results**

The study involved 346 students from the CUCEA degrees, of which 145 (41.91%) reported having paid work in the last six months regarding the period of application of the survey. Of the total number of participants, 201 (56.65%) indicated that they did not have work in that period. For the analysis of the work conditions questionnaire, three participants were eliminated because they did not present complete answers, so the analysis of this instrument included 142 labor-active subjects.

However, the descriptive analysis of the population under study found that 54.5% are women and 45.5% are males, the majority are single and live with their parents (89.4%), only 10.6% have a different marital status.

With respect to the school aspects, the majority of the participants courses on average six subjects per semester. In terms of academic and work activities, 19.31% and 6.89% of the students practice and social service respectively, in addition to attending classes and school activities. The overall grade point average of the CUCEA student sample is 85.56, with a vogue of 77.08 out of 100.

As for the working conditions of CUCEA students, the results show that the purpose for which they work is mainly to pay for their studies, to cover their own support expenses and to contribute to family expenses. According to the perception of the students, 59.31% stated that their work does have relation with the area of knowledge in which they are preparing. Likewise, if they take into account the status of students, the time spent in paid activities is considerable, most of them claim to be between 1 and 2 years of age (53.10%), followed by 3 to 4 years (17.93%) and from 6 months to 1 year (15.17%), among other periods for the rest of the respondents.

The paid activities of the students are mainly located in companies dedicated to the provision of services (41.38%) and commerce (26.21%). Among the main tasks for students with paid employment, 44.84% are administrative, 20.69% are employed as traders or employees in sales, 13.10% are technical professionals, 6.90% are workers in elementary and secondary activities. of support, and 2.76% is an official, director and chief. In order of frequency, 66.90% of young people are employed in the private sector, followed by family businesses (17.93%) and public institutions (8.97%); the rest have their own business.

The majority of the students surveyed work with a workday of approximately 30 hours a week (48.97%), although there is a significant percentage of cases of 48 hours a week (32.41%), among others of lesser proportion, such as cases in those who work the weekend (7.59%). The formality of the work is low, only 1.4% of respondents have three basic benefits established in the Federal Labor Law: housing, unemployment and old age, and social security (Chamber of Deputies, 2015); 24.1% have only housing benefits and 3.4% unemployment and old age, while 17.9% have both. On the one hand, 4.1% have private medical expenses and only 14.5% have this insurance and the basic benefits of law.

Of those who do have legal benefits, 68.2% do not have medical insurance, so they must pay for their personal health expenses. It should be noted that 35.9% do not have any benefits. On the other hand, 12.41% have benefits above the law.<sup>4</sup>

The monthly salary of the students is mainly in the range of 2 103 to 4 206 Mexican pesos, which is equivalent to 118.41 and 247.41 dollars approximately.<sup>5</sup> The minimum wage in January 2017 in Jalisco went from 73.04 to 80.04 pesos per day (SAT-CONASAMI, 2017).

<sup>4</sup> Por prestaciones superiores a la ley se toman bonos, seguro de vida, préstamos personales y caja de ahorro. El cálculo porcentual de las prestaciones presentó un dato perdido.

<sup>5</sup> Tipo de cambio tomado de Sistema de Administración Tributaria (SAT.2017). Comisión de Salarios Mínimos (COMISAMI).

### **Nonparametric Statistical Analysis**

In addition to the descriptive analysis, this study included the application of the Kruskal-Wallis test for the "monthly income" test variable with respect to the "regulation" grouping variable. The statistical tests establish an alpha of .05 and the following hypotheses:

Ho: There are no differences between the monthly income and the assessment of the working conditions of your workplace.

Ha: There are significant differences between the monthly income and the valuation of the working conditions of your work center

**Table 1.** Relación de la variable regulación con la variable ingreso mensual

	Ingreso Mensual							Total
	Menos de 1 salario Mínimo	De 1 a 2 salarios mínimos	De 3 a 4 salarios mínimos	De 5 a 6 salarios mínimos	De 7 a 8 salarios mínimos	De 9 a 10 salarios mínimos	Mayor a 10 salarios mínimos	
Lo considera Pésimo	10.5 %	17.4 %	10.5 %	8.3 %	50 %	0%	0 %	14.1 %
Lo considera óptimo	89.5 %	82.6 %	89.5 %	91.7%	50 %	100 %	100 %	85.9 %
Total	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

Most university students evaluate the conditions of their workplace as optimal, referring to the general organization of work, pay, workload, quality of the labor contract and work-family-private-life balance. In all these conditions are optimal for those who receive above 8 minimum wages, however, for those who receive between 7 and 8 minimum wages only 50% indicates that the conditions are optimal. However, it is more striking that 89.5% of the university students who indicated that the conditions of their work center are optimal are those whose monthly perception is lower than indicated by the minimum wage established by the National Minimum Wage Commission (CONASAMI); that is, those who monthly receive less than 2,400 pesos.

Therefore, we reject the null hypothesis that indicates that the assessment of the conditions in their work center by the students is equal according to their monthly perception, and it is

concluded that, according to the alternative hypothesis, the assessment of the conditions in their work center by the students is different according to their monthly salary perception.

This may be due to the fact that in many cases students do not seek work for economic reasons, but for different reasons. According to Cuevas and De Ibarrola (2013), the main motivation of young people to combine study and work activities is to deepen the learning acquired in the school by contextualizing the academic content in real work situations, to build a career path and to acquire a certain autonomy by not requesting money from their parents for their own expenses.

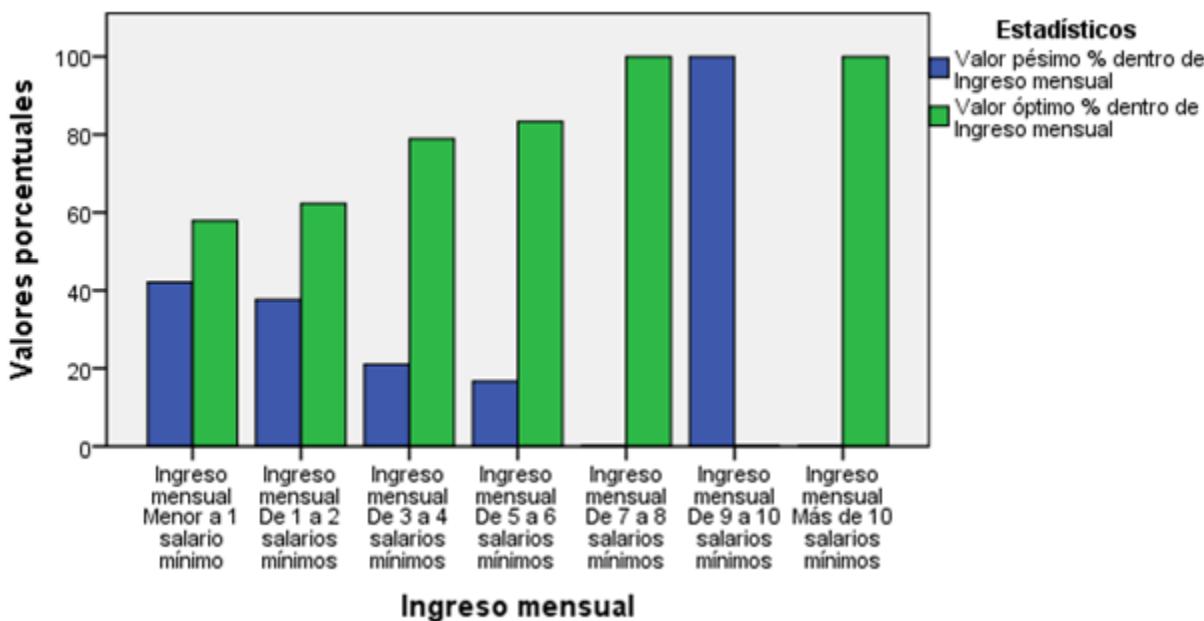
For the test variable "monthly income" with respect to the grouping variable "development", the following hypothesis is established:

Ho: There are no differences between the monthly income and the valuation of the organizational environment of your work center

Ha: There are significant differences between the monthly income and the valuation of the organizational environment of your work center

According to the results of the test with an alpha of 0.05 the null hypothesis is rejected, showing statistical evidence that there are differences in the relation with the monthly income.

**Figure 1.** Relación de la variable ingreso mensual con la variable desarrollo.



Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

This refers to the fact that, similar to the first analysis of variables, university students who work and receive a monthly salary between 7 and 8 minimum wages and more than 10 minimum wages qualify as optimal the conditions of their organizational environment, in general they consider that they have autonomy in professional decision making, justice in hiring, remuneration and promotion, adequate evaluation of their performance and support by the managers of their work center.

On the other hand, in those who receive an income of 9 to 10 minimum wages, 100% consider that their organizational environment is lousy, unlike those who receive much lower wages, who mostly qualify their work environment as optimal. This clearly indicates that, according to the alternative hypothesis, the assessment of the organizational environment for work development by the students is different according to their monthly salary perceptions.

It is shown that, according to the alternative hypothesis, the assessment of the organizational environment is related to the student's monthly perception.

As for the variable "monthly income" with respect to the grouping variable "organization and social environment", the null hypothesis states that the assessment of the organization and social environment by students is equal to the monthly salary received, while in the alternative hypothesis the assessment of the organization and social environment by the students is different from the monthly salary perceived, the level of confidence is established in an alpha of .05 and for this analysis a probability of error of the 2.1%, so the null hypothesis is rejected and the alternative hypothesis is accepted.

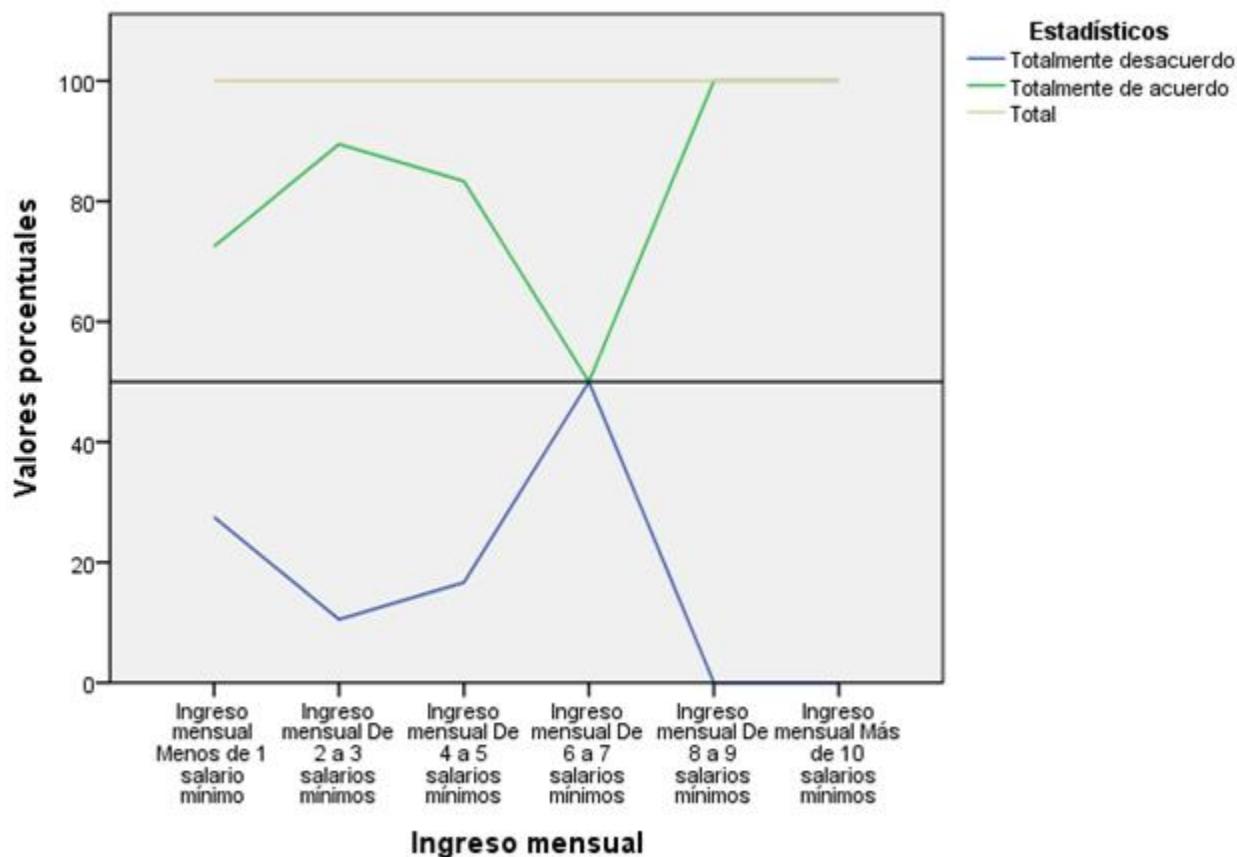
**Table 2.** Relación de la variable ingreso mensual con la variable organización y entorno social.

	Ingreso Mensual							Total
	Menos de 1 salario Mínimo	De 1 a 2 salarios mínimos	De 3 a 4 salarios mínimos	De 5 a 6 salarios mínimos	De 7 a 8 salarios mínimos	De 9 a 10 salarios mínimos	Mayor a 10 salarios mínimos	
Lo considera Pésimo	0 %	17.4 %	5.3 %	8.3 %	50 %	0 %	0 %	11.3 %
Lo considera óptimo	100 %	82.6 %	94.7 %	91.7 %	50 %	100 %	100 %	88.7 %
Total	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

In the analysis of the test variable "monthly income" with respect to the variable "organization-person adjustment", a working hypothesis is established that says the students' perception of the satisfaction of the needs by the organization is not equal with respect to monthly income, while the null hypothesis says that the students' perception of the needs satisfaction by the organization is equal with respect to the monthly income. A 95% confidence level is established and for this analysis the probability of error obtained is .01%, so the working hypothesis is accepted and the null hypothesis is rejected.

**Figure 2.** Relación de la variable ingreso mensual con la variable ajuste organización-persona.



Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

In the analysis of the "monthly income" test variable with respect to the company-organization adaptation variable of the company, the established research hypothesis is that the students' perception of the person-organization adaptation is not equal to the monthly perception, whereas the null hypothesis establishes that the students' perception of the person-organization adaptation is equal with respect to the monthly perception. For the confidence level an alpha of .05 is established and in this analysis a probability of error of .3% is obtained, reason why the null hypothesis is rejected and the research hypothesis is accepted.

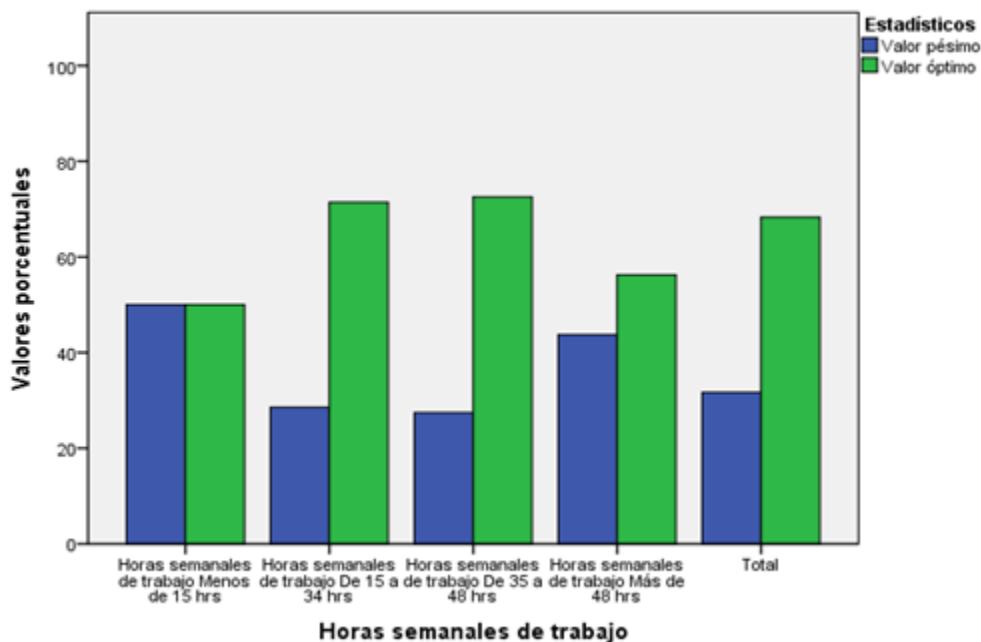
**Table 3.** Relación de la variable ingreso mensual con la variable adaptación persona-organización.

	Ingreso Mensual							Total
	Menos de 1 salario Mínimo	De 1 a 2 salarios mínimos	De 3 a 4 salarios mínimos	De 5 a 6 salarios mínimos	De 7 a 8 salarios mínimos	De 9 a 10 salarios mínimos	Mayor a 10 salarios mínimos	
Lo considera Pésimo	10.5 %	8.7 %	2.6 %	8.3 %	0 %	0 %	0 %	7 %
Lo considera óptimo	89.5 %	91.3 %	97.4 %	91.7 %	100 %	100 %	100 %	93 %
Total	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

For the test variable "weekly hours of work" with respect to the variable "development", the descriptive analysis shows that the average working hours devoted to the week is 31.80 with a standard deviation of 11.74, a minimum of 7.5 hours and a maximum of 48 hours. The null hypothesis that establishes their work development with respect to the hours dedicated to the week is the same, while the alternative hypothesis establishes that the students' assessment of the organizational environment around their work development regarding the hours dedicated to the week is different, setting a confidence level of 95%. A probability of error of 4.9% is obtained, whereby the null hypothesis is rejected and the alternative hypothesis is accepted.

**Figure 3.** Relación de la variable horas semanales de trabajo con la variable desarrollo.

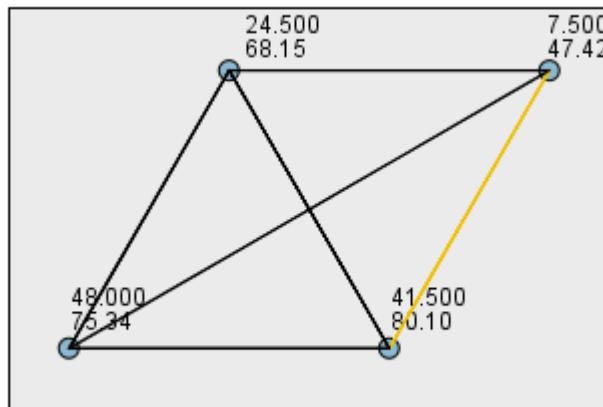


Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

In the analysis of the test variable "weekly hours of work" with respect to the grouping variable "person-organization adaptation", the null hypothesis says that the students' perception of hours dedicated to work is equal with respect to the adaptation that the person has to the organization, while the research hypothesis is that the perception that the students have the hours dedicated to work is different with respect to the adaptation that has the person in the organization. An alpha of .05 is agreed for the confidence level and we obtain that the distribution of the test variable is the same among the categories of the clustering variable, showing a statistical significance of 0.029 representing an error probability of 2.9% . Therefore, the null hypothesis is rejected and the research hypothesis is accepted.

**Figure 4.** Comparaciones por parejas de horas semanales de trabajo.

**Comparaciones por parejas de Horas semanales de trabajo**



Cada nodo muestra el rango promedio de muestra de Horas semanales de trabajo.

Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

**Table 4.** Relación de la variable horas semanales de trabajo con la variable adaptación persona-organización.

Percepción	Horas semanales de trabajo				Total
	Menos de 15 hrs.	De 15 a 34 hrs.	De 35 a 48 hrs.	Más de 48 hrs.	
Totalmente desacuerdo	16.7 %	7.9 %	3.9 %	6.3 %	7 %
Totalmente de acuerdo	83.3 %	92.1 %	96.1 %	93.8 %	93 %
Total	100 %	100 %	100 %	100 %	100 %

Source: elaboración propia con base en datos de la encuesta de condiciones laborales.

## Discussion

Arias (2003) reports that 56.6% of the students surveyed work, of which 11.7% have a working day that lasts from 1 to 4 hours a day, 62.2% from 5 to 7 hours a day and 26.1% 8 or more hours a day. 89% of the sample are unmarried and for 78% their work is related to the race they study. Meanwhile, in the present study 41.91% of the students report being working and approximately half of them work half a shift, in the same proportion as in the Arias study the marital status of the participants is single. With respect to the relation that keeps his work with his race in this study is of the 59. 31%.

According to Carrillo and Ríos (2009), it is found that 56.65% of the parents of the students are the ones who make the payment for the higher education received, since they mention not being working at the same time that they carry out their studies.

Together with what Silva and Rodríguez (2016) contribute with respect to the working conditions of young university students, 17.59% take courses ranging from 1 to 2 hours a day to move from work to university or vice versa, and 33.10% require from 3 to 4 hours a day to take the course, they also found that 77% of students enjoy an average of 3 hours of leisure time per day.

## **Conclusions**

The statistical analysis of the Questionnaire of Working Conditions (qCT) allowed establishing relationships between the various scales that compose it with the variables of monthly income received and hours worked per week. It confirms what has been found in previous studies on the perception of students working with respect to these variables and it can be deduced that they have the opportunity to study a degree for the flexibility characteristics of the programs offered by the CUCEA, where the system of credits do not oblige them to have a fixed schedule and that way they can accommodate the subjects that they attend according to their needs and combine the work with the studies. Among the advantages they showed in the statistical analysis is that they do not perceive as unfair the monthly income, nor the hours of work dedicated to the week.

From the different scales included in the qCT questionnaire, the following hypothesis tests, analyzed under the Kruskal-Wallis test, showed statistical significance: there are significant differences between the monthly income and the assessment of the working conditions of the work center, since one 85.9% consider these conditions to be optimal with respect to monthly income. Likewise, there are significant differences between the monthly income and the assessment of the "organizational environment" of the work center, since 68.3% of the valuations students make in their organizational environment are positive with respect to their monthly salary.

As for the variable monthly income with respect to the grouping variable "organization and social environment", it establishes that the assessment of the conditions of the organization

and the social environment by the students is different from the monthly salary. This is because 88.7% consider these conditions favorable.

It is demonstrated that the monthly income with respect to the grouping variable "person-organization adptation" presents significant differences in the perception that students have with respect to this relationship, since 93% consider that it has a good adaptation. With respect to the group-adjustment variable "organization-person" it is stated that the students' perception of the satisfaction of the needs by the organization shows differences according to the monthly salary perceived since 76.8% consider adequate this relationship.

On the other hand the analysis for the variable of weekly hours of work with respect to the variable "development" was found that the students' assessment of the organizational environment and their work development is different according to the hours worked in the week, being 68.3% of students who perceive the relationship as adequate. In what corresponds to the grouping variable "person-organization adaptation" the perception that the students have of the hours dedicated to the work is different with respect to the adaptation that has the person in the organization, since 93% of the students are according to this statement.

The non-parametric analysis leads to the conclusion that statistically the qCT questionnaire is representative of the psychosocial conditions of working CUCEA students, since these data show statistical significance and, therefore, the inferential analysis performed from the results can be generalized to the population analyzed.

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